



CHMER EDM
CNC WIRE CUT EDM
CW-A SERIES



Rising Star Award



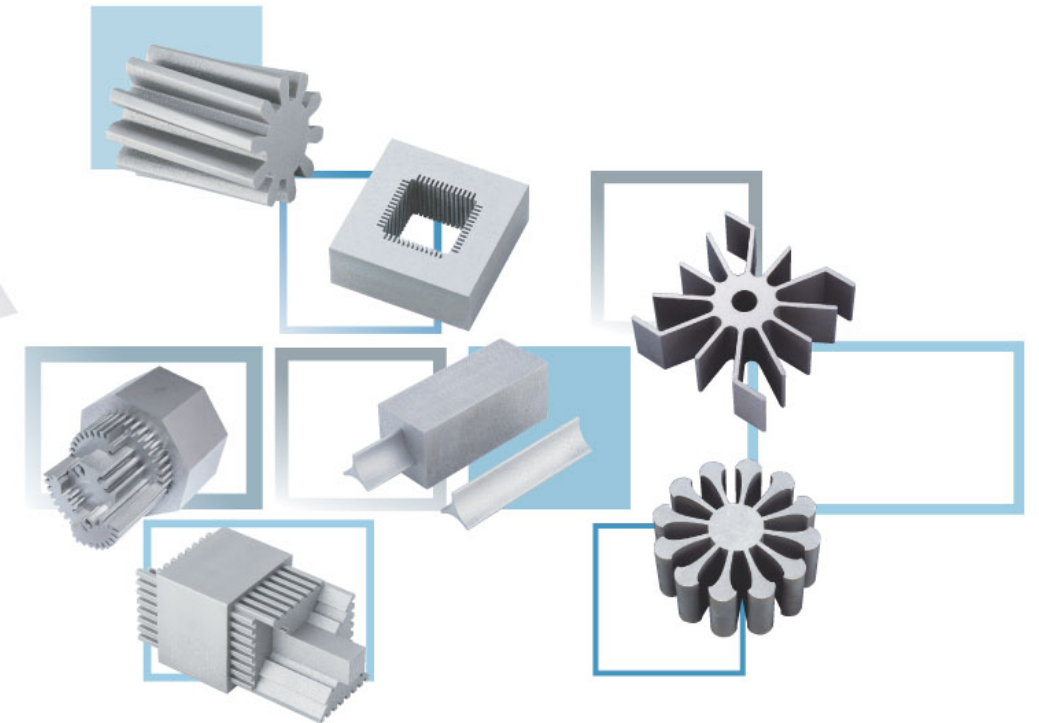
National Award



IT'S VERY WELL
MADE IN TAIWAN

One Piece
Compact Design

CHMER
High Quality, High Speed, High Precision!



FEATURES:

1. All-in-one compact design.
2. Separate table and column driver for heavy loads with high precision. Rigid U, V mounted on the column for rigidity with high dielectric pressure.
3. Automatic selection of cutting parameters after inputting: wire diameters, work piece material, cutting thickness, and skim cuts required (2, 3, or 4 passes).
4. PC based CNC cutting with FANUC compatibility.
5. Five Axis AC servo drives.
6. Unique AWT that can re-thread reliability near to 100%.
7. Anti-electrolysis power supply with fine finish circuit for carbides, titanium, PCD and CBN material.
8. Low maintenance design, auto lubrication system, accessible inside-out large capacity filters, large spent wire storage bin (wire chopper available).



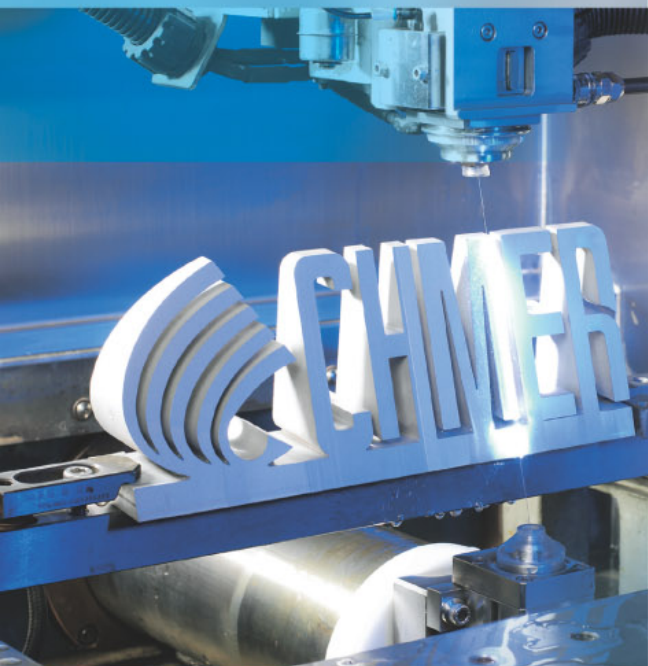
CW322S (NON-CE)



CW532S (CE)

CW-A series
HIGH QUALITY WIRE CUT EDM WITH COMPETITIVE PRICES!

Advanced Precision Design



Rigid Cast Construction

Heavy-duty machine casting ensures thermal stability and rigidity over the entire table travels.

Precision oversized linear guide ways, positioned by large diameter high precision ball screws, powered by direct drive AC servo motors for guaranteed positional accuracy on all 5 axes.

U-V table located in the upper column assures rigidity under high-pressure flushing and high wire tension amounts during taper cutting.

High-resolution rotary encoders (closed loop) for positioning accuracy. (Glass scales available for long term guaranteed positional accuracy-optional)

Cutting Speed

MOS FET power transistor power supply for cutting speeds up to 250 mm²/min. w/0.3mm (.012") dia. wire.

Corner Control

Menu page allows for operator input of special cutting conditions to minimize corner wash out and maintain even material thickness for skim cuts.

AC (Anti-electrolysis) Power Supply



Minimize the corrosion of the cobalt binder in carbides to maintain surface integrity.

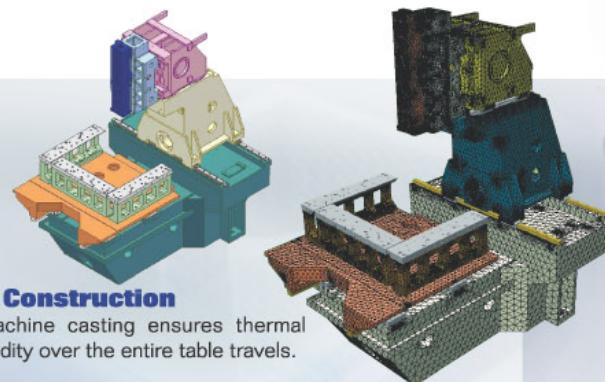
Eliminate surface discoloration in titanium and other high alloy metals and reduce the heat-affected zone (HAZ).

Allows for fast cutting and fine finishing of PCD and CBN materials with rough and skim cuts.

AC-DC switchable for best speed and surface integrity of the workpiece material.

OV

OV (Open Voltage) circuit allows for super fine surface finishes with skim cuts down to 0.3 μmRa (optional).

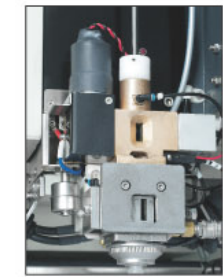


Revolutionized High Speed AWT (3rd Generation)

- Challenging to world with its 6 seconds threading time, 200% increase compared to previous generation.
- Threading success ratio near to 100%, about 90% at 200 mm thickness.
- Rethread at the breaking point, no need to drain the tank.
- Intelligent servo feeding system provides stepless-feeding speed change at unlikely event attaining to highly stable threading.
- Simple and reliable system with low maintenance.



Auto thread and rethread stepped or open condition.



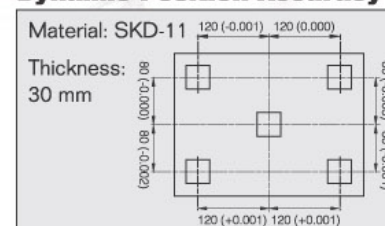
Wire Eject System
Patented spent wire-eject system to reduce wire rethread time and increase rethread reliability.

Precision Stainless Steel Worktable (3 sided)

8 mm threaded holes on 50 mm centers for work holding

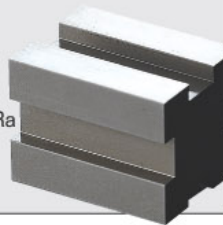


Dynamic Position Accuracy



Best Surface Roughness

No. of Cuts: 5
Material: SKD-11
Wire Diameter: 0.2 mm BS
Surface Roughness: 0.3 μmRa



Cutting Accuracy

No. of Cuts: 3
Material: SKD-11
Wire Diameter: 0.2 mm BS
Working Time: 40 min
Thickness: 50 mm
Accuracy: ±1.5 μmm



Control System

- New generation controller
- A large 15" TFT monitor
- Sample NC program downloaded from Ethernet (Option).
- Capable of multi-tasking (i.e. programming and cutting at the same time)



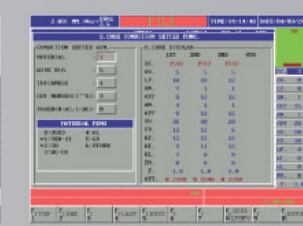
- Preview working path.



- Inspect and avoid over cut automatically by plotting out D offsets and tapers.



- 100 working files available for program storage.



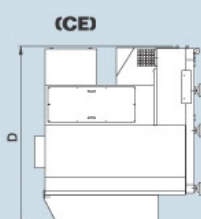
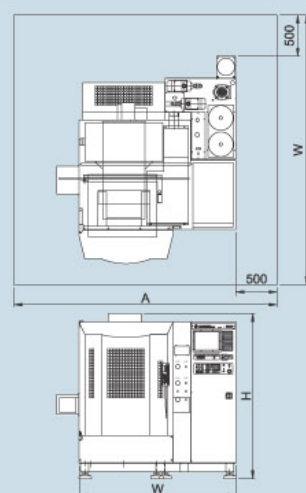
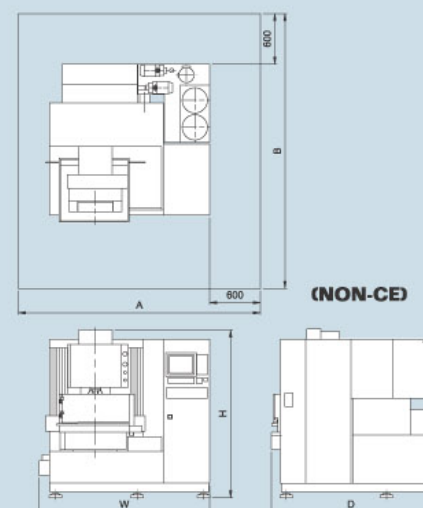
- Conversational control to select the most suitable working conditions from onboard cutting technology.

Accessories

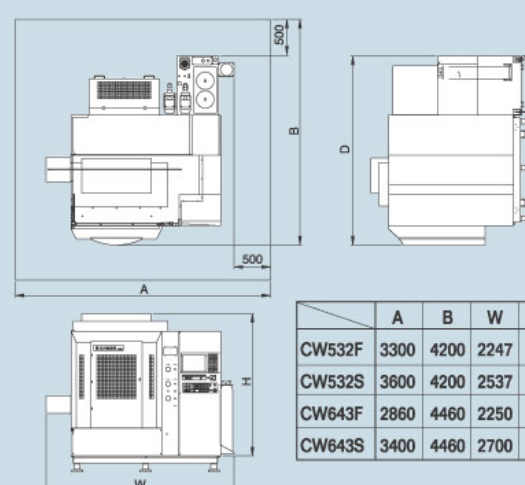


Floor Layout

	A	B	W	D	H
CW322F	2800	3250	1900	2130	2000
CW322S	2965	3250	2065	2130	2000
CW422F	2800	3250	1900	2050	2000
CW422S	3000	3250	2090	2050	2000
CW532F	3000	3330	2090	2080	2020
CW532S	3300	3330	2410	2130	2020
CW643F	3150	3600	2250	2400	2200
CW643S	3580	3600	2680	2400	2200



	A	B	W	D	H
CW322F	2400	3300	1700	2170	2090
CW322S	2620	3300	1920	2170	2090
CW422F	2450	3300	1750	2170	2090
CW422S	2500	3300	2000	2170	2090



	A	B	W	D	H
CW532F	3300	4200	2247	2640	2170
CW532S	3600	4200	2537	2640	2170
CW643F	2860	4460	2250	2460	2200
CW643S	3400	4460	2700	2460	2200

Specifications

MACHINE BODY	CW322F/S	CW422F/S
Axis Travel (X x Y x Z)	350 x 250 x 220 mm 13.7" x 9.8" x 8.6"	400 x 250 x 220 mm 15.7" x 9.8" x 8.6"
Auxiliary Table Travel (U x V)	60 x 60 mm / 2.4" x 2.4"	60 x 60 mm / 2.4" x 2.4"
Max. Size of Workpiece	800 x 560 x 215 mm 31.5" x 22.0" x 8.50"	800 x 560 x 215 mm 31.5" x 22.0" x 8.5"
Max. Weight of Workpiece (kg / lb)	350 / 770 (F) 250 / 550 (S)	350 / 770 (F) 250 / 550 (S)
X Y Feed Rate	Max. 800 mm/min. / Max. 31.5"/min.	
Axis Drive System	AC servo motor	
Wire Diameter Range	ø0.15~0.3 mm / ø0.006"~0.012"	
Max. Wire Feed Rate	300 mm/sec. 11.8"/sec.	
Wire Tension	400-2500 gf	
Taper Angle (mm/inch)	±14.5° / 3.15" (Wide angle taper nozzle, DA+DB=15 mm)	
Machine Weight	2000 kg / 4400 lb	2050 kg / 4510 lb

WORKING FLUID SUPPLY UNIT	CW322F/S	CW422F/S
Tank Capacity	480 ℓ	480 ℓ
Filter Element	Paper	
Ion Exchange Resins	6.8 ℓ (F) / 14 ℓ (S)	
Conductivity Control	Auto	
Fluid Temperature Control	Auto	

POWER SUPPLY UNIT	CW322F/S	CW422F/S
Circuit System	Power MOS Transistor	
Max. Output Current	25A	
IP Select	10	
Off Time Select	50	

CNC UNIT	CW322F/S	CW422F/S
Data Input	Keyboard, RS-232C, 3.5" Floppy Disk	
Display	14-Inch Color	
Control System	32 bit, 1-CPU, Semi Closed Loop	
Control Axis	X, Y, Z, U, V (5 axis)	
Setting Unit	0.001 mm	
Max. Command Value	±9999.999 mm	
Interpolation	Linear / Circular	
Command System	ABS / INC	
Machining Feed Control	Servo / Const. Feed	
Scaling	0.001~9999.999	
Machining EDM Condition Memory	1000~9999	
Total AC Power Input	3 Phase 220±10% / 13KVA	

Standard Accessories

Ion Exchange Resins x 3L(F), 6L(S)
Energizing Cartridges x 2 pcs
Paper Filters x 2 pcs
Brass Wire (dia.0.25mm x 5 kg) x 1 roll
Upper / Lower Flushing Nozzles x 1 set
Tool x 1 set
Fine Finish Circuit x 1 set

Upper / Lower Diamond Guides (dia. 0.26mm) x 1 set
Water Chiller x 1 set
Diamond Guide Remove Jig x 1 set
Auto Lubrication Equipment x 1 set
AC Power x 1 set
OV Circuit x 1 set
TFT Display x 1 set

Optionals

Automatic Vertical Alignment Jig
Auto Wire Threading
AVR
Wire Chopper Device
CE Conformity

Specifications

MACHINE BODY	CW532F/S	CW643F/S
Axis Travel (X x Y x Z)	500 x 300 x 220 mm 19.7" x 11.8" x 8.6"	600 x 400 x 300 mm 23.6" x 15.7" x 11.8"
Auxiliary Table Travel (U x V)	60 x 60 mm / 2.4" x 2.4"	100 x 100 mm / 3.9" x 3.9"
Max. Size of Workpiece	900 x 600 x 215 mm 35.4" x 23.6" x 8.5"	950 x 700 x 295 mm 37.4" x 27.6" x 11.6"
Max. Weight of Workpiece (kg / lb)	450 / 990 (F) 300 / 660 (S)	600 / 1320 (F) 450 / 990 (S)
XY Feed Rate	Max. 800 mm / Max. 31.5 inch/min.	
Axis Drive System	AC servo motor	
Wire Diameter Range	ø0.15~0.3 mm / ø0.006"~0.012"	
Max. Wire Feed Rate	300 mm/sec. 11.8 inch/sec.	
Wire Tension	400~2500 gf	
Taper Angle	±14.5°/80 mm ±14.5°/3.15" (Wide angle taper nozzle, DA+DB=15 mm)	±21°/100 mm ±21°/3.9" (Wide angle taper nozzle, DA+DB=15 mm)
Machine Weight	3000 kg / 6600 lb	4000 kg / 8800 lb
WORKING FLUID SUPPLY UNIT	CW532F/S	CW643F/S
Tank Capacity	570 ℓ	670 ℓ
Filter Element	Paper	
Ion Exchange Resins	6.8 ℓ (F) / 14 ℓ (S)	
Conductivity Control	Auto	
Fluid Temperature Control	Auto	
POWER SUPPLY UNIT	CW532F/S	CW643F/S
Circuit System	Power MOS Transistor	
Max. Output Current	25A	
IP Select	10	
Off Time Select	50	
CNC UNIT	CW532F/S	CW643F/S
Data Input	Keyboard, RS-232C, 3.5" Floppy Disk	
Display	14-Inch Color	
Control System	32 bit, 1-CPU, Semi Closed Loop	
Control Axis	X, Y, Z, U, V (5 axis)	
Setting Unit	0.001 mm	
Max. Command Value	±9999.999 mm	
Interpolation	Linear / Circular	
Command System	ABS / INC	
Machining Feed Control	Servo / Const. Feed	
Scaling	0.001~9999.999	
Machining EDM Condition Memory	1000~9999	
Total AC Power Input	3 Phase 220±10% / 13KVA	



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