

POWER SUPPLY UNIT	
Circuit system	Power MOS Transistor
Max. output current	25A
IP select	10
Off time select	50

CNC UNIT	
Data Input	keyboard, RS-232C
Display	15-Inch Color
Control system	32bit, 1-CPU, Semi Closed Loop Software Servo System
Control axis	X, Y, U, V, Z (5 Axis)
Measurement resolution	0.001mm
Max. command value	± 9999.999mm
Movement measuring system	Linear / Circular
Command System	Abs / Inch
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% / 11kva 12.5kva is for RX1283 and larger models

Input power	AC220V ± 5V 3 Phase 50/60Hz ± 1Hz (15KVA)
Environment conditions	<ol style="list-style-type: none"> 1. Optimum room temperature : 20 ± 1°C Humidity: below 75% RH. 2. Minimum floor vibration. 3. Avoid being located against sunshine. 4. Systems or set in a place that received directly sunshine. 5. Clean and low dust environment.
Space	Take notice of the space for machine stroke to move during normal operation and daily maintenance.
Grounding	<ol style="list-style-type: none"> 1. It is recommended to have a grounding resistance of 10Ω or less. 2. An independent ground is recommended. 3. The grounding cable should be 14mm².
Demand of air pressure	Air pressure of 6kg/cm ² for options of AWT and submerged machine is needed.

A lot of maintenance sites

After you buy this machine, you don't have to worry that you have to spend a lot of time on waiting when you need services. CHMER has set up many service centers in various locations, including Taipei Taiwan, Taichung Taiwan (headquarter), Tainan Taiwan, Dongguan China, Suzhou China, Shanghai China, Shenzhen China.



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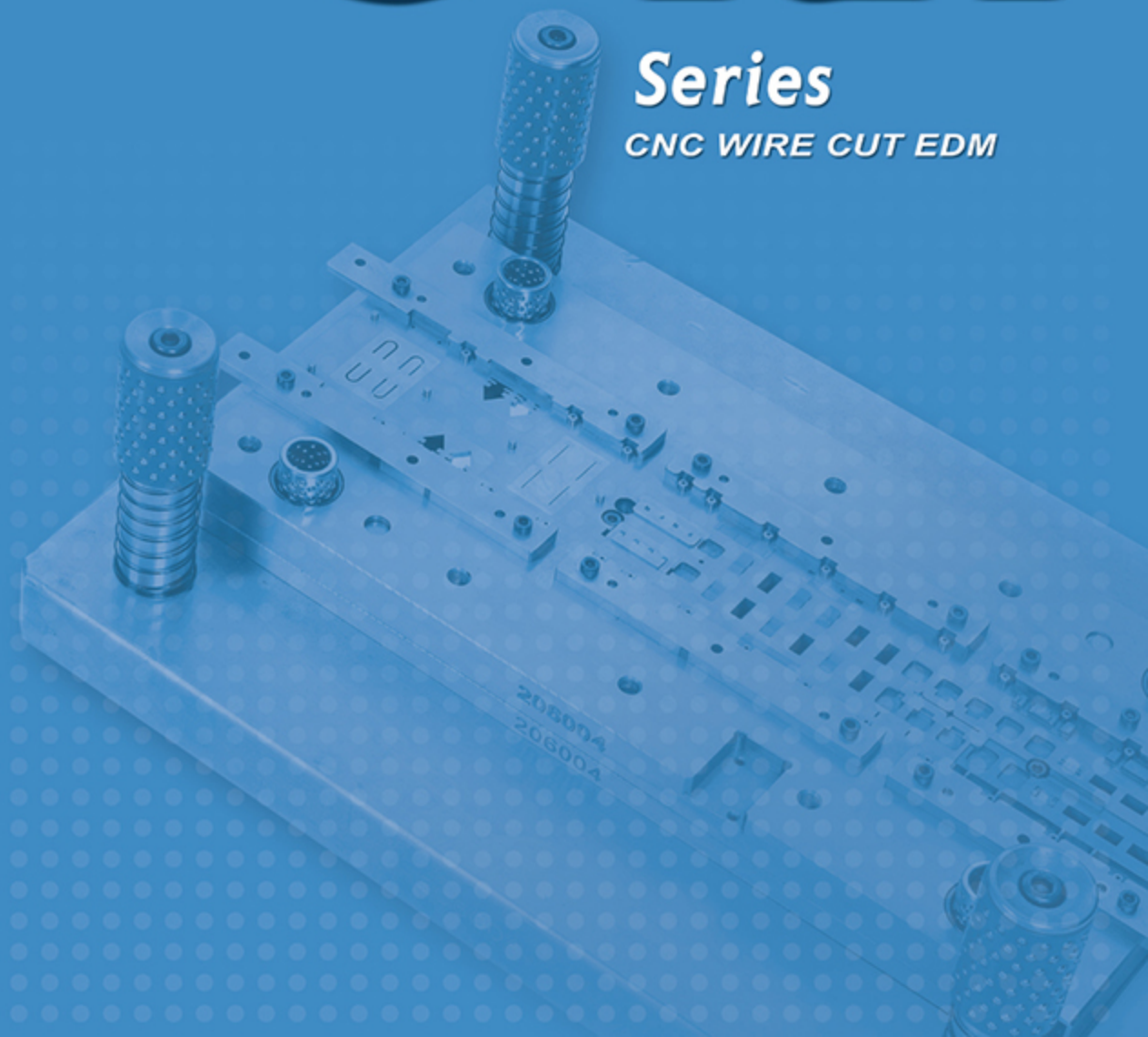
S5B-0092B



Pursuit of Remarkable Advance Prudent and Pragmatic Management

G·RX

Series
CNC WIRE CUT EDM



L.Y.S.-2012-10-2000

G/RX SERIES

CHMER have maintained the spirit of innovation & revolution and continuous improved, re-concern some points, such as Stress Deformation, Customer convenience etc., to create more available and easy operating Brand New W-EDM typed G Series.

New type model is saving nearly 40% landing space. It revealed the maximum productivity in a limited space.

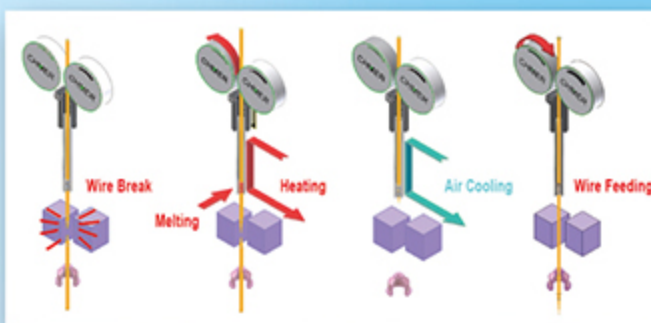
NEW USER FRIENDLY PANEL

15" TFT display.
Water proof PVC film panel for low maintenance.



5th Generation AWT system

EC Tension Control Technology ensures a constant tension to obtain superb threading rate. No need to return back to start point and trace back. Simple design of mechanism to make maintenance easy and cost less. Available to thread wire at stepped workpiece.



NUMERICAL DIELECTRIC CONTROL

Easy to read and operate.

NEW LCD REMOTE CONTROL

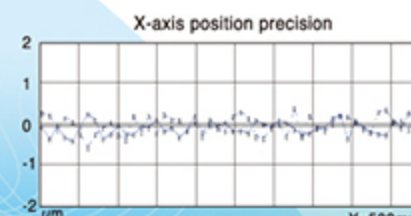
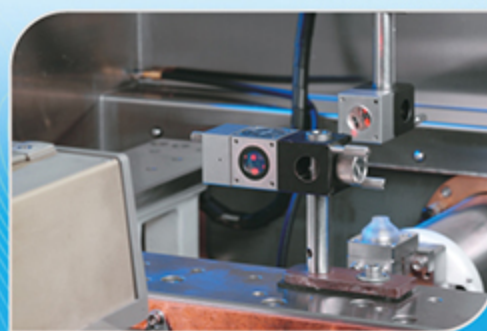
Full Function.
X, Y, U, V, Z Positioning Display.
Center & Edge Finding.
Cut and Thread function.



MECHANICAL FEATURES

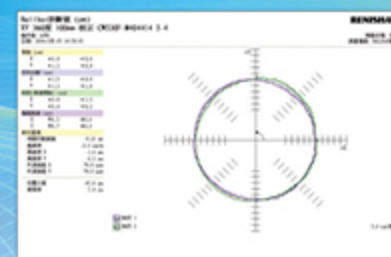
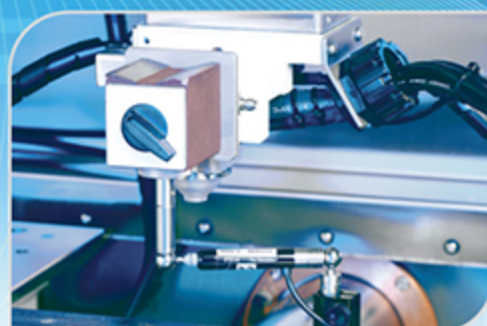
For customer satisfaction, CHMER produces high quality EDM, undergoing a series of Q.C. inspection.

LASER ALIGNMENT



Laser measurement of X, Y and U, V axes. Highest quality super precision linear guide ways, 32mm or 40mm diameter X, Y precision ball screws (depending on model) assures precise positioning, accuracy and long endurance.

BALL BAR TEST

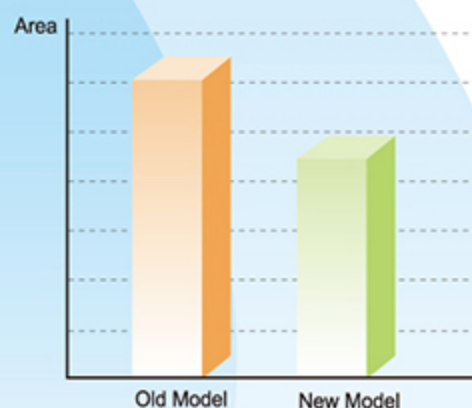


Renishaw ball bar testing used to test and record each machine's X, Y simultaneous movements. This guarantees ideal table squareness and ball screw backlash. (option)



Each EDM undergoes over eight hours of continuous machining to verify correct electronic functions and mechanical accuracy. And it must pass the sample test cut by 1st Cut, 2nd Cut and 3rd Cut that also measured by Mitsutoyo micrometer and surface tester. For sure both accuracy and surface roughness are qualified to meet the standard.

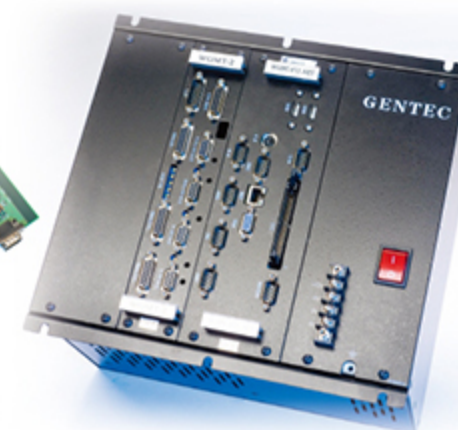
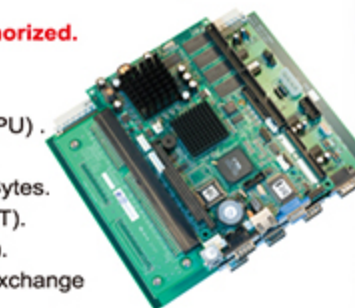
LAYOUT



COMPARISON	CW 430F	G43F
W(mm)	3000	2200
D(mm)	2050	2130
H(mm)	2100	2130
Area (WxD) (Cm ²)	615	468.6

CNC CONTROLLER

- All Software and Hardware are with full authorized. (Copyright Reserved by CHMER)
- Adopted IPC 586 Mother Board.
- Adopted Compatible 5x86 grade Processor (CPU).
- 128M Bytes DRAM.
- High capacity storage device CF Card 128 M Bytes.
- Touch Screen and Optical Mouse Support (OPT).
- Synchronized 6TH Axis (B axis) Support (OPT).
- External USB Card Reader and Intranet Data Exchange Support (OPT)
- Using CHMER's exclusive CNC controller and proprietary software; CHMER provide the latest software version and updates to optimize the machine functions and Cutting technology.



The USB and CF port allows to load and down data easily.



Automatic Edge-Find function

Various automatic edge-find functions, prompting users to get central point of holes, a range of slotted hole, external cylindrical column, board profile and also can acquire the relative coordinates information as reference on screen. Those can shorten times to correct molds, even though the pattern plate is not corrected yet, [AR]angular shift function to rotate the cutting angle automatically, assuring orientated cutting.

Complete Corner control Aided Function

An expert mode to make a precise corner cut. Mode detail setting such as: Increase/ Decrease S-code; Max. Feed; Dwell Time...etc. To reach a perfect corner expectation under a strictly control setting.

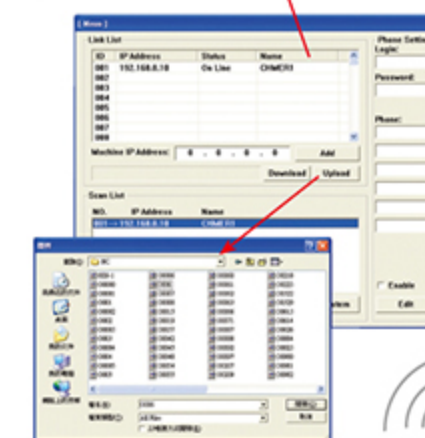
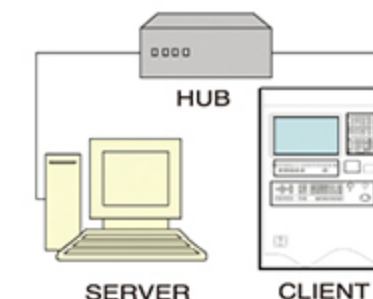
Flexible Cutting Database

A powerful cutting data search function brings users a greatly efficiency at the work. Also 10,000 Nos. data were built-in, just directly input job requirements like as: Material, Thickness, Wire diameter and Cut number, then controller can find the needed cutting technology automatically. Besides, user may define a customized data base for 2000 sets himself. Moreover, [REGISTER] can preload the cutting technology and offset value in NC program beforehand.

Cutting Edge Remote Monitoring Function

Real time monitoring of machine operation without attending to the workshop! You see what the operator sees on the CNC controller from anywhere on your home PC or laptop. It definitely gives you more freedom! Quick, spontaneous technical assistance or trouble-shoot through Remote Monitoring plus telephone conversation with your technical people reduce down time and increase your productivity!

Easy set up! Just install the software on your computer and get immediate access via existing network. Programming N.C file with your CAD/CAM system and up-load it to the CNC controller.



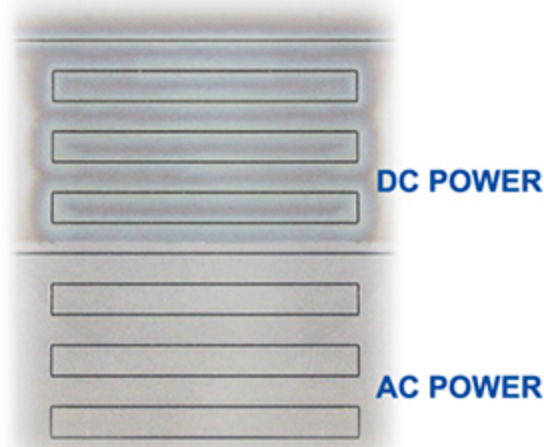
DISCHARGING POWER CONTROL

Computerized power supply system provides efficient and stable machining technology for excellent cutting speed and consistent spark energy, consistent speed, and surface finishes.

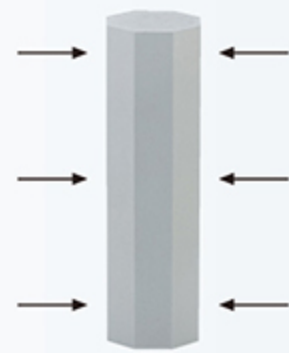
Ti-6Al-4V

AC and DC switchable power supply. DC is recommended for tool steels, dies and molds for best cutting speeds. AC is used for maximum surface finishes in steel, minimum cobalt depletion and best surface finishes in carbides, and best cutting speed with minimum "pit depth and undercut" in PCD and PCBN materials.

AC power also allows high-speed cutting of steels while maintaining the surface hardness to extend tool life. The dual AC/DC switchable power supply provides suitable power choices for every application.

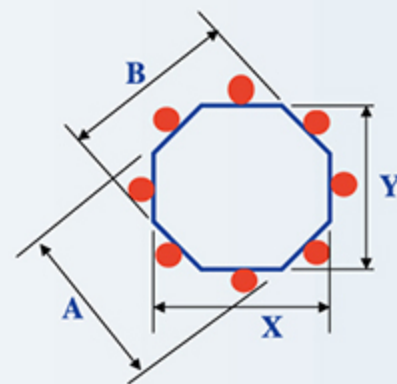


POSITIONING ACCURACY



Straightness accuracy (punch)

- Accuracy: $\pm 2\mu\text{m}$
- Numbers of cut: 1+2 skims
- Wire diameter: 0.20mm
- Job thickness: 50 mm



Measurement figure

Marked by red color means the measured points.
Note: checked by mitutoyo micro meter

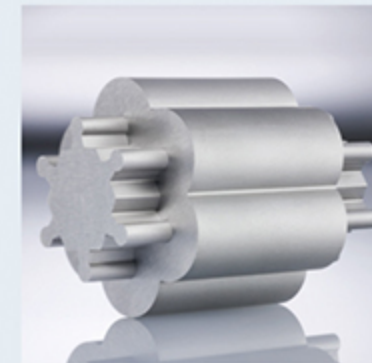
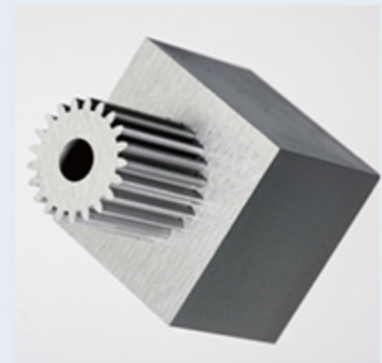
SAMPLE ILLUSTRATION

Job material: SKD-11
Job thickness: 30 mm
Work hour: 1hr 10 min
Wire diameter: 0.20 mm
Numbers of cut: 1+2 skims
Accuracy: $3\mu\text{m}$
Surface roughness: Ra0.55~0.58 μm



Job material: SKD-11
Job thickness: 25 mm
Work hour: 5hr 30 min
Wire diameter: 0.20mm
Numbers of cut: 1+2 skims
Accuracy: $3\mu\text{m}$
Surface roughness: Ra0.55~0.58 μm

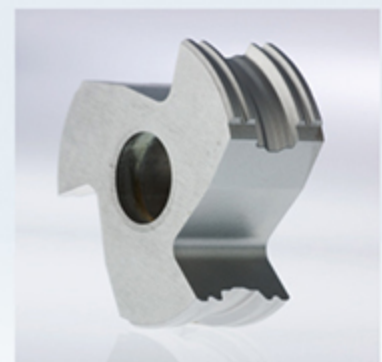
Job material: SKD-11
Job thickness: 17 mm
Work hour: 1hr 50 min
Wire diameter: 0.15mm
Numbers of cut: 1+2 skims
Accuracy: $\pm 3\mu\text{m}$
Surface roughness: Ra0.55~0.58 μm



Job material: SKD-11
Job thickness [punch]: 50 mm
Job thickness [die]: 30 mm
Work hour: 4hr 00 min
Wire diameter: 0.20mm
Numbers of cut: 1+2 skims
Accuracy: $3\mu\text{m}$
Surface roughness: Ra0.58~0.63 μm

B-axis formed milling cutters

Job material: SKD-11
Job thickness: 10 mm
Max. Outer dia.: 27 mm
Wire diameter: 0.20 mm
Surface roughness: Ra0.58~0.60 μm
Numbers of cut:
A. 1 Cut / 2 hrs
B. 1+1 Skims / 1hr
C. 1+2 Skims / 50 min

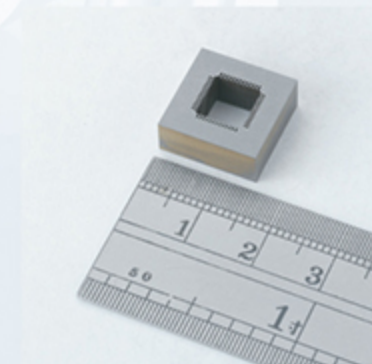


PCD formed milling cutters

Job material: PCD
Job thickness: 2.5 mm
Wire diameter: 0.20 mm
Feed rate: 2.0 mm / min

Taper cut

Job material: SKD-11
Job thickness: 11.45 mm
Work hour: 1hr 30 min
Wire diameter: 0.20 mm
Numbers of cut: 1 cut
Taper angle: 21°



Dia. 0.1mm wire processing

For the precision molds of IC industries etc. (Optional)
Job material: carbide
Job thickness: 5 mm
Wire diameter: 0.10mm
Numbers of cut: 1+2 skims
Accuracy: $3\mu\text{m}$
Surface roughness: Ra0.40 μm
(Ac- μ circuit, opt)

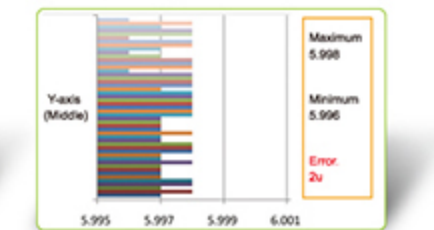
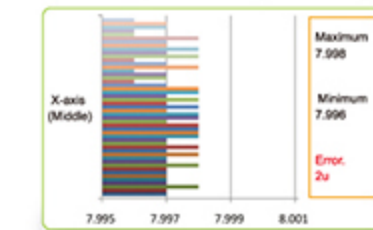
<G6> GENERATOR POWER CONTROL SYSTEM

HP-AVR Cutting Voltage Stabilizer

Automatic/Smart voltage-stabilizing power supply. By using the cutting-edge technology, the new power control system can effectively transform the unstable energy into pure stabilized electricity. Through it, the smart logic of the power control can effectively transform and supply the discharge power for a fast cutting feed.

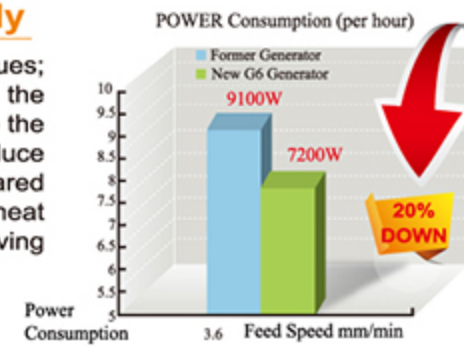


8x6mm square punch (Continually for 50pcs job with a single-cut at 30mm thick)



ESL -Energy Saving Power Supply

With exclusively developed power saving techniques; the New Power Control system can transform the power applied in discharge process and recharge the electricity of the generator. This process can reduce the power consumption up to over 20% (compared with the previous models). Also, it reduces the heat emission problem. It fits the idea of energy saving and carbon emission reduction.



MULTI-FUNCTIONAL CORNER AIDED SYSTEM

Full-functional Corner Aided System

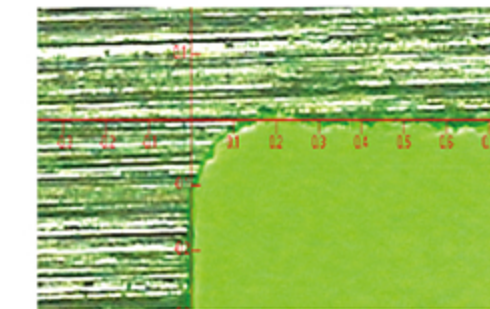
Corner aided system utilizes special technology to obtain clean inferior / exterior angle for stamping mold.

About sample in the picture.

Work condition:
Wire Diameter = 0.20mm
Work-piece material = SKD-11
Cut No. = 1 cut

Measured test result = 150X scales by profession optical projector.

Follow the detail corner setting of users. IPC will compute the optimize power Output and change the servo gain to drive the feed speed be precisely. Eliminate the corner burst through software path calculation about the curve distortion. To bring the perfect corner comes out.



Corner Aided Function Enabled



Corner Aided Function Disabled



SERIES Wire Cut EDM



G43S
(Optional For AWT system)



G32S



G32F



G53S
(Optional For AWT system)



G43F



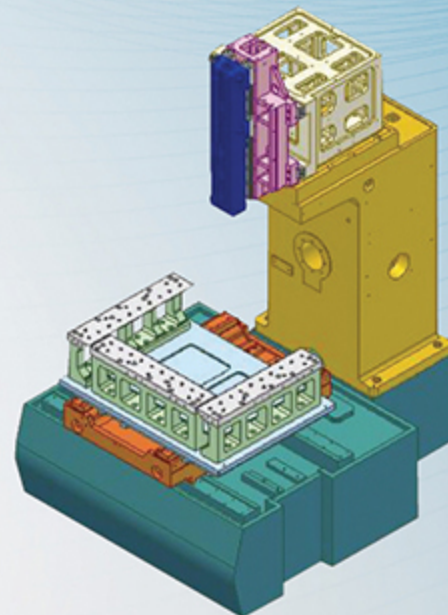
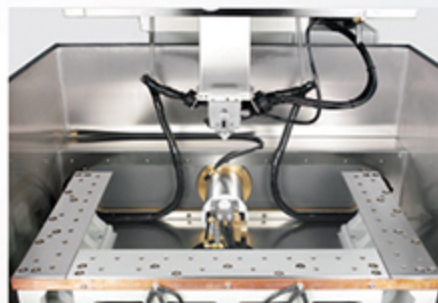
G64F



G53F

MECHANICAL FEATURES

- Excellent thermal balance and rigid cast construction to ensure the best machining accuracy and durability.
U-V axes , with linear guide way for accurate taper cutting.
- Using direct drive AC servo motors , high precision ball screws on linear guide ways with optional .005mm resolution glass scale, assures precise positioning and fast response to cutting conditions.
- Stainless steel 3-sided worktable and brushed stainless work tank for long endurance and least maintenance.
- U-V axes with up to $\pm 50\text{mm}$ travel for wide taper angles (± 21 degree).
(Reach Condition: 100mm Z-axis height and $DA+DB=15\text{mm}$ at least ; a set of wide-angle diamond guides and nozzles are required.)



G64S



G96F

RX SERIES Large Wire-cut Series

RX



▶▶▶▶ RX853F



▶▶▶▶ RX853S
(Optional For AWT system)



▶▶▶▶ RX1063F



▶▶▶▶ RX1063S
(Optional For AWT system)



▶▶▶▶ RX1065S
(Optional For AWT system)



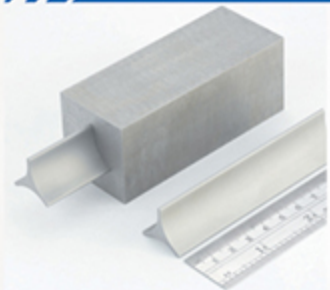
▶▶▶▶ RX1283S
(Optional For AWT system)

The Best Solution for Molds of the Automobile and Household Appliances Industries

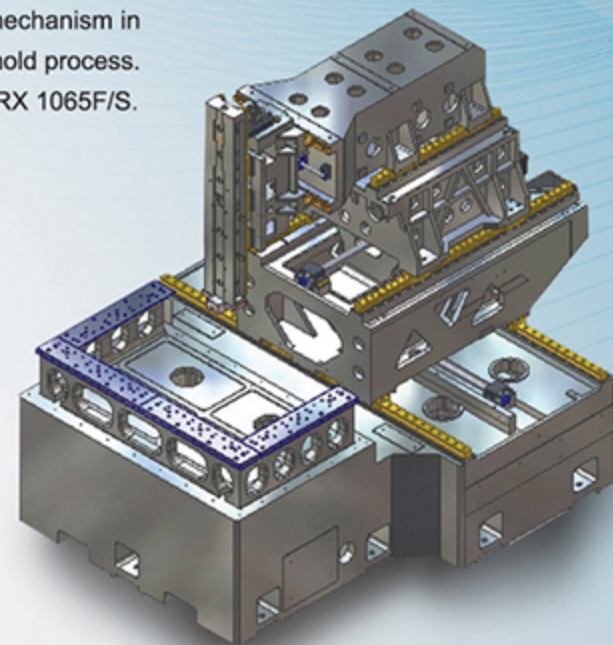
INTEGRATED CONSTRUCTION DESIGN

- To meet all kinds of processing purpose features. Specially designated based on mechanism expertise. Adopt the Column moving mechanism in RX 1065F/S model that could able to afford a heavy weight mold process.
- As to the longer Cuboids processing could be done in Model RX 1065F/S. Construction Design cooperated with PMC (Precision Machinery Reserch & Development Center) by F.E.A. (Finite Element Analysis) to secure ideal integral mechanism rigidity.

SAMPLE ILLUSTRATION



- **Great Thickness Combined Cutting**
Cutting times: 3
Workpiece material: SKD-11
Workpiece thickness: 100mm
Wire diameter: 0.25mm



● RX1065 rigid cast base construction

MACHINE SPECIFICATIONS

Machine Body	Model	G32F/S	G43F/S	G53F/S	G64F/S	G96F
X, Y axis travel (mm)		360x250	400x300	500x300	600x400	900x600
U,V,Z axis travel (mm)		60x60x220	60x60x220	60x60x220	100x100x300	100x100x300
Max.size of working piece (WxDxH mm)		725x560x215	725x600x215	825x600x215	910x700x295	1300x950x295
Max. weight of working piece (kgw)		300	500 / 350	550 / 400	600 / 450	1500
XY feed rate (mm/min)		Max. 800	Max. 800	Max. 800	Max. 800	Max. 800
Motor system (axis)		AC Servo Motor	AC Servo Motor	AC Servo Motor	AC Servo Motor	AC Servo Motor
Wire diameter range (mm)		ø0.15~0.3 (ø0.25)	ø0.15~0.3 (ø0.25)	ø0.15~0.3 (ø0.25)	ø0.15~0.3 (ø0.25)	ø0.15~0.3 (ø0.25)
Max.wire feed rate (mm/sec)		300	300	300	300	300
Wire tension (gf)		300~2500	300~2500	300~2500	300~2500	300~2500
Max. taper angle (°) workpiece thickness(mm)		±14.5°/80 (wide-angled nozzle, DA+DB=15mm)	±14.5°/80 (wide-angled nozzle, DA+DB=15mm)	±14.5°/80 (wide-angled nozzle, DA+DB=15mm)	±21°/100 (wide-angled nozzle, DA+DB=15mm)	±21°/100 (wide-angled nozzle, DA+DB=15mm)
Outside dimension (WxDxH mm)		2200x2100x2100 / 2300x2300x2100	2200x2130x2130 / 2200x2265x2130	2290x2130x2130 / 2290x2270x2130	2500x2450x2250 / 2500x2450x2250	2900x2650x2305
N.W (including power and coolant system) (kgw)		2300 / 2375	2575 / 2800	2800 / 3195	3200 / 3595	6300
Coolant tank system (L)		300/590	340 / 650	340 / 650	340 / 760	650

Machine Body	Model	RX853F/S	RX1063F/S	RX1065F/S	RX1283F/S
X, Y axis travel (mm)		800x500	1000x600	1000x600	1200x800
U,V,Z axis travel (mm)		150x150x300	150x150x300	160x160x500	120x120x300
Max.size of working piece (WxDxH mm)		1210x800x295	1430x900x295	1240x900x495	1600x1100x295
Max. weight of working piece (kgw)		2000/1000	3000/1500	5000/3000	6000/4000
XY feed rate (mm/min)		Max.800	Max.800	Max.800	Max.800
Motor system (axis)		AC Servo Motor	AC Servo Motor	AC Servo Motor	AC Servo Motor
Wire diameter range (mm)		Ø0.15~0.3(Ø0.25)	Ø0.15~0.3(Ø0.25)	Ø0.15~0.3(Ø0.25)	Ø0.15~0.3(Ø0.25)
Max.wire feed rate (mm/sec)		300	300	300	300
Wire tension (gf)		300-2500	300-2500	300-2500	300-2500
Max. taper angle (°) workpiece thickness(mm)		±21°/140 (wide-angled nozzle, DA+DB=15mm)	±21°/140 (wide-angled nozzle, DA+DB=15mm)	±21°/180 (wide-angled nozzle, DA+DB=15mm)	±21°/130 (wide-angled nozzle, DA+DB=15mm)
Outside dimension (WxDxH mm)		2400x2800x2350 / 3150x3500x2350	2700x3000x2200 / 4000x4000x2200	3200x3600x2800 / 4000x3600x2800	4250x4100x2300 / 4350x4100x2300
N.W (including power and coolant system) (kgw)		5460/5535	6500/7100	7500/7600	14500/15000
Coolant tank system (L)		340/1370	650/2000	650/2400	760/3000

● Specifications subject to change based on R&D results without prior notice.

● Remark: In submerged condition, maximum height of work-piece recommended is Z stroke minus 45mm.

OPTION

IMPROVE PRODUCTIVITY AND AVAILABILITY



DC Invert Water Chiller

Temperature variation can be held within ±0.5°C for precise machining and energy saving 45%



ULTRA FAST AWT SYSTEM

World's fastest AWT (8 seconds, 50mm height) Threads in the cavity.

STANDARD / OPTIONAL ACCESSORIES

Standard ● Optional ○ None —

ITEMS	SPECIFICATION	AMOUNT	G32	G43	G53	G64	G96F	RX853 F/S	RX1063	RX1065	RX1283
Paper Filter		2 pcs	●	●	●	●	●	● / S-3 pcs	—	—	—
		4 pcs	—	—	—	—	—	—	●	●	—
		6 pcs	—	—	—	—	—	—	—	—	●
UPPER / LOWER Diamond Guides	0.26mm	2 pcs	●	●	●	●	●	●	●	●	●
UPPER / LOWER Flushing Nozzles		2 pcs	●	●	●	●	●	●	●	●	●
Energizing Carbides		2 pcs	●	●	●	●	●	●	●	●	●
Diamond Guide Remove Jig		1 pc	●	●	●	●	●	●	●	●	●
Brass Wire	Ø0.25mmx5kgs	1 roll	●	●	●	●	●	●	●	●	●
Tools		1 set	●	●	●	●	●	●	●	●	●
AC power			●	●	●	●	●	●	●	●	●
Alignment Jig		1 pc	●	●	●	●	●	●	●	●	●
	Flushing	3L	●	●	●	●	●	●	●	●	●
	Submerged	6L	●	●	●	●	—	●	●	—	—
		12L	—	—	—	—	—	—	●	●	●
Swinging panel			○	○	○	○	○	●	●	●	●
2-in-1 Transformer +AVR			○	○	○	○	○	○	○	○	○
Auto Data Recovery after Blackout			●	●	●	●	●	●	●	●	●
Auto Wire Threading (AWT)			○	○	○	○	○	○	○	○	○
30KGS Wire feeder			○	○	○	○	○	○	○	○	○
Wire chopper	30KGS		○	○	○	○	○	○	○	○	○
Z axis travel 400MM			—	—	—	—	—	○	○	—	○
Water chiller	Flushing	1T	1 set	●	●	●	—	—	—	—	—
		2T	1 set	—	—	—	●	●	●	●	●
	Submerged	1T	1 set	●	●	—	—	—	—	—	—
		2T	1 set	—	—	●	●	●	●	●	—
	3T	1 set	—	—	—	—	—	—	—	●	
DC Invert Chiller	2T	1 set	○	○	○	○	○	○	○	○	○

In-house Rotary B-axis

6th Axis continuous cut or indexing (optional) with in-house submergible rotary B-Axis for turns and burns.



○ Wire feeder



○ Wire chopper