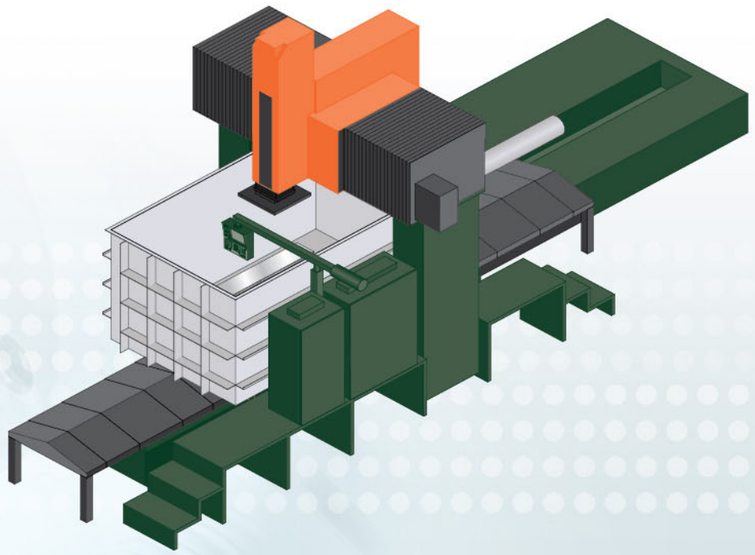
龍門 M3018 CNC

Electrical Discharge Machine



Specification	M3018
工作檯X、Y軸行程 X, Y-travel	3000 x 1800 mm
Z軸伺服及(輔助)行程 Z-travel (Backslide)	1000 mm
工作檯面積 Table dimension	2500 x 1800 mm
工作油槽內容積 Work tank dimension	3360 x 2040 x 1300mm
主軸與工作檯最大距離 Maximun table-quill distance	1800mm
電極最大重量 Maximun electrode weight	600 kgs
工作台最大承重 Maximun table loading	24000 kgs
過濾桶容量 Dielectric tank capacity	12000 Litre
過濾蕊數量 Filters	8 pcs

欲詳解更多相關資料，請洽本公司業務專員。
For more details, Pis contact with our sales.

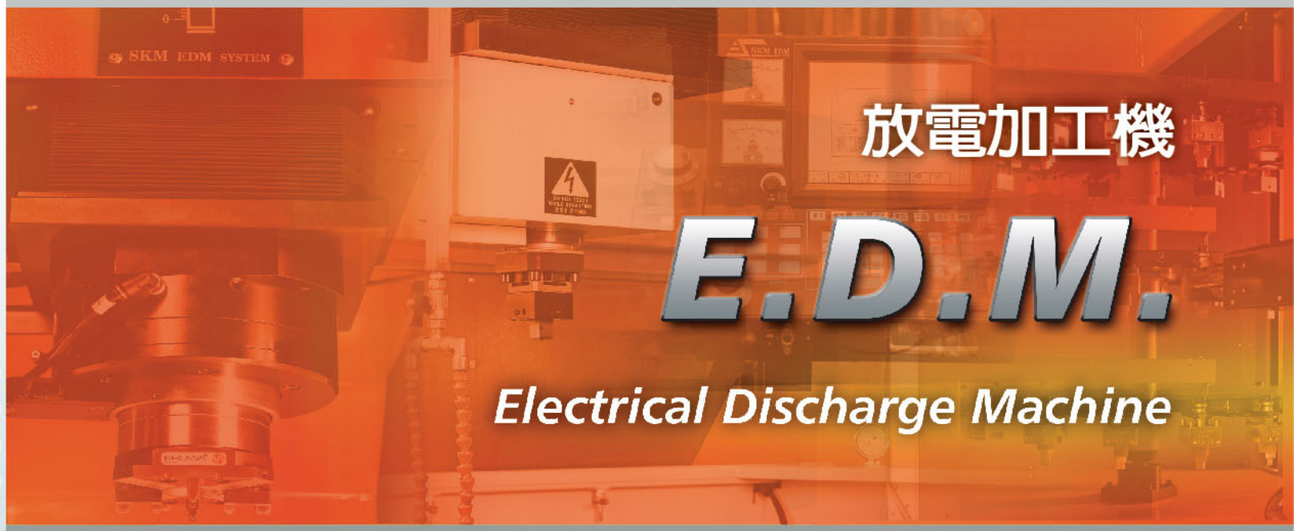
三貴機械有限公司
SANE KUEI MACHINERY CO., LTD.
新北市三重區光復路2段88巷46號
No.46, Ln. 88, Sec. 2, Guangfu Rd.,
Sanchong Dist., New Taipei City 241, Taiwan
Tel:886-2-8511 2370~3 Fax:886-2-8511 0517
E-mail: skm.edm@msa.hinet.net
http://www.edm-skm.com.tw

經銷商/Agent：

本公司保有變更設計之權利，產品如因需要實施變更，將不予另行通知。
The data and illustrations are in accordance with the position at the time of printing.
Subject modifications due to technical progress.

2013.03 © Copy right reserved.

三貴機械有限公司
SANE KUEI MACHINERY CO., LTD.

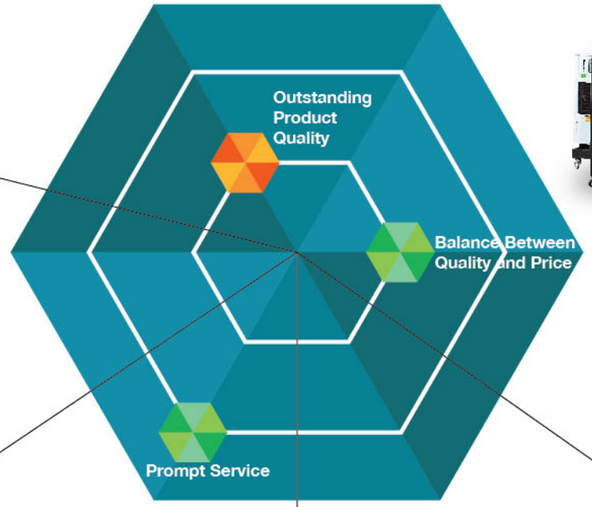


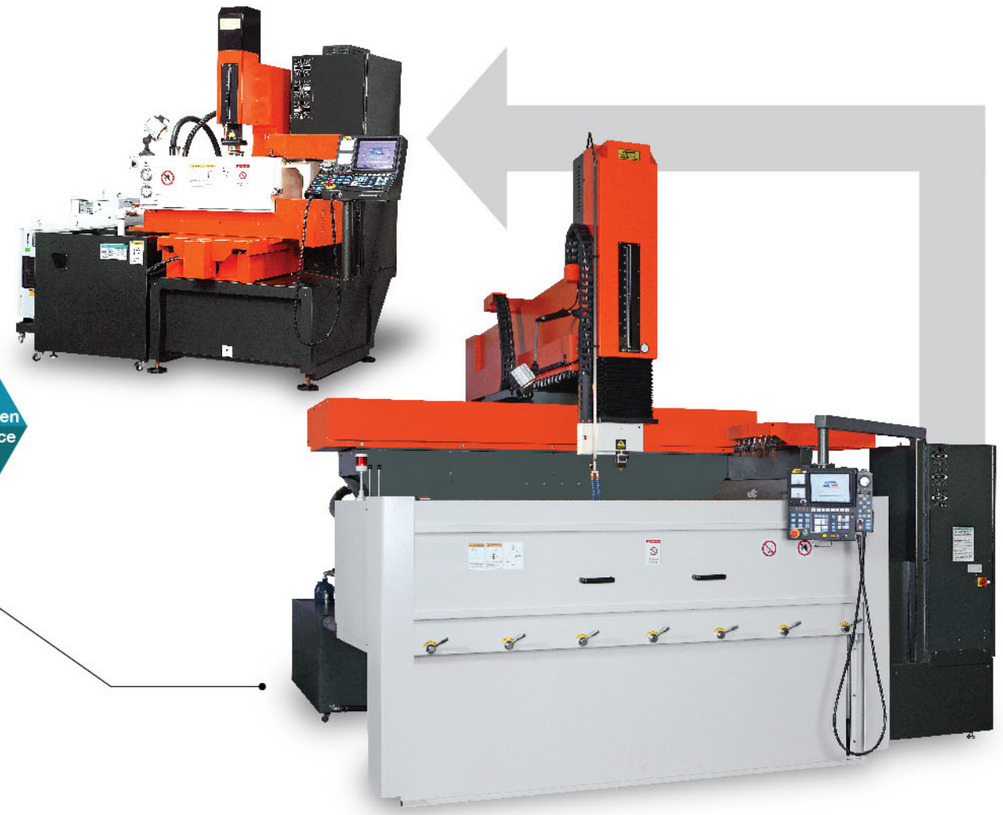
放電加工機
E.D.M.
Electrical Discharge Machine

UKAS QUALITY MANAGEMENT
ISO 9001

Sane Kuei Sharpents Functionality to Offer High-end EDMs

Adopting AC rather than DC servomotor speed up its EDMs up to 30%





Not merely touting the motto but actually taking substantial steps to realize the corporate belief that “delivering outstanding product quality is the basis on which to build successful sustainability, Sane Kuei Machinery Co. has gradually become one of Taiwan’s well-know manufacturers of high-end CNC (computerized numerically controlled) electrical discharge machines (EDMs), a goal achieved by enhancing production processes, employing soploying sophisticated manufacturing skills, and installing state-of-the-art production equipment. Adopting the above strategies allows Sane Kuei to upgrade its manufacturing capacity to develop more diverse product ranges to fully satisfy special requirements of customers.

The firm’s dedication to investing time, effort and manpower in developing complex manufacturing skills has offset its relatively short history. Despite being founded only in 1989, Sane Kuei has consistently achieved steady growth in turnover annually, winning considerable trust and loyal support from customers worldwide.

Recognizing that product value has to be intelligently balanced between product quality and price, Sane Kuei does not diverge from rolling out quality products with excellent value, a combination that few buyers can resist.

The company says its has been able built a solid reputation with its own SKM brand globally due to its long-term dedication to developing precision, high-speed and durable EDMs, with the major product lines Being NC, CNC, 3DCNC, C-axis and automatic electrode change EDMs, which are avaiable in conventional, electrode-head-moving, oil-tank-elevating, and enclosure types.

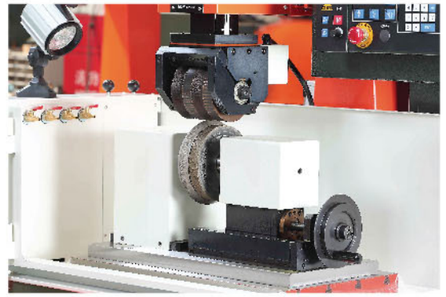
Precise Mechanical Structure

Sane Kuei says it is capable of developing electrodes of specific shapes to machine or cut a wide range of different contours in the workpiece, while its EDMs feature precision mechanical structure, outstanding servo-control system, high-performance finishing power supply, and diverse finishing functions.

An EDM is composed of three main sections, including machine base and table, flushing fluid tank, and servo-control system. The company adopts Meehanite cast iron as EDM construction with machine tank moving on Switzerland-made Scheenberger linear bearings and Japan-made NSK ball screw bearings to enable absolute precision movement of the tank. The servo spindle is constructed of seamless metal tubing of imported chromium-molybdenum alloy with a hardness several times that of steel. In addition to implementing strict manufacturing process and pre-shipment quality-control inspection, Sane Kuei tests its products for 72 hours non-stop to ensure reliability before shipment.

To ensure precise positioning while machining molds, the company employs 32-bit industrial-duty, high-speed computer featuring stability, durability, and super-reliability; while the dedicated sofeware design supports ergonomic operation, dialogue options, instructive learning, with specially designed sparking functionality allowing automatic selection for easy operation by even inexperienced operators.

The company notes that it adopts special electric discharge circuit utilizing high-speed MOSFET transistors for high-speed signal switching that is 1.5 times faster than conventional transistors for rapid finishing. In addition, the three-phase power supply circuit supports a slow machining rate for fine electrode finishing, as well as specialized graphite and tungsten carbide finishing for machining exotic materials.



Super-fine finishing

Sane Kuei also adopts automatic electric discharge signal system to support stop and extension adjustments to minimize electrode wear and prevent arcing, while enabling deep-hole finishing, preventing secondary sparking and providing large-ared finishing functions to realize top-caliber machining. With both high-and low-voltage signal circuits in use, the system is capable of proper output efficiency for super-fine finishing without altering surface hardening on a workpiece. This system is so effective that workpieces may be finished to a roughness of Ra 0.2_m or finer.

Sane kuei's orignal founders have expertise in mechanical design and electric-control system, allowing the company to integrate such know-how to develop EDMs featuring optimized electric-controls to enable reliable, desirable machining functions.

Always aiming to compete against industry leaders, Sane Kuei has been since its founding moving steadily toward enhancing machining efficiency and accuracy. Knowing the key criteria that call for continual improvement in EDMs, the company focuses on minimizing electrode wear, shortening processing time, and minimizing surface roughness. extend durability of electrodes, minimize machining time and enhance surface fineness has enabled the company to build increasingly sophisticated EDMs, so much as that it is able to compete against apeciallzed counterparts from the U.S. and some industrialized European nations.

The company currently concentrates on developing and producing ZNC,CNC and deep-hole EDMs. To further widen its product line, it looks to work with peers at home or abroad to develop wire-cut EDMs, which Sane Kuei has yet to produce.

Independent R & D

Sane Kuei general manager Peter Lin claims that his company can develop personal computer (PC) based CNC EDMs fully in-house, including hardware and software systems. Backed by considerable investment inR & D that enables the company to meet customent in R&D that enables the company to meet customers' requorements for complicated machining. Lin says that "my company has strong ability to develop diverse types of PC-based CNC EDMs. especially to modify special machining functions. and we have achieved over 90% local content rate on developing electric-control systems.

Braving to go beyond the tried-and-true has enabled the company to not offer more efficient EDMs but also, perhaps more importantly, reduce the likelihood of customers needing after-sales service, which also reduces costs. For instance, a year ago the company began adipting AC servomotor, rather than conventional DC types, on its EDMs; where by such new approach enabled the company's EDMs to work 20% to 30% faster than before.

Mirror Finishing

Over the past several years, Sane Kuei has made amazing progress in developing high-end CNC EDMs, including P60 and P50 series to meet the increased requirement for mirror finishing. These dual-purpose machines offer both dielectric flushing fluid for rough finishing, with such specialized powder being recyclable and needing replacement only at the end of service life.

The advantage is not having to change EDMs or replace. adjust molds to go from dielectric fluid to silicone powder or vice versa. To ensure stable sparking and cutting speed under optiomal conditions, the company employs impored servomotor and high-precision V-guideway and ball screws on the X, Y, Z axes. With special bearing design on machinie head servo system, these machines offer loading capacity twice that of conventional ones.

Quality at competitive prices

Sane Kuei positions itself as a manufacturer of medium-priced products globally, albeit its machiness are priced near the high end among local peers. The company's product line is typically 40% to 50% cheaper than that made by counterparts from highly industrialized U.S. and Japan.

Sane Kuei mainly sells its products to mainland China, Taiwan, Southeast Asia and Eurpoe, with China buying about half its output. the conpany has set up a service center in China justs to cope with the huge pool of customers there; and to offer prompt service anywhere in the the lucrative China market, the company has a network of mainland Chinese distributors.

To speed up global sales, Sane Kuei is setting up one agent in each proposed overseas market. "Our relatively higher prices necessitate sales agents first to make presentations to end-users regarding our impressive machining functionlity, which would lead to order placement, says lin. " Once they use our machines, more than 80% of them become loyal customers.

Seeing the international machinery market is coming back to life, the company aims to aggressively boost sales volume globally this year. One strategy to be used is work with overseas distributors worldwide-marketing under their own brand or Sane Kuei's SKM brand.

P60 CNC 矽粉放電兩用機

Electrical Discharge Machine

CE Available

P60

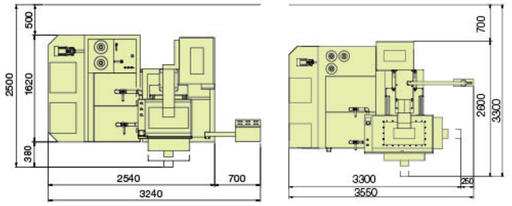
P60 (搭配ATC)

本機型特點

- ●放電油、矽粉兩用CNC鏡面放電加工
- ●X、Y、Z三軸使用AC馬達
- ●多孔穴加工、擴孔加工、螺紋加工
- ●可搭配ATC及C軸加工
- ●放電R角<0.02mm
- ●最佳表面粗度Ra<0.1μm
- ●快速跳躍及間段長行程排渣功能
- ●三軸自由定義加工軸向及擴孔功能
- ●適用對象：塑膠模、橡膠模、壓鑄模、3C產品...等
- ●粉末加工穩定性高，效率比一般傳統加工機高30%以上
- ●放電油、矽粉之加工油槽為獨立分離

Mechanical Feature of This Series

- ● Using both powder and discharge fuid for CNC mirror surface finishing.
- ● The X. Y. Z axis utilizes AC servo motor.
- ● Multi cavities machining, ORBIT-CUT machining & Helix machining.
- ● ATC(Automatic tools change) & C-axis machining available.
- ● The circle angle of sparking is lower than 0.02mm.
- ● The best surface roughness (Ra) is better than 0.1μm.
- ● High speed and long distance jumping.
- ● Multi side ORBIT-CUT machining for X.Y. Z axis.
- ● Widespread application:plastic mold, rubber mold, die-casting mold, 3c products' etc.
- ● Power machining enable high stability and efficiency that's more 30% than general electric discharge machining.
- ● The work tanks of discharge fluid and powder are divided separately.



Specification	P60	P90
工作檯X、Y軸行程 X, Y-travel	400 x 300 mm	500 x 400 mm
Z軸伺服及(輔助)行程 Z-travel	300 mm	300 + (290) mm
工作檯面積 Table dimension	600 x 320 mm	760 x 440 mm
工作油槽內容積 Work tank dimension	800x540x280 mm	1050x660x360 mm
主軸與工作檯最大距離 Maximun table-quill distance	500 mm	680 mm
電極最大重量 Maximun electrode weight	50 kgs	100 kgs
工作台最大承重 Maximun table loading	800 kgs	1200 kgs
過濾桶容量 Dielectric tank capacity	200+200 Litre	400 Litre
過濾蕊數量 Filters	2 pcs	3 pcs
機台總重量 Machine weight	2100 kgs	2550 + 520 kgs
機台高度 Machine Height	2240 mm	2725 + 2330 mm
放電能量 Nominal Current	30A / 5A . 45A / 5A . 60A / 5A	
輸入電源 Input voltage	220 / 380 / 415 / 440V	
總容量 Connected rating	4KVA / 5.5KVA / 7KVA	
最快加工速度 Maximudm stock removal rate	200 / 300 / 400 mm^3/ min	
最細表面粗度 Best surface roughness	Ra≤0.1μm	
最低電極消耗比 Best electrode wearing rate	<0.2% (特殊配備可達<0.1%)	

標準配件 Standard Accessories

- ● 精密電極夾頭 ● Precision electrode clamps
- ● 石英照明燈 ● Piezoelectric light
- ● 吸磁性噴油座 ● Magnetic induction oil nozzle base
- ● 操作說明書 ● Operations manual
- ● 鏡面加工系統 ● M.F.D. (Fine mirror finish)
- ● 加工液冷卻器 ● Di-electic cooler
- ● 永久磁性 ● Permanent magnetic chuck
- ● 矽粉x2kg ● Powder x 2kg
- ● 三軸光學尺(1μm) ● X.Y. Z axis linear scales.

特殊配件 Additional Equlpment

- ● 自動換電極系統 ● ATC (Auto Tools Change)
- ● C軸功能 ● C-axis
- ● 瑞士"EROWA"夾具 ● "EROWA" chuck-Swiss
- ● 瑞典"3R"夾具 ● 3R system chuck-Swedish
- ● 自動滅火器 ● Automatic fire extinguisher

CNC系列 - S50 / S60 / S90

CNC Series - S50 / S60 / S90

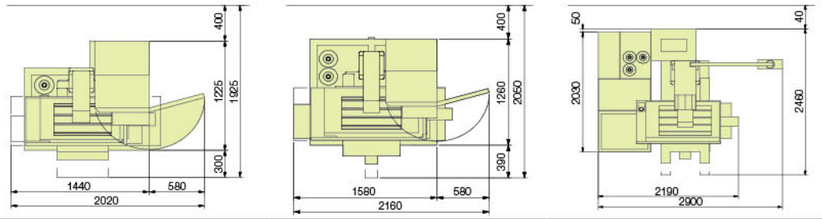
CE Available

本機型特點

- X、Y、Z三軸使用AC馬達
- 多孔穴加工、擴孔加工、螺紋加工
- 可搭配ATC及C軸加工
- 放電R角< 0.02mm
- 最佳表面粗度 Ra < 0.1μm
- 三軸自由定義加工軸向及擴孔功能
- 快速跳躍及間段長行程排渣功能
- 特殊肋骨加工功能

Mechanical Feature of This Series

- The X.Y.Z axis Utilizes AC servo motor.
- Multi cavities machining, ORBIT-CUT machining & Helix machining.
- A.T.C (Automatic Tools Change) & C-axis machining available.
- The Circle Angle of Sparking is lower than 0.02mm.
- The Best surface roughness (Ra) is better than 0.1μm.
- Multi side ORBIT-CUT machining for X.Y.Z axis.
- High Speed and long distance Jumping.
- Special Rib shape machining function.



Specification	S 50	S 60	S 90
工作檯X、Y軸行程 X, Y-travel	300 x 200 mm	400 x 300 mm	500 x 400 mm
Z軸伺服及(輔助)行程 Z-travel	300 mm	300 mm	300 (290) mm
工作檯面積 Table dimension	600 x 360 mm	660 x 380 mm	820 x 500 mm
工作油槽內容積 Work tank dimension	760 x 490 x 270 mm	950 x 580 x 300 mm	1100 x 700 x 350 mm
主軸與工作檯最大距離 Maximun table-quill distance	490 mm	500 mm	710 mm
電極最大重量 Maximun electrode weight	40 kgs	50 kgs	100 kgs
工作檯最大承重 Maximun table loading	600 kgs	800 kgs	1200 kgs
過濾桶容量 Dielectric tank capacity	200 Litre	400 Litre	400 Litre
過濾蕊數量 Filters	2 pcs	2 pcs	3 pcs
機台總重量 Machine weight	1650 kgs	1900 kgs	2500+210 kgs
機台高度 Machine Height	2240 mm	2260 mm	2600-2330 mm
放電能量 Nominal Current	30A / 5A . 45A / 5A . 60A / 5A		60A / 5A . 90A / 5A . 120A / 5A
輸入電源 Input voltage	220 / 380 / 415 / 440V		220 / 380 / 415 / 440V
總容量 Connected rating	4KVA / 5.5KVA / 7KVA		7KVA / 10KVA / 13KVA
最快加工速度 Maximudm stock removal rate	200 / 300 / 400 mm^3/ min		400 / 600 / 800 mm^3/ min
最細表面粗度 Best surface roughness	Ra≤0.1μm		Ra≤0.1μm
最低電極消耗比 Best electrode wearing rate	<0.2% (特殊配備可達<0.1%)		<0.2% (特殊配備可達<0.1%)

- 網路監視機台顯示器可藉由網路監看(選配) Networking monitoring CNC machine (option)

PNC系列 - K50 / K60 / K90

PNC Series - K50 / K60 / K90 / K120

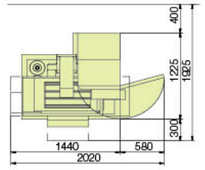
CE Available

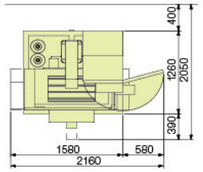
本機型特點

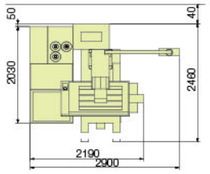
- X、Y、Z三軸使用AC馬達
- 自動移位；適用於多孔加工
- 可程式放電加工
- 放電R角< 0.02mm
- 最佳表面粗度 Ra < 0.1μm
- 快速跳躍及間段長行程排渣功能
- 特殊肋骨加工功能

Mechanical Feature of This Series

- The X.Y.Z axis Utilizes AC servo motor.
- Auto positioning and Multi cavities machining.
- Program function.
- The Circle Angle of Sparking is lower than 0.02mm.
- The Best surface roughness (Ra) is better than 0.1μm.
- High Speed and long distance Jumping.
- Special Rib shape machining function.







Specification	K 50	K 60	K 90
工作檯X、Y軸行程 X, Y-travel	300 x 200 mm	400 x 300 mm	500 x 400 mm
Z軸伺服及(輔助)行程 Z-travel	300 mm	300 mm	300 (290) mm
工作檯面積 Table dimension	600 x 360 mm	660 x 380 mm	820 x 500 mm
工作油槽內容積 Work tank dimension	760 x 490 x 270 mm	1040 x 580 x 320 mm	1100 x 700 x 350 mm
主軸與工作檯最大距離 Maximun table-quill distance	490 mm	500 mm	710 mm
電極最大重量 Maximun electrode weight	40 kgs	50 kgs	100 kgs
工作檯最大承重 Maximun table loading	600 kgs	800 kgs	1200 kgs
過濾桶容量 Dielectric tank capacity	200 Litre	400 Litre	400 Litre
過濾蕊數量 Filters	2 pcs	2 pcs	3 pcs
機台總重量 Machine weight	1650 kgs	1900 kgs	2500+210 kgs
機台高度 Machine Height	2240 mm	2260 mm	2600-2330 mm
放電能量 Nominal Current	30A / 5A . 45A / 5A . 60A / 5A		60A / 5A . 90A / 5A . 120A / 5A
輸入電源 Input voltage	220 / 380 / 415 / 440V		220 / 380 / 415 / 440V
總容量 Connected rating	4KVA / 5.5KVA / 7KVA		7KVA / 10KVA / 13KVA
最快加工速度 Maximudm stock removal rate	200 / 300 / 400 mm^3/ min		400 / 600 / 800 mm^3/ min
最細表面粗度 Best surface roughness	Ra≤0.1μm		Ra≤0.1μm
最低電極消耗比 Best electrode wearing rate	<0.2% (特殊配備可達<0.1%)		<0.2% (特殊配備可達<0.1%)

- 網路監視機台顯示器可藉由網路監看(選配) Networking monitoring CNC machine (option)

ZNC系列 - T30 / T50 / T60

ZNC Series - T30 / T50 / T60

CE Available

T30

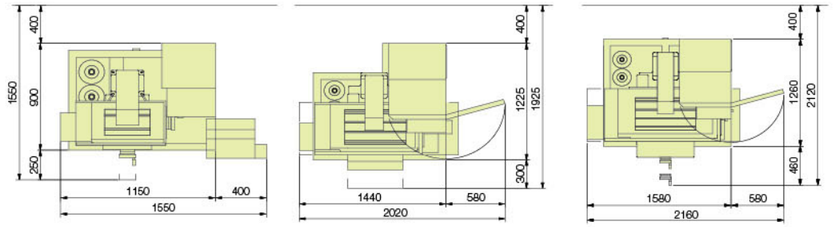
T50 / T60

本機型特點

- Z軸使用AC馬達
- 可程式放電加工
- 放電R角< 0.02mm
- 最佳表面粗度 Ra < 0.1μm
- 快速跳躍及間段長行程排渣功能
- 特殊肋骨加工功能

Mechanical Feature of This Series

- The Z axis Utilizes AC servo motor.
- Program function.
- The Circle Angle of Sparking is lower than 0.02mm.
- The Best surface roughness (Ra) is better than 0.1μm.
- High Speed and long distance Jumping.
- Special Rib shape machining function.



Specification	T 30	T 50	T 60
工作檯X、Y軸行程 X, Y-travel	200 x 150 mm	300 x 200 mm	400 x 300 mm
Z軸伺服行程 Z-travel	200 mm	300 mm	300 mm
工作檯面積 Table dimension	360 x 220 mm	560 x 300 mm	660 x 380 mm
工作油槽內容積 Work tank dimension	520 x 330 x 240 mm	700 x 460 x 270 mm	1040 x 580 x 320 mm
主軸與工作檯最大距離 Maximun table-quill distance	440 mm	500 mm	520 mm
電極最大重量 Maximun electrode weight	30 kgs	40 kgs	50 kgs
工作檯最大承重 Maximun table loading	350 kgs	800 kgs	1000 kgs
過濾桶容量 Dielectric tank capacity	120 Litre	200 Litre	400 Litre
過濾器數量 Filters	2 pcs	2 pcs	2 pcs
機台總重量 Machine weight	760 kgs	1400 kgs	1650 kgs
機台高度 Machine Height	2100 mm	2240 mm	2260 mm
放電能量 Nominal Current	30A / 5A . 45A / 5A . 60A / 5A		
輸入電源 Input voltage	220 / 380 / 415 / 440V		
總容量 Connected rating	4KVA / 5.5KVA / 7KVA		
最快加工速度 Maximudm stock removal rate	200 / 300 / 400 mm^3/ min		
最細表面粗度 Best surface roughness	Ra≤0.1μm		
最低電極消耗比 Best electrode wearing rate	<0.2% (特殊配備可達<0.1%)		

- 網路監視機台顯示器可藉由網路監看（選配） Networking monitoring CNC machine (option)

ZNC 系列 - T90 / T120

ZNC Series - T90 / T120

CE Available

T90

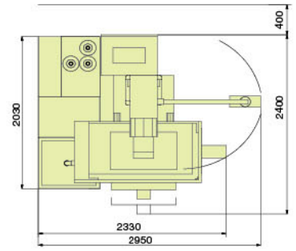
T120

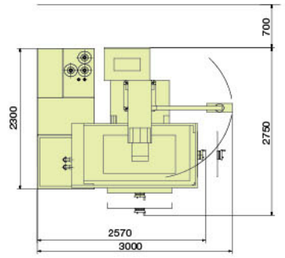
本機型特點

- Z軸使用AC馬達
- 可程式放電加工
- 放電R角< 0.02mm
- 最佳表面粗度 Ra < 0.1μm
- 快速跳躍及間段長行程排渣功能
- 特殊肋骨加工功能

Mechanical Feature of This Series

- The Z axis Utilizes AC servo motor.
- Program function.
- The Circle Angle of Sparking is lower than 0.02mm.
- The Best surface roughness (Ra) is better than 0.1μm.
- High Speed and long distance Jumping.
- Special Rib shape machining function.





Specification	T 90	T 120
工作檯X、Y軸行程 X, Y-travel	500 x 400 mm	600 x 500 mm
Z軸伺服及(輔助)行程 Z-travel	300 (290) mm	300 (290) mm
工作檯面積 Table dimension	820 x 500 mm	1100 x 620 mm
工作油槽內容積 Work tank dimension	1300 x 760 x 430 mm	1650 x 1000 x 500 mm
主軸與工作檯最大距離 Maximun table-quill distance	710 mm	850 mm
電極最大重量 Maximun electrode weight	100 kgs	120 kgs
工作檯最大承重 Maximun table loading	1600 kgs	2600 kgs
過濾桶容量 Dielectric tank capacity	600 Litre	1000 Litre
過濾蕊數量 Filters	3 pcs	3 pcs
機台總重量 Machine weight	2500+210 kgs	3500+290 kgs
機台高度 Machine Height	2280-2570 mm	2580-2870 mm
放電能量 Nominal Current	60A / 5A . 90A / 5A . 120A / 5A	
輸入電源 Input voltage	220 / 380 / 415 / 440V	
總容量 Connected rating	7KVA / 10KVA / 13KVA	
最快加工速度 Maximudm stock removal rate	400 / 600 / 800 mm^3/ min	
最細表面粗度 Best surface roughness	Ra≤0.1μm	
最低電極消耗比 Best electrode wearing rate	<0.2% (特殊配備可達<0.1%)	

- 網路監視機台顯示器可藉由網路監看(選配) Networking monitoring CNC machine (option)

CNC動柱系列 - M430 / M750

CNC Series - M430 / M750

CE Available

M430

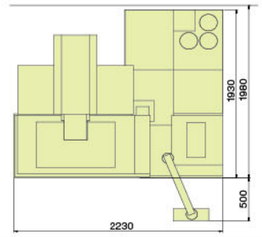
M750

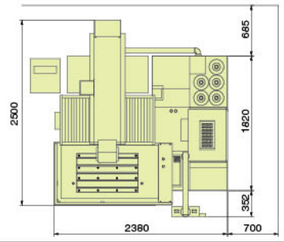
本機型特點

- X、Y、Z三軸使用AC馬達
- 多孔穴加工、擴孔加工、螺紋加工
- 可搭配ATC及C軸加工
- 放電R角< 0.02mm
- 最佳表面粗度 Ra < 0.1μm
- 三軸自由定義加工軸向及擴孔功能
- 快速跳躍及間段長行程排渣功能
- 特殊肋骨加工功能

Mechanical Feature of This Series

- The X.Y.Z axis Utilizes AC servo motor.
- Multi cavities machining, ORBIT-CUT machining & Helix machining.
- A.T.C (Automatic Tools Change) & C-axis machining available.
- The Circle Angle of Sparking is lower than 0.02mm.
- The Best surface roughness (Ra) is better than 0.1μm.
- Multi side ORBIT-CUT machining for X.Y.Z axis.
- High Speed and long distance Jumping.
- Special Rib shape machining function.





Specification	M 430	M 750
工作檯X、Y軸行程 X, Y-travel	400 x 300 mm	700 x 500 mm
Z軸伺服行程 Z-travel	300 mm	450 mm
工作檯面積 Table dimension	840 x 520 mm	840 x 520 mm
工作油槽內容積 Work tank dimension	1200 x 660 x 410 mm	1380 x 790 x 460 mm
主軸與工作檯最大距離 Maximun table-quill distance	650 mm	700 mm
電極最大重量 Maximun electrode weight	150 kgs	180 kgs
工作檯最大承重 Maximun table loading	4200 kgs	5200 kgs
過濾桶容量 Dielectric tank capacity	400 Litre	400 or 600 Litre
過濾蕊數量 Filters	3 pcs	3 pcs
機台總重量 Machine weight	2700+650 kgs	3200+650 kgs
機台高度 Machine Height	2280 mm	2520 mm
放電能量 Nominal Current	60A / 5A . 90A / 5A . 120A / 5A	
輸入電源 Input voltage	220 / 380 / 415 / 440V	
總容量 Connected rating	7KVA / 10KVA / 13KVA	
最快加工速度 Maximudm stock removal rate	400 / 600 / 800 mm^3/ min	
最細表面粗度 Best surface roughness	Ra≤0.1μm	
最低電極消耗比 Best electrode wearing rate	<0.2% (特殊配備可達<0.1%)	

- 網路監視機台顯示器可藉由網路監看(選配) Networking monitoring CNC machine (option)

CNC動柱系列 - M860 ~ M3010

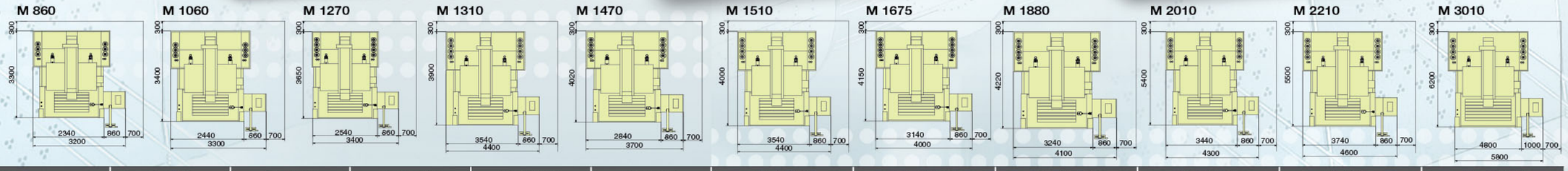
CNC Series - M860~M3010

CE Available

M860~M1270

M1470~M1880

M2010~M3010



Specification	M 860	M 1060	M 1270	M 1310	M 1470	M 1510	M 1675	M 1880	M 2010	M 2210	M 3010
工作檯X、Y軸行程 X, Y-travel	800 x 600 mm	1000 x 600 mm	1200 x 700 mm	1300 x 1000 mm	1400 x 700 mm	1500 x 1000 mm	1600 x 750 mm	1800 x 800 mm	2000 x 1000 mm	2200 x 1000 mm	3000 x 1000 mm
Z軸伺服行程 Z-travel	500 mm	500 mm	500 mm	600 mm	500 mm	600 mm	600 mm	600 mm	600 mm	600 mm	600 mm
工作檯面積 Table dimension	1250 x 750 mm	1250 x 750 mm	1350 x 820 mm	1430 x 1100 mm	1850 x 1000 mm	1580 x 1100 mm	1850 x 1000 mm	1850 x 1000 mm	2250 x 1100 mm	2250 x 1100 mm	3100 x 1100 mm
工作油槽內容積 Work tank dimension	1570 x 1100 x 625 mm	1670 x 1100 x 625 mm	1870 x 1250 x 625 mm	2010 x 1700 x 800 mm	2010 x 1350 x 625 mm	2070 x 1700 x 800 mm	2320 x 1350 x 700 mm	2420 x 1350 x 700 mm	2510 x 1700 x 800 mm	2710 x 1700 x 800 mm	3790 x 1700 x 800 mm
主軸與工作檯最大距離 Maximun table-quill distance	420~920 mm	420~920 mm	510~1010 mm	750~1350 mm	550~1050 mm	750~1350 mm	450~1050 mm	450~1050 mm	660~1260 mm	660~1260 mm	750~1350 mm
電極最大重量 Maximun electrode weight	400 kgs	400 kgs	400 kgs	500 kgs	450 kgs	500 kgs	450 kgs	500 kgs	500 kgs	500 kgs	500 kgs
工作檯最大承重 Maximun table loading	6000 kgs	7000 kgs	8000 kgs	11000 kgs	8500 kgs	11000 kgs	9500 kgs	10500 kgs	12000 kgs	13000 kgs	16000 kgs
過濾桶容量 Dielectric tank capacity	1400 Litre	1600 Litre	1800 Litre	2800 Litre	2000 Litre	3200 Litre	2600 Litre	2800 Litre	3800 Litre	4200 Litre	5600 Litre
過濾蕊數量 Filters	6 pcs	6 pcs	8 pcs	8 pcs	8 pcs	8 pcs	8 pcs	8 pcs	8 pcs	8 pcs	8 pcs
機台總重量 Machine weight	5200 kgs	5600 kgs	6600 kgs	13100 kgs	8100 kgs	13600 kgs	8600 kgs	9100 kgs	12600 kgs	13600 kgs	20600 kgs
機台高度 Machine Height	3160 mm	3160 mm	3180 mm	3370 mm	3370 mm	3670 mm	3370 mm	3370 mm	3680 mm	3680 mm	3850 mm
放電能量 Nominal Current	60A / 5A . 90A / 5A . 120A / 5A					60A / 5A . 90A / 5A . 120A / 5A					
輸入電源 Input voltage	220 / 380 / 415 / 440V					220 / 380 / 415 / 440V					
總容量 Connected rating	7KVA / 10KVA / 13KVA					7KVA / 10KVA / 13KVA					
最快加工速度 Maximudm stock removal rate	400 / 600 / 800 mm^3/ min					400 / 600 / 800 mm^3/ min					
最細表面粗度 Best surface roughness	Ra≤0.1μm					Ra≤0.1μm					
最低電極消耗比 Best electrode wearing rate	<0.2% (特殊配備可達<0.1%)					<0.2% (特殊配備可達<0.1%)					

● 網路監視機台顯示器可藉由網路監看(選配) Networking monitoring CNC machine (option)

CNC 雙機頭動柱系列 - M1510-2H~M3010-2H

CNC Series - M1510-2H~M3010-2H

CE Available

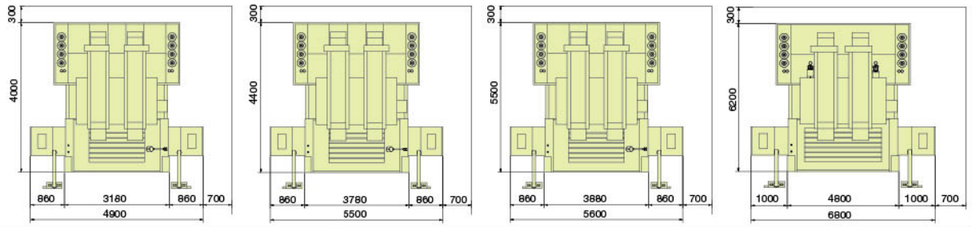
M1510-2H~M3010-2H

本機型特點

- X、Y、Z三軸使用AC馬達
- 多孔穴加工、擴孔加工、螺紋加工
- 可搭配ATC及C軸加工
- 放電R角< 0.02mm
- 最佳表面粗度 Ra < 0.1μm
- 三軸自由定義加工軸向及擴孔功能
- 快速跳躍及間段長行程排渣功能
- 特殊肋骨加工功能

Mechanical Feature of This Series

- The X.Y.Z axis Utilizes AC servo motor.
- Multi cavities machining, ORBIT-CUT machining & Helix machining.
- A.T.C (Automatic Tools Change) & C-axis machining available.
- The Circle Angle of Sparking is lower than 0.02mm.
- The Best surface roughness (Ra) is better than 0.1μm.
- Multi side ORBIT-CUT machining for X.Y.Z axis.
- High Speed and long distance Jumping.
- Special Rib shape machining function.



Specification	M 1510-2H	M 2010-2H	M 2210-2H	M 3010-2H
工作檯X、Y軸行程 X, Y-travel	單動 430 x 1000 mm 雙動 260 x 1000 mm	單動 1350 x 1000 mm 雙動 670 x 1000 mm	單動 1550 x 1000 mm 雙動 775 x 1000 mm	單動 2500 x 1000 mm 雙動 1275 x 1000 mm
Z軸伺服行程 Z-travel	600 mm	600 mm	600 mm	600 mm
工作檯面積 Table dimension	1580 x 1100 mm	2250 x 1100 mm	2250 x 1100 mm	3100 x 1100 mm
工作油槽內容積 Work tank dimension	2070 x 1700 x 800 mm	2710 x 1700 x 800 mm	2980 x 1700 x 800 mm	3830 x 1700 x 800 mm
主軸與工作檯最大距離 Maximun table-quill distance	750~1350 mm	700~1300 mm	750~1350 mm	750~1350 mm
電極最大重量 Maximun electrode weight	500 kgs	500 kgs	500 kgs	500 kgs
工作檯最大承重 Maximun table loading	9500 kgs	12000 kgs	13000 kgs	18000 kgs
過濾桶容量 Dielectric tank capacity	3200 Litre	3800 Litre	4600 Litre	6000 Litre
過濾蕊數量 Filters	8 pcs	8 pcs	8 pcs	8 pcs
機台總重量 Machine weight	15000 kgs	14500 kgs	15100 kgs	21100 kgs
機台高度 Machine Height	3670 mm	3680 mm	3680 mm	3850 mm
放電能量 Nominal Current	90A / 5A . 120A / 5A . 150A / 5A . 180A / 5A . 240A / 5A . 300A / 5A			
輸入電源 Input voltage	220 / 380 / 415 / 440V			
總容量 Connected rating	20KVA / 26KVA / 34KVA			
最快加工速度 Maximudm stock removal rate	600 / 800 / 1000 / 1200 / 1600 / 2000 mm^3/ min			
最細表面粗度 Best surface roughness	Ra≤0.1μm			
最低電極消耗比 Best electrode wearing rate	<0.2% (特殊配備可達<0.1%)			

- 網路監視機台顯示器可藉由網路監看（選配） Networking monitoring CNC machine (option)

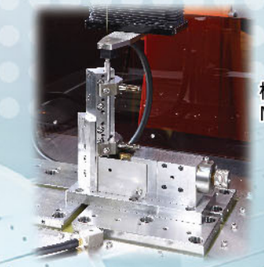
深孔放電加工機 - D50 / D60 / SD60

High Speed Small Hole Drilling EDM

CE Available

D50
油加工

D50



模沖加工治具
Mold Stamping Jigs

D60

SD60

本機型特點

- 傳統機，CNC專業生產製造
- 銅管加工尺寸：ø0.1mm ~ ø6.0mm
- 加工精度 (偏差值) 100mm < 0.03mm (ø1.0 mm)
- 內裝純水製造機，無需另購工業用水
- 離子淨化系統，可提供一對多台使用，效率可提高30%以上
- 特殊迴路設計，適合各種特殊材質及超硬合金加工
- 可選用放電油加工系統，針對鎢鋼及特殊材質加工用

Small Hole Drilling EDM

- Manual Type & CNC Drilling EDM Profession Manufacturer.
- Drilling capacity dia. is from ø0.1mm to ø6.0mm.
- High verticality (Deviation) is lower than 0.03mm (Ex: ø1.0 mm pipe drilling 100mm depth).
- Inbuilt Water Filtration System and pure water available.
- Ion Exchange Resin Treatment Filter support more machines and raise working efficiency that's over 30%.
- Special circuit design apply to all kinds & hardened metal materials.
- Optional discharge oil machining systems for processing tungsten steel and special materials .

標準配件

- 電極夾頭----------1Pc
- 壓板----------2Pcs
- 工具箱----------1Set
- 銅管電極---------10Pcs
- 導嘴----------1Pc
- 平行塊
- 純水製造系統

Standard Accessories

- Elctrode Chuck------1Pc
- Clamp Plate---------2Pcs
- Tool & Kit----------1Set
- Electrode Pipes-----10Pcs
- Electrode Guide----1Pc
- Metal pad
- Water Filtration System

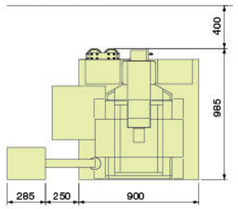
特殊配件

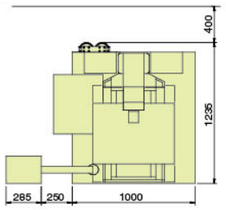
- X Y Z軸光學尺
- 特殊銅管電極
- 特殊導嘴

Additional Equipment

- X Y Z axis Linear Scales
- Electrode Pipes
- Electrode Guide

離子淨化系統
Ion Exchange Resin
Treatment Filter





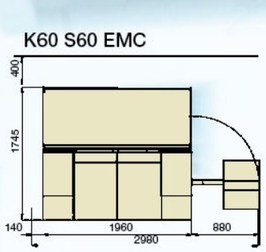
Specification	D 50	D 60	SD 60
工作檯X、Y軸行程 X, Y-travel	300 x 200 mm	400 x 300 mm	400 x 300 mm
Z軸伺服行程 Z-travel	360 mm	360 mm	360 mm
機頭輔助行程 Backslide travel	140 mm	190 mm	190 mm
導嘴上下距離 Vertical head travel	160 mm	160 mm	160 mm
工作檯尺寸 Table dimension	410 x 210 mm	550 x 310 mm	550 x 310 mm
工作檯與導嘴最大距離 Maximun distance od table quill (Guide)	350 mm	400 mm	400 mm
銅管電極尺寸 Electrode pipe dimension	ø0.3~ø3.0mm (特殊ø0.1~ø6.0mm)		
最大工件尺寸 Maximum workpiece dimension	630 x 520 x 300 mm	1000 x 650 x 300 mm	750 x 560 x 300 mm
加工液容量 Capacity	40 Litre	40 Litre	110 Litre
機台總重量 Machine weight	900 kgs	1300 kgs	1500 kgs
機台高度 Machine Height	2370-2255 mm	2380-2150 mm	2390-2180 mm

- 提供中大型以上之機種訂購 Larger models are available as requests.

EMC CE 系列

EMC CE Series

S60+ATC



K60 / S60 EMC 系列

ZNC系列

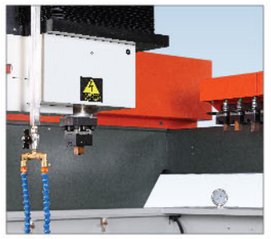
標準配件	Standard Accessories	特殊配件	Additional Equipment
● 精密電極夾頭	● Precision Electrode Clamps	● 瑞士 "EROWA" 夾具	● "EROWA" Chuck-Swiss
● 石英照明燈	● Piezoelectric Light	● 瑞典 "3R" 夾具	● 3R System Chuck-Swedish
● 工作固定工具組	● Work Fastening Tool Kit	● 加工液冷卻器	● Di-Electric Cooler
● 吸磁性噴油座	● Magnetic Induction Oil Nozzle Base	● 進口放電專用油	● Electric Oil
● 操作說明書	● Operations Manual	● 永久磁盤	● Permanent Magnetic Chuck
● 三軸光學尺 (1um)	● X Y Z axis Linear Scales	● 鏡面加工系統	● M.F.D (Fine Mirror Finish)
		● 自動滅火器	● Automatic Fire Extinguisher

PNC系列

標準配件	Standard Accessories	特殊配件	Additional Equipment
● 精密電極夾頭	● Precision Electrode Clamps	● 瑞士 "EROWA" 夾具	● "EROWA" Chuck-Swiss
● 石英照明燈	● Piezoelectric Light	● 瑞典 "3R" 夾具	● 3R System Chuck-Swedish
● 工作固定工具組	● Work Fastening Tool Kit	● 加工液冷卻器	● Di-Electric Cooler
● 吸磁性噴油座	● Magnetic Induction Oil Nozzle Base	● 進口放電專用油	● Electric Oil
● 操作說明書	● Operations Manual	● 永久磁盤	● Permanent Magnetic Chuck
● 三軸光學尺 (1um)	● X Y Z axis Linear Scales	● 鏡面加工系統	● M.F.D (Fine Mirror Finish)
		● 自動滅火器	● Automatic Fire Extinguisher

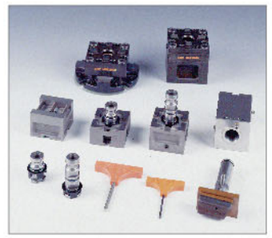
CNC（動柱）系列

標準配件	Standard Accessories	特殊配件	Additional Equipment
● 精密電極夾頭	● Precision Electrode Clamps	● 自動換電極系統	● ATC (Auto Tool Change)
● 石英照明燈	● Piezoelectric Light	● C軸功能	● C-Axis
● 工作固定工具組	● Work Fastening Tool Kit	● 瑞士 "EROWA" 夾具	● "EROWA" Chuck-Swiss
● 吸磁性噴油座	● Magnetic Induction Oil Nozzle Base	● 瑞典 "3R" 夾具	● 3R System Chuck-Swedish
● 操作說明書	● Operations Manual	● 加工液冷卻器	● Di-Electric Cooler
● 鏡面加工系統	● M.F.D (Fine Mirror Finish)	● 進口放電專用油	● Electric Oil
● 三軸光學尺 (1um)	● X Y Z axis Linear Scales	● 永久磁盤	● Permanent Magnetic Chuck
		● 自動滅火器	● Automatic Fire Extinguisher

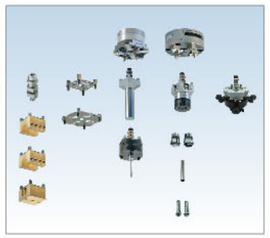


ATC+C-Axis

隱藏式C軸



3R夾頭治具



EROWA系列

標準配件

冷卻器

飛碟夾頭　三責夾頭

過濾蕊