

P-Series 高精密級線切割機

PRECISION WIRE CUT MACHINE



卓越精進 穩健踏實

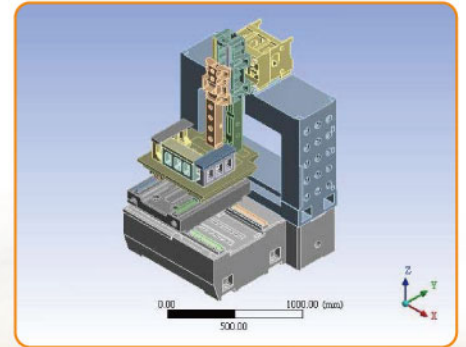
Pursuit of Remarkable Advance
Prudent and Pragmatic Management

高剛性與熱平衡結構設計

採用世界首創口字型龍門結構設計結合C結構優點，經3D模擬與FEM(有限元素分析)最佳化設計分析，能夠平均分佈避免應力集中，即可使機構精度能夠控制在有效範圍內，且各部機構能得到完整的支撐而不變形去間接影響加工精度。

Advanced rigidity and thermal balanced structure

The machine has been designed at gantry type base frame through 3D simulate designing and FEM optimize process. With optimum structure and reinforced ribs to secure the perfectly rigidity and highly accurate machining.



內建線性馬達

In-House- Linear Motor

線性馬達具備無磨擦、無動能轉換損失讓定位更為精準。

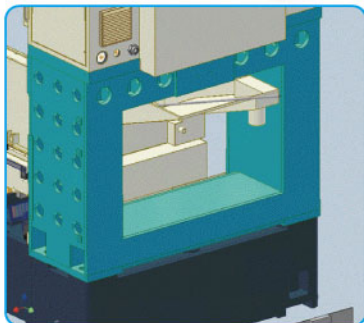
Linear Motor results a wear-free and no conversion motion to have a perfect positioning.

節能再生技術

Energy saving

P系列裝配新設計的ESL迴路達成真正的綠色能源目的。DC-DC原生直流電源經由無電阻設計迴路將原本熱能排出的能源再回收利用，比以往機型更省下20%的能源消耗。

P series equips a newly ESL circuit to achieve a really green power. To use DC-DC current transformer technology to get energy recovery is unlike the convention way that to let thermal energy out by resistance. It has about 20% power saving comparing to regular type.

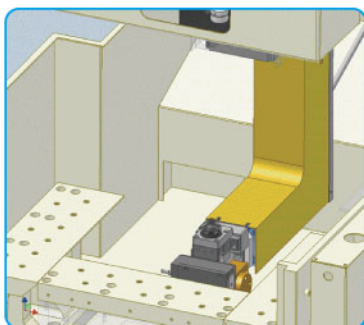


機台特色

Machine Structure

世界首創口字型龍門結構設計，組裝更簡易，同時具備高剛性及熱平衡的最佳控制。

Worldwide AA+ grade gantry column design to conduct a high rigidity and finest thermal balance on the casting.



全國首創下伸臂與水槽間無干涉設計，提高加工精度，並完全免除一般浸水式漏水可能與更換防漏零件的憂慮。

Interference Free design in Lower arm assembly; prevent leakage problem and enhance the cutting accuracy.



第五代自動穿線

5th Generation AWT system

“EC”張力控制技術確保張力穩定度並保證極佳穿線率。

EC Tension Control Technology ensures a constant tension to obtain superb threading rate.

規格表 Specifications

加工實例 Sample

ITEM	P3020SL	P4030SL	P5030SL
機械本體 MACHINE BODY			
X軸行程 X axis(mm)	300	400	500
Y 軸 Y axis(mm)	200	300	300
U 軸 U axis(mm)	60	80	80
V 軸 V axis(mm)	60	80	80
Z 軸 Z axis(mm)	150	220	220
最大工作尺寸 Max.size of working piece (W*D*H mm)	500x300x145	600x400x215	700x400x215
最大工件重量 Max.weight of working piece (kgw)	100	100	150
X,Y軸進給速度 X,Y feed rate (mm/min)	Max.800 mm/min		
驅動系統 Motor system (axis)	X,Y軸：線性馬達 X,Y : Linear Motor		
線徑 (標準) Wire diameter range (mm)	Φ0.15-0.3(Φ0.25) mm		
送線速度 (最大) Max.wire feed rate (mm/sec)	300 mm/sec		
線張力 Wire tension (gf)	300-2500 gf		
最大切割斜度 Max. taper angle(°)/workpiece thickness(mm)	±21° /100 mm (廣角噴嘴Wide Angled Nozzle DA+DB=15mm)		
外型尺寸 Outside dimension (W*D*H mm)	2200x2470x2100	2250x3300x2150	2390x3300x2150
重量(淨) N.W.(kgw)	2800	3600	4200
過濾裝置 Working Fluid Supply Unit			
過濾容量 Tank Capacity	600L		
過濾方式 Filter Element Resins	Paper		
離子樹脂過濾器 Ion Exchange Resins	14L		
水質控制 Conductivity Control	Auto		
液溫度控制 Fluid Temperature Control	Auto (Standard)		
重量(不含水)	300		
加工電源 Power supply unit			
迴路方式 Circuit system	Power MOS Transister		
最大輸出電流 Max.output current	25A		
電流選擇 IP select	10		
休止時間 Off time select	50		
CNC裝置 CNC UNIT			
輸入方式 DATA INPUT	keyboard, RS-232C, CF Card Reader		
螢幕顯示 DISPLAY	15" TFT-LCD		
制御方式 Control system	32bit,1-CPU, Semi Closed loop Software Servo System		
控制軸數 Control axis	X,Y,U,V,Z (5 axis)		
設定單位 Measurement resolution	0.001mm		
最大指令值 Max. command value	±9999.999mm		
補間 Movement measuring system	Linear / Circular		
命令 Command system	Abs / Inch		
加工速度控制 Machining feed control	Servo / Const.Feed		
圖型倍率 Scaling	0.001-9999.999		
加工條件記憶 Machining EDM Condition Memory	1000-9999		
最大耗電量 Total AC Power Input	3Phase 220 ±10% / 13kva		



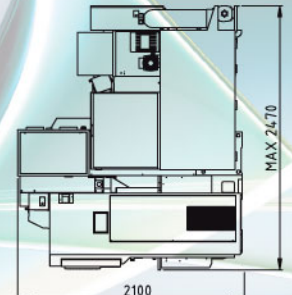
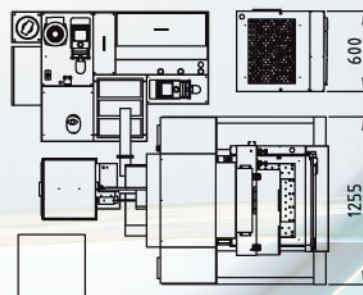
本公司隨時都在進行研究改進的工作，因此保有隨時更改設計、規格尺寸及機械結構之權力。

機台配置圖 Machine preparation plan

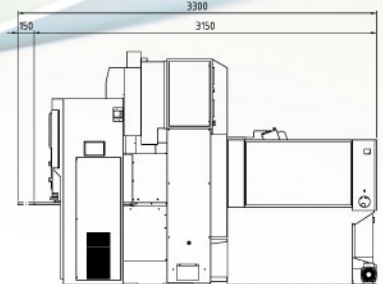
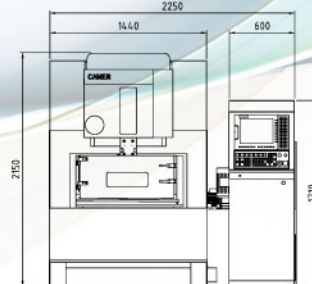
標配選配表 Optional Accessories ●標配 Standard ○選配 Option

配件 Optional Accessories	P
XY LINEAR MOTOR XY 線性馬達	●
XY 軸 自動斷電復歸(停電時仍能記憶機械位置) Power failure resume for XY axis position (Machine coordinate by UPS)	●
XY 滑軌等級SP級 SP grade linear guide in XY axis	●
XY 自動潤滑(電動潤滑器) XY axis auto Lubricator (Electronics)	●
UVZ 自動潤滑(自潤式) UVZ axis auto lubricator (Self-lubricant)	●
LED 式內嵌照明燈 Built-in LED Lamp	●
自動液位調整 Submerged leveling control	●
0.05-0.10 細線 AWT Dia. 0.05-0.10 mm AWT threading	○
水槽恆溫(變頻式冷卻水控制) ±0.3度控制 Constant temperature for dielectric tank (Inverter control unit ±0.3 degree)	●
機台全罩式恆溫 Constant temperature console	○
光學尺 Linear Scale	●0.1μm解析度 resolution
穩壓器 2 in 1 voltage Stabilizer	內鑲 Built-in
AC POWER	●
三刀RA0.5以下 Super fine finish 0.5umRa (2 Skims)	●
超鏡面機構 Super mirror finish	●
WINDOWS 操作介面 WINDOWS OS system	○
(WSF ETS)(網路+USB) (WSF ETS)(Ethernet Kits+ USB)	○
觸控螢幕 Touch Screen	●
浸水式水槽 Submerged Tank	●
三色指示燈(含廢線檢知、水位檢知) 3 Color Alarm Indicator (used wire inject , submerge level)	●
水槽清潔水槍與氣槍 Cleaning kits (Pneumatic guns)	●
B 軸 B-Axis (6 th axis)	○
大型供線輪 30 kg jumbo wire spooler	○

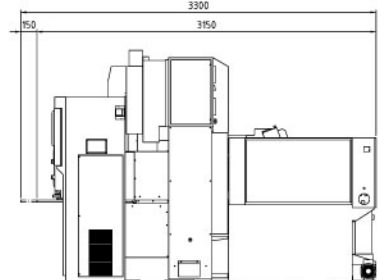
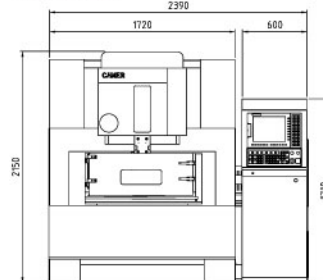
P3020SL



P4030SL



P5030SL



遠端監控功能(選配) Remote Monitoring Function(OPTIONAL)

搭配遠端監控技術，可以掌握最新機台使用狀況。
Real Time Simulator allows you to see up-to-date machining status.



CHMER

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