

# 4 AXIS

# CNC SLOTTING MACHINE

## CNC 精密插床

X,Y,C,Z AXIS AUTO FEEDING 四軸自動 ●●●

### CNC-700



### ● **Machine features** 機台特性：

1. The main machine structure is made of high quality cast iron , X,Y axis and Ram guideway are hardened and ground.  
機器主結構皆採用高級鑄件，X,Y 軸軌道及刨頭滑軌經完善的熱處理研磨。
2. All the slideways , main Ram guideway , and X,Y,Z axis ballscrews are complete with automatic lubrication system to ensure the machine running smoothly and long life.  
刨頭滑道及X,Y,Z 軸軌道，圓盤座及滾珠螺桿皆設有完善的自動潤滑系統。
3. The machine is equipped with hydraulic clamping system to lock the connection block between linking Rod and Ram.  
刨頭位置調整採油壓夾持系統配合Z軸伺服馬達及滾珠螺桿。
4. The swivel head can rotate right and left smoothly via worm & worm gear for taper keyway slotting purpose.  
刨頭可經由蝸輪蝸桿進行左右旋轉以便進行斜鍵插削作業。
5. The X,Y axes are complete with high precision C3 class double nuts ball-screws and Z axis is complete with super load precision ball screw. With precision bearings specially for precision ball-screws to ensure position accuracy.  
X,Y 軸皆採用高精密C3級滾珠螺桿，Z軸採高剛性精密滾珠螺。並搭配精密滾珠螺桿專用軸承以確保機械的定位精度。
6. The C axis rotary working table is driven by 4.4kw AC servo motor with high torque coupling to directly drive "Dual lead worm shaft" and "high class bronze alloy worm gear set" to ensure the high indexing accuracy.  
圓型工作台由高扭力4.4kw伺服馬達直接傳動雙導程精密蝸桿，再搭配特殊鋁青銅合金蝸輪以達到高精密度。

**● SPECIFICATION (MECHANISM) 機械規格表**

單位: UNIT MM(INCH)

ITEM項目	MODEL型式	CNC-700
Adjustable stroke of tool (stepless CNC controlled) 插削行程調整範圍		10~700(0.5"~27.5")
Adjustment distance of ram connector(Z1) 衝頭連結座調整距離(Z1)		525(20.5")
Adjustable slotting linear speed 數控調整插削線速度		500~15000 (20"~590")
Swivel angle of ram (left/right) 插頭左右旋轉角度		± 20°
Distance from end of ram guide to working table 插頭導路下端至工作台距離		870(34")
Max distance between bottom of Ram guideway and Ram end surface upward(H)/downward(L) 衝頭底部從衝頭導路下端起算向上(H)/向下最大距離(L)		500(20") / 700(27.5")
Distance from tool center to column 刀桿中心至機身面距離(喉深)		940(37")
Travel between tool holder and table center forward(F) / backward (B) 工作台中心至刀桿中心前/後行程		300 / 500 (12" / 20")
Distance from working table to ground 工作台面距離地面高度		880(34.6")
Diameter of working table 工作台直徑		Ø850 / (33.5")
Bore of Rotary Table 工作臺孔徑		Ø 250mm
Max. table Load 工作臺最大承重		2000 kgs
Cross travel of working table ( Y axis ) 工作台前後移動距離 (Y軸)		800 (31.8")
Horizontal travel of working table ( X axis ) 工作台左右移動距離 (X軸)		850(33.5")
Size of Tool holder 刀具尺寸		□95 / Ø90
Coolant pump motor 冷卻馬達		1/2 HP
Net weight 淨重		8500 kgs
Overall machine dimension L x W x H(maximum height) 機台尺寸 長x寬x高(最大高度)		3300x2000x4300mm
Packing dimension 包裝尺寸		3800x2250x3320mm

**● SPECIFICATION CNC CONTROL CNC 控制規格表**

ITEM項目	MODEL型式	CNC-700
X Axis AC servo motor X 軸伺服馬達		4.4 kw
Y Axis AC servo motor Y 軸伺服馬達		5.5 kw
Z Axis Ram drive AC servo motor Z 軸衝頭 AC 伺服馬達		15kw
C Axis AC servo motor 旋轉軸伺服馬達		4.4 kw
Z1 Axis Ram Bottom point adjustment servo motor Z1 軸下始點調整伺服馬達		2 kw

All specifications and designs are subject to change without notice. 本公司對產品不斷研究改良，上述規格及設計如有變更，恕不另行通知。



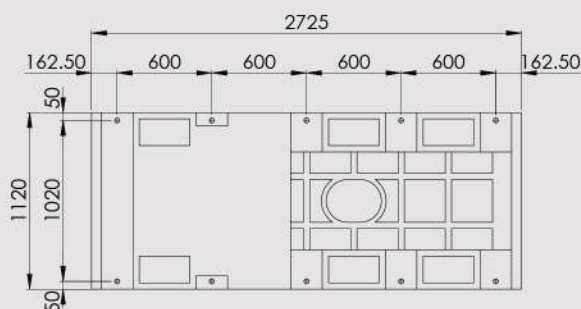
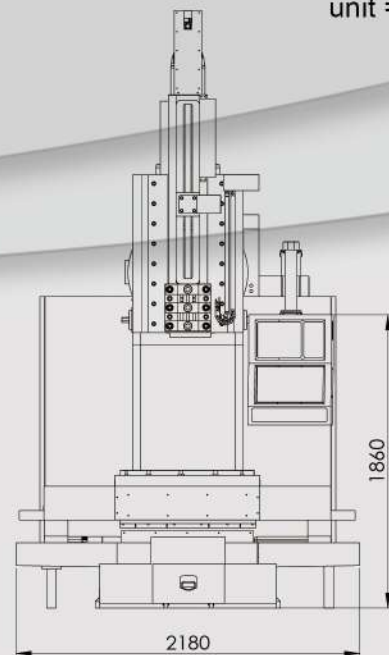
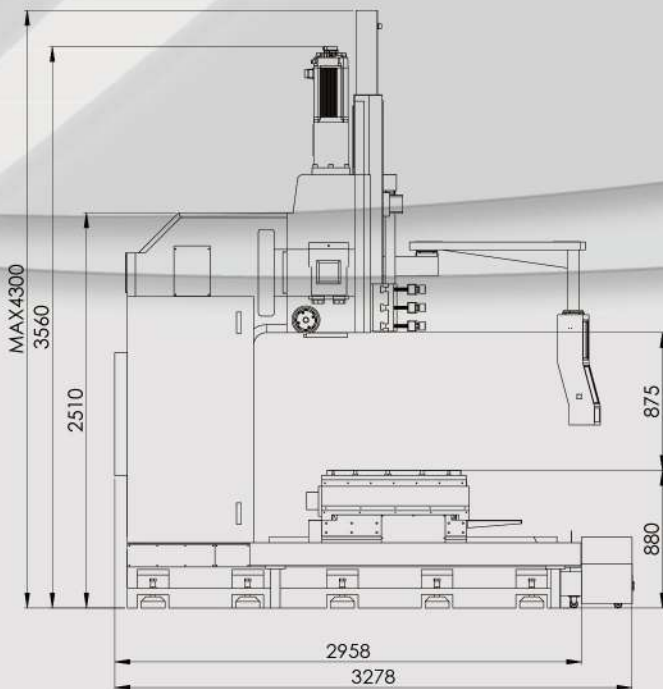
● **Standard Accessories** 標準配件:

1. X,Y axis C3 ballscrews : Z axis C5 super heavy ballscrew X,Y軸 C3滾珠螺桿; Z軸C5滾珠螺桿
2. Y axis slideway covers Y軸 防塵護套
3. Air-Driven Hydraulic ram clamping device 氣動增壓油壓衝頭夾緊裝置
4. Rotary table Ø850mm 旋轉工作台
5. Coolant system 冷卻系統
6. Centralized automatic lubrication system 自動潤滑系統
7. Chip conveyor and chip box 鐵屑輸送裝置(含鐵屑盒)
8. Portable MPG Handwheel 手搖輪
9. Halogen work light 石英工作燈
10. Alarm light 3色警示燈
11. Adjusting tools & box 工具箱
12. Programmable auto tool backing off 程式自動退刀

● **Optional Accessories** 選用配件:

1. Transformer (except for 220V) 變壓器 (220V除外)
2. 3 jaws scroll chuck 三爪夾頭
3. Clamping kits set 夾持套
4. Slotting bar 刀桿

unit = mm



## ● CNC Controller CNC 控制器

### ● Features 特性:



1. SYNTEC (WIN-CE) CNC control system, high compatibility and good stability.

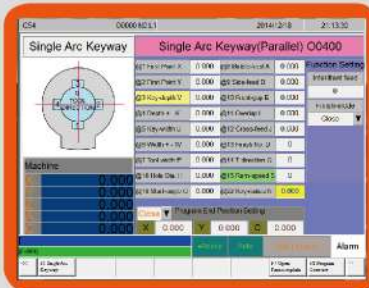
新代 (WIN-CE) CNC 控制器、功能強、穩定性高、親和性佳。

2. Complete with ladder and I/O diagnosis function, and modularized electric circuit system, Easy to maintain.

模組化配電系統及完善的Ladder與I/O診斷功能，維修容易。

3. Controller provides network function and USB access interface.

控制器提供網絡功能及USB存取介面。



4. Our controller can be combined with automated robot for human-machine collaboration to achieve the goal of smart factory (option).

控制器可結合自動化機器手臂，實現人機協作，達成智慧工廠的目標。



## ● Powerful Dialogue Programming auto generator

功能強大簡單易學的對話式程式產生功能

### Conversational programming function 對話式程式編輯功能：

1

The CNC controller offers a dialogue programming function to generate program. User just needs to enter necessary data into the conversational programming edit screen then press "Generate program" key, the processing program can be automatically generated.

本控制器提供簡易式的對話式程式，只要在螢幕畫面上輸入所需的數字資料後，按 "Generate Program" 程式產生按鍵即可自動產生程式。

### Hand wheel (MPG) simulation function 手搖輪 (MPG) 模擬功能

2

Use hand wheel to simulate the newly generated program running path, It's easy to test run the program and avoid machine crash accident.

當新程式產生，您可使用手搖輪測試功能測試首次加工工件，避免機械碰撞意外。



### Powerful slotting Canned cycle (Marco) 強大的插削專用巨集指令

3

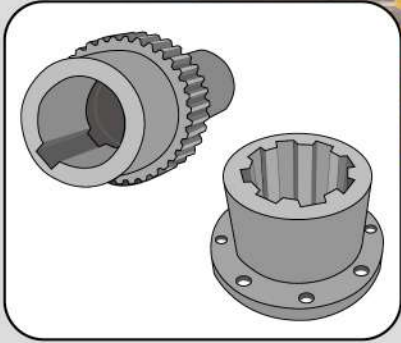
Our powerful slotting canned cycles is the result of our 50 years experiences and research in design and development of CNC slotting processing. We offer the following software functions and application.

東星自行研發的插削巨集指令，解決了各種插鍵、插齒加工需求，此乃結合了多年來本公司在插床領域的經驗及各種 CNC 插削功能指令的研發，以下是本機所提供的各種功能：

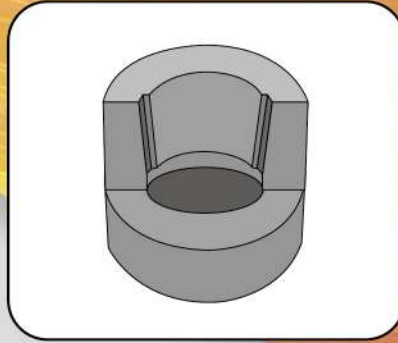


# Available slotting processing 插削功能:

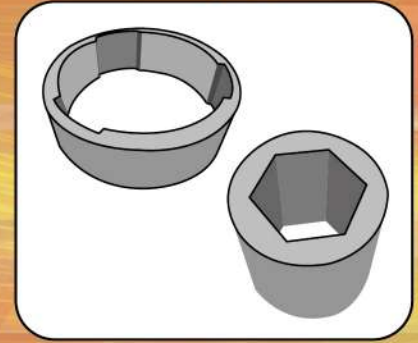
Keyway/Blind slots processing  
鍵槽/盲鍵插削



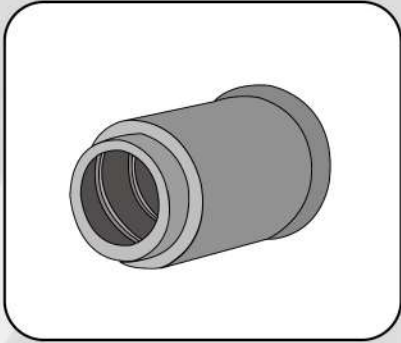
Conical keyway slotting  
斜鍵加工



Special slotting process  
特殊插削加工



Helical slots processing  
螺旋溝槽加工



Double chucks processing  
雙夾頭加工

