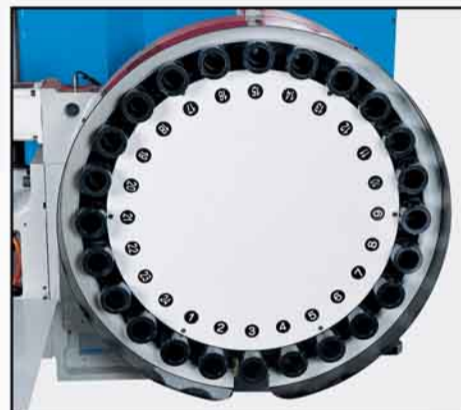


精度、速度及對客戶之責任與服務
Accuracy, Speed, responsibility
and Service to Customers

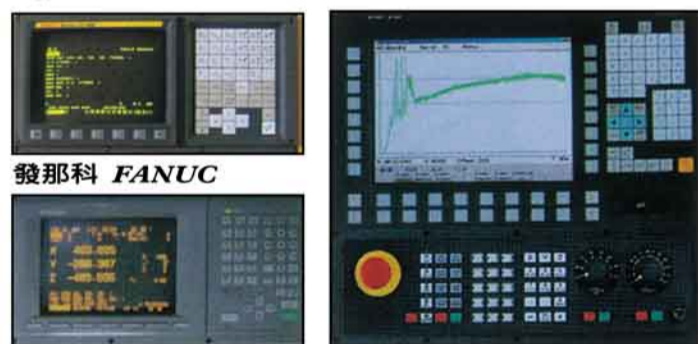


**傘型刀庫
Armless ATC**
斗笠式自動換刀裝置使用氣壓系統，適合中、小型刀具。動作簡潔換刀迅速。
Armless type ATC system is driven by pneumatic system.



**凸輪式刀庫 (選購)
Arm ATC (opt.)**
刀盤上可容納24支刀，能適應各種加工需要。刀具裝卸容易，使用任意式，刀具之管理與登記非常方便。
Tool magazine has a capacity of 24 tools to meet various machining requirements; tools can be loaded and unloaded easily.
Random tool access editing simplifies the registration and control of tools.

優異的特性、多樣的高速控制器
Outstanding Performance, High
Speed CNC Controllers



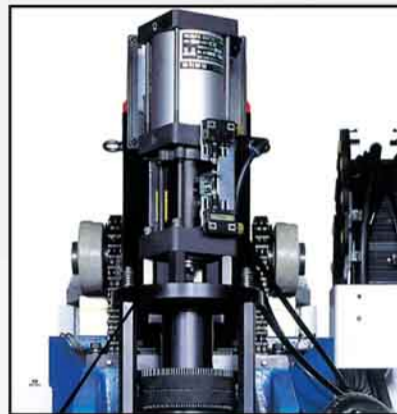
發那科 FANUC

三菱 MITSUBISHI 西門子 SIEMENS



螺旋式除屑機 (選購) Auger Type Swarf Conveyor (opt.)

因不等節距之螺旋，可以改變切屑在各處之排屑速度，避免切屑在排水口之堆積或擠壓再上仰排屑管之入口，造成馬達之過載，或切屑容易從排水口掉入過濾槽。
Powerful auger type swarf removes swarf quickly and easily.



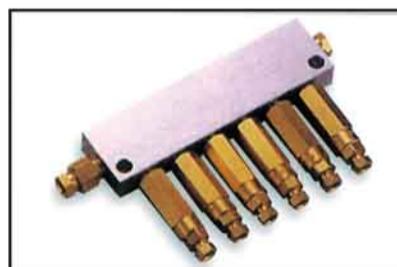
浮動式緩衝退刀裝置

獨特的浮動式緩衝退刀設計，可避免換刀時主軸軸承受衝擊損害，延長主軸軸承壽命。
Floating drawbar design is to avoid damaging spindle bearing during changing tools.



三軸伺服馬達均以剛性聯軸器直接聯結滾珠導螺桿，背隙最小，確保精度。

3-axis servo motors are directly coupled to the ballscrews. It ensures the least backlash and long-lasting accuracy.



特殊之潤滑迴路設計，潤滑點平均，並採用脫壓式配油器，使各注油點油量均等，防止滑動面潤滑不均勻及潤滑浪費現象。
Adopts the equal arrangement of the oil points for the volume-type distributors. It results in oil spreading evenly on all sliding surfaces.

機械規格 Specifications:

型式	Model	V850 (A)	V1060 (A)/L	V1160 (A)	V1360 (A)
行程	TRAVEL				
X軸行程	X-axis travel	850 mm	1000mm/(Linear)線軌	1100 mm	1300 mm
Y軸行程	Y-axis travel	550 mm	600mm/(Linear)線軌	650 mm	650 mm
Z軸行程	Z-axis travel	550 mm	600mm/(Guide way)硬軌	600 mm	600 mm
主軸端面至工作台面距離	Spindle nose to table surface	150-700 mm	100-700 mm	120-720 mm	120-720 mm
主軸中心至滑道面距離	Spindle center to column surface	610 mm	650 mm	680 mm	680 mm
工作台	Table				
工作台尺寸	Table working surface	1000x520 mm	1100x600 mm	1250x650 mm	1450x650 mm
最大負荷	Max.loading capacity	600 kgs	800 kgs	880 kgs	1000 kgs
T型槽 (槽數x尺寸x間距)	T-slots (No. x W x P)	5x18x100 mm	5x18x100 mm	5x18x125 mm	5x18x125 mm
主軸	Spindle				
主軸轉速	Speed range	8,000 rpm (10,000 / 12,000 rpm opt.) Belt-drive			
馬達 (30分鐘額定)	Spindle motor (30min)	7.5 kw	7.5 kw	11 kw	11 kw
主軸孔徑	Spindle taper	BT 40	BT 40	BT 40	BT 40
進給速度	Feederate				
快速速度(X/Y/Z)	Rapid traverse	18/18/15 mm/min	18/18/15 mm/min 24/24/18 mm/min (I-type)	18/18/15 mm/min	18/18/15 mm/min
切削進給速率	Cutting-feed rate	1-10,000 mm/min	1-10,000 mm/min	1-10,000 mm/min	1-10,000 mm/min
自動換刀	A.T.C				
刀庫容量	Tool storing capacity	16 tools (24e)	16 tools (24e)	16 tools (24e)	16 tools (24e)
自動換刀型式	A.T.C	Armless (Arm)	Armless (Arm)	Armless (Arm)	Armless (Arm)
刀柄規格	Tool shank	MAS BT-40	MAS BT-40	MAS BT-40	MAS BT-40
刀柄拉桿	Pull stud	P40 T-1 (45°)	P40 T-1 (45°)	P40 T-1 (45°)	P40 T-1 (45°)
最大刀具長度	Max. tool length	300 mm	300 mm	300 mm	300 mm
最大刀具直徑	Max. tool diameter	Ø100mm Ø75mm	Ø100mm Ø75mm	Ø100mm Ø75mm	Ø100mm Ø75mm
最大刀具重量	Max. tool weight	6 kg	6 kg	6 kg	6 kg
佔地空間	General				
佔地面積 (寬x深x高)	Floor space (W x D x H)	2900x2250x2650 mm	2850x2250x2650 mm	3100x2250x2600 mm	3650x2250x2600 mm
機械重量	Machine weight	4700 kg	6200 kg	7500 kg	8000 kg
動力需求	Power required	22 KVA	22 KVA	22 KVA	30 KVA
氣壓需求	Air required	6 kgf/cm ²	6 kgf/cm ²	6 kgf/cm ²	6 kgf/cm ²

• 由於本公司不斷研發改良，上述規格及設計特性若有變更，恕不另行通知。 • We reserve the right to change design, color or specification without notice.

標準配件 / STANDARD ACCESSORIES

- ★ 三菱 M64 SM 控制器
- ★ 切削水冷卻系統
- ★ 全密閉防護罩
- ★ 自動潤滑劑系統
- ★ 主軸吹氣裝置
- ★ 工作燈
- ★ 調整工具和工作箱
- ★ 水平調整螺絲及墊塊
- ★ 三軸伸縮護蓋
- ★ M30 自動斷電功能
- ★ 電器箱熱交換器
- ★ 自動警示燈
- ★ Mitsubishi M64 SM controller
- ★ Coolant system
- ★ Fully-enclosed splash guard
- ★ Auto lube system
- ★ Spindle air blast
- ★ Work light
- ★ Tool kit
- ★ Leveling kit
- ★ Telescopic covers for X,Y,Z axes
- ★ M30 auto power off
- ★ Heat exchanger on cabinet
- ★ Alarm light

選購配件 / OPTIONAL ACCESSORIES

- ★ 主軸油溫冷卻器
- ★ 第四軸 NC 迴轉工作台
- ★ 主軸中心出水裝置
- ★ 變壓器 220V-380V-440V
- ★ 斜升式切屑輸送機 (鐵屑機)
- ★ CE 規格
- ★ 蜂鳴器
- ★ ZF 齒輪箱
- ★ 油水分離機
- ★ 三軸光學尺
- ★ 螺旋式除屑機
- ★ Spindle oil cooling device
- ★ 4th axis NC rotary table
- ★ Coolant through spindle
- ★ Inverter 220V-380V-440V
- ★ Lift-up swarf conveyor
- ★ CE marking
- ★ Alarm beeper
- ★ ZF Hi/Lo Gearbox
- ★ Oil skimmer
- ★ X,Y,Z axis linear scale
- ★ Screw type chip conveyor



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2008.08.2008



VERTICAL MACHING CENTER

立式加工中心機

堅持品質
Persistent Qualities

永續經營
Everlasting Operation

最佳選擇
Absolutely Choice



Vseries

V850(A) . V1060(A)/L
V1160(A) . V1360(A)

立式加工中心機

英速V系列立式加工中心機，以其卓越特出的機體穩定，以及重切削能力，已贏得國內外客戶的一致肯定與讚嘆。

The V series vertical machining center from ES Corporation offers extraordinary stability and heavy-duty cutting capabilities.

ESPEED VMC's have won a high reputation from domestic and international customers.

VERTICAL MACHINING CENTER



OUTSTANDING FEATURES:

1. Box ways on three axes. The major structural parts, such as the spindle stock, saddle, base, table and column are manufactured from Meehanite (FC30) cast iron and stress relieved to ensure consistent machine accuracy and rigidity.
2. The table is fully supported on the entire stroke, assuring superior stability for heavy loads.
3. The counter-balancing system on axes is equipped with two guide ways to avoid vibration during rapid traverse while providing and extremely fine machining surface effect.
4. The spindle features a floating tool release design to prevent the spindle bearings from bumping during tool changing. This also extends the spindle service life and durability. (V850 OPT.)
5. The lubrication system for three axes employs a volumetric oil distributor, combined with well-arranged brass oil tubes to provide uniform lubrication points and oil amount on the far and near ends. It fully eliminates the problems of uneven lubrication on all slideways. (V850 OPT.)
6. Class C3, pre-tensioned ballscrews on the three axes and double nuts, combined with pre-tensioned ballscrew supports at both ends, fully eliminate transmission backlash. Ballscrews have been subject to compensation for thermal growth errors to assure high positioning accuracy and repeatability.
7. The bearing arrangements on the X and Y axes are three at the front and two at the rear. On the Z-axis there are three bearings at the upper end and two at the lower. (V850 OPT.)
8. The pneumatic system parts, F.R.L. combination unit and solenoid valves employ American Parker brand and French Legris air hoses featuring minimum trouble and long service life. (V850 OPT.)
9. The counter-balancing system is equipped with TYC BL634 silent chains which greatly extend service life. (V850 OPT.)

機械特性:

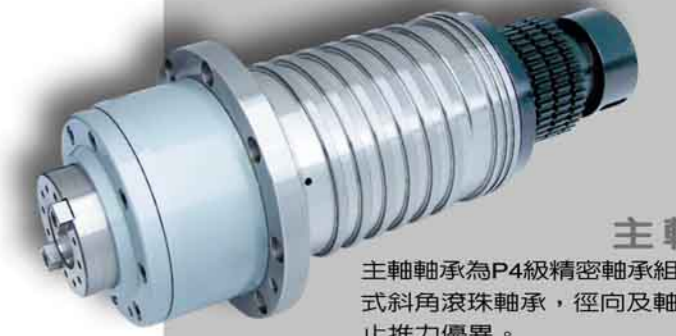
1. 三軸軌道採用硬軌設計，頭部、鞍座、底座、工作台及立柱均使用FC30等級米漢納鑄鐵，並經應力消除處理，機械精度穩定、剛性佳。
2. 工作台全行程全支撐結構，以確保在載重時工作台之穩定。
3. 配重加裝雙導軌，確保Z軸在快速移動時，配重塊不致產生晃動，確保加工表面精度。
4. 主軸退刀方式採浮動式退刀機構，免除換刀時主軸軸承受退刀衝擊力，提高主軸耐用度及剛性持久度。(V850選配)
5. 三軸潤滑系統採用容積式配油器，配合銅管油管平均注油點，使遠端、近端注油點注油量均一，防止滑動面潤滑不均的現象。(V850選配)
6. 三軸均採用C3級雙螺帽預壓之精密滾珠導螺桿，配合兩端支撐座的預拉設計，能消除傳動背隙，並預先補償溫升所造成之誤差，確保機器定位精度和重複定位精度。
7. 三軸軸承配對方式，X、Y軸採前後二精密軸承，Z軸採上三下二精密軸承之方式。(V850選配)
8. 空壓元件系統三點組合、電磁閥採用美製Parker，空壓管採用法製Legris，故障率低可增長使用之壽命。(V850選配)
9. 配重鍊條採用TYC BL634無聲鍊條，可延長使用之壽命。(V850選配)



V850(A)/V1060(A) • L series



V1160(A)/V1360(A) series



主軸
主軸軸承為P4級精密軸承組合式斜角滾珠軸承，徑向及軸向止推力優異。

PRECISION SPINDLE
The spindle is mounted in P4 combination-type angular contact ball bearings for superior axial and radial thrust capabilities.



QC

所有成品均經過雷射定位補正及循環測試以確保最佳定位精度及伺服特性。

Machines are 100% laser inspected and ball bar tested before positioning accuracy and fine servo-tuning.



Z.F齒輪箱
Z.F Hi/Lo Gearbox

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