

專業技術 · 領導先驅 TO LEAD THE TREND, PROFESSIONAL TECHNOLOGY

F/RTW/RTH
THE MAKER OF EXACT

CNC

臥式搪銑床 HORIZONTAL BORING
& MILLING MACHINE



HB-110-20T

HB-110-20T



自動換刀裝置 AUTOMATIC TOOL CHANGE SYSTEM

- 標準60刀倉，絕對式鍊條型刀庫，安全穩定易操作，提昇加工彈性及效率，適合各類型工件加工需求，雙向最短路徑選刀減少非加工等待時間。
- Standard chain type with 60 tools magazine ATC, provide safety and stable exchange. This enhances machining flexibility and efficiency.
- Loading and unloading tools at the rear of the ATC is available.



工作台 WORKING TABLE

- NC伺服馬達驅動高精度分度工作台，最小輸入單位0.001度。
- 工作台B軸裝角度型光學尺，密閉式迴路控制精密度高。
- 工作台最大荷重達5000kg。
- 0-90-180-270度位置有機械插銷定位。
- 工作台有油壓鎖緊裝置。
- Build-in index table 1500x1200mm driven by a servo motor.
- With high precision absolute angle encoder for closed feedback.
- Minimum input 0.001 degree, full B-axis 360 degree.
- 0-90-180-270 degree with mechanical locating pin.
- Table load capacity maximum 5000kg.
- Hydraulic clamping system.

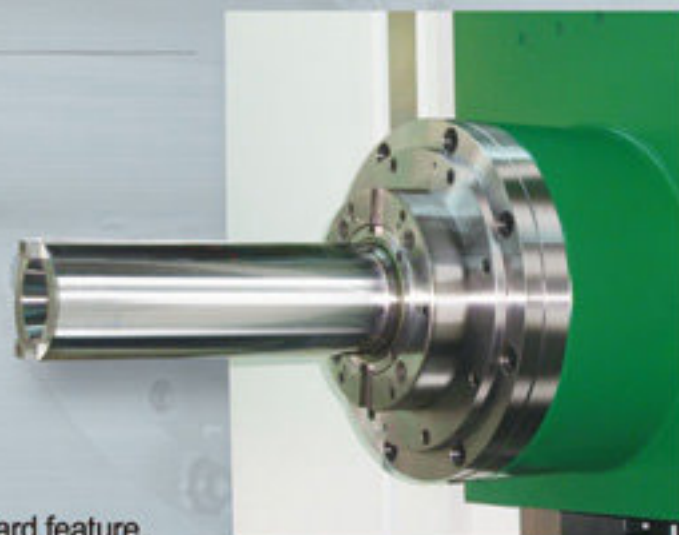


CNC 臥式 搪 銑 床

CNC HORIZONTAL BORING & MILLING MACHINE

主軸 MAIN SPINDLE (ISO50)

- 主軸配用NN系列雙滾柱高精密軸承，剛性佳適合重切削。
- 全齒式強力型齒輪二段變速傳動，配合油冷式控制溫度及潤滑，避免熱變位問題，確保加工精度。
- 主軸外徑110mm，行程(W軸)550mm有油壓自動鎖緊裝置。
- 主軸有空氣簾幕設計，防止切削液及鐵屑滲入，延長主軸壽命。
- Working spindle diameter 110mm is mounted on high precision NN type dual roller bearing.
- With 2-steps gear box for automatic change the spindle speed.
- Oil cooler for the lubrication circuit and temperature control as a standard feature.
- Working spindle stroke (W-axis travel) is 550mm.
- Air curtain for the spindle effectively prevents fluid or chip into the spindle.
- Hydraulic clamping for W-axis.



控制器 CONTROL SYSTEM

- 懸吊式，可旋轉操控箱，配有可移式電子手輪，方便全方位操控。
- CNC控制器配用高性能及高性賴度的Fanuc Oi-MD控制器。
- The suspended control box can be rotated during operation and the portable MPG handwheel easily in set-up workpiece.
- With high reliable and high performance control FANUC Oi-MD.

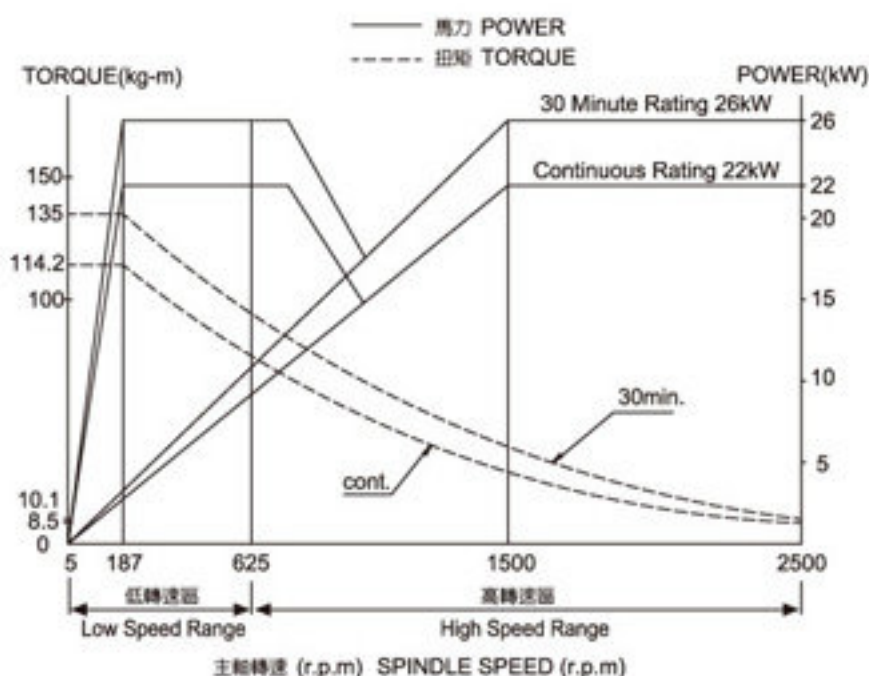


安規快速接頭 SAFETY QUICK CONNECTORS

- 電氣箱配置安規快速接頭，可安全快速的聯結各項電控設施。
- The electrical box is equipped with safety connectors, safety and easy to connecting with electric parts.

扭力圖 TORQUE CHART

- 強力型主軸馬達22/26 kW二段變速傳動最高轉速2500rpm，輸出最大扭力135kg-m 加工適用範圍廣。
- Powerful spindle motor: 22/26 kW.
- 2-steps variable speed at maximum 2500rpm.
- Torque output maximum 135kg-m.



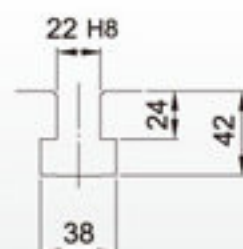
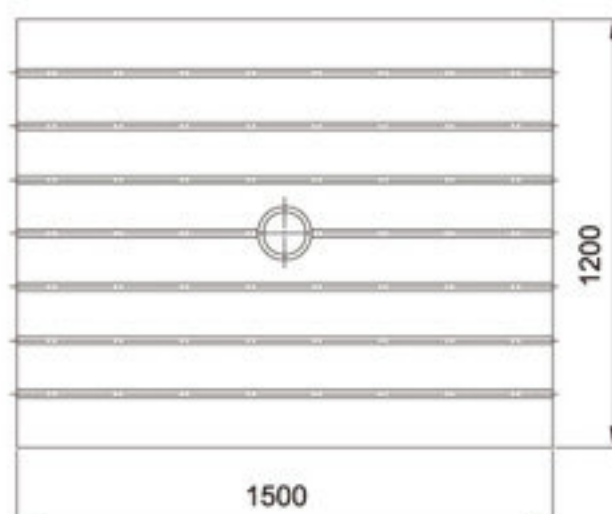
- 動柱式設計配合T型機械結構提昇加工效率及機械壽命。
- 箱型結構設計的機體剛性佳，提供重切削時最佳穩定度。
- 三軸滑軌皆經硬化處理，精密研磨，滑道貼TURRCIT-B耐磨片減少摩擦阻力，增長機械精度壽命。
- XYZ及W軸裝絕對式光學尺，密閉式迴路控制精密度高。
- 絕對式座標系統不必做原點復歸即可檢出位置，有效縮短非加工時間及磨耗。
- X及Z軸滑軌面裝設有防屑伸縮鉸金，確保精密滑道壽命。
- 中央自動潤滑系統配用定點定量分配器及自動檢出控制。
- Column moving design with T-structure, offers high efficiency machining process.
- Rigid box-type column features outstanding stability in heavy duty machining.
- Hardened and precision grounded box way construction for X,Y and Z-axis.
- The X,Y,Z and W-axis installed with high precision linear scale and B-axis with angle encoder feedback for high accuracy.
- Absolute coordinate system no needs to return the axis to home position.
- Telescopic covers for the cross and longitudinal traverses.
- Quantitative automatic lubrication system features forced lubrication to all slideways, and self-detection function ensures long slideway life.



CNC 臥式 搪 銑 床
CNC HORIZONTAL BORING & MILLING MACHINE

工作台

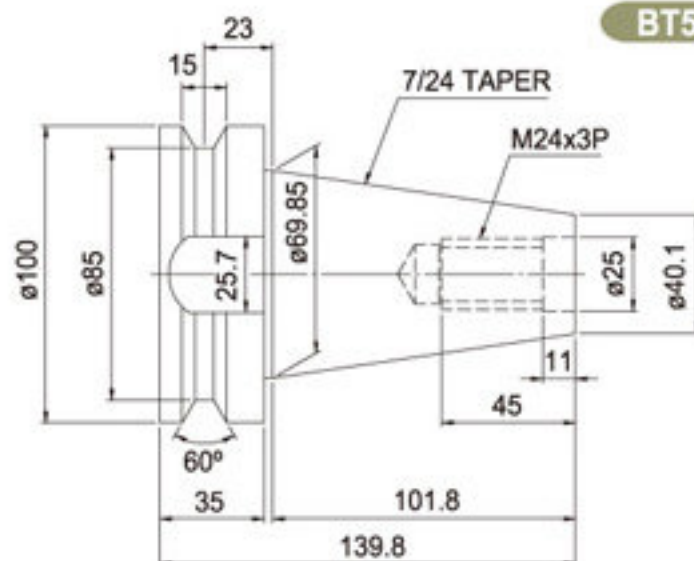
TABLE



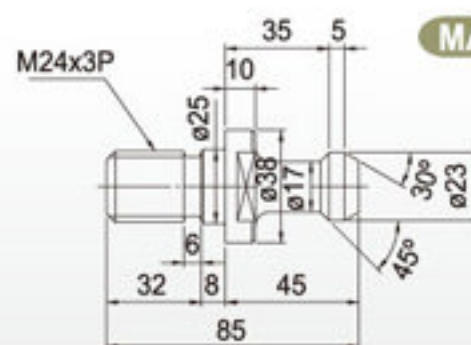
刀具系統圖

TOOL SHANK & PULL STUD BOLT

BT50

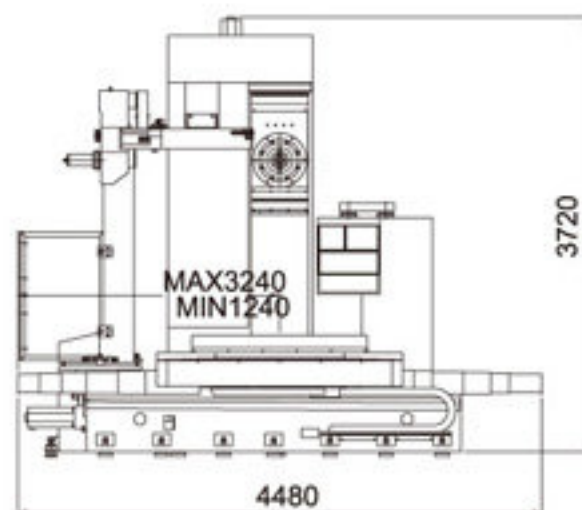
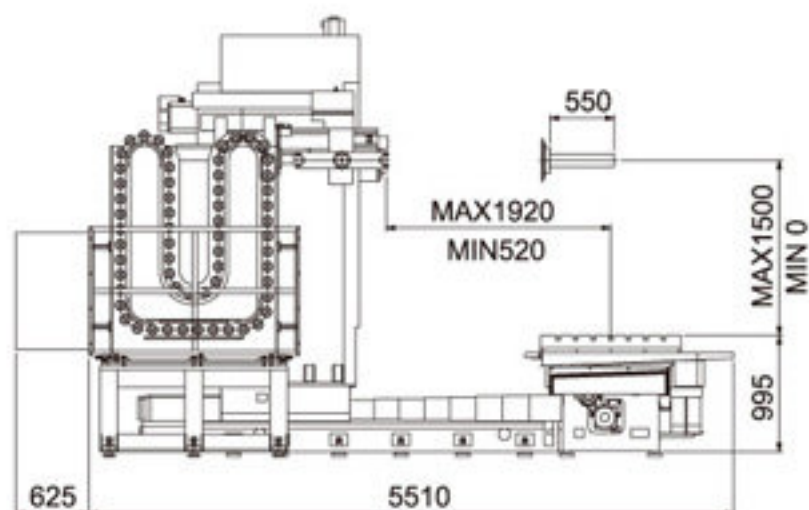
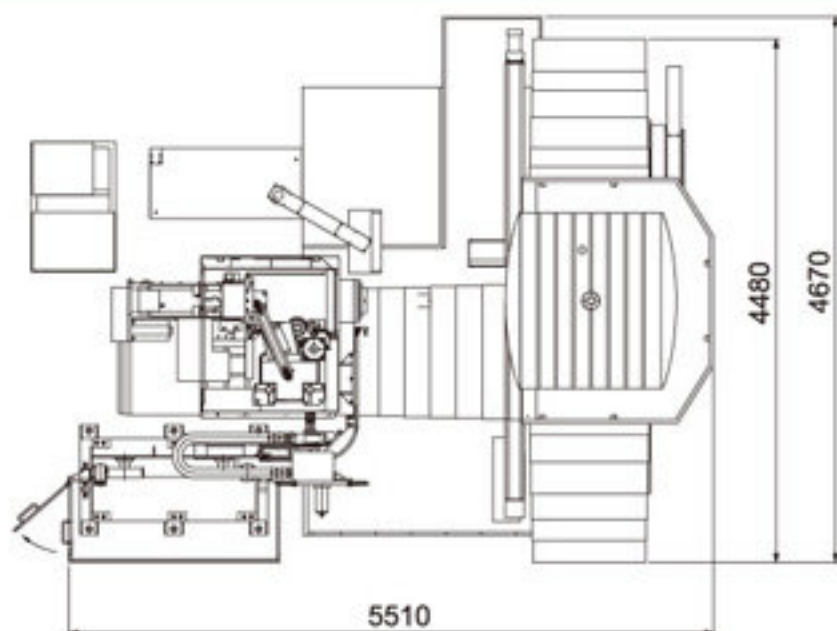


MAS-P50T-1



外觀尺寸

EXTERNAL DIMENSIONS



型號 MODEL

1 工作台 TABLE

工作台尺寸	Table size	1500 x 1200	mm
T 型槽	T slot (width x no. x pitch)	22H8 x 7 x 150	mm
最大負荷	Max. load capacity	5000	kg
分割角度	Auto indexing	0.001 Every 90 deg with locating pin	deg
工作台離地面高度	Table height from ground	1050	mm
工作台快速旋轉	B-axis rapid feed	2	rpm

2 行程 TRAVEL

X軸行程	X-axis travel	2000 Optional 3000	mm
Y軸行程	Y-axis travel	1500	mm
Z軸行程	Z-axis travel	1400	mm
W軸行程	W-axis travel	550	mm
主軸鼻端至工作台中心距離	Spindle nose to table center	-30 ~ 1920	mm
主軸中心至工作台面距離	Spindle center to table top	0 ~ 1500	mm

3 主軸 SPINDLE

錐孔	Spindle nose	BT50	
主軸外徑	Spindle diameter	110	mm
最大扭力輸出	Max. torque of spindle	135	kg-m
轉速/自動二段轉換	Speed / 2 ranges (auto)	Lo-speed 5 ~ 625 Hi-speed 626 ~ 2500	rpm

4 進給 FEEDS

X,Y,Z,W軸快速移位速率	Rapid X, Y, Z, W-axis	10/10/10/5	m/min
X,Y,Z軸切削進給速率	Feed rate of X, Y, Z-axis	1 ~ 6000	mm/min
W軸切削進給速率	Feed rate of W-axis	1 ~ 5000	mm/min
X,Y,Z軸滾珠螺桿(外徑/螺距)	X,Y,Z ballscrew (Dia./ Pitch)	63/10	mm
W軸滾珠螺桿(外徑/螺距)	W-axis ballscrew (Dia./ Pitch)	40/10	mm

5 自動換刀裝置 A.T.C.

刀庫容量	Magazine capacity	60	pcs
刀具規格	Pull stud	MAS-P50T-1	-
最大刀具長度	Max. tool length	400	mm
最大刀具重量	Max. tool weight	25	kg
最大刀具徑	Max. tool diameter	125/ 250 w/o adjacent tools	mm
刀具選擇方式	Tool selection	Sequence by shortest path	-
換刀時間刀對刀(約)	Tool change time (approx.)	13	sec

6 馬達 MOTORS

主軸馬達	Spindle motor	22 / 26	kW
X/Y/Z/B/W軸馬達	Servo motor for X/Y/Z/B/W	6/6/6/7/7	kW
自動潤滑單元	Centralized lubrication pump	150 x 2	W
油壓單元	Hydraulic pump	3.7	kW
主軸油冷裝置	Spindle oil cooler pump	1.18	kW
切削冷卻裝置	Coolant pump	1.34	kW

7 機械一般規格 GENERAL INFORMATION

氣壓需求	Pneumatic required	6	kg/cm ²
切削液箱容量	Coolant tank	250	L
機械尺寸	Machine dimension	4480x5510x3720	mm
機械重量(約)	Machine weight (approx.)	24000	kg
CNC控制器	CNC control	Fanuc 0i-MD	

標準附件 STANDARD ACCESSORIES

1. X,Y,Z及W軸配用絕對式光學尺
Heidenhain Absolute Linear scales on X,Y,Z and W-axis
2. B軸配用絕對式角度光學尺
Heidenhain Absolute angle encoder on B-axis
3. 主軸油冷卻裝置
Spindle oil chiller
4. 自動潤滑裝置
Centralized auto lubrication system
5. 切削冷卻液裝置
Programmable coolant system
6. M-code切削吹氣
Programmable air blow
7. 電氣箱裝空調冷氣機
Air conditioner for cabinet
8. 石英工作燈
Work lamp
9. 螺旋式切屑排送裝置
Chip auger for table
10. M30自動斷電裝置
M30 Automatic power off
11. 可移動式電子手輪
Portable MPG handwheel
12. 動作警示燈
Alarm lamp
13. RS232界面接口
RS-232 interface port
14. 工具箱及調整用工具
Tool box with adjustment tools
15. 水平調整螺栓及墊塊
Leveling blocks and bolts

選配附件 OPTIONAL ACCESSORIES

1. 主軸中心出水
Coolant through spindle
2. 鍊板式切屑排除器
Chain type chip conveyor with bucket
3. 主軸延伸襯套
Spindle support
4. 工作台防濺護罩
Table splash guard cover
5. 變壓器
Transformer for other than 220V
6. 90度銑頭
Right angel milling attachment
7. 直角工作台
Angle plate

本公司保留產品規格、外觀及配備等變更之權利。

Designs and specifications are subject to change without prior notice.



立大機械
大亨機械商有限公司

台南市東區崇信街38號

Tel: 06-2601800 · 2681075

