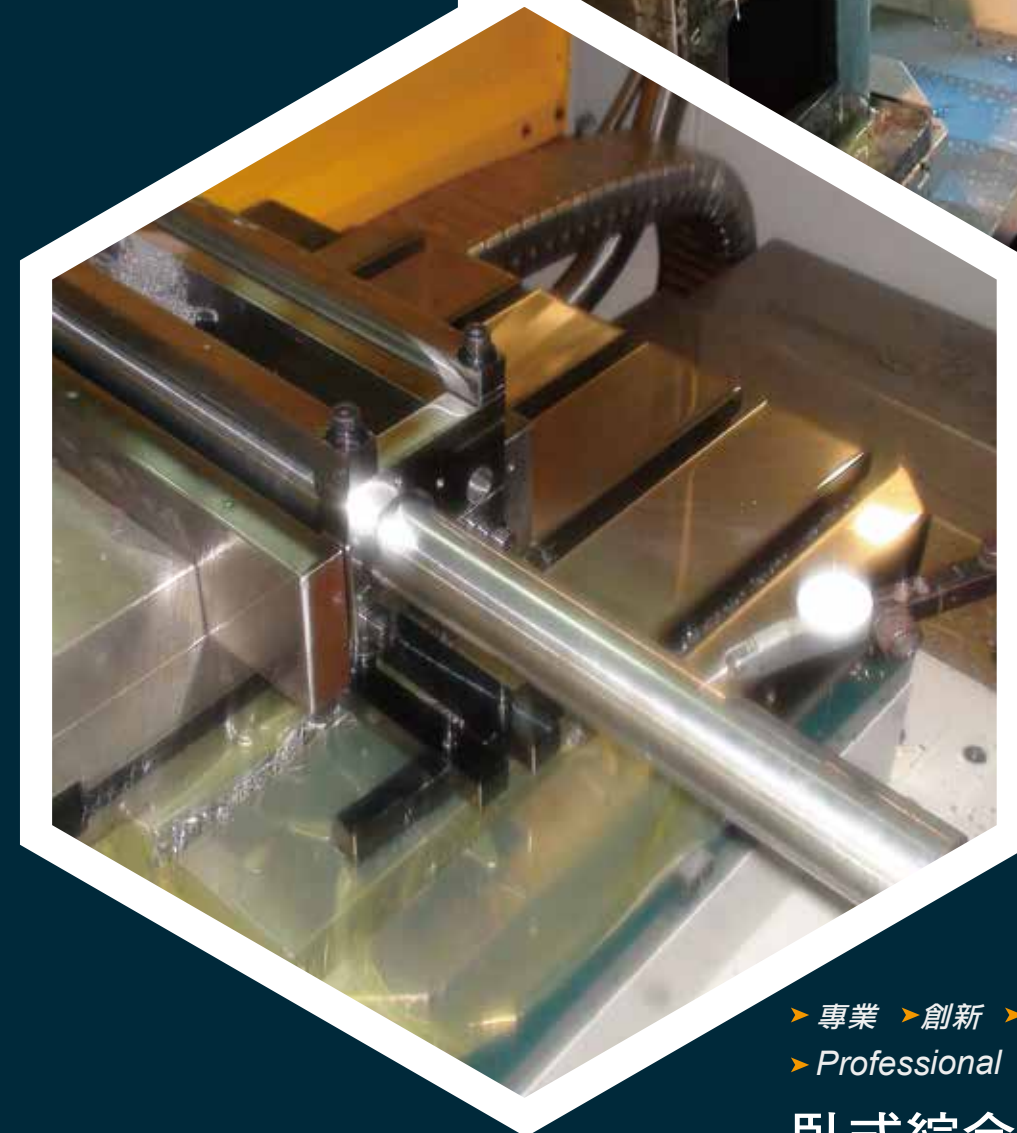




瀚鋼精機工業股份有限公司
P-ONE Machinery Co., Ltd.

		HMC-1000A
X/Y/Z 軸行程 (mm)	Travel of X/Y/Z-axis (mm)	1000x700x650
線性滑軌 X/Y/Z軸	Linear Guideway of X/Y/Z-axis	Box way
3 軸滾珠螺桿	Ballscrews of X/Y/Z-axis	Ø40xPH10
主軸鼻端至工作台距離	Distance from spindle nose to table center	160-810mm
主軸中心至工作台面距離	Distance from spindle center to table surface	0-600mm
主軸 SPINDLE		
主軸錐度	Spindle taper	BT-50
主軸鼻端外徑	Spindle nose outer diameter	90mm
主軸轉速 - 直結式	Spindle speed	6000rpm
旋轉工作台 INDEX TABLE		
旋轉工作台尺寸	Table size	630x630mm
最小分度	Indexing degree	1° or 5° (Opt.:0.001°)
最大容許荷重	Max. loading capacity(kg)	2000kg
進給速率 FEEDRATE		
3 軸切削進給 (m/min)	Cutting feedrate of X/Y/Z-axis (m/min)	1-6000mm/min
X/Y/Z軸快速位移 (m/min)	Rapid traverse speed of X/Y/Z-axis (m/min)	20/15/20 m/min
自動換刀系統 AUTOMATIC TOOL CHANGER		
刀具容量	Tool capacity	24
換刀方式	Tool selection	Arm type ATC
最大刀徑	Max. diameter	Ø105
最大刀重	Max. tool weight	15kg
馬達 MOTOR		
主軸馬達	Spindle motor	11/15kw
伺服馬達 X/Y/Z/B 軸	Servo motor of X/Y/Z/B-axis	4.0/4.0/4.0/3.0 KW
主軸油冷馬達	Spindle Oil Cooler motor	0.2KW
中央潤滑系統馬達	Centralized lubrication system	0.02KW
液壓馬達_旋轉工作台	Index Table Hydraulic motor	0.75KW
冷卻馬達_刀具 & 鐵屑	Coolant motor (for tools/chips)	0.75KW
捲屑機馬達	Chip conveyor motor	0.2KW
刀庫系統馬達	ATC motor	0.37KW
精度 ACCURACY		
定位精度	Positioning	+ / - 0.004
重複定位	Repeatability	+ / - 0.003
機台 MEASUREMENT		
尺寸	Dimensions (W × H × D)	4100x4700x3800mm
機台淨重	Machine N.W.	9,500kg



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► 專業 ► 創新 ► 堅持
► Professional ► Innovation ► Insistency

臥式綜合加工中心機
Horizontal Machining Center



線軌機構 Linear Guide Mechanism

HMC-500SH

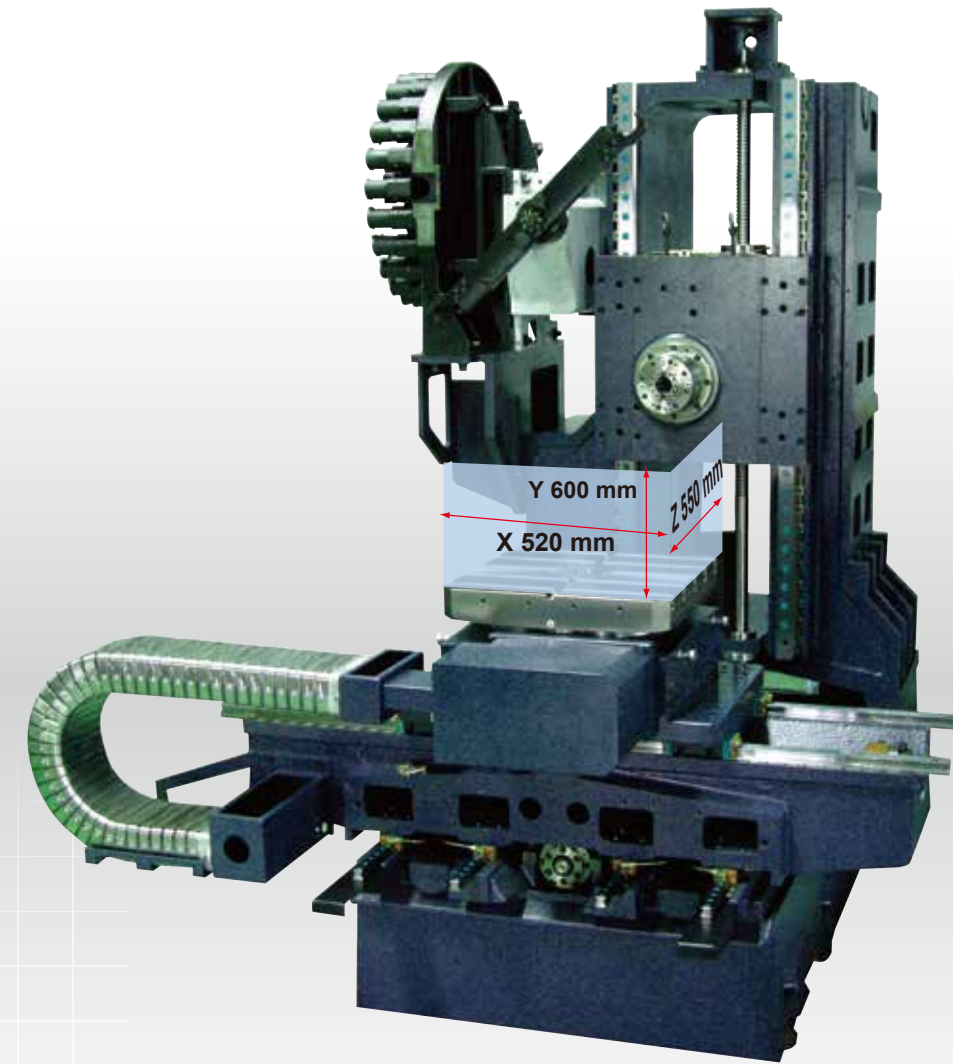
高剛性！穩定！臥式綜合加工中心機優點：

High rigidity ! Stability !

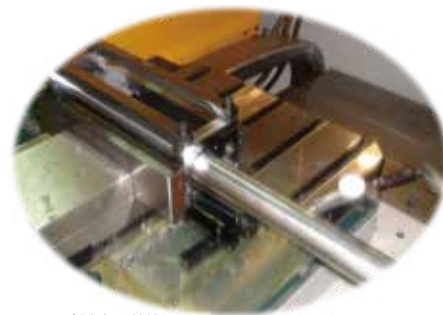
主軸錐度 Spindle taper BT-40

- ▶ 機體採用堅固超強的箱型結構底床，可確保機台長期精度及穩定性。
- ▶ 機台速度大幅提升，同時增加切削能力及速度達到縮短循環加工時間目標。
- ▶ X、Y、Z軸滾珠螺桿採預拉機構，能防止產生熱膨脹。直結式連軸器，確保傳動精度，避免遲滯誤差。
- ▶ 臥式機種無APC，節省佔地空間，適合客製化生產線。
- ▶ 特質：穩重、底座滑軌採四滑軌、八個滑塊平均支撐設計，在加工切削時，絕對平穩，可獲得最佳動態水平。

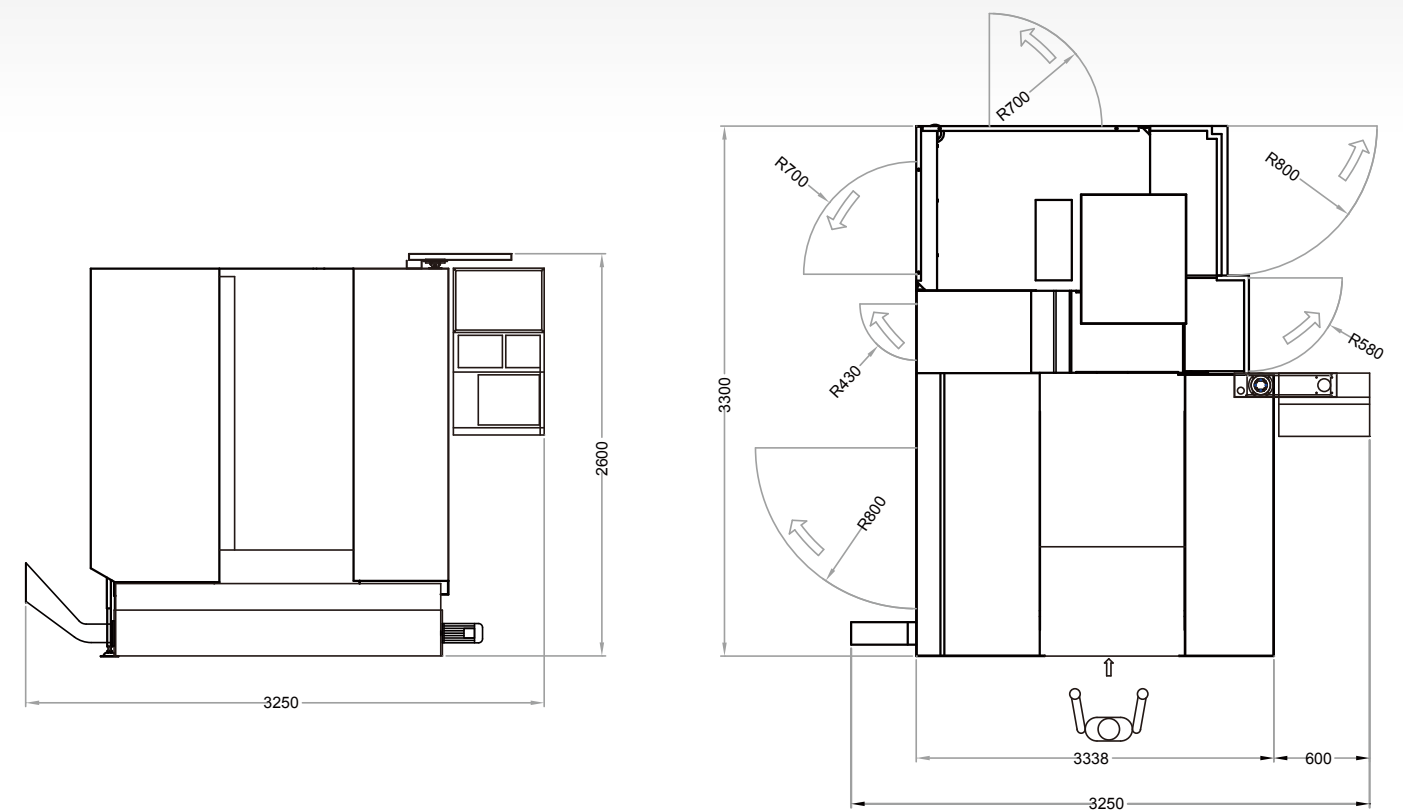
- ▶ Machine frame adopts fully box-structured base to ensure long-term operation accuracy and stability of machine.
- ▶ Feed rate is greatly uprate, while cutting capacity and machining speed are both raised. To be shorten the cycle time.
- ▶ 3 axes configuration of pre-tension ball screw to eliminate thermal expansion. Direct-drive spindle assures the transmission accuracy and avoid lag error.
- ▶ Horizontal machining center without APC. Space-saving and suitable for tailor-made production line.
- ▶ Characteristics: stable, four slides with eight blocks supported the broad base to acquire the optimal dynamic balance during processing.



加工切削實例：火山口
可以用於高速高精度的控制器來加工模具及精密產品
Application Reference: Crater Available for controllers featuring with high speed high accuracy to machine moulds and precision products.



加工切削實例：精磨孔
工件500mm磨孔精加工直徑40mm對邊精磨後使用圓棒長度600mm長穿越孔檢測對邊的精度公差0.015mm
Application Reference: Fine Boring Workpiece: 500mm cube Opposite side fine boring: Ø40mm Testing round bar: 600mm length Accuracy: 0.0015mm





線軌機構 Linear Guide Mechanism



值得你信賴的優質品質

臥式綜合加工中心機特點：

A 操作箱可以前後移動及可做180°旋轉，P-ONE的智慧、對客戶的用心、人性化人體工學多樣化的操作箱。

B 遠端監控系統：

- ① 可借由機械上螢幕操作鍵盤，查看加工情形，並可調整遠近距離及正確位置。
- ② 利用網際網路固定IP位置，使客戶方便上網觀看機械加工情形，掌握目前最佳狀態。

Reliable Premium Quality

CNC HORIZONTAL MACHINING CENTER :

A Humanized, ergonomic and pendent operation panel can move forwards, backwards and rotate 180° to meet operator's needs .

B Remote Monitoring System:

- ① Machining situation can be seen via the standalone monitor. Moreover, the monitoring camera lens can zoom in/out and adjust the angle by its keypad.
- ② Assigning a fixed IP for Remote Monitor System for the operator to monitor the machining status via the Internet.

搭配臥式旋轉台，亦可搭配立式CNC分度盤，組裝方便、快捷。

Equipped with horizontal index table or vertical CNC Rotary Table allows easy and quick replacement.



臥式齒式定位工作台(單盤)
Horizontal Coupling Gear Index Table

特性 Features

1. 適用臥式加工機。
 2. 油壓鎖緊系統，耐切削。
 3. 離合齒式定位，定位精準不位移。
 4. 可配合OEM。
1. Suitable for horizontal machining center.
 2. Hydraulic clamping, allow heavy cutting and boring.
 3. Hirth coupling gear, no vibration during machining and with robust clamping structure.
 4. OEM cooperation is available.

型號選用說明 Model Classification

- HMG-500
 - └─ 工作台尺寸600x500
Pallet size 600x500
 - └─ 臥式旋轉工作台齒式定位
Horizontal Coupling Gear Indexing Table

		HMC-500SH
X/Y/Z 軸行程 (mm)	Travel of X/Y/Z-axis (mm)	520x600x550
線性滑軌 X/Y/Z軸	Linear Guideway of X/Y/Z-axis	X:35MM Y:45MM Z:25MM
3 軸滾珠螺桿	Ballscrews of X/Y/Z-axis	Ø40xPH10
主軸鼻端至工作台距離	Distance from spindle nose to table center	160-710mm
主軸中心至工作台面距離	Distance from spindle center to table surface	90-690mm
主軸		SPINDLE
主軸錐度	Spindle taper	BT#40
主軸鼻端外徑	Spindle nose outer diameter	65mm
主軸轉速 - 直結式	Spindle speed	10000rpm / Direct Drive
旋轉工作台		INDEX TABLE
旋轉工作台尺寸	Table size	500x500
最小分度	Indexing degree	1° or 5° (Opt.:0.001°)
最大容許荷重	Max. loading capacity(kg)	800kg
進給速率		FEEDRATE
3 軸切削進給 (m/min)	Cutting feedrate of X/Y/Z-axis (m/min)	1-6000mm/min
X/Y/Z軸快速位移 (m/min)	Rapid traverse speed of X/Y/Z-axis (m/min)	24/16/24 m/min
自動換刀系統		AUTOMATIC TOOL CHANGER
刀具容量	Tool capacity	24
換刀方式	Tool selection	Arm type ATC
最大刀徑	Max. diameter	80
最大刀重	Max. tool weight	7kg
馬達		MOTOR
主軸馬達	Spindle motor	7.5/11kw
伺服馬達 X/Y/Z/B 軸	Servo motor of X/Y/Z/B-axis	3.0/3.0/3.0/3.0KW
主軸油冷馬達	Spindle Oil Cooler motor	0.2KW
中央潤滑系統馬達	Centralized lubrication system	0.02KW
液壓馬達_旋轉工作台	Index Table Hydraulic motor	0.75KW
冷卻馬達_刀具 & 鐵屑	Coolant motor (for tools/chips)	0.75KW
捲屑機馬達	Chip conveyor motor	0.2KW
刀庫系統馬達	ATC motor	0.37KW
精度		ACCURCY
定位精度	Positioning	+ / - 0.004
重複定位	Repeatability	+ / - 0.003
機台		DIEMENSION
尺寸	Dimensions (W × H × D)	3500x3900x3000mm
機台淨重	Net weight	8,200kg



硬軌機構 Box Way Mechanism

HMC-1000A

主軸錐度 Spindle taper BT-50

- ▶ 機身超大接觸面，與底座結合配置，寬闊滑軌採四軌支撐設計，保證剛性高、定位佳，更符合多數模具生產規劃利用。
- ▶ 高精度：在工具機產業”精度”與”剛性”是最重要的指標，以最嚴格生產流程搭配最高品質的零組件達高精度的性能。
- ▶ 每一台系列出廠前都須經過嚴謹的循圓測試及雷射校正，以及實際加工測試做動態加工切削，以確保業界的最高水準。
- ▶ 本系列產品採用高韌性強化鑄件，整合嚴謹的硬軌劇花技術，搭配高剛性的機體結構，及精密的軸向進給系統，確保高精度加工能力，工作台支撐良好，排除懸垂現象，維持最佳的動態水平精度持久性。
- ▶ Ultra large Y-shaped column base combined with broad four slide to ensure high rigidity and positioning accuracy.
- ▶ It's specially designed for mold & die applications.
- ▶ Precision and rigidity are the most important indicators in Machine Tool Industry.
- ▶ This is accomplished by severe production procedure with high quality components. Every machine passes the ball bar testing, laser calibration and actual dynamic machining test to reach in the highest standard in the industry.
- ▶ HMC series adopt high toughness and strengthen casting with state-of-the-art scraper as well as axial feed system to ensure the highest machining accuracy.

This is the best durable machine for its integrated construction.

