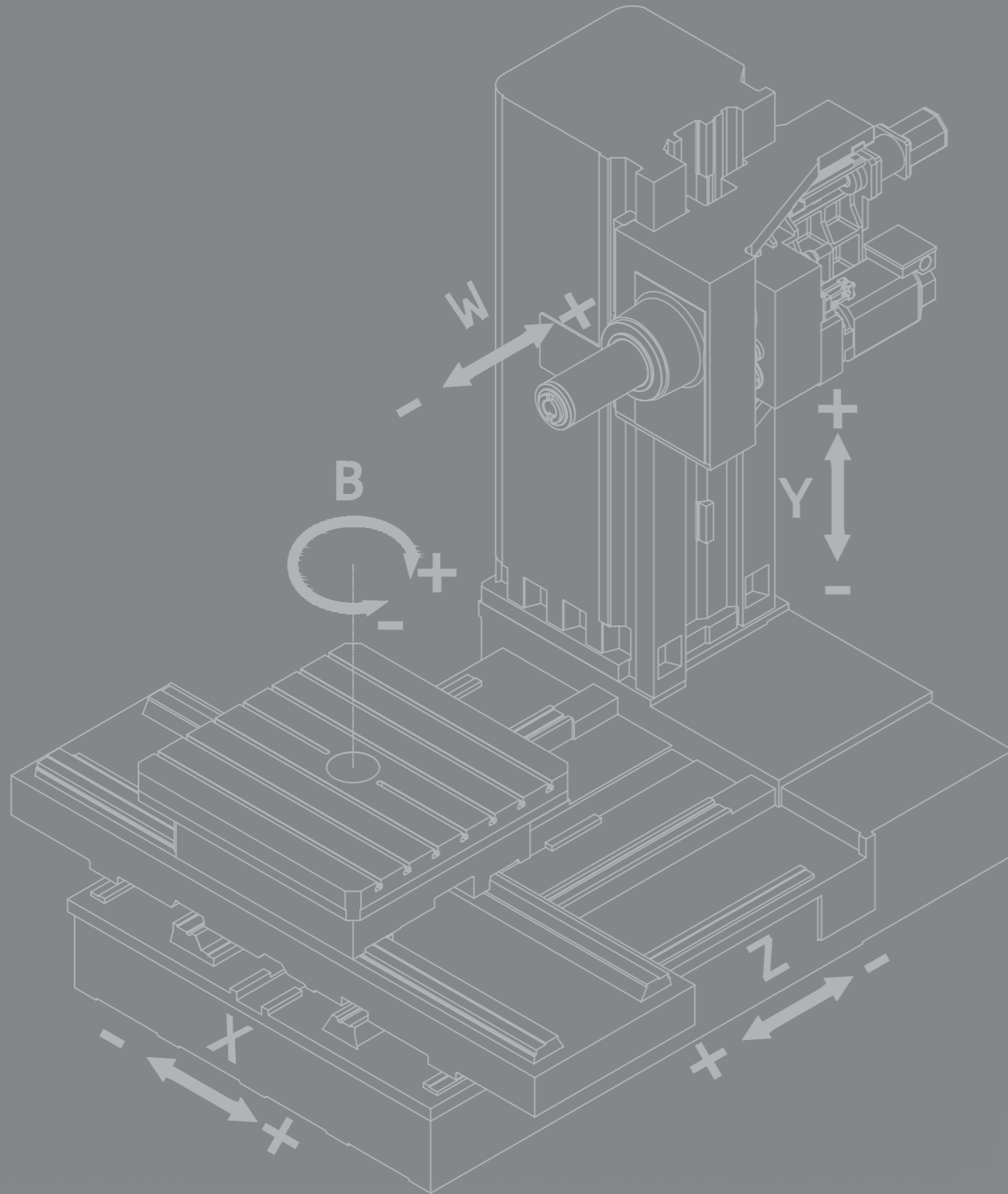




HORIZONTAL BORING MACHINE

CBA-200Q

CBA-110B



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CBA-200Q臥式鏜床

CBA-200Q Horizontal boring machine

CBA-200Q

全自動操作

主軸滑枕直徑200mm

重切削

高加工效率

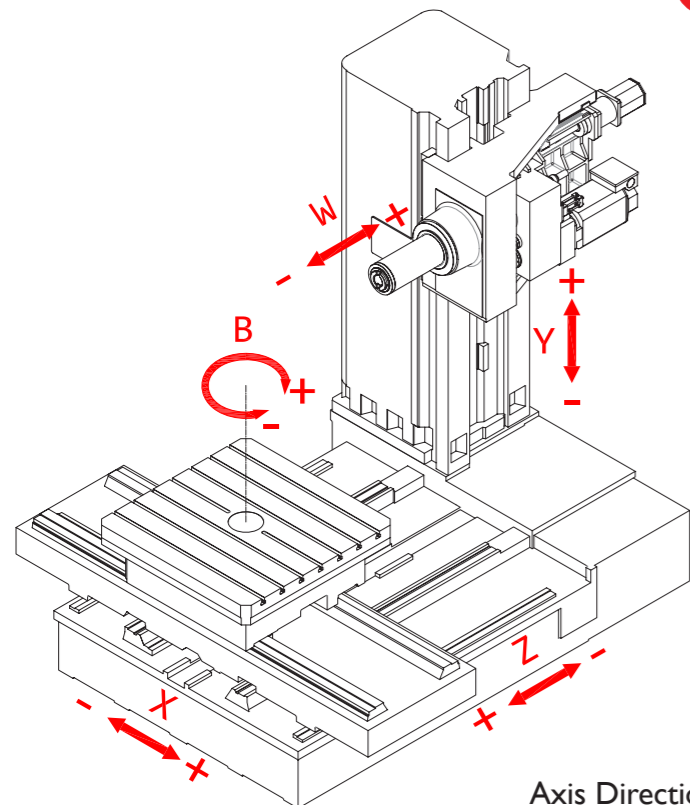
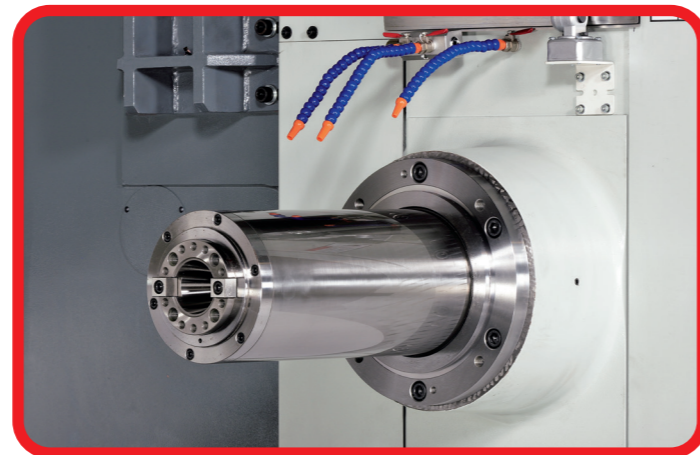
Fully Automatic Operation

Spindle Quill dia 200mm dia.

Heavy cutting

High Efficiency

Spindle diameter 200mm
Spindle travel 400mm



特點 Features

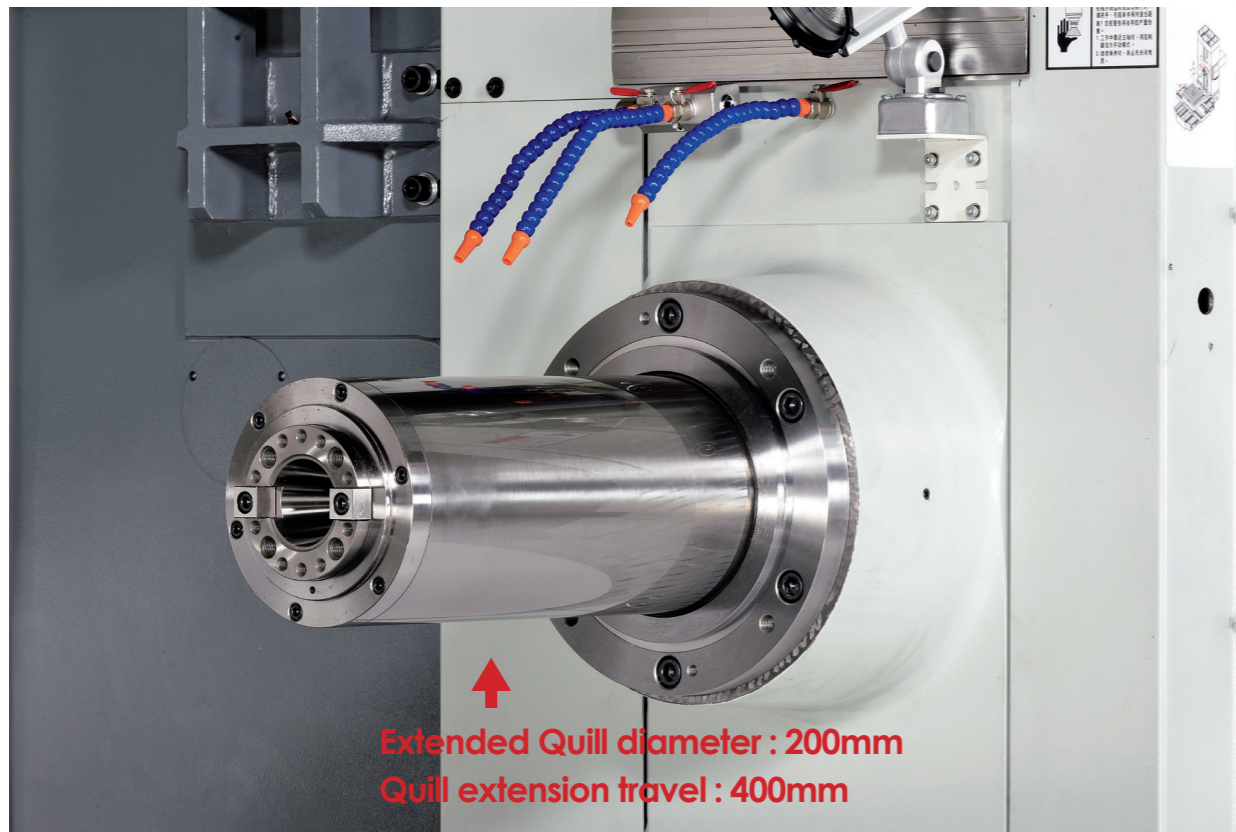
主軸直徑200mm

- 主軸伸出400mm時，也可維持在最佳的切削狀態。
- 每一進給機構的馬達／軸多重驅動系統，均可提供最大的進給效率。
- 下垂量 $\leq 0.01\text{mm}$ （無刀具）

Spindle diameter 200mm

- Keeping cutting ability when spindle extend to 400mm.
- Each axis is independently controlled to provide maximum feed as required.
- Sag tolerance $\leq 0.01\text{mm}$ (without tool mounted)

Spindle dia. 200mm
Keeping cutting ability when
spindle extend to 400mm.



高動力主軸

主軸外環設計有冷卻系統，可保持軸承長時間使用時維持在標準溫升並穩定精度。

主軸全採用齒輪式高低檔可自動換檔，並採用強制潤滑系統可保持潤滑穩定。

主軸與鏜桿是採用特殊合金鋼材，並經熱處理可保不變形，並維持剛性。

主軸軸承採用歐系或日系知名大廠軸承，並經跑合測試溫升標準合格，可維持主軸精度及使用壽命。

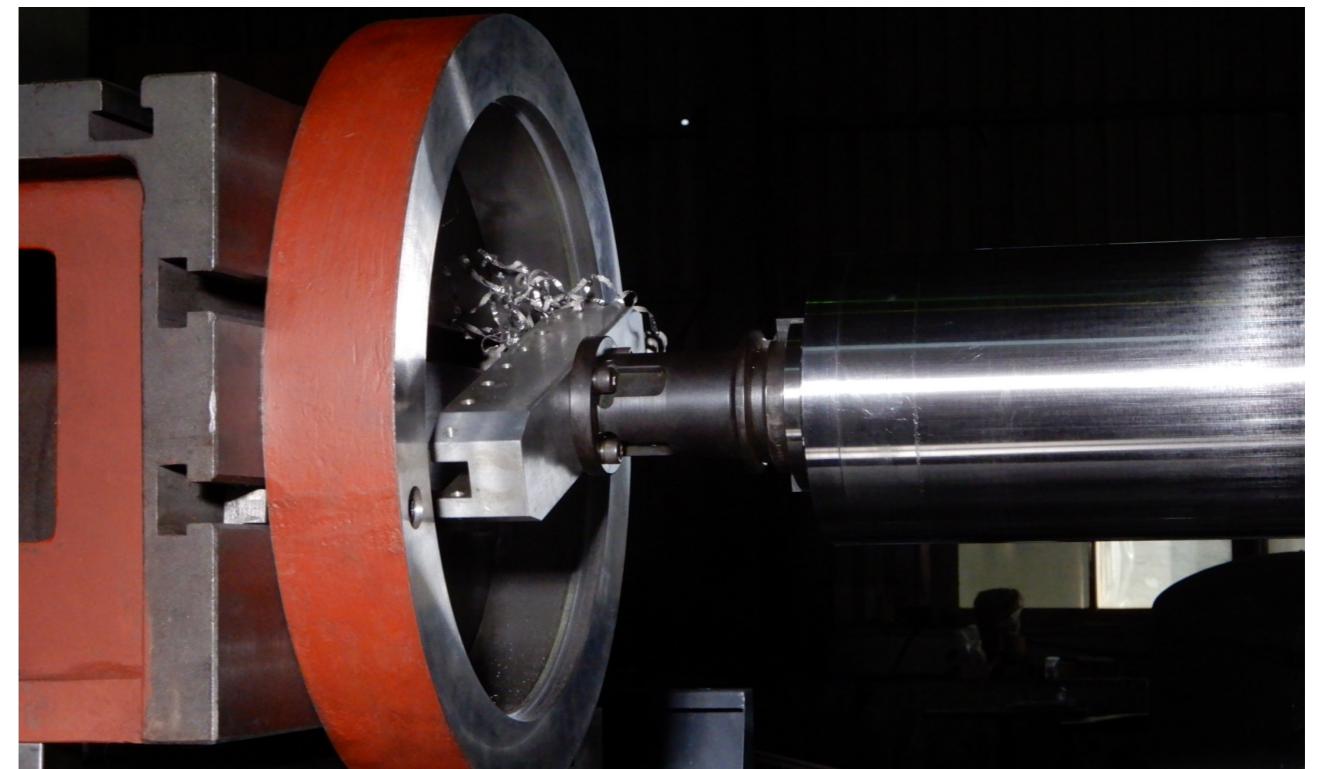
High Power Spindle

Cooling system in spindle outer ring, it will remain bearings accuracy & heat raising in normal level.

Spindle is geared equipped High/Low speed & automatically changed. Adopted forced-lubricated system can assure lubrication stable.

Spindle & quill are using special alloy steel material and have been heated treatment.

Bearing adopted famous brands and pass running & heat raising testing. Assure perfect accuracy & using life.



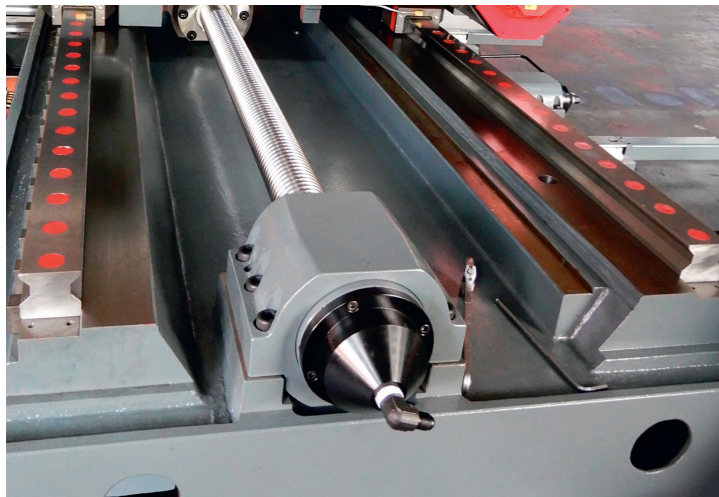
切削條件 Cutting conditions		
主軸伸出長度	Spindle move out	400mm
刀盤	Face cutter	160mm
切削有效直徑	Cutting range	130mm
轉速	Speed	300rpm
切削深度	Cutting depth	3mm
切削進給速度	Feed rate	600mm/min
主軸負載	Spindle load	46%

線軌

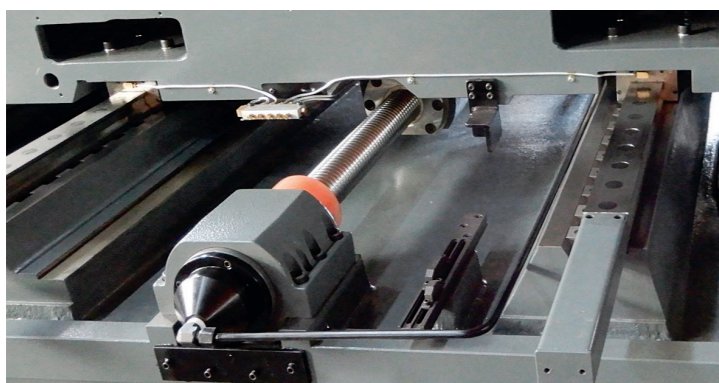
X & Z 軸：線軌

Y軸：方型硬軌

- X&Z軸採用線軌，磨擦力較小，機械性能佳，運行速度快，方便維修。
- Y軸採用硬軌，具高鋼性筋骨結構，並經應力消除後再經高週波熱處理，硬度可高達HRC 43-47度。Y軸採用硬軌可負重主軸頭升降穩定。



X axis linear guideway
Optional : Ball screw with hollow cooling system



Z axis linear guideway
Optional : Ball screw with hollow cooling system

Linear guideway

X & Z axes : Linear guideway

Y axis : Box way

- X&Z axes use linear guideway, low friction, good mechanical performance, fast running speed and easy maintenance.
- Y axis uses box way, high rigidity rib structure and have been stress relief the heat treatment hardness is HRC43° ~47° . Good at loading 200Q spindle weight and vertical movement steady.



Y axis box way

硬軌

X & Z 軸方型硬軌

Y軸方型硬軌

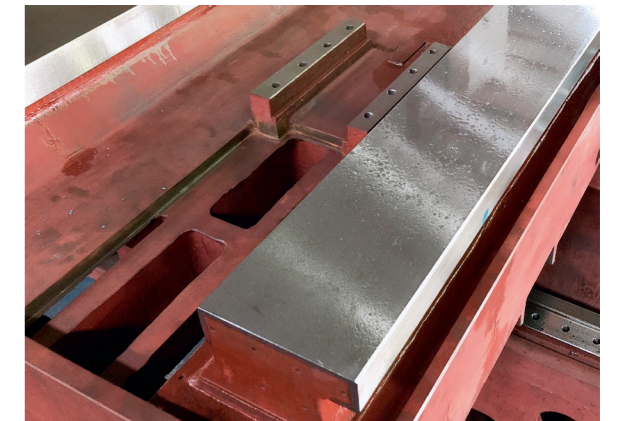
- XYZ軌道採用硬軌，具高鋼性筋骨結構，並經應力消除後再經高週波熱處理，硬度可高達HRC 43-47度。硬軌滑動接觸面大，剛性好、抗震能力強、承重能力強，適合重負荷切削。
- 滑動面有鐵氟龍黏附並經鏟花，使滑軌系統在長時間內保持高精確度，即使在低速運轉時仍可順暢滑動。
- 軸向傳動採用精密級滾珠螺桿

Box way

X & Z axes box way

Y axis box way

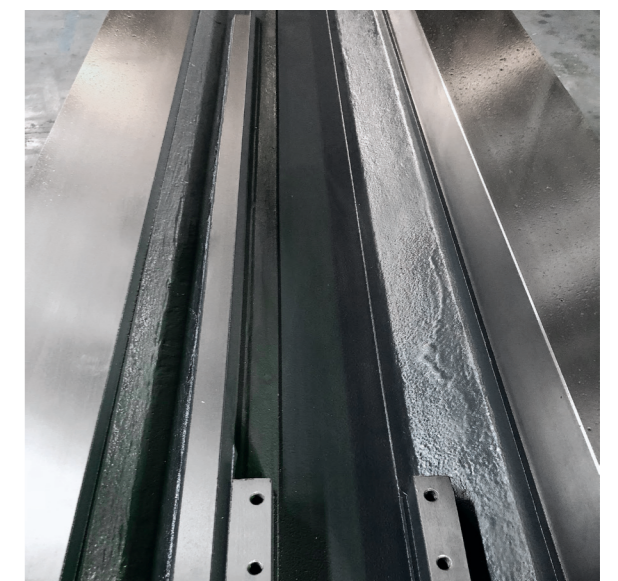
- XYZ axes use box slide way, high rigidity rib structure and have been stress relief the heat treatment hardness is HRC43° ~47° . The box way contact surface is large, the rigidity is good, the vibration resistance is strong, and good loading capacity performance suitable for heavy cutting.
- The mating surfaces of the moving units are coated with a special fluorine resin, and scrapping so that the system for slide ways offers minimum friction resulting in high precision which will be maintained over a long period of time, this ensures a very smooth feed stroke even at low speeds without stick/slip.
- XYZ axes use precision ball screw.



X axis box way



Z axis box way



Y axis box way

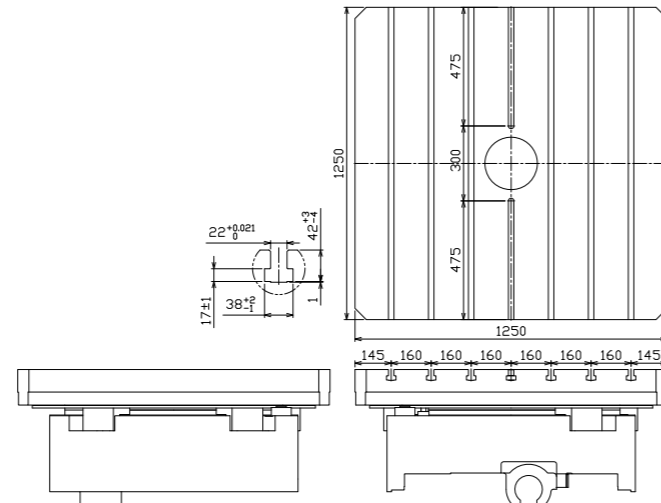
操作容易

- 座立式開關操控箱，可左右有限制旋轉，分別為加工操作提供最有效率的設計，使操作更具有效率。
- 程式編輯及運用功能都陳列在CRT，可使程式編輯及確認更容易。
- 使用此種輕便的操作控制箱，可讓加工工作調整於中心及允許分段操作。
- 電控系統可選用國際知名大廠FANUC、SIEMENS、HEIDENHAIN品牌控制器，在安全性均有CE認證。



Easy Operation

- The switches on the pendant control box have the most efficient layouts for working respectively. This ensures improved operating efficiency.
- The contents of programs and the current positions are displayed on the CRT display. This enables to make preparation and checking of the programs easily.
- Using the portable operation control box allows the work to be adjusted to be centered, and permits manual cutting operation.
- Control system can choose international famous brands FANUC, SIEMENS, HEIDENHAIN. All CE NORM certificated in safety operation.



迴轉工作台

迴轉工作台採用硬軌、滾柱軸承及傳動蝸輪強制潤滑。迴轉工作台中心軸裝設有海德漢環式回饋尺，絕對保證分度準確。迴轉工作台具有特殊設計油壓鎖，可用於任何角度鎖定切削及正角度0°、90°、180°、270°重切準確度。

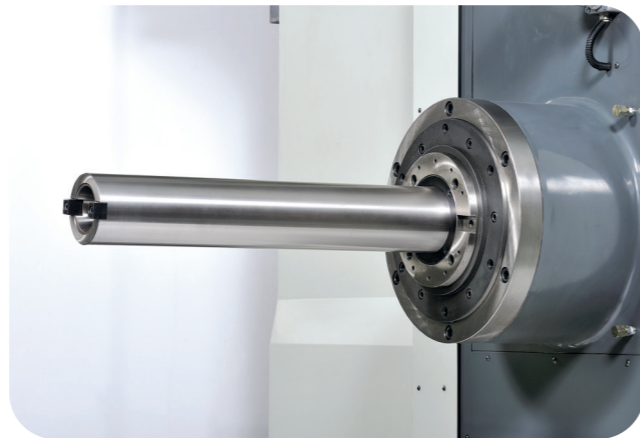
Rotary working table

The bed slideway is box way, adopted roller bearing and worm-gear equipped force lubricated system. Table center equipped Heidenhain rotary encoder assure index accuracy. Table equipped Hydraulic clamping system & positioning pin, assure indexing angle 0°, 90°, 180°, 270° heavy cutting accuracy.

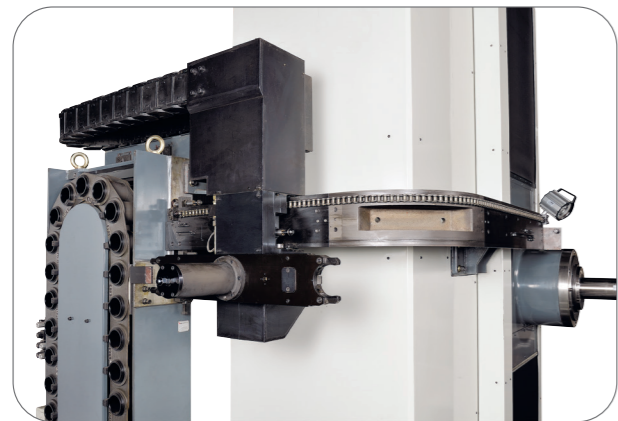
TABLE TYPE			CBA-200Q	CBA-110B
主軸 Spindle	主軸馬達 Spindle Motor (Cont./ 30min)	kw	22 / 26	22 / 26
	主軸最高轉速 Spindle Speed (Max.)	rpm	3000rpm	3000rpm
	主軸錐度 Spindle Taper		ISO 50 / BT-50	ISO 50 / BT-50
	主軸直徑 Spindle diameter	mm	滑枕直徑 Extend quill diameter 200	主軸直徑 Spindle diameter 110
行程 Travel	主軸最大扭矩 Max. Spindle Torque (SI)	Nm	665Nm/316rpm	912Nm / 230 rpm
	X軸 (工作台橫向行程) Work Table Travel X axis (Horizontal)	mm	1500	1500
	Y軸 (主軸垂直行程) Spindle Travel Y axis (Vertical)	mm	1200	1100
	Z軸 (工作台縱向行程) Work Table Travel Z axis (Longitudinal)	mm	1000	1000
	W軸行程 W axis travel	mm	滑枕行程 Quill extension travel 400	主軸行程 Spindle travel 400
	主軸鼻端到工作台中心 Distance from spindle nose to table center	mm	530 - 1530	505 - 1505
軌道 Slideway	主軸中心到工作台平面 Distance from spindle center to table surface	mm	0-1200	0 - 1100
	Standard : X&Z axis linear guide way (X & Z軸-線軌)		Standard : X&Z axis linear guide way (X & Z軸-線軌)	Standard : X&Z axis linear guide way (X & Z軸-線軌)
			Optional : X & Z axis box way (X & Z軸-硬軌)	Optional : X & Z axis box way (X & Z軸-硬軌)
Y axis : Box way (Y軸硬軌)			Y axis : Box way (Y軸硬軌)	
旋轉工作台 (B軸) Rotary working table (B axis)	尺寸 Table Dimension	mm	1250×1250	1250×1250
	T型槽 T-Slot	mm×No.	22×7	22×7
	承載重量 Max. Loading Weight	kg	4,500	4,500
	最小分割角度 Index	degree	0.001°	0.001°
	最大旋轉直徑 Max. Rotation Dia.	mm	1768	1768
	旋轉速度 Rapid Rotation of Table	rpm	4	4
進給 Feed	快送 Rapid XYZW axis	mm/min	X & Z axis linear guide way : 13000 (X & Z軸線軌 : 13000)	X & Z axis linear guide way : 13000 (X & Z軸線軌 : 13000)
			X & Z axis box way : 10000 (X & Z軸硬軌 : 10000)	X & Z axis box way : 10000 (X & Z軸硬軌 : 10000)
			Y axis : 10000 W axis : 3000	Y axis : 10000 W axis : 3000
切削進給速度 Feed Rate	X/Y/Z axis	mm/min	1-5000	1-5000
	W axis	mm/min	1-3000	1-3000
機械尺寸 Machine Dimension (L×W×H)	mm	7355×4500×3610	7355×4500×3800	
機械重量 Machine Weight	kg	17500	18500	
控制器 Controller			Fanuc / Siemens / Heidenhain	Fanuc / Siemens / Heidenhain

標準配備 Standard Accessories		
工具及工具箱	Tool and Tool Box	1
地基螺絲及墊片	Foundation Screw and Bolt	1
主軸油冷機	Spindle Oil Cooler	1
主軸配重裝置	Spindle Counter Weight Device	1
工作燈	Working Lamp	1
電器箱冷卻機	Electro Cabinet Cooler	1
X軸防塵罩	X Axis Dust Cover	2
Y軸防塵罩	Y Axis Dust Cover	2
Z軸防塵罩	Z Axis Dust Cover	2
手輪	MPG	1
自動潤滑系統	Auto Lubrication System	1
螺桿式鐵屑輸送機	Screw Chip Conveyor	1
鏈板式輸送機 (附鐵屑車)	Steel Belt Chip Conveyor with Cart	1

選擇配備 Optional Accessories		
刀庫	Automatic Tool Changer	1
主軸中心出水	Coolant Through Spindle	1
光學尺	Linear scale	1
變壓器	Transformer	1
旋轉工作台防濺板	Splash Guard For Rotary Table	1
操作員防濺板	Splash Guard For Operator	1
工件量測	Workpiece Measuring Device	1
工作台	Working Table	1
面盤	Facing head	1

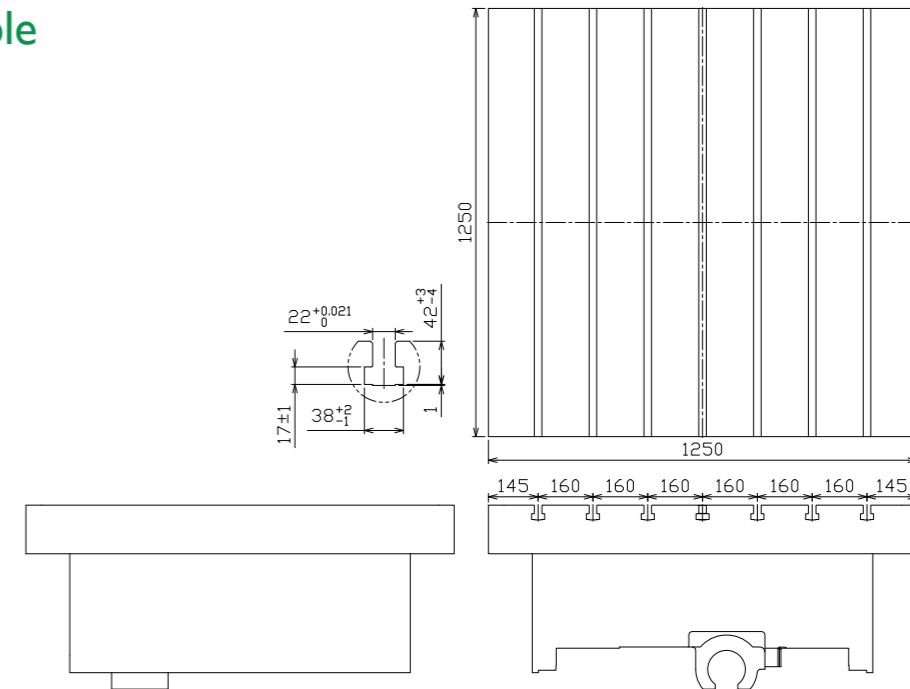


Spindle : 110B
Spindle diameter 110mm
Spindle travel 400mm

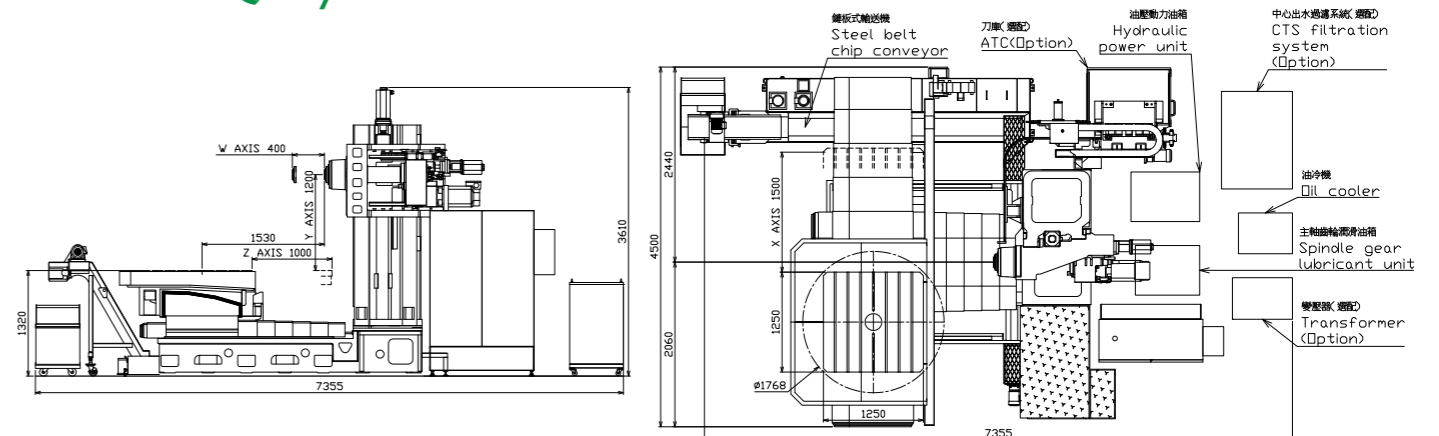


工作台 Working Table (Optional accessories)			
尺寸	Table Dimension	mm	1250 x 1250
T型槽	T Slot	mm x No.	24 x 7
承載重量	Max. Loading Weight	kg	4,000

Working Table



CBA-200Q Layout



CBA-110B Layout

