芳嘉天碟
TOPSDISK

NC旋轉工作台

NC ROTARY TABLE
NC TILTING ROTARY TABLE
HYDRAULIC INDEX TABLE

台灣精密製造
Taiwan's precision industrial manufacturing

05 NC旋轉工作台 NC Rotary Table


TDE-125P


TD-170P


TD-170PL


TD-200P


TD-255P / TD-255H

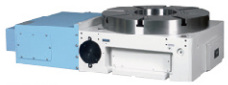

TD-255HL

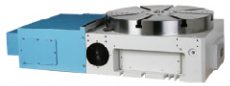

TDE-255H

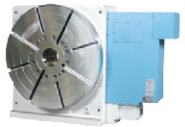

TD-320H

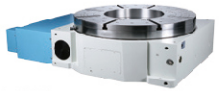

TD-400H

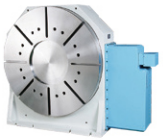

TD-500H


TH-500A


TH-500B


TD-630H


TDH-800


TD-1000H

11 NC雙軸旋轉工作台 NC Tilting Rotary Table


TTD-125P


TTD-255H


TTD-255HB

13 手動傾斜NC旋轉工作台&多主軸NC旋轉工作台 Manual Tilt NC Rotary Table And Multi-spindle NC Rotary Table


TDM-170P


TDM-255HB


TD-125-3L


TE-200-2R

17 實用型NC旋轉工作台 Practical Type NC Rotary Table

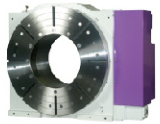

TE-125AP


TE-170P

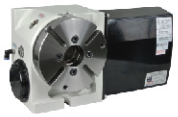

TE-200P/H


TE-255P/H


TE-320H


TE-800H

21 專用型旋轉工作台 Specialized Type NC Rotary Table

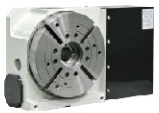

VE-170P

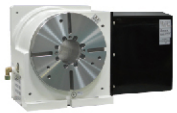

VE-170PC


VE-170PCL


VE-200P/H


VE-255EP


VE-255EH


VE-255H

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芳嘉天碟 TOPSDISK

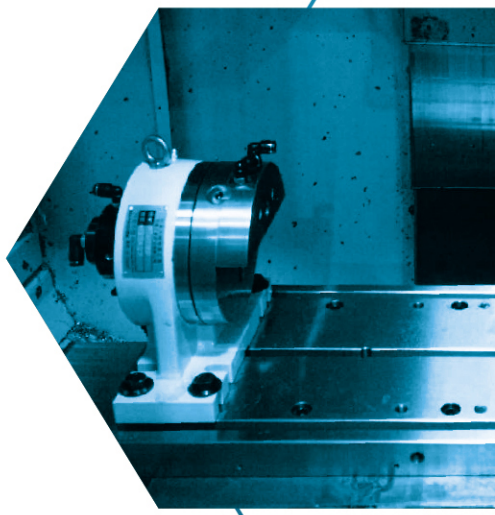
COMPANY PROFILE

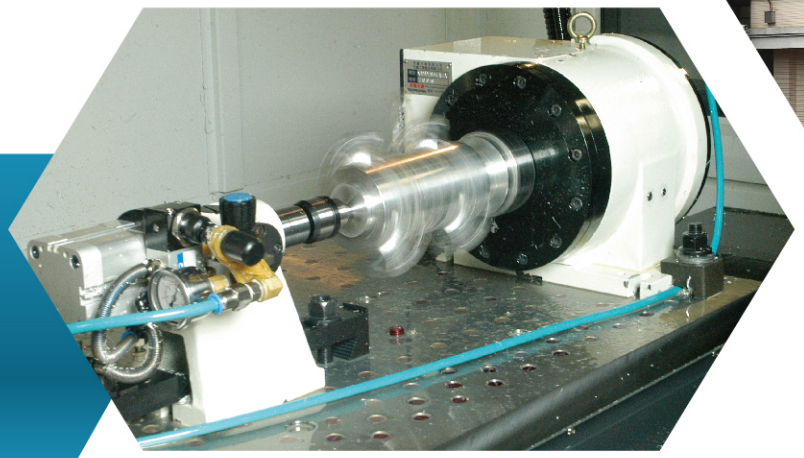
LOW MAINTENANCE

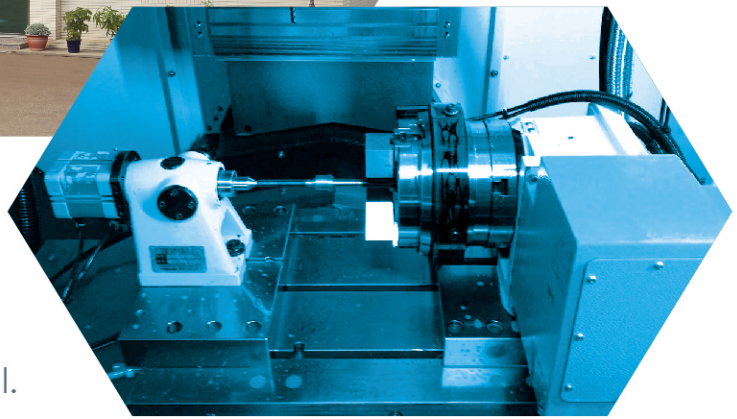
HIGH ACCURACY

Spintop Machinery has commenced production of the NC rotary table in year 1996 in cooperation with Industrial Technology Research Institute (ITRI) for related products and components ; With decades of experience behind us in the field of NC rotary table, we have developed several models of NC rotary table and the NC Indexing Table and we have received high appreciation from the industry and our valued customers.

In year 2005, we put our dual-axis NC rotary table (commonly known as 4-Axis, 5-Axis) in our production program and sold products around the world and gained a remarkably good response. Five-Axis machining has almost become a trend by then. The advanced countries have adopted Five-axis machining in order to reduce machining time and higher process accuracy (Simultaneously multi-angle processing) thus improving overall efficiency by installing Dual-Axis NC Rotary Table in the existing three-axis CNC machine.







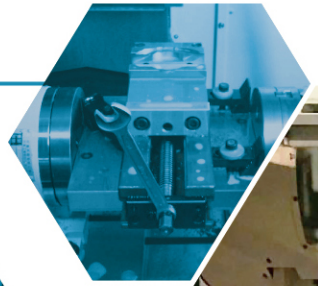
A workman must sharpen his tools if he wants to do his work well.

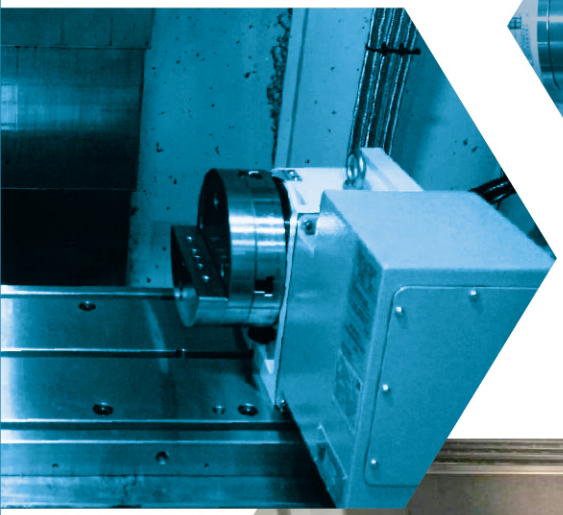
公司簡介

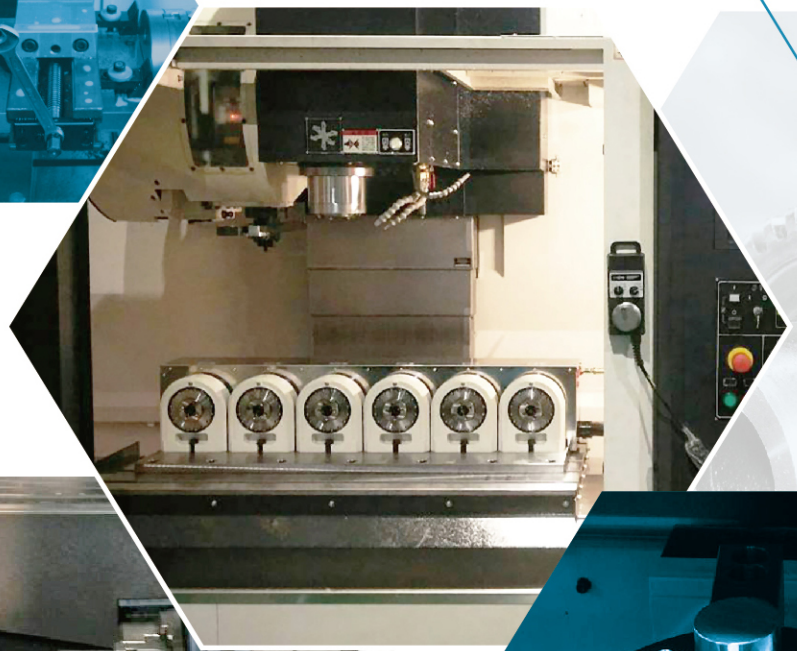
芳嘉天碟
TOPSDISK

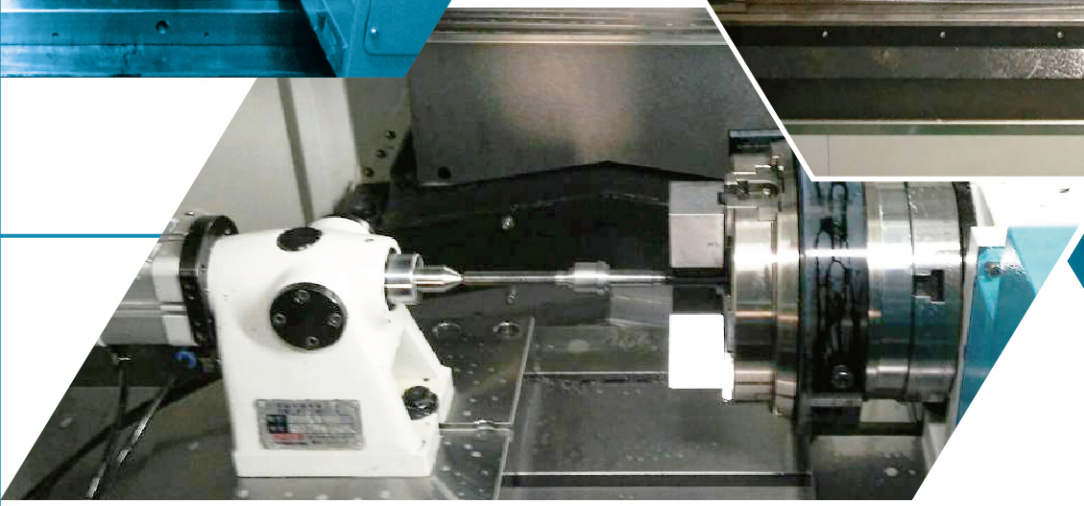
本公司於1996 開始生產NC旋轉工作台，初期與工研院技術合作開發相關產品與重要零組件，在NC旋轉工作台已有十幾年的經驗，在這段期間，已經開發數十種NC旋轉工作台（NC ROTARY TABLE)及NC分度盤（NC INDEXING TABLE)在業界及客戶中獲得極高的評價。

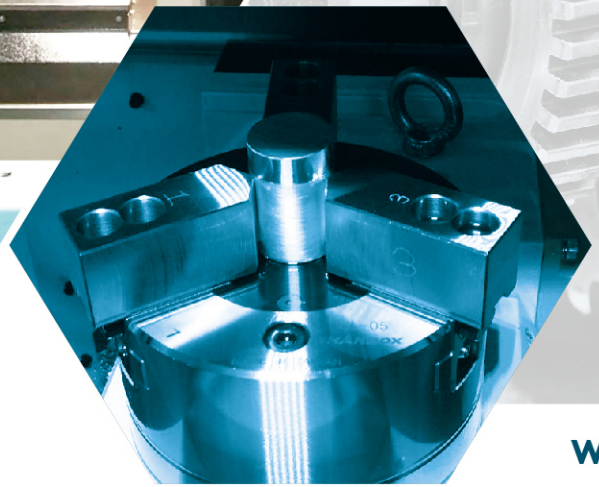
在2005年，開始量產雙軸NC旋轉工作台（俗稱四、五軸），目前也已銷售到世界各地獲得歐美國家的肯定。五軸加工是未來的趨勢，世界先進國家，為了節省工時或提高加工的精度（一次多角度加工），紛紛採用五軸加工，或是在原有的三軸加工中心機上，加裝雙軸NC旋轉工作台。











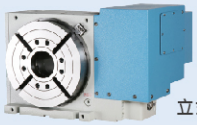
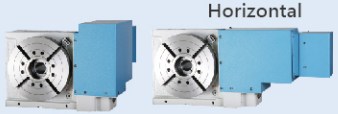
機型介紹

- 「TDE-125P、TD-170P、TD-170PL、TD-200P、TD-255P/H」安裝高精密之交叉滾柱軸承。
- 氣壓鎖緊採用內建專利碟式剎車機構(台灣專利號碼:217736)，加大鎖緊力，確保耐切削力。(TDE-125P、TD-170P、TD-200P、TD-255P)
- 油壓鎖緊採用全面碟式剎車片之鎖緊方式，振動力小，且接近工件，增加耐切削力，鎖緊力大。 (TD-400H~TD-1000H)
- 油壓鎖緊採用全圓周油壓環抱鎖緊方式，振動小，且接近工件，增加耐切削力。(TDE-255H、TD-255H、TD-255HL、TD-320H)
- 採用進口雙導程蝸桿蝸輪組,傳動定位精度高,背隙調整容易。
- 伺服馬達驅動，定位快速、精準、低噪音，適合任意角度之加工。
- 可與CNC機器連線成為第四軸，或搭配可編程控制器成為附加軸。
- 油壓鎖緊機種，可加裝空油壓轉換器或油壓單元。
- 左手型，上下工件更順手。

型號說明

TD-255H

- H: P: 氣壓　H: 油壓
- 255: 盤面尺寸
- TD: NC旋轉工作台型號

機台列表 Machine List	右手型 Right Hand Type	左手型 Left Hand Type	實用型 Practical Type	氣壓鎖緊 Pneumatic Clamping	油壓鎖緊 Hydraulic Clamping	大孔徑 Large Spindle Pore	橫式專用 Horizontal Special-Purpose	立式專用 Vertical Special-Purpose	立橫兩用 Vertical Horizontal Use	機台列表 Machine List
 TDE-125P	★			★				★		TD-170P 
	★			★					★	
 TD-170PL		★		★					★	TD-200P 立式 Vertical 立橫 Vertical and Horizontal 
	★			★				★	★	
 立橫 Vertical and Horizontal TD-255P	★			★		★		★	★	TD-255H  立式 Vertical
	★				★	★		★	★	
 TD-255HL		★			★				★	TDE-255H 立式 Vertical 立橫 Vertical and Horizontal 
	★				★			★	★	

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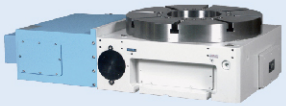
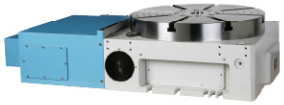
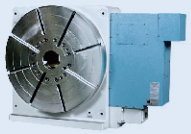
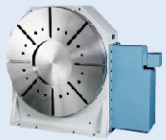
Model Introduction

- "TDE-125P, TD-170P, TD-170PL, TD-200P, TD-255P/H" install high-precision cross roller bearings.
- Pneumatic clamping adopted patented disk-clamping system. (Taiwan PAT. : 217736) to enlarge clamping force and ensure heavy-duty continuous cutting.
- Adopted patented disk hydraulic clamping system . It can assure heavy and steady cutting without any deviation from the centre. (TD-400~630)
- Hydraulic clamping adopted wholly circular hydraulic clamping system. It can assure heavy and steady cutting without any deviation from the centre. (TDE-255H, TD-255H~320)
- Adopting the double-lead worm gear, the transmission positioning accuracy is high and the backlash adjustment is easy.
- Driven by the servo Motor. Efficient in positioning, high accuracy, Low noise and suitable for any angels machining.
- It can be connected to the CNC machine to become the fourth axis, or it can be used as an additional axis with the single axis controller.
- Hydraulic clamping type can be equipped with air booster or hydraulic unit.
- Left Hand Type: Change workpiece becomes more convenient.

Model Description

TD-255H

- P: Pneumatic H: Hydraulic
- Faceplate dimension
- NC Rotary table model

機台列表 Machine List	右手型 Right Hand Type	左手型 Left Hand Type	實用型 Practical Type	氣壓鎖緊 Pneumatic Clamping	油壓鎖緊 Hydraulic Clamping	大孔徑 Large Spindle Pore	橫式專用 Horizontal Use Only	立式專用 Vertical Special-Purpose	立橫兩用 Vertical Horizontal Use	機台列表 Machine List
 立式 Vertical 立橫 Vertical and Horizontal TD-320H	★				★			★	★	TD-400H 立式 Vertical 立橫 Vertical and Horizontal 
	★				★			★	★	
 TD-500H	★				★				★	TH-500A 
					★	★	★			
 TH-500B					★		★			TD-630H 
	★				★	★			★	
 TDH-800					★		★			TD-1000H 
	★				★				★	

規格說明 SPECIFICATIONS

NC旋轉工作台

NC Rotary Table Professional Manufacture

規格名稱 Specification / Model	TDE-125P	TD-170P	TD-170PL	TD-200P	TD-255P	TD-255H	TD-255HL
使用方法 Use Method	立式使用 (vertical)	立橫兩用 (vertical and horizontal)	立橫兩用 (vertical and horizontal)	立橫兩用 (vertical and horizontal)	立橫兩用 (vertical and horizontal)	立橫兩用 (vertical and horizontal)	立橫兩用 (vertical and horizontal)
鎖緊方式 Clamp Method	氣壓 (pneumatic) 5kg/cm^2	氣壓 (pneumatic) 5kg/cm^2	氣壓 (pneumatic) 5kg/cm^2	氣壓 (pneumatic) 5kg/cm^2	氣壓 (pneumatic) 5kg/cm^2	油壓 (hydraulic) 35kg/cm^2	油壓 (hydraulic) 35kg/cm^2
盤面尺寸 Faceplate Dimension	Ø125 mm	Ø170 mm	Ø170 mm	Ø200 mm	Ø255 mm	Ø255 mm	Ø255 mm
貫穿孔徑 Spindle Through Hole Diameter	Ø15 mm	Ø45 mm	Ø45 mm	Ø45 mm	Ø80 mm	Ø80 mm	Ø45 mm
圓盤中心孔徑 Faceplate Centre Hole Diameter	Ø20H7 mm	Ø50H7 mm	Ø50H7 mm	Ø50H7 mm	Ø80H7 mm	Ø80H7 mm	Ø80H7 mm
中心高度 Centre Height	110 mm	135 mm	135 mm	160 mm	160 mm	160 mm	160 mm
盤面T型槽寬度 Faceplate T-Slot Width	12H7 mm	12H7 mm	12H7 mm	12H7 mm	12H7 mm	12H7 mm	12H7 mm
定位鍵 Position Key	14H7 mm	14H7 mm	14H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm
伺服馬達 Servo Motor 發那科 Fanuc	α2i / β2i	α4i / β8i	α4i / β8i	α4i / β8i	α8i / β12i	α8i / β12i	α8i / β12i
伺服馬達 Servo Motor 三菱 Meldas	HG105S	HG104S/HG54S	HG104S/HG54S	HG104S/HG54S	HG104S/HG54S	HG104S/HG54S	HG104S/HG54S
總減速比(依機構不同) Total Speed Reduction Ratio (Depending on the Mechanism)	1/48	1/72 或 1/90	1/72 或 1/90	1/90	1/180	1/180	1/90
最小設定單位 Min. Increment Unit	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°
累積分割精度 Indexing Accuracy	45 弧秒 (Arc seconds)	30 弧秒 (arc seconds)	30 弧秒 (arc seconds)	30 弧秒 (arc seconds)	15 弧秒 (arc seconds)	15 弧秒 (arc seconds)	15 弧秒 (arc seconds)
重覆精度 Repeat Accuracy	4 弧秒 (Arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)
鎖緊力 Clamp Force	8 kgf/m	16 kgf/m	16 kgf/m	16 kgf/m	50 kgf/m	50 kgf/m	50 kgf/m
蝸輪最大切削力 Worm gear Maximum Torque Capacity	15 kgf/m	27 kgf/m	27 kgf/m	27 kgf/m	48 kgf/m	48 kgf/m	48 kgf/m
最大負載 Max. Workpiece of Capacity 垂直(使用尾座) Vertical (With Tailstock)	50 (100) kgs	75 (150) kgs	75 (150) kgs	75(150) kgs	100 (250) kgs	100 (250) kgs	100 (250) kgs
最大負載 Max. Workpiece of Capacity 水平 Horizontal	-	150 kgs	150 kgs	150 kgs	250 kgs	250 kgs	250 kgs
淨重(不含馬達) Net Weight (Without Motor)	25 kgs	40 kgs	40 kgs	60 kgs	120 kgs	120 kgs	80 kgs

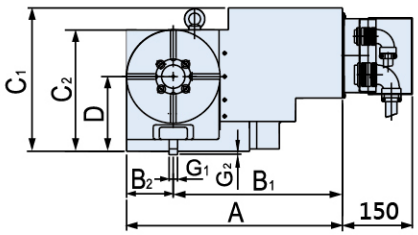
外觀尺寸說明圖
THE OUTLINE OF DIMENSION

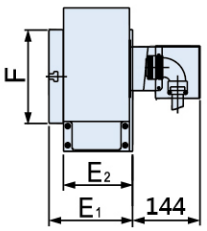
型號說明
Model Description

TD-255H

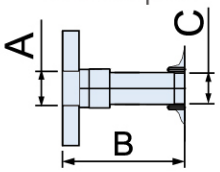
- P:氣壓 H:油壓 P:Pneumatic H:Hydraulic
- 盤面尺寸 Faceplate dimension
- NC旋轉工作台型號 NC Rotary table model

立橫兩用
VERTICAL AND HORIZONTAL USE



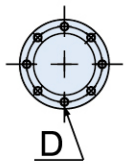


有盤面
With faceplate

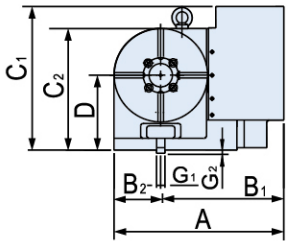


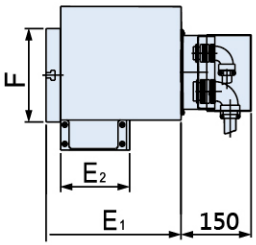
B視圖View

主軸圖
Spindle map

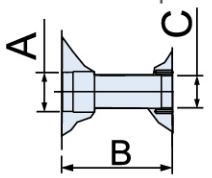


立式使用
VERTICAL USE

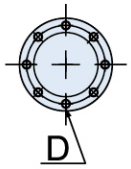




無盤面
Without faceplate



B視圖View



NC ROTARY TABLE

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TDE-255H	TD-320H	TD-400H	TD-500H	TH-500A	TH-500B	TD-630H	TDH-800	TD-1000H
立横兩用 (vertical and horizontal)	立横兩用 (vertical and horizontal)	立横兩用 (vertical and horizontal)	立横兩用 (vertical and horizontal)	横式使用 (horizontal)	横式使用 (horizontal)	立横兩用 (vertical and horizontal)	横式使用 (horizontal)	立横兩用 (vertical and horizontal)
油壓 (hydraulic) 35kg/cm²	油壓 (hydraulic) 35kg/cm²	油壓 (hydraulic) 35kg/cm²	油壓 (hydraulic) 35kg/cm²	油壓 (hydraulic) 35kg/cm²	油壓 (hydraulic) 35kg/cm²	油壓 (hydraulic) 35kg/cm²	油壓 (hydraulic) 35kg/cm²	油壓 (hydraulic) 35kg/cm²
Ø255 mm	Ø320 mm	Ø400 mm	Ø500 mm	Ø500 mm	Ø500 mm	Ø630 mm	Ø800 mm	Ø1000 mm
Ø45 mm	Ø40 mm	Ø40 mm	Ø50 mm	Ø170 mm	Ø50 mm	Ø110 mm	無	無
Ø80H7 mm	Ø40H7 mm	Ø40H7 mm	Ø50H7 mm	Ø170H7 mm	Ø50H7 mm	Ø110H7 mm	Ø400H6 mm × 60深	Ø410H6 mm × 25深
160 mm	210 mm	255 mm	310 mm	X	X	400 mm	X	650 mm
12H7 mm	14H7 mm	14H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm	22H7 mm
18H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm	22H7 mm
α8i / β12i	α12i	α12i	α12i	α12i	α12i	α12i	α12i / α22i	α22i
HG104S/HG54S	HG204S	HG204S	HG204S	HG204S	HG204S	HG204S	HG204S	HG204S
1/90	1/180	1/180	1/180	1/180	1/180	1/180	1/180	1/360
0.001°	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°
15 弧秒 (arc seconds)	15 弧秒 (arc seconds)	15 弧秒 (arc seconds)	15 弧秒 (arc seconds)	15 弧秒 (arc seconds)	15 弧秒 (arc seconds)	15 弧秒 (arc seconds)	20 弧秒 (arc seconds)	20 弧秒 (arc seconds)
4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)
50 kgf/m	85 kgf/m	180 kgf/m	250 kgf/m	250 kgf/m	250 kgf/m	450 kgf/m	700 kgf/m	1200 kgf/m
48 kgf/m	78 kgf/m	180 kgf/m	250 kgf/m	250 kgf/m	250 kgf/m	450 kgf/m	800 kgf/m	1000 kgf/m
100 (250) kgs	150 (350) kgs	200 (500) kgs	250 (600) kgs	X	X	400 (800) kgs	X	1000 kgs
250 kgs	350 kgs	500 kgs	600 kgs	600 kgs	600 kgs	800 kgs	1500 kgs	3000 kgs
95 kgs	170 kgs	300 kgs	470 kgs	358 kgs	385 kgs	725 kgs	950 kgs	2332 kgs

外觀尺寸 The Outline of Dimension

Unit:mm

	板金型式 Servomotor Cover	A	B_1	B_2	C_1	C_2	D	E_1	E_2	F	G_1	G_2
TDE-125P	立式 vertical	381	295	86	244	175	110	151.5	132	Ø125	14	7
TD-170P	立横 vertical horizontal	392	289	85	265	220	135	179	148	Ø170	14	7
TD-170PL	立横 vertical horizontal	390	289	85	284	220	135	179	148	Ø170	14	7
TD-200P	立式 vertical	363	263	100	260	260	160	311	148	Ø200	18	7
	立横 vertical horizontal	462	362	100	260	260	160	179	148	Ø200	18	7
TD-255P	立式 vertical	473	313	160	362	304	160	334	196	Ø255	18	7
TD-255H	立横 vertical horizontal	560	400	160	362	304	160	212	196	Ø255	18	7

主軸尺寸 Spindle Dimension

有無盤面 Faceplate	A	B	C	D
YES	Ø22 × 22L	151	Ø15 × 20L	4-M4 × 12L, Ø23.5
NO	Ø25 × 25L	129	Ø15 × 20L	4-M4 × 12L, Ø23.5
YES	Ø50 × 24L	178	Ø45 × 15L	8-M6 × 15L, Ø55
NO	Ø55 × 15L	154	Ø45 × 15L	8-M6 × 15L, Ø55
YES	Ø50 × 24L	178	Ø45 × 15L	8-M6 × 15L, Ø55
NO	Ø50 × 15L	154	Ø45 × 15L	8-M6 × 15L, Ø55
YES	Ø50 × 24L	178	Ø45 × 15L	8-M6 × 15L, Ø55
YES	Ø80 × 15L	187	Ø80 × 15L	6-M6 × 15L, Ø90

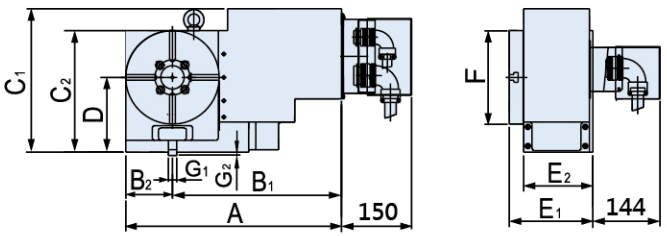
外觀尺寸說明圖
THE OUTLINE OF DIMENSION

型號說明
Model Description

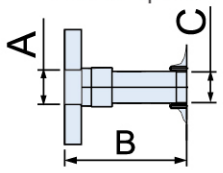
TD-255H

- P:氣壓 H:油壓 / P:Pneumatic H:Hydraulic
- 盤面尺寸 / Faceplate dimension
- NC旋轉工作台型號 / NC Rotary table model

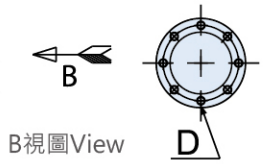
立橫兩用
VERTICAL AND HORIZONTAL USE



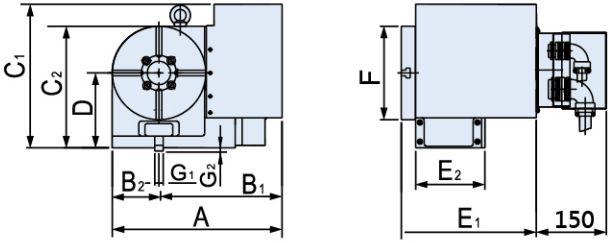
有盤面
With faceplate



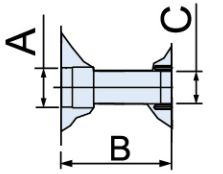
主軸圖
Spindle map

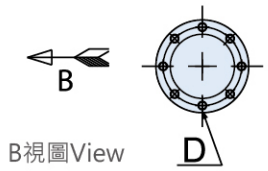


立式使用
VERTICAL USE



無盤面
Without faceplate





外觀尺寸 The Outline of Dimension

	板金型式 Servomotor Cover	A	B_1	B_2	C_1	C_2	D	E_1	E_2	F	G_1	G_2
TD-255HL	立橫 vertical horizontal	549	414	134	292	305	160	165	144	Ø255	18	7
TDE-255H	立式 vertical	471	314	157	359	301	160	283	165	Ø255	18	7
	立橫 vertical horizontal	559	402	157	359	301	160	171	165	Ø255	18	7
TD-320H	立式 vertical	614	409	185	356.6	380	210	322	215	Ø320	18	7
	立橫 vertical horizontal	707	502	185	386.6	380	210	223	215	Ø320	18	7
TD-400H	立式 vertical	675.6	450.6	225	475	475	255	351	245	Ø400	18	7
	立橫 vertical horizontal	796	571	225	475	475	255	255.5	245	Ø400	18	7
TD-500H	立橫 vertical horizontal	855	605	260	565	565	310	308	295	Ø500	18	7
TH-500A	主軸大孔徑 spindle large pore	887	607	260	544	554	-	235	195	Ø500	-	-
TH-500B	橫式 horizontal	887	607	260	544	554	-	250	195	Ø500	-	-
TD-630H	立橫 vertical horizontal	845	507	315	715	715	400	325	278	Ø630	18	7
TDH-800	橫式 horizontal	1162	740	422	793	853	-	320	268	Ø800	-	-
TD-1000H	立橫 vertical horizontal	1382	865	510	804	1160	650	380	375	Ø1000	22	7

主軸尺寸 Spindle Dimension

Unit:mm

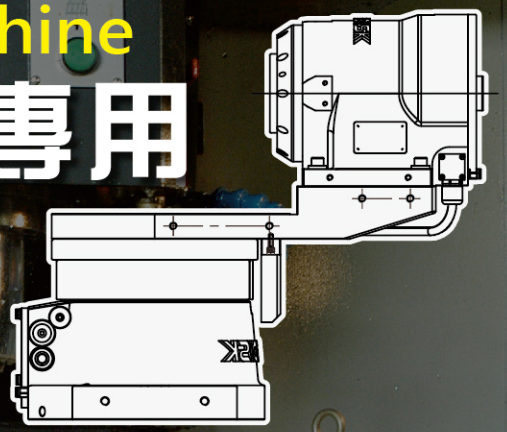
有無盤面 Faceplate	A	B	C	D
YES	Ø50 × 24L	163.5	Ø45 × 20L	4-M6 × 10L, Ø55
YES	Ø80 × 15L	163.5	Ø45 × 20L	6-M6 × 10L, Ø55
YES	Ø40 × 35L	191	Ø50 × 30L	8-M6 × 15L, Ø68
YES	Ø40 × 20L	219	Ø50 × 30L	8-M6 × 15L, Ø76.2
YES	Ø50 × 31L	262	Ø50 × 30L	8-M6 × 15L, Ø76.2
YES	Ø200 × 30L	250	Ø230 × 29L	-
NO	Ø50 × 31L	250	Ø50 × 30L	8-M6 × 15L, Ø76.2
YES	Ø110 × 45L	186	Ø110 × 37.5L	-
YES	-	-	-	-
YES	Ø150 × 50L	260	Ø150 × 30L	8-M12 × 20L, Ø175

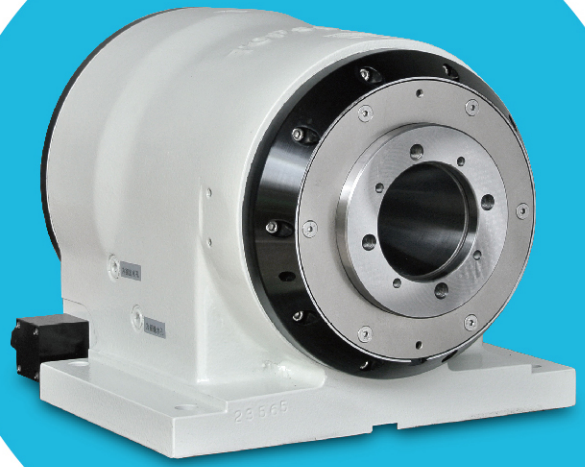
芳嘉天碟
TOPSDISK

DGH-100AB5

Recommended Products
推薦產品

CNC Grinding Machine
數控磨刀機專用





DGH-300P

直驅旋轉工作台
DIRECT DRIVE ROTARY SPINDLE

- 依精度需求，安裝各式編碼器。
- 最小分割角度：0.001度。
- 可與任何控制器搭配， 做分度加工 。
- 高速，90度分割時間低於1秒。
- 直接馬達驅動，無齒隙。

- Install various encoders according to accuracy requirements.
- Min. division degree: 0.001 degree.
- Can be matched with any controller for indexing.
- High speed, 90 degree division time is less than 1 second.
- Direct motor drive, no backlash.

NC雙軸旋轉工作台

NC Rotary Table Professional Manufacture

機型介紹

- 內建專利碟式剎車機構(台灣專利號碼217736)，加大鎖緊力，確保耐切削力。(TTD-125P)
- 內建環抱式油壓鎖緊系統，加大鎖緊力(約一般機型的1.2~1.4倍)，確保耐切削力。 (TTD-255H、TTD-255HB)
- 採用雙導程蝸桿蝸輪組，傳動定位精度高，背隙調整容易。
- 伺服馬達驅動，定位快速、精準、低噪音，適合任意角度之加工。
- 可與CNC機器連線成為第五軸同步加工(5軸或4+1軸)。
- 最小分割角度0.001度。
- 可用可編程控制器與CNC機器連線，做傾斜角度加工(4+1軸)。
- 傾斜角度±110度。

Model Introduction

- Pneumatic Clamping system, Adopted patented disk-clamping design (Taiwan PAT. : 217736) to enlarge clamping force and ensure heavy-duty
- Built-in embracing hydraulic pressure clamping system, increase the clamping force (about 1.2~1.4 times of the general model) to ensure the cutting resistance. (TTD-255H, TTD-255HB)
- With double-lead worm gear set, the transmission positioning accuracy is high and the backlash adjustment is easy.
- Driven by the servo Motor. Efficient in positioning, high accuracy, Low noise and suitable for any angels machining.
- It can be connected to the CNC machine to become the fifth axis synchronous machining (5-axis or 4+1 axis).
- The minimum indexing angle is 0.001 degrees.
- The programmable controller can be connected to the CNC machine for tilt angle machining (4+1 axis).
- Tilt angle ± 110 degrees.

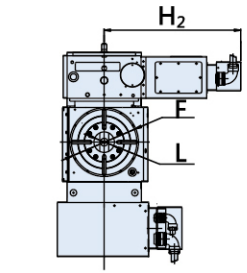
機台列表 Machine List	氣壓鎖緊 Pneumatic Clamping	油壓鎖緊 Hydraulic Clamping	大孔徑 Large Spindle Pore
 TTD-125P	★		
 TTD-225H		★	
 TTD-225HB		★	★

外觀尺寸說明圖
THE OUTLINE OF DIMENSION

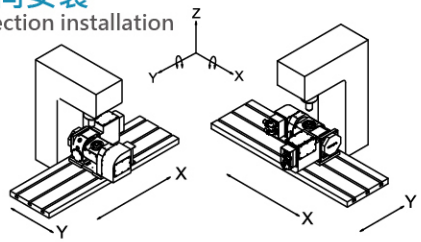
型號說明
Model Description

TTD-255HB

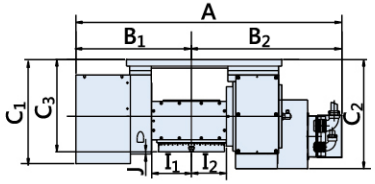
- 大孔徑 Large spindle
- 油壓 Hydraulic / 氣壓 Pneumatic
- 機型 Model
- NC雙軸旋轉工作台型號 NC Tilting rotary table



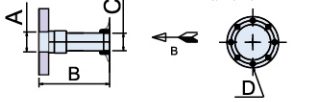
Y方向安裝
Y Direction installation



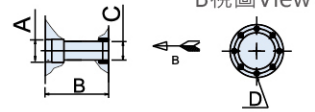
X方向安裝
X Direction installation

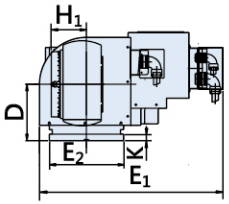


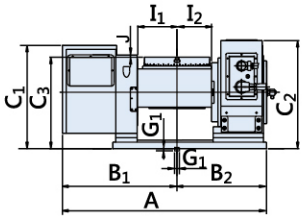
有盤面
With faceplate

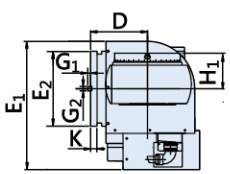


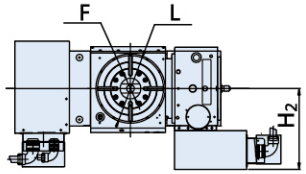
無盤面
Without faceplate







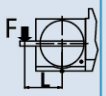
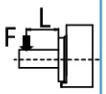
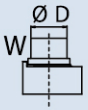




NC TILTING ROTARY TABLE

芳嘉天碟 TOPSDISK

規格名稱 Specification / Model		TTD-125P		TTD-255H		TTD-255HB	
鎖緊方式 Clamp Method		氣壓 (pneumatic) 5kg/cm²		油壓 (hydraulic) 35kg/cm²		油壓 (hydraulic) 35kg/cm²	
傾斜範圍 Tilt Range		±110°		±110°		±110°	
盤面尺寸 Faceplate Dimension		無 (none)		Ø255 mm		Ø255 mm	
主軸外徑 Spindle Outer Diameter		Ø60 mm		無 (none)		無 (none)	
0°盤面高度 Table Height at 0° Position		233 mm		334.5 mm		357 mm	
90°盤面高度 Center Height at 90° Position		160 mm		220 mm		220 mm	
中心孔徑 Central Pore	鼻端孔徑 Nose Diameter	Ø 25H7 x 18Lmm		Ø 30H7 x 20Lmm		Ø 80H7 x 30Lmm	
	貫穿孔徑 Through Diameter	Ø 22 mm		Ø 30 mm		Ø 80 mm	
盤面T型槽寬度 Table T-Slot Width		無(none)		12H7 mm		12H7 mm	
定位鍵 Position Key		14H7 mm		18H7 mm		18H7 mm	
伺服馬達(旋轉軸) Servo Motor (Rotary Axis)	發那科 Fanuc	α2i / β2i		α8i / β12i		α8i / β12i	
	三菱 Meldas	HG75S		HG104S/HG154S		HG104S/HG154S	
伺服馬達(傾斜軸) Servo Motor (Tilting Axis)	發那科 Fanuc	α4i / β8i		α8i / β12i		α8i / β12i	
	三菱 Meldas	HF54T		HF104T/HF154T		HF104T/HF154T	
		旋轉軸 rotary axis	傾斜軸 tilt axis	旋轉軸 rotary axis	傾斜軸 tilt axis	旋轉軸 rotary axis	傾斜軸 tilt axis
總減速比(依機構不同) Total Speed Reduction Ratio (Depending on the Mechanism)		1/90	1/90	1/120	1/180	1/120	1/180
最大轉速(馬達3000r.p.m) Maximum Speed (Motor 3000r.p.m)		33.3 r.p.m	33.3 r.p.m	25 r.p.m	16.7 r.p.m	25 r.p.m	16.7 r.p.m
鎖緊扭力 Clamp Torque		78N.m (8 kgf/m)	157N.m (16 kgf/m)	588N.m (60 kgf/m)	686N.m (70 kgf/m)	588N.m (60 kgf/m)	686N.m (70 kgf/m)
定位精度(累積) Positioning Accuracy (Accumulative)		45弧秒 arc seconds	60弧秒 arc seconds	15弧秒 arc seconds	45弧秒 arc seconds	15弧秒 arc seconds	45弧秒 arc seconds
重複精度 Repeatability		4弧秒(arc seconds)		4弧秒(arc seconds)		4弧秒(arc seconds)	
淨重(不含馬達) Net Weight (Without Motor)		95 kgs		330 kgs		300 kgs	

規格名稱 Specification/Model		TDD-125P	TTD-255H	TTD-255HB
蝸輪最大扭力 Turbine Maximum Torque	旋轉軸 rotary axis	120N.m (12 kgf/m)	490N.m (50 kgf/m)	490N.m (50 kgf/m)
最大工作力矩 Maximum Working Torque		156N.m (16 kgf/m)	470N.m (48 kgf/m)	470N.m (48 kgf/m)
最大載重負荷 Maximum Load		0° : 35 kgs	0° : 120 kgs	0° : 120 kgs
		0°-90° : 20 kgs	0°-90° : 70 kgs	0°-90° : 70 kgs
鎖緊時最大負載 Maximum load When Table Clamped		F : 343N.m (35 kgf/m)	F : 1170N.m (120 kgf/m)	F : 1170N.m (120 kgf/m)
		FxL : 78.4N.m (8 kgf/m)	FxL : 470N.m (48 kgf/m)	FxL : 470N.m (48 kgf/m)
		FxL : 156N.m (16 kgf/m)	FxL : 470N.m (48 kgf/m)	FxL : 470N.m (48 kgf/m)
最大慣性 Maximum Inertia		$J=\frac{W\cdot D^2}{8}$: 0.18 kgf/m² (1.7 kg.cm.sec²)	$J=\frac{W\cdot D^2}{8}$: 0.7 kgf/m² (6.9 kg.cm.sec²)	$J=\frac{W\cdot D^2}{8}$: 0.7 kgf/m² (6.9 kg.cm.sec²)

外觀尺寸 The Outline of Dimension

Unit:mm

	方向 Direction	A	B1	B2	C1	C2	C3	D	E1	E2	F	G1	G2	H1	H2	I1	I2	J	K	L
TTD-125P	Y	560	298	227	291.6	290	255	160	576	220	Ø125	14	7	95	291	81	79	5	25	Ø20
	X	650	298	227	291.6	290	255	160	421	220	Ø125	14	7	95	291	81	79	5	25	Ø20
TTD-255H	Y	836	446	337	370	422	334.5	220	715	290	Ø255	18	7	114.5	255	156	135	30.5	25	Ø30
	X	1042	446	609	370	422	334.5	220	473	290	Ø255	18	7	114.5	313	156	135	30.5	25	Ø30
TTD-255HB	Y	849	447	349	403	422	357	220	716	290	Ø255	18	7	137	533	156	135	8	25	Ø80
	X	1029	447	583	403	422	357	220	496	290	Ø255	18	7	137	313	156	135	8	25	Ø80

主軸尺寸 Spindle Dimension

有無盤面 Faceplate	A	B	C	D
YES	Ø22×18L	158	Ø22×20L	6-M6×15L, Ø31
NO	Ø25×18L	140	Ø22×20L	6-M6×15L, Ø31
YES	Ø30×20L	171	Ø30×20L	4-M6×15L, Ø41
YES	Ø80×15L	187	Ø80×15L	6-M6×15L, Ø90

手動傾斜NC旋轉工作台 MANUAL TILTING NC ROTARY TABLE

機型介紹

- 傾斜軸鎖緊力強，適合重切削。
- 傾斜軸手動式，旋轉軸NC控制。
- 可做傾斜角度之加工。
- 可在傾斜軸加裝數位角度顯示器，解析度0.02度。

Model Introduction

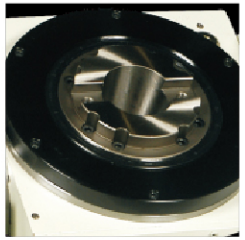
- Tilting shaft has strong clamping force and is suitable for heavy cutting.
- Tilting angle rotated by hand, rotary table controls by NC controller.
- Can do any angle machining.
- A digital angle display can be added to the tilt axis with a resolution of 0.02 degrees.

鎖刀裝置(特別附件)

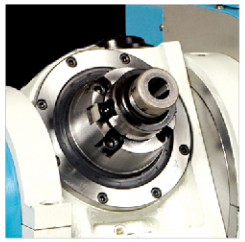
- 可在刀桿前方裝置工具，做為快速換模。
- 可夾持工件，快速更換加工件。
- 適合刀具加工行業。
- TDM-170加裝後傾斜角度為：75°~105°

Tool Clamp Device (Special Accessories)

- Tool can be installed in front of the toolholder for quick change.
- It can hold workpieces and change workpieces quickly.
- Suitable for the tool processing industry.
- TDM-170 is tilted 75°~105° after installation



BT-50



BT-40

數位角度顯示器

- 可在傾斜軸加裝數位角度顯示器。
- 解析度0.02度。

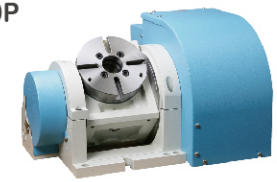
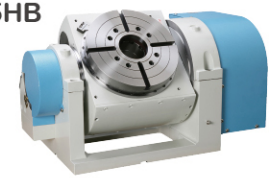
Digital Angle Display

- A digital angle display can be added to the tilt axis.
- Resolution is 0.02 degrees.

型號說明Model Description

TDM-255HB

- 手動傾斜NC雙軸旋轉工作台型號 Manual tilting NC rotary table
- 盤面尺寸Faceplate dimension
- P: 氣壓 pneumatic H: 油壓 Hydraulic
- 大孔徑Large pore

機台列表 Machine List	氣壓鎖緊 Pneumatic Clamping	油壓鎖緊 Hydraulic Clamping	大孔徑 Large Spindle Pore
TDM-170P 	★		
TDM-255HB 		★	★

規格名稱 Specification / Model		TDM-170P		TDM-255HB	
鎖緊方式 Clamp Method		氣壓 (pneumatic) 5kg/cm²		油壓 (hydraulic) 35kg/cm²	
盤面尺寸 Faceplate Dimension		Ø170 mm		Ø255 mm	
貫穿孔徑 Spindle Through Hole Diameter		Ø45 mm		Ø80 mm	
圓盤中心孔徑 Faceplate Centre Hole Diameter		Ø50H7mm		Ø80H7mm	
中心高度 Centre Height		170 mm		210 mm	
盤面T型槽寬度 Faceplate T-Slot Width		12H7 mm		12H7 mm	
定位鍵 Position Key		18H7 mm		18H7 mm	
		旋轉軸 rotary axis	傾斜軸 tilt axis	旋轉軸 rotary axis	傾斜軸 tilt axis
伺服馬達 Servo Motor	發那科 Fanuc	α4i / β8i	手動 manual	α8i / β12i	手動 manual
	三菱 Meldas	HG54S	手動 manual	HG104S/HG154S	手動 manual
總減速比(依機構不同) Total Speed Reduction Ratio (Depending on the Mechanism)		1/90	1/72	1/120	1/72
最小設定單位 Min. Increment Unit		0.001°	5°	0.001°	5°
累積分割精度 Indexing Accuracy		30弧秒(arc seconds)		15弧秒 (arc seconds)	
重覆精度 Repeatability		4弧秒(arc seconds)		4弧秒 (arc seconds)	
鎖緊力 Clamp Force		16 kgf/m		50 kgf/m	
渦輪最大切削力 Worm gear Maximum Torque Capacity		27 kgf/m		48 kgf/m	
傾斜角度 Tilting Range		0°~105°		0°~105°	
最大負載 Maximum Load	垂直(使用尾座) Vertical (With Tailstock)	75(150) kgs		100(200) kgs	
	水平 Horizontal	150 kgs		200 kgs	
鎖刀裝置 Tool Clamp Device		BT40		BT50	
淨重(不含馬達) Net Weight (Without Motor)		90 kgs		210 kgs	

多主軸NC旋轉工作台 MULTI-SPINDLE NC ROTARY TABLE

芳嘉天碟 TOPSDISK

機型介紹

- 安裝高精密之交叉滾柱軸承。
- 油壓鎖緊採用全面碟式剎車片之鎖緊方式，振動力小，且接近工件，增加耐切削力，鎖緊力大。(TE-200-2R)
- 氣壓鎖緊採用全面碟式剎車（台灣專利號碼：217736）之鎖緊方式，加大鎖緊力，增加耐切削力。(TD-125-3L)
- 採用雙導程蝸桿蝸輪組，傳動定位精度高，背隙調整容易。
- 伺服馬達驅動，定位快速、精準、低噪音，適合任意角度之加工。
- 可與CNC機器連線成為第四軸，或搭配可編程控制器成為附加軸。
- 左手型，適合鑽孔或攻牙機使用，上下工件更順手。

Model Introduction

- Install high-precision crossed roller bearings.
- Hydraulic clamping adopts wholly circular hydraulic clamping system. The vibration is small, and it is close to the workpiece, which increases the cutting resistance and the clamping force. (TE-200-2R)
- Pneumatic clamping adopted patented disk-clamping system (Taiwan PAT. : 217736) to enlarge clamping force and ensure heavy-duty continuous cutting. (TD-125-3L)
- With double-lead worm gear the transmission positioning accuracy is high and the backlash adjustment is easy.
- Driven by the servo motor. Efficient in positioning, high accuracy, Low noise and suitable for any angels machining.
- It can be connected to the CNC machine to become the fourth axis, or it can be used as an additional axis with the programmable controller.
- Left-handed type, suitable for drilling or tapping machines, Loading and unloading workpieces are more convenient.

型號說明
Model Description

TD-125-3L

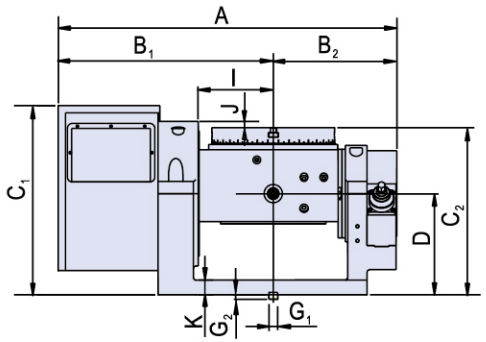
- L: 左手型 R: 右手型
  L: Left hand type R: Right hand type
- 3: 三主軸 2: 二主軸
  3: 3 Spindles 2: 2 Spindles
- 盤面尺寸 Faceplate dimension
- TD/TE: NC旋轉工作台型號
  TD/TE: NC Rotary table

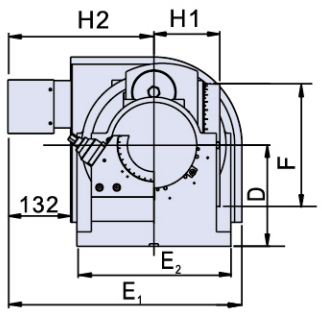
機台列表 Machine List	右手型 Right Hand Type	左手型 Left Hand Type	實用型 Practical Type	氣壓鎖緊 Pneumatic Clamping	油壓鎖緊 Hydraulic Clamping	橫式專用 Horizontal Use Only	立式專用 Vertical Use Only
 TD-125-3L 主軸數Spindles' Number : 3		★		★			★
 TE-200-2R 主軸數Spindles' Number : 2	★		★		★		★

規格名稱 Specification / Model		TD-125-3L	TE-200-2R
使用方法 Use Metnod		立式使用 (vertical)	立式使用 (vertical)
鎖緊方式 Clamp Method		氣壓 (pneumatic) 5kg/cm^2	油壓 (hydraulic) 25kg/cm^2
盤面尺寸 Faceplate Dimension		Ø125 mm	Ø200 mm
貫穿孔徑 Spindle Through Hole Diameter		Ø22 mm	Ø40 mm
圓盤中心孔徑 Faceplate Centre Hole Diameter		Ø22H7 mm	Ø50H7 mm
中心高度 Centre Height		110 mm	160 mm
盤面T型槽寬度 Faceplate T-Slot Width		12H7 mm	12H7 mm
定位鍵 Position Key		14H7 mm	18H7 mm
伺服馬達 Servo Motor	發那科 Fanuc	α4i	α4i
	三菱 Meldas	HG54S	HG54S
總減速比(依機構不同) Total Speed Reduction Ratio (Depending on the Mechanism)		1/90	1/90
最小設定單位 Min. Increment Unit		0.001°	0.001°
累積分割精度 Indexing Accuracy		45 弧秒 (arc seconds)	30 弧秒 (arc seconds)
重覆精度 Repeatability		4 弧秒 (arc seconds)	4 弧秒 (arc seconds)
鎖緊力 Clamp Force		15 kgf/m	25 kgf/m
渦輪最大切削力 Worm gear Maximum Torque Capacity		15 kgf/m	27 kgf/m
最大負載 Maximum Load	垂直(使用尾座) Vertical (With Tailstock)	50 kgs	100 kgs
淨重(不含馬達) Net Weight (Without Motor)		87 kgs	140 kgs

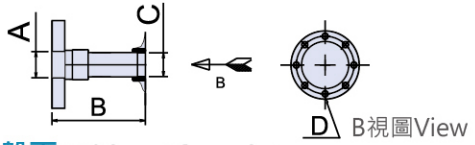
手動傾斜NC旋轉工作台 MANUAL TILTING NC ROTARY TABLE

外觀尺寸說明圖
THE OUTLINE OF DIMENSION

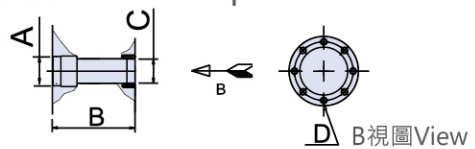




有盤面 With faceplate



無盤面 Without faceplate



外觀尺寸 The Outline of Dimension

	A	B1	B2	C1	C2	D	E1	E2	F	G1	G2	H1	H2	I	J	K
TDM-170P	537.6	351	186.6	302.7	231.8	170	440	304.5	Ø170	18	7	104	265	93	26	25
TDM-255HB	694	439	255	381	347	210	486	320	Ø255	18	7	137	303	156	13	30

主軸尺寸 Spindle Dimension

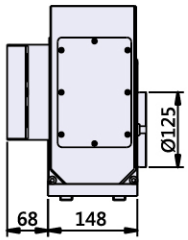
Unit:mm

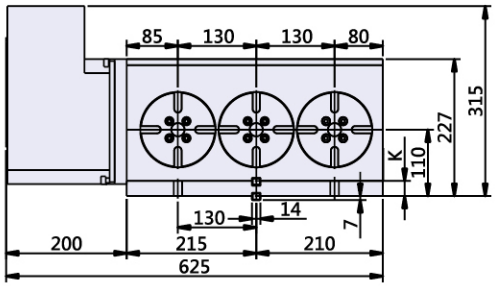
有無盤面 Faceplate	A	B	C	D
YES	Ø50 × 24L	178	Ø45 × 15L	8-M6 × 15L, Ø55
NO	Ø55 × 15L	154	Ø45 × 15L	8-M6 × 15L, Ø55
YES	Ø80 × 15L	187	Ø80 × 15L	6-M6 × 15L, Ø90

多主軸NC旋轉工作台 MULTI-SPINDLE NC ROTARY TABLE

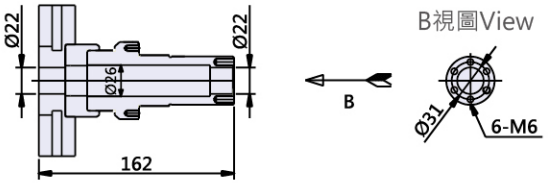
外觀尺寸說明圖
THE OUTLINE OF DIMENSION

TD-125-3L

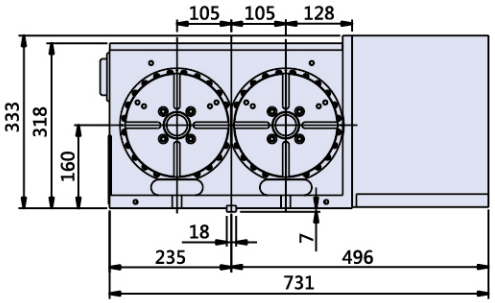


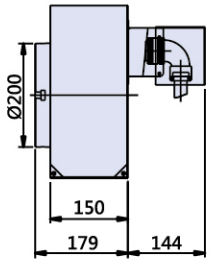


有盤面 With faceplate

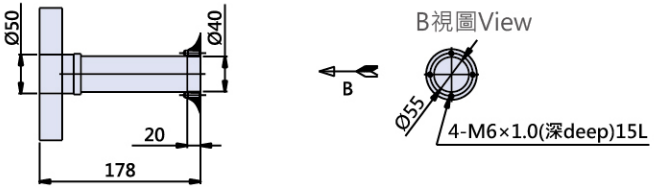


TE-200-2R





有盤面 With faceplate



堅守品質 永續經營

Persevere in quality, sustainable management

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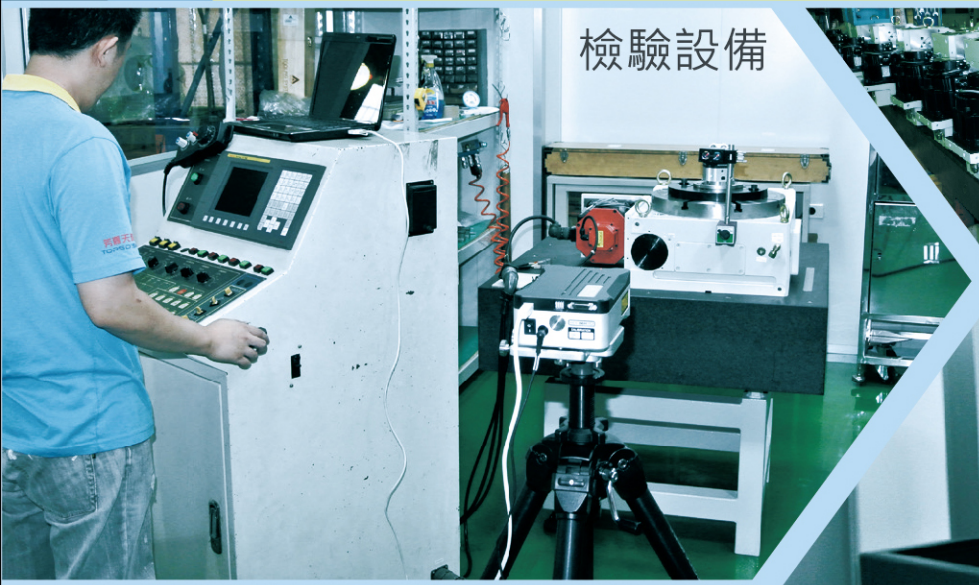

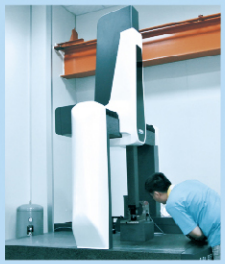

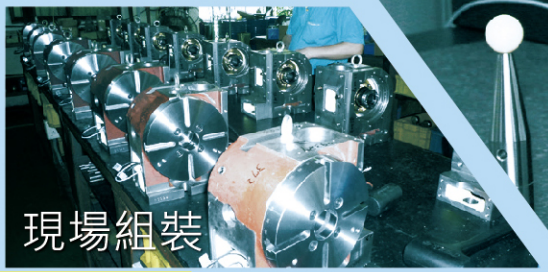

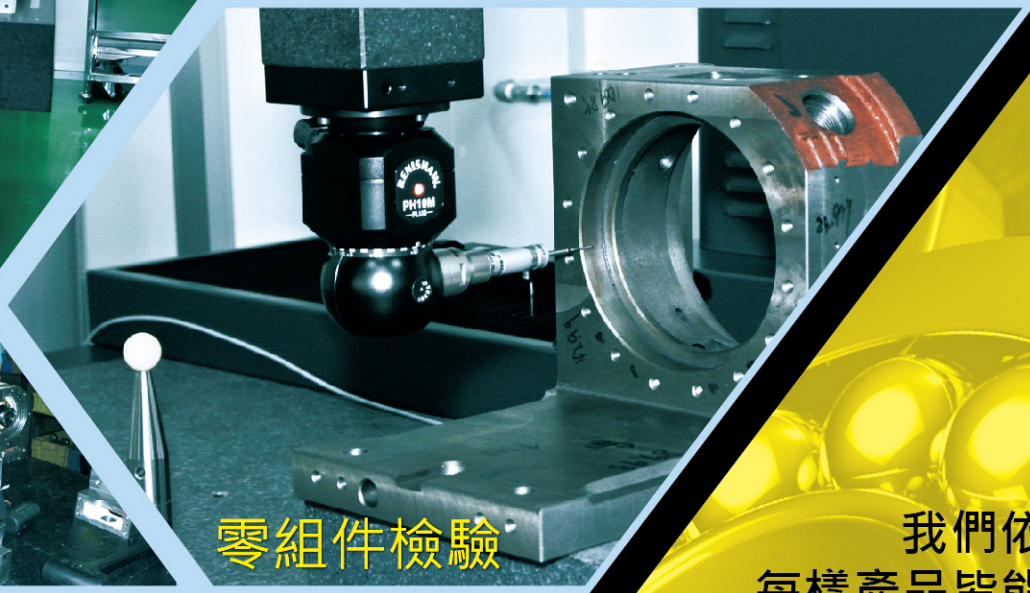

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訓練有素人員
才能裝配出好的產品

有好的儀器
才能驗出好品質

我們採用最先進、高精度的檢驗儀器
德國三次元座標量床、德國二次元高度計、英國雷射干涉儀

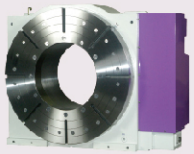
機型介紹

- 採用雙導程蝸桿蝸輪組，傳動定位精度高，背隙調整容易。
- 伺服馬達驅動，定位快速、精準、低噪音，適合任意角度之加工。
- 可加裝空油壓轉換器或油壓單元。
- 可與CNC機器連線成為第四軸，或搭配可編程控制器成為附加軸。
- 分離式的盤面，可節省空間。(TE-125AP~TE-200P/H)
- 搭配Simple2010/Easy2013可編程控制器，可與任何CNC機器(加工中心機、數控銑床、數控磨床、專用機)或傳統機器(銑床、磨床、鑽床)連線，作多角度加工或雕刻。
- 最小分割0.001度。
- 含氣壓鎖緊或油壓鎖緊機構。

型號說明
Model Description

TE-255P

- P:氣壓　H:油壓
  P:Pneumatic H:Hydraulic
- 盤面尺寸
  Faceplate dimension
- TE: 實用型 NC旋轉工作台型號
  TE: Practical NC rotary table model

機台列表 Machine List	右手型 Right Hand Type	實用型 Practical Type	氣壓鎖緊 Pneumatic Clamping	油壓鎖緊 Hydraulic Clamping	大孔徑 Large Spindle Pore	立式專用 Vertical Use Only	立橫兩用 Vertical Horizontal Use	機台列表 Machine List
 TE-125AP	★	★	★			★		 TE-170P
	★	★	★				★	
 TE-200P	★	★	★			★		 TE-200H
	★	★		★		★		
 TE-255P	★	★	★				★	 TE-255H
	★	★		★			★	
 TE-320H	★	★		★		★		 TE-800H
	★	★		★	★		★	

PRACTICAL TYPE NC ROTARY TABLE

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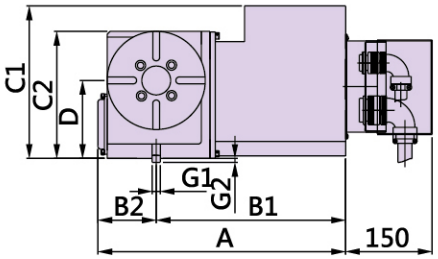
Model Introduction

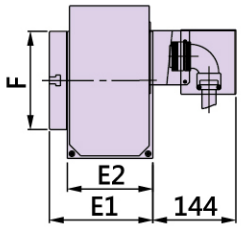
- With double-lead worm gear set, the transmission positioning accuracy is high and the backlash adjustment is easy.
- Driven by the servo motor. efficient in positioning, high accuracy, low noise and suitable for any angels machining.
- Can install air booster or hydranlic unit.
- It can be connected to the CNC machine to become the fourth axis, or it can be used as an additional axis with the programmable controller.
- Seperate faceplate can save space. (TE-125AP~TE-200P/H)
- With Simple2010/Easy2013 programmable controller, it can be used with any CNC machine(machining center, CNC milling machines,CNC grinding machines, special purpose machines) or traditional machines (milling machines, grinding machines, drilling machines) for multi-angle machining or engraving.
- Minimum division is 0.001 degree.
- With pneumatic clamping or hydraulic clamping mechanism.

規格名稱 Specification / Model	TE-125AP	TE-170P	TE-200P	TE-200H	TE-255P	TE-255H	TE-320H	TE-800H
使用方法 Use Method	立式使用 (vertical)	立橫兩用 (vertical and horizontal)	立式使用 (vertical)	立式使用 (vertical)	立橫兩用 (vertical and horizontal)	立橫兩用 (vertical and horizontal)	立式使用 (vertical)	立橫兩用 (vertical and horizontal)
鎖緊方式 Clamp Method	氣壓 (pneumatic) 5kg/cm^2	氣壓 (pneumatic) 5kg/cm^2	氣壓 (pneumatic) 5kg/cm^2	油壓 (hydraulic) 25kg/cm^2	氣壓 (pneumatic) 5kg/cm^2	油壓 (hydraulic) 35kg/cm^2	油壓 (hydraulic) 35kg/cm^2	油壓 (hydraulic) 35kg/cm^2
盤面尺寸 Faceplate Dimension	Ø 125 mm	Ø 170 mm	Ø 200 mm	Ø 200 mm	Ø 255 mm	Ø 255 mm	Ø 320 mm	Ø 800 mm
貫穿孔徑 Spindle Through Hole Diameter	Ø 15 mm	Ø 45 mm	Ø 40 mm	Ø 40 mm	Ø 45 mm	Ø 45 mm	Ø 40 mm	Ø 400 mm
圓盤中心孔徑 Faceplate Centre Hole Diameter	Ø22H7 mm	Ø50H7 mm	Ø50H7 mm	Ø50H7 mm	Ø80H7 mm	Ø80H7 mm	Ø40H7 mm	Ø400H7 mm
中心高度 Centre Height	110 mm	135 mm	160 mm	160 mm	160 mm	160 mm	210 mm	430 mm
盤面T型槽寬度 Faceplate T-Slot Width	12H7 mm	12H7 mm	12H7 mm	12H7 mm	12H7 mm	12H7 mm	14H7 mm	18H7 mm
定位鍵 Position Key	14H7 mm	14H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm	18H7 mm
伺服馬達 Servo Motor 發那科 Fanuc	α2i / β2i	α4i / β8i	α4i / β8i	α4i / β8i	α4i / β8i	α4i / β8i	α12i	α12i
伺服馬達 Servo Motor 三菱 Meldas	HG105S	HG54S/HG104S	HG54S/HG104S	HG54S/HG104S	HG54S/HG104S	HG54S/HG104S	HG204S	HG204S
總減速比(依機構不同) Total Speed Reduction Ratio (Depending on the Mechanism)	1/45	1/72 或 1/90	1/90	1/90	1/90	1/90	1/180	1/180
最小設定單位 Min. Increment Unit	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°
累積分割精度 Indexing Accuracy	90 弧秒 (arc seconds)	40 弧秒 (arc seconds)	30 弧秒 (arc seconds)	30 弧秒 (arc seconds)	20 弧秒 (arc seconds)	20 弧秒 (arc seconds)	20 弧秒 (arc seconds)	20 弧秒 (arc seconds)
重覆精度 Repeat Accuracy	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)
鎖緊力 Clamp Force	8 kgf/m	15 kgf/m	25 kgf/m	75 kgf/m	50 kgf/m	150 kgf/m	85 kgf/m	700 kgf/m
蝸輪最大切削力 Worm Gear Maximum Torque Capacity	15 kgf/m	27 kgf/m	27 kgf/m	27 kgf/m	48 kgf/m	48 kgf/m	78 kgf/m	800 kgf/m
最大負載 Max. Workpiece of Capacity 垂直(使用尾座) Vertical (With Tailstock)	20(50) kgs	50(100) kgs	75(150) kgs	75 kgs	100(250) kgs	100(250) kgs	150(350) kgs	600(1550) kgs
最大負載 Max. Workpiece of Capacity 水平 Horizontal	-	100 kgs	-	-	250 kgs	250 kgs	350 kgs	1550 kgs
淨重(不含馬達) Net Weight (Without Motor)	19 kgs	38 kgs	70 kgs	70 kgs	83 kgs	83 kgs	170 kgs	950 kgs

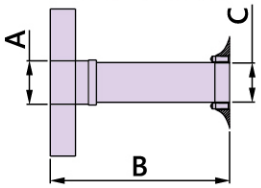
外觀尺寸說明圖
THE OUTLINE OF DIMENSION

立橫兩用
VERTICAL AND HORIZONTAL USE

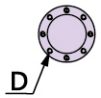




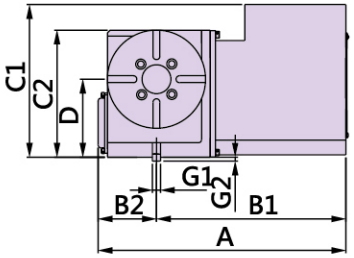
有盤面
With faceplate

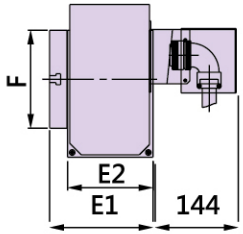


主軸圖
Spindle map

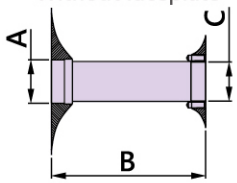


立式使用
VERTICAL USE

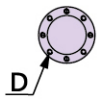




無盤面
Without faceplate



主軸圖
Spindle map



型號說明
Model Description

TE-255P

- P:氣壓 H:油壓 / P:Pneumatic H:Hydraulic
- 盤面尺寸 / Faceplate dimension
- TE: 實用型NC旋轉工作台型號 / TE: Practical NC Rotary table model

外觀尺寸 The Outline of Dimension

Unit:mm

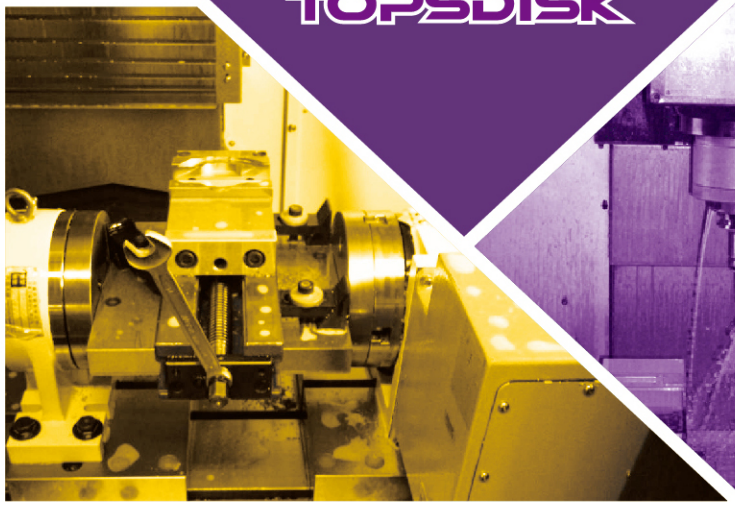
	板金型式 Servomotor Cover	A	B_1	B_2	C_1	C_2	D	E_1	E_2	F	G_1	G_2
TE-125AP	立式 vertical	368	290	78	240	175	110	131	106	Ø125	14	7
TE-170P	立橫 vertical horizontal	392	289	103	285	220	135	179	148	Ø170	14	7
TE-200P/H	立式 vertical	460	328	132	333	301	160	179	150	Ø200	18	7
TE-255P/H	立橫 vertical horizontal	485	347	138	295	295	160	172	151	Ø255	18	7
TE-320H	立式 vertical	614	409	185	356.6	380	210	322	215	Ø320	18	7
	立橫 vertical horizontal	707	502	185	386.6	380	210	223	215	Ø320	18	7
TE-800H	立橫 vertical horizontal	1061	639	422	793	853	430	427	268	Ø800	18	7

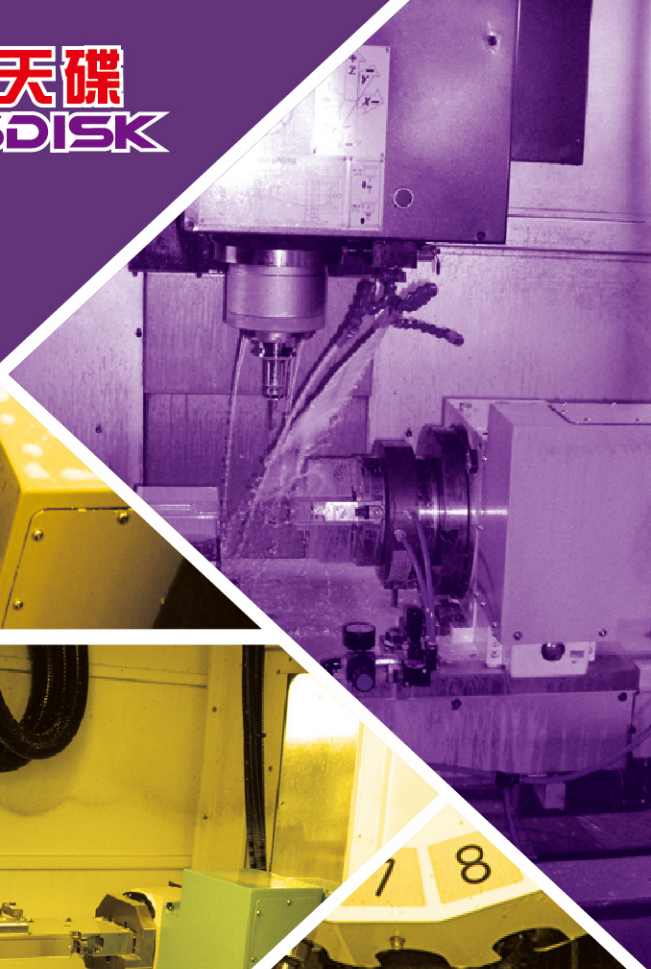
主軸尺寸 Spindle Dimension

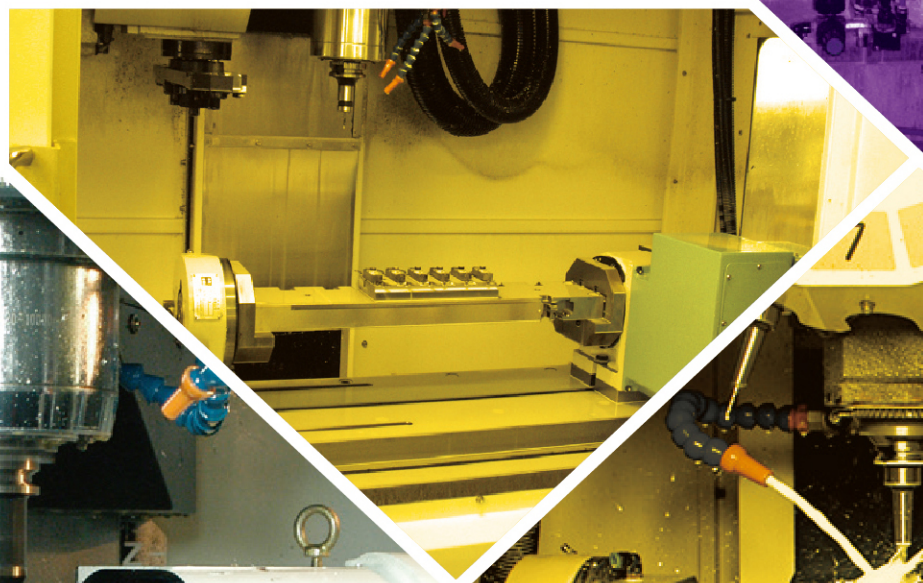
有無盤面 Faceplate	A	B	C	D
YES	Ø22 × 18L	130	Ø15 × 20L	4-M4 × 10L, Ø23.5
NO	Ø26 × 23L	112	Ø15 × 20L	4-M4 × 10L, Ø23.5
YES	Ø50 × 15L	178	Ø45 × 17L	8-M6 × 15L, Ø55
NO	Ø50 × 20L	154	Ø45 × 17L	8-M6 × 15L, Ø55
YES	Ø50 × 24L	178	Ø40 × 20L	4-M6 × 15L, Ø50
YES	Ø80 × 30L	171	Ø45 × 12L	4-M6 × 12L, Ø55
YES	Ø40 × 35L	191	Ø50 × 30L	8-M6 × 15L, Ø68
YES	Ø400 × 92L	317	Ø400 × 92L	12-M5 × 15L, Ø425

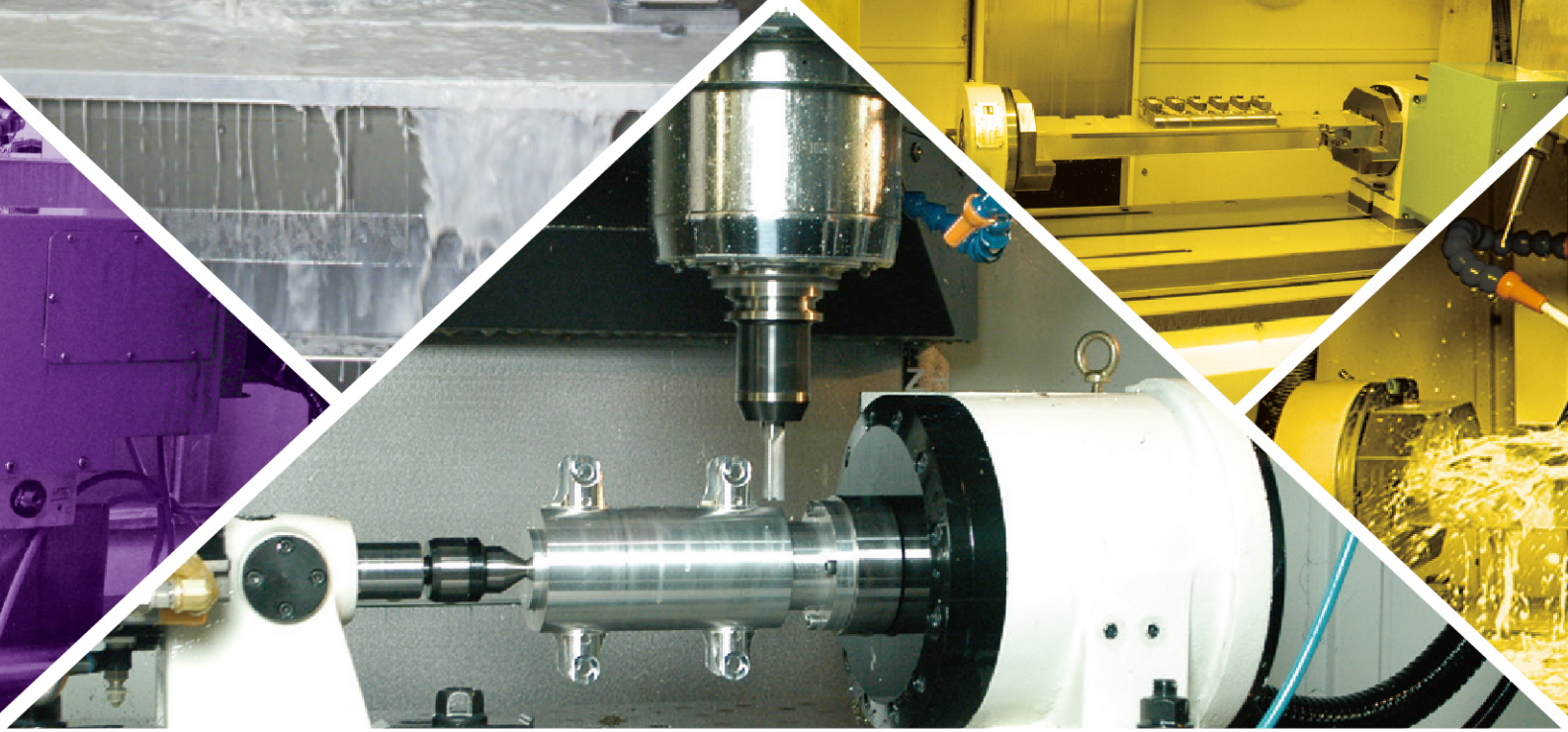
使用範例 USE EXAMPLE

芳嘉天碟
TOPSDISK









專用型NC旋轉工作台

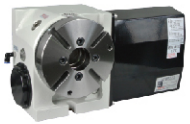
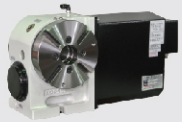
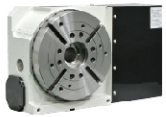
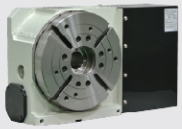
NC Rotary Table Professional Manufacture

機型介紹

- 立式專用，直接出線，分離式的盤面(VE-170~200)，可節省空間。
- 採用雙導程蝸桿蝸輪組，傳動定位精度高，背隙調整容易。
- 空油壓鎖緊方式可選，油壓鎖緊方式可加裝空油壓轉換器或油壓單元。
- 伺服馬達驅動，定位快速、精準、低噪音，適合任意角度之加工。
- 可與CNC機連線成為第四軸，或搭配可編程控制器成為附加軸。
- 搭配Simple2010可編程控制器，可與任何CNC機器（加工中心機數控銑床、數控磨床、專用機）或傳統機器（銑床、磨床、鑽床）連線作多角度加工或雕刻。

Model Introduction

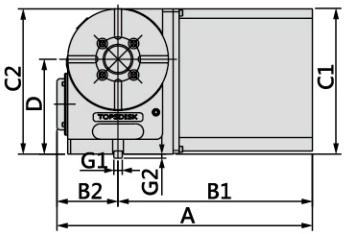
- Vertical use, direct cable connection, seperate faceplate can save space.
- With double-lead worm gear set, the transmission positioning accuracy is high and the backlash adjustment is easy.
- Pneumatic clamping method is selectable, hydraulic clamping method can choose air booster or hydraulic unit.
- Driven by the servo Motor. Efficient in positioning, high accuracy, Low noise and suitable for any angels machining.
- It can be connected to the CNC machine to become the fourth axis, or it can be used as an additional axis with the programmable controller.
- With the Simple2010 programmable controller, it can be used with any CNC machine (machining center, CNC milling machines,CNC grinding machines, special purpose machines) or traditional machines (milling machines, grinding machines, drilling machines) for multi-angle machining or engraving.

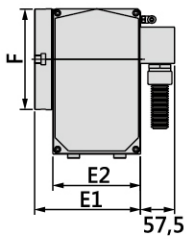
機台列表 Machine List	右手型 Right Hand Type	左手型 Left Hand Type	專用型 Specialized Type	氣壓鎖緊 Pneumatic Clamping	油壓鎖緊 Hydraulic Clamping	立式專用 Vertical Use Only	機台列表 Machine List
 VE-170P	★		★	★		★	 VE-170PC
	★		★	★		★	
 VE-170PCL		★	★	★		★	 VE-200P
	★		★	★		★	
 VE-200H	★		★		★	★	 VE-255EP
	★		★	★		★	
 VE-255EH	★		★		★	★	 VE-255H
	★		★		★	★	

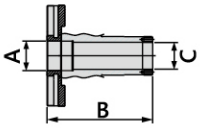
外觀尺寸說明圖
THE OUTLINE OF DIMENSION

型號說明 Model Description **VE-170P**

- P:氣壓(Pneumatic)　H:油壓(Hydraulic)
- 盤面尺寸 Faceplate dimension
- VE：專用型NC旋轉工作台
  VE: Special NC Rotary table model

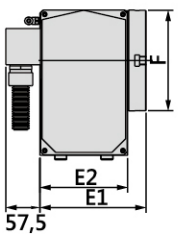


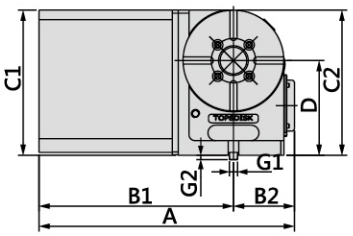


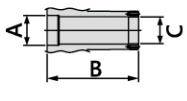


有盤面
With faceplate

主軸圖
Spindle map







無盤面
Without faceplate

主軸圖
Spindle map

SPECIAL TYPE NC ROTARY TABLE

芳嘉天碟 TOPSDISK

規格名稱 Specification / Model	VE-170P/H	VE-170PC/HC	VE-170PCL/HCL	VE-200P/H	VE-255EP	VE-255EH	VE-255H
使用方法 Use Method	右手型 (right hand type)	右手型 (right hand type)	左手型 (left hand type)	右手型 (right hand type)	右手型 (right hand type)	右手型 (right hand type)	右手型 (right hand type)
鎖緊方式 Clamp Method	氣壓 (pneumatic) 5kg/cm^2 油壓 (hydraulic) 20kg/cm^2	氣壓 (pneumatic) 5kg/cm^2 油壓 (hydraulic) 20kg/cm^2	氣壓 (pneumatic) 5kg/cm^2 油壓 (hydraulic) 20kg/cm^2	氣壓 (pneumatic) 5kg/cm^2 油壓 (hydraulic) 20kg/cm^2	氣壓 (pneumatic) 5kg/cm^2	油壓 (hydraulic) 20kg/cm^2	油壓 (hydraulic) 20kg/cm^2
盤面尺寸 Faceplate Dimension	Ø170 mm	Ø170 mm	Ø170 mm	Ø200 mm	Ø255 mm	Ø255 mm	Ø255 mm
貫穿孔徑 Spindle Through Hole Diameter	Ø45 mm	Ø45 mm	Ø45 mm	Ø40 mm	Ø40 mm	Ø45 mm	Ø80 mm
圓盤中心孔徑 Faceplate Centre Hole Diameter	Ø50H7 mm	Ø50H7 mm	Ø50H7 mm	Ø50H7 mm	Ø50H7 mm	Ø80H7 mm	Ø80H7 mm
中心高度 Centre Height	135 mm	160 mm	160 mm	160 mm	160 mm	160 mm	185 mm
盤面T型槽寬度 Faceplate T-Slot Width	12H7 mm	12H7mm	12H7 mm	12H7 mm	12H7 mm	12H7 mm	12H7 mm
定位鍵 Position Key	14H7 mm	14H7 mm	14H7 mm	18H7 mm	18H7 mm	18H7mm	18H7 mm
伺服馬達 Servo Motor 發那科 Fanuc	α2i / β4i	α2i / β4i	α2i / β4i	α4i / β8i	α4i / β8i	α4i / β8i	α4i / β8i
伺服馬達 Servo Motor 三菱 Meldas	HG105S	HG105S	HG105S	HG54S / HG104S	HG54S / HG104S	HG54S / HG104S	HG104S / HG154S
總減速比(依機構不同) Total Speed Reduction Ratio (Depending on the Mechanism)	1/72	1/72	1/72	1/90	1/90	1/90	1/90
最小設定單位 Min. Increment Unit	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°
累積分割精度 Indexing Accuracy	30 弧秒 (arc seconds)	40 弧秒 (arc seconds)	40 弧秒 (arc seconds)	30 弧秒 (arc seconds)	30 弧秒 (arc seconds)	30 弧秒 (arc seconds)	20 弧秒 (arc seconds)
重覆精度 Repeat Accuracy	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)	4 弧秒 (arc seconds)
鎖緊力 Clamp Force	P:15 kgf/m H:60 kgf/m	P:15 kgf/m H:60 kgf/m	P:15 kgf/m H:60 kgf/m	P:25 kgf/m H:110 kgf/m	36 kgf/m	145 kgf/m	250 kgf/m
蝸輪最大切削力 Worm Gear Maximum Torque Capacity	27 kgf/m	27 kgf/m	27 kgf/m	27 kgf/m	27 kgf/m	48 kgf/m	48 kgf/m
最大負載 Max. Workpiece of Capacity 垂直(使用尾座) Vertical(With Tailstock)	50(100) kgs	50(100) kgs	50(100) kgs	75(150) kgs	75(150) kgs	100(250) kgs	100(250) kgs
淨重(不含馬達) Net Weight (Without Motor)	35 kgs	45 kgs	45 kgs	70 kgs	77 kgs	83 kgs	127 kgs

外觀尺寸 The Outline of Dimension

	A	B_1	B_2	C_1	C_2	D	E_1	E_2	F	G_1	G_2
VE-170P	402	299	103	215	221	135	179	155	Ø170	14	7
VE-170PC	431	328	103	245	245	160	179	155	Ø170	14	7
VE-170PCL	431	328	103	245	245	160	179	155	Ø170	14	7
VE-200P/H	460	328	132	333	301	160	179	150	Ø200	18	7
VE-255EP	460	328	132	333	301	160	179	150	Ø255	18	7
VE-255EH	552	414	138	295	295	160	172	151	Ø255	18	7
VE-255H	569	424	145	313	333	185	226	200	Ø255	18	7

主軸尺寸 Spindle Dimension

Unit:mm

	有無盤面 Faceplate	A	B	C	D
VE-170P	YES	Ø50 × 24L	178	Ø45 × 17L	8-M6 × 15L, Ø55
	NO	Ø50 × 20L	154	Ø45 × 17L	8-M6 × 15L, Ø55
VE-170PC	YES	Ø50 × 24L	178	Ø45 × 17L	8-M6 × 15L, Ø55
	NO	Ø50 × 20L	154	Ø45 × 17L	8-M6 × 15L, Ø55
VE-170PCL	YES	Ø50 × 24L	178	Ø45 × 17L	8-M6 × 15L, Ø55
	NO	Ø50 × 20L	154	Ø45 × 17L	4-M6 × 15L, Ø50
VE-200P/H	YES	Ø50 × 24L	178	Ø40 × 20L	8-M6 × 15L, Ø55
VE-255EP	YES	Ø50 × 29L	182.5	Ø40 × 20L	4-M6 × 15L, Ø50
VE-255EH	YES	Ø80 × 30L	172	Ø45 × 20L	4-M6 × 12L, Ø55
VE-255H	YES	Ø80 × 38L	219	Ø80 × 35L	8-M6 × 16L, Ø100

油壓分度盤

機型介紹

- 採用精密三片式齒型離合器，定位精度高，盤面不會上升。
- 排齒傳動，傳動效率高。
- 油壓驅動低成本。
- 強力油壓鎖緊方式，精度穩定，耐重切削。
- 可搭配HIC-2010可編程控制器成為CNC機器之附加軸。
- 可搭配圓盤式專用機。
- 可搭配專用機使用。

型號說明Model Description

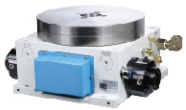
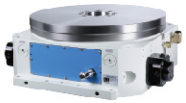
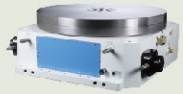
CH3-470S-4

- 4：等分數 Division
- S：S:方型工作台 S:Square Table / C:無軸承片型 C:Direct contact
- 470：盤面尺寸 Faceplate dimension
- 3：三片式 3pcs Hirth coupling
- CH：橫式油壓分度盤型號 Hydraulic index table (Horizontal)

Model Introduction

- Adopted high precision 3pcs HIRTH COUPLING. It can ensure high positioning accuracy and unnecessary lift of faceplate.
- Rack driving can make high mechanical efficiency of power transmission.
- Hydraulic driving can cut down the cost.
- Strong hydraulic clamping method, stable precision and heavy cutting resistance.
- It can be used as an additional axis for CNC machines with the HIC-2010 programmable controller.
- It can be matched with Rotary Special Machine.
- It can be matched with boring and milling machine.

規格名稱 Specification / Model	CH3-340 / CH3-340C	
使用方法 Use Method	橫式使用 (horizontal)	
鎖緊方式 Clamp Method	油壓 (hydraulic) 35kg/cm²	
盤面尺寸 Faceplate Dimension	Ø 340 mm	
貫穿孔徑 Spindle Through Hole Diameter	Ø 30 mm	
圓盤中心孔徑 Faceplate Centre Hole Diameter	Ø65 x 19深(deep) mm	
盤面T型槽寬度 Faceplate T-Slot Width	-	
分割數目 Division	標準等分(Standard division)：4.6.8.12.24擇一(select one) 特殊等分(Special division)：2.3.5.9.10擇一(select one)	
分割精度 Indexing Accuracy	±5 弧秒(arc seconds)	
重覆精度 Repeat Accuracy	±1 弧秒(arc seconds)	
最大負載 Max. Workpiece of Capacity	600 kgs	500 kgs
淨重 Net Weight	130 kgs	130 kgs

機台列表 Machine List	油壓鎖緊 Hydraulic Clamping	橫式專用 Horizontal Use Only	立式專用 Vertical Use Only	實用型 Practical Type	機台列表 Machine List
CH3-340 	★	★			 CH3-470
	★	★			
CH3-600 	★	★			 CH3-800
	★	★			
CH3-340C 	★	★		★	 CH3-470C
	★	★		★	
CH3-600C 	★	★		★	 CH3-400S CH3-470S CH3-600S
	★	★			
CV3-255HD 	★		★		 CV3-320HD
	★		★		

HYDRAULIC INDEXING TABLE

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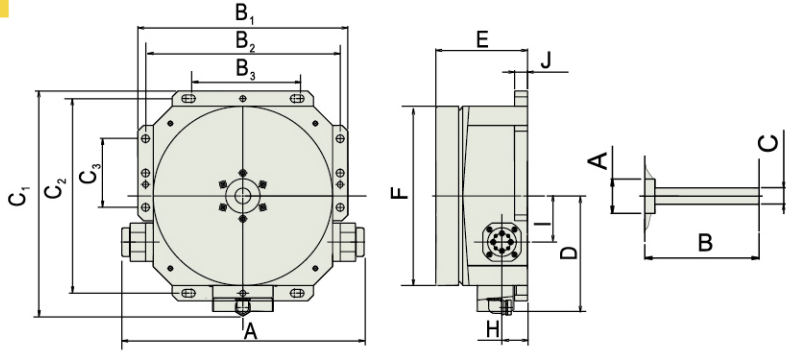
CH3-470 / CH3-470C		CH3-600 / CH3-600C		CH3-800	CH3-400S	CH3-470S	CH3-600S
橫式使用 (horizontal)		橫式使用 (horizontal)		橫式使用 (horizontal)	橫式使用 (horizontal)	橫式使用 (horizontal)	橫式使用 (horizontal)
油壓 (hydraulic) 35kg/cm^2		油壓 (hydraulic) 35kg/cm^2		油壓 (hydraulic) 35kg/cm^2	油壓 (hydraulic) 35kg/cm^2	油壓 (hydraulic) 35kg/cm^2	油壓 (hydraulic) 35kg/cm^2
Ø 470 mm		Ø 600 mm		Ø 800 mm	□ 400 mm	□ 470 mm	□ 600 mm
Ø 40 mm		Ø 50 mm		Ø 45 mm	Ø 30 mm	Ø 40 mm	Ø 50 mm
Ø90 x 12深(deep) mm		Ø110 x 12深(deep) mm		Ø100 x 20深(deep) mm	Ø65 x 19深(deep) mm	Ø90 x 12深(deep) mm	Ø110 x 12深(deep) mm
-		-		-	14H7 mm	18H7 mm	20H7 mm
標準等分(Standard division)：4.6.8.12.24擇一(select one) 特殊等分(Special division)：2.3.5.9.10擇一(select one)		標準等分(Standard division)：4.6.8.12.24擇一(select one) 特殊等分(Special division)：2.3.5.9.10擇一(select one)		標準等分(Standard division)：4.6.8.12.24擇一(select one) 特殊等分(Special division)：2.3.5.9.10擇一(select one)	標準等分(Standard division)：4.6.8.12.24擇一(select one) 特殊等分(Special division)：2.3.5.9.10擇一(select one)	標準等分(Standard division)：4.6.8.12.24擇一(select one) 特殊等分(Special division)：2.3.5.9.10擇一(select one)	標準等分(Standard division)：4.6.8.12.24擇一(select one) 特殊等分(Special division)：2.3.5.9.10擇一(select one)
±5 弧秒(arc seconds)		±5 弧秒(arc seconds)		±5 弧秒(arc seconds)	±5 弧秒(arc seconds)	±5 弧秒(arc seconds)	±5 弧秒(arc seconds)
±1 弧秒(arc seconds)		±1 弧秒(arc seconds)		±1 弧秒(arc seconds)	±1 弧秒(arc seconds)	±1 弧秒(arc seconds)	±1 弧秒(arc seconds)
800 kgs	700 kgs	1350 kgs	1250 kgs	2100 kgs	600 kgs	800 kgs	1350 kgs
275 kgs	275 kgs	450 kgs	450 kgs	1000 kgs	165 kgs	330 kgs	560 kgs

外觀尺寸說明圖
THE OUTLINE OF DIMENSION

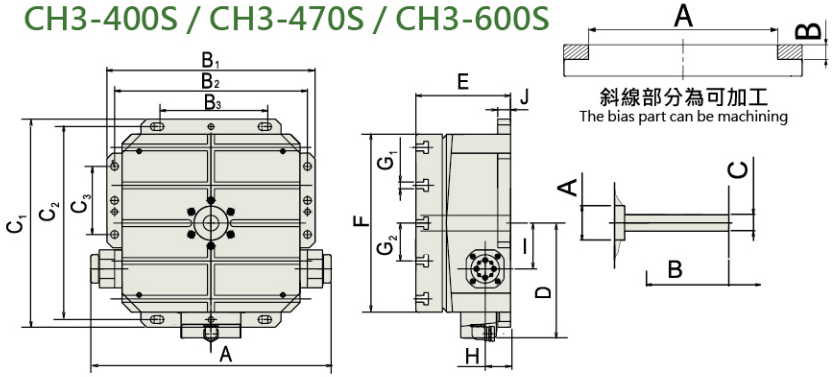
C系列(無軸承片)
C Series (Direct contact)

標準系列(滾柱軸承)
Standard series (Roller bearing)

CH3-340 / CH3-340C / CH3-470 / CH3-470C
CH3-600 / CH3-600C / CH3-800



CH3-400S / CH3-470S / CH3-600S



外觀尺寸 The Outline of Dimension

Unit:mm

	A	B1	B2	B3	C1	C2	C3	D	E	F	G1	G2	H	I	J	主軸尺寸 Spindle Size A	B	C	盤面可鑽孔尺寸 Drilling Size A	B
CH3-340 / CH3-340C	505	404	370	250	423	315	140	238	218	Ø340mm	-	-	62	83	30	Ø65 x 19L	216	Ø31	Ø270	27
CH3-470 / CH3-470C	635	550	510	285	578	510	180	303	240.3	Ø470mm	-	-	67	121	34	Ø90 x 12L	240	Ø41	Ø350	33
CH3-600 / CH3-600C	774	600	-	420	708	640	-	368	260	Ø600mm	-	-	77	140	35	Ø110 x 12L	259	Ø53	Ø470	33
CH3-800	976	800	-	600	900	850	-	450	340	Ø800mm	-	-	117	260	40	Ø100 x 20L	339	Ø45	Ø680	45
CH3-400S	505	404	370	250	423	315	140	238	232.8	□400mm	18	100	62	83	30	Ø65 x 19L	216	Ø31	-	-
CH3-470S	635	550	510	285	578	510	180	303	250	□470mm	18	100	67	121	34	Ø90 x 12L	240	Ø41	-	-
CH3-600S	774	600	-	420	708	640	-	368	290	□600mm	22	100	80	148	35	Ø110 x 12L	259	Ø53	-	-

油壓分度盤 HYDRAULIC INDEX TABLE

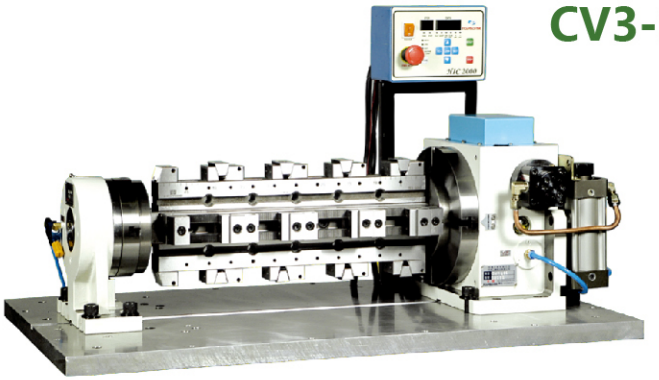
規格名稱 Specification / Model	CV3-255HD	CV3-320HD
使用方法 Use Method	立式使用 (vertical use only)	橫式使用 (horizontal)
鎖緊方式 Clamp Method	油壓 (hydraulic) 35kg/cm^2	油壓 (hydraulic) 35kg/cm^2
盤面尺寸 Faceplate Dimension	Ø 255 mm	Ø 320 mm
貫穿孔徑 Spindle Through Hole Diameter	-	-
圓盤中心孔徑 Faceplate Centre Hole Diameter	Ø30 x 35深(deep) mm	Ø60 x 21深(deep) mm
中心高度 Centre Height	160 mm	255 mm
定位鍵 Position Key	18H7 mm	18H7 mm
盤面T型槽寬度 Faceplate T-Slot Width	12H7 mm	14H7 mm
分割數目 Division	標準等分(Standard division)：4.6.8.12.24擇一(select one) 特殊等分(Special division)：2.3.5.9.10擇一(select one)	標準等分(Standard division)：4.6.8.12.24擇一(select one) 特殊等分(Special division)：2.3.5.9.10擇一(select one)
分割精度 Indexing Accuracy	±5 弧秒 (arc seconds)	±5 弧秒(arc seconds)
重覆精度 Repeat Accuracy	±1 弧秒 (arc seconds)	±1 弧秒(arc seconds)
最大負載 Max. Workpiece of Capacity	125(250) kgs	175(350) kgs
淨重 Net Weight	80 kgs	140 kgs

型號說明
Model Description

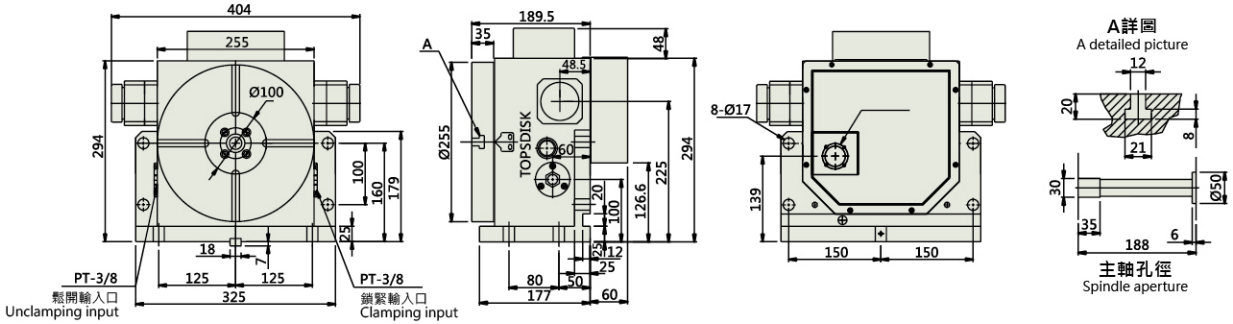
CV3-255HD

- 加裝位置檢出 Position detection
  - D:近接位置檢出(4等份以下) D: Proximity switch (2,4 Division)
  - P:編碼器位置檢出(4等份以上) P: Encoder switch(6,8,12,24 Division)
- 油壓 Hydraulic
- 盤面尺寸 Faceplate dimension
- 三片式 3pcs Hirth coupling
- 立式油壓分度盤型號 Hydraulic index table(Vertical)

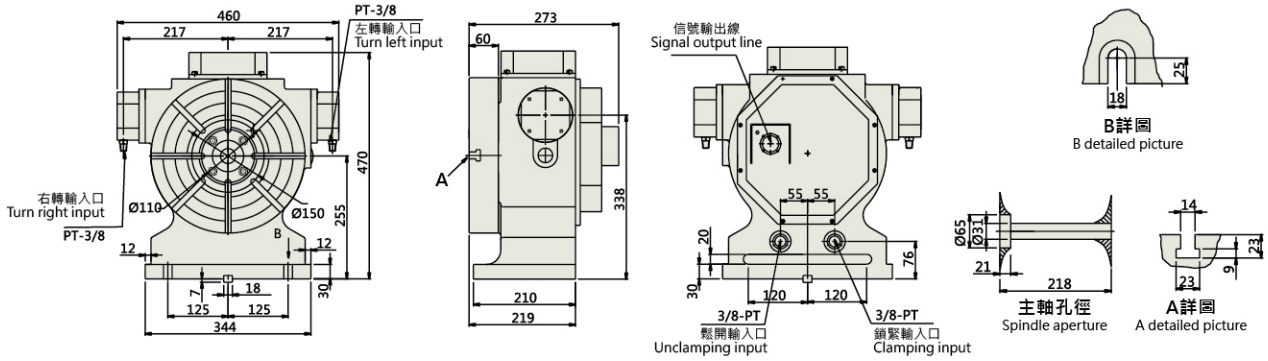
外觀尺寸說明圖
THE OUTLINE OF DIMENSION



CV3-255HD



CV3-320HD



齒式手動分度盤 MANUAL PRECISION COUPLING GEAR INDEX TABLE

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機型介紹

- 採用精密二片式齒型離合器，定位精度高。(CH2-201)
- 採用精密三片式齒型離合器，定位精度高。(MV3-150)
- 強力空壓鎖緊方式，耐重切削。
- 旋轉時，輕鬆省力，操作簡便。
- 適用搪床、銑床、磨床、鑽床等機器。
- 適合經濟型數控加工中心機使用。

專案生產
Customized production

Model Introduction

- Adopted 2pcs type HIRTH COUPLING, with high index accuracy. (CH2-201)
- Adopting 3pcs hirth coupling, with high index accuracy. (MV3-150)
- Powerful pneumatic clamping, with heavy cutting endurance.
- Easy, energy saving rotation. user-friendly operation.
- Suitable for machine such as boring machine, milling machine, grinding machine, drilling machine, etc.
- Suitable for economical CNC machining center.

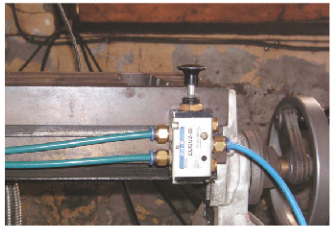
規格名稱 Specification / Model	CH2-201	MV3-150
使用方法 Use Method	橫式使用 (horizontal)	橫式使用 (horizontal)
鎖緊方式 Clamp Method	氣壓 (pneumatic) 5kg/cm²	氣壓 (pneumatic) 5kg/cm²
盤面尺寸 Faceplate Dimension	Ø 200 mm	Ø 150 mm
圓盤中心孔徑 Faceplate Centre Hole Diameter	Ø 50 x 15深(deep) mm	Ø 16 mm
中心高度 Centre Height	-	135
最小分割角度 Min. Increment Unit	7.5°	15°
分割精度 Indexing Accuracy	±3弧秒 (arc seconds)	±5弧秒(arc seconds)
最大負載 Max. Workpiece of Capacity	(水平horizontal) 100kgs	(垂直vertical、平衡荷重balance load) 50kgs
淨重 Net Weight	18 kgs	25 kgs
可選配件 Optional Accessory	8"手動三爪(manual three-jaw chuck)	5"手動三爪(manual three-jaw chuck)

外觀尺寸說明圖
THE OUTLINE OF DIMENSION

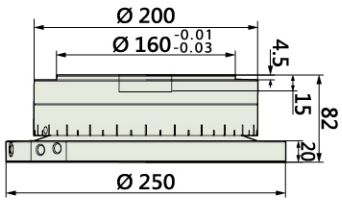
橫式系列 Horizontal
CH2-201

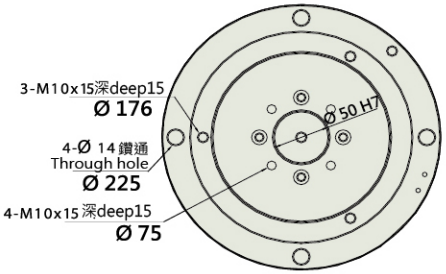
※ CH2-201為批量訂製品(Model is a batch order)

應用於傳統銑床
Application example at traditional milling machine



手動閥組
Manual valve



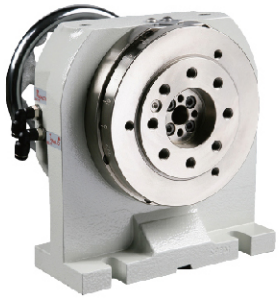


型號說明
Model Description

CH2-201
- 機型 Model
- 手動分度盤型號 Manual index table

MV3-150
- 盤面尺寸 Faceplate dimension
- 三片式離合齒 3 Hirth coupling
- 手動分度盤型號 Manual index table

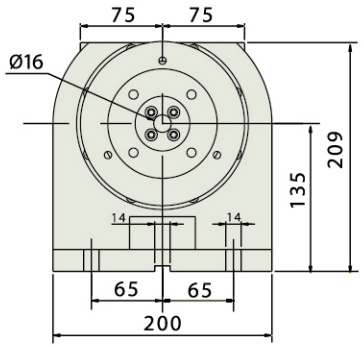
立式系列 Vertical
MV3-150

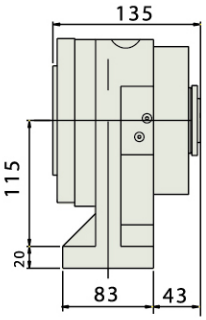


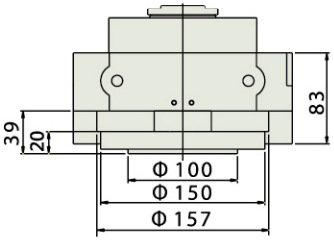
此範例僅供參考，並非標準附件
This example is for reference only and is not a standard accessory

搭配治具板組及FT-135圓盤尾座
Matching fixture plate set and FT-135 faceplate tailstock

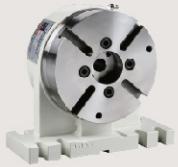
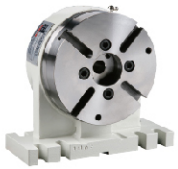
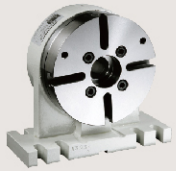
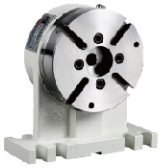
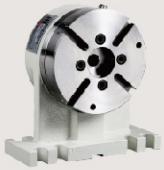
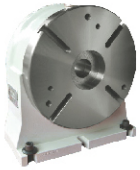
FT-135PD 圓盤尾座及氣壓延遲閥
FT-135PD Faceplate tailstock and air pneumatic delay valve







圓盤尾座

機台列表 Machine List	氣壓鎖緊 Pneumatic Clamping	油壓鎖緊 Hydraulic Clamping	大孔徑 Large Pore	機台列表 Machine List
 FT-110P(無盤)	★			 FT-135P
	★			
 FT-135H		★		 FT-135PB
	★		★	
 FT-160AP	★			 FT-160AH
		★		
 FT-160P	★			 FT-160H
		★		
 FT-185H		★		 FT-210H
		★		
 FT-255AH		★		 FT-310H
		★		

機型介紹

- 氣壓鎖緊採用全面碟式剎車鎖緊方式。
- 油壓鎖緊採用全圓周油壓環抱鎖緊方式。
- 可與TD、CV3、NC3系列搭配使用。
- 與NC3、CV3系列搭配時，請選擇有延遲閥的(D)。

Model Introduction

- Pneumatic Clamping: adopt complete disc-clamping system to enhance clamping force and to ensure continuous heavy-duty cutting.
- Hydraulic Clamping: adopt complete encircle hydraulic clamping system.
- Can be used with TD, CV3, NC3 series.
- When match with NC3 and CV3 series, select (D) with a delay valve.

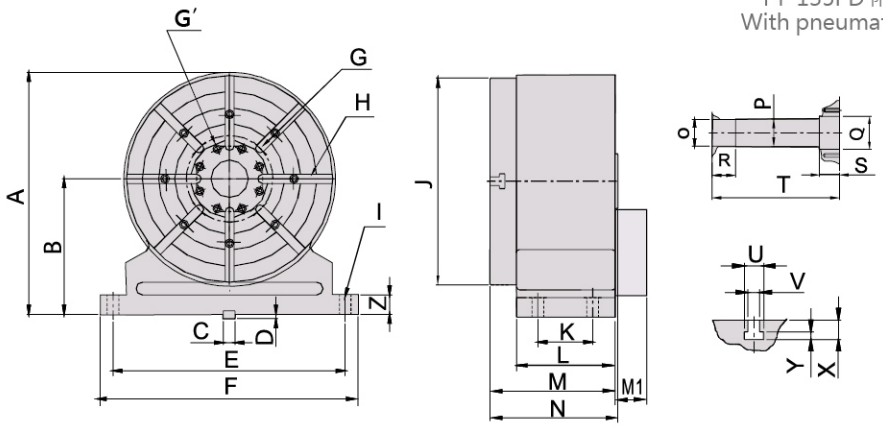
型號說明 Model Description

FT-160APB

- B: 大孔徑 / B: Large Pore
- D:加裝延遲閥 / D: Add delay valve
- P/AP:氣壓鎖緊 / AP/P: Pneumatic clamping
- P/H:油壓鎖緊 / AH/H: Hydraulic clamping
- 中心高度 / Centre height
- 圓盤尾座型號 / Faceplate tailstock

FT-135PD 附氣壓延遲閥型
With pneumatic delay valve

外觀尺寸說明圖 THE OUTLINE OF DIMENSION



FACEPLATE TAILSTOCK

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規格名稱 Specification / Model	FT-110P	FT-135P	FT-135PB	FT-160AP	FT-160P
鎖緊方式 Clamp Method	氣壓 (pneumatic) 5 kg/cm²	氣壓 (pneumatic) 5kg/cm²	氣壓 (pneumatic) 5kg/cm²	氣壓 (pneumatic) 5 kg/cm²	氣壓 (pneumatic) 5kg/cm²
盤面尺寸 Faceplate Dimension	-	Ø170 mm	Ø170 mm	Ø170 mm	Ø255 mm
貫穿孔徑 Spindle Through Hole Diameter	Ø20 mm	Ø20 mm	Ø35 mm	Ø20 mm	Ø55 mm
中心高度 Center Height	110 mm	135 mm	135 mm	160 mm	160 mm
鎖緊力 Clamp Force	16 kgf/m	16 kgf/m	16 kgf/m	16 kgf/m	45 kgf/m
淨重 Net Weight	15 kgs	22 kgs	22 kgs	25 kgs	70 kgs

規格名稱 Specification / Model	FT-135H	FT-160AH	FT-160H	FT-185H	FT-210H	FT-255AH	FT-310H
鎖緊方式 Clamp Method	油壓 (hydraulic) 20 kg/cm²	油壓 (hydraulic) 20 kg/cm²	油壓 (hydraulic) 35 kg/cm²	油壓 (hydraulic) 20 kg/cm²	油壓 (hydraulic) 35 kg/cm²	油壓 (hydraulic) 35 kg/cm²	油壓 (hydraulic) 35 kg/cm²
盤面尺寸 Faceplate Dimension	Ø170 mm	Ø170 mm	Ø255 mm	Ø255 mm	Ø320 mm	Ø320 mm	Ø500 mm
貫穿孔徑 Spindle Through Hole Diameter	Ø20 mm	Ø20 mm	Ø55 mm	Ø40 mm	Ø42 mm	Ø42 mm	Ø141 mm
中心高度 Center Height	135 mm	160 mm	160 mm	185 mm	210 mm	255 mm	310 mm
鎖緊力 Clamp Force	60 kgf/m	60 kgf/m	50 kgf/m	85 kgf/m	85 kgf/m	85 kgf/m	250 kgf/m
淨重 Net Weight	22 kgs	25 kgs	70 kgs	64 kgs	115 kgs	130 kgs	250k gs

外觀尺寸 The Outline of Dimension

Unit:mm

	A	B	C	D	E	F	G	G'	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	X	Y	Z
FT-110P	195	110	14	7	130	170	Ø72	Ø75	-	3-Ø14	-	69	95	-	95	-	Ø20	Ø20	-	-	98	-	-	-	-	20
FT-135P	220	135	14	7	200	245	Ø80	Ø75	4-12	4-Ø14	Ø170	63	95	101	-	Ø50	Ø20	Ø20	24	-	101	19	12	19	8	25
FT-135PB	220	135	14	7	200	245	Ø80	Ø75	4-12	4-Ø14	Ø170	59	95	101	-	Ø50	Ø35	Ø35	24	-	104	19	12	19	8	25
FT-160AP FT-160AH	245	160	18	7	200	245	Ø80	Ø75	4-12	4-Ø18	Ø170	63	95	101	-	Ø50	Ø20	Ø20	24	-	101	19	12	19	8	25
FT-160P FT-160H	295	160	18	7	200	270	Ø111	-	4-14	4-Ø18	Ø255	84	124	171	175	Ø80	Ø55	Ø55	65	-	175	19	12	19	8	25
FT-185H	320	185	18	7	200	300	Ø130	-	4-12	6-Ø18	Ø255	101	135	139.5	139.5	Ø80	Ø40	Ø40	20	20	139	19	12	19	8	25
FT-210H	375	210	18	7	360	400	Ø134	-	8-14	4-Ø18	Ø320	85	153	194	-	Ø40	Ø42	Ø50	35	30	192	23	14	23	9	30
FT-255AH	420	255	18	7	360	400	Ø134	-	8-14	4-Ø18	Ø320	85	153	194	-	Ø40	Ø42	Ø50	35	30	192	23	14	23	9	30
FT-310H	560	310	18	7	540	600	Ø210	-	8-18	4-Ø18	Ø500	90	195	202	-	Ø140	Ø140	Ø140	-	15	156	30	18	30	12	40

手動頂針尾座 MANUAL TAILSTOCK

機型介紹

■ 頂針分固定式及替換式兩種。

Model Introduction

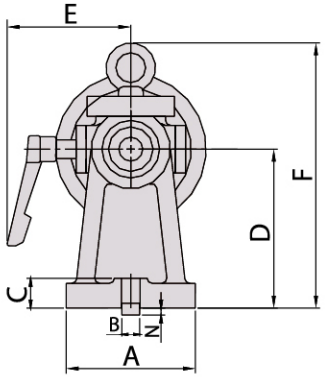
■ Spindle : Center replaceable type and spindle with center type.

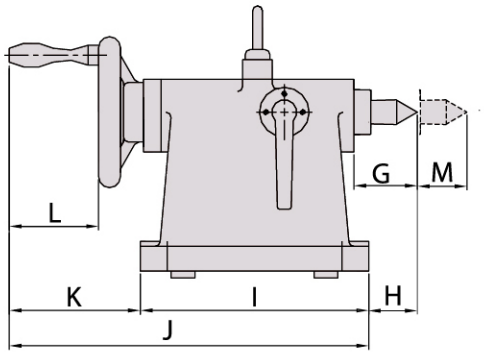
外觀尺寸說明圖
THE OUTLINE OF DIMENSION

型號說明
Model Description

MT-160S

- 頂針替換式(無:一體成型)
  Center replaceable type
  (Without"s":spindle with center type)
- 中心高度 Central height
- 手動尾座型號Manual tailstock





機台列表 Machine list	手動 Manual	氣壓 Pneumatic	油壓 Hydraulic	分離式頂針 Separate Spindle	機台列表 Machine list
 MT-110	★				 MT-110S
	★			★	
 MT-135	★				 MT-135S
	★			★	
 MT-160	★				 MT-160S
	★			★	
 MT-210	★				 MT-210S
	★			★	
	★			★	 MT-255S

外觀尺寸 The Outline of Dimension

Unit:mm

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	頂針 Spindle	淨重(kg) Net weight
MT-110/MT110S	100	14	23	110	103	161	67	36	135	247	112	60	30	7	2#	10
MT-135/MT135S	100	14	23	135	103	186	67	36	135	247	112	60	30	7	2#	12
MT-160/MT-160S	130	18	30	160	125	267	64	47	230	362	132	90	50	7	3#	19
MT-210/MT-210S	146	18	30	210	125	317	64	47	230	362	132	90	50	7	3#	26
MT-255S	200	18	30	255	135	394	122	132	285	482	197	90	110	7	4#	53

自動頂針尾座 AUTOMATIC TAILSTOCK

芳嘉天碟 TOPSDISK

機型介紹

- 頂針均為替換式。
- 行進方式分為氣壓及油壓。
- 可選擇有檢出及電磁閥型或手動閥型。

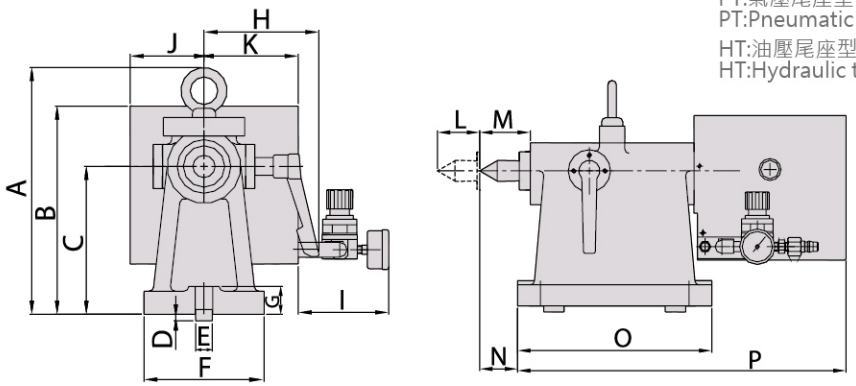
Model Introduction

- Spindle : All are center replaceable type.
- Pneumatic or hydraulic driven.
- "Solenoid type with detector "or" manual valve" .

型號說明 Model Description **PTC(M)-135S**

- 頂針替換式 Center replaceable type
- 中心高度 Central height
- 手動閥 Manual valve
- 含檢出及電磁閥 With detector and solenoid
- PT:氣壓尾座型號 PT:Pneumatic tailstock
- HT:油壓尾座型號 HT:Hydraulic tailstock

外觀尺寸說明圖 THE OUTLINE OF DIMENSION



外觀尺寸 The Outline of Dimension

Unit:mm

機台列表 Machine List	氣壓 Pneumatic	油壓 Hydraulic	檢出 detector	手動閥 Manual valve	分離式頂針 Separate Spindle	機台列表 Machine List
 PTM-135S	★			★	★	 PTC-135S
	★		★		★	
 PTM-160S	★			★	★	 PTC-160S
	★		★		★	
 HTM-160S		★		★	★	 HTC-160S
		★	★		★	
 HTM-210S		★		★	★	 HTC-210S
		★	★		★	
 HTM-255S		★		★	★	 HTC-255S
		★	★		★	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	頂針 Spindle	淨重(kg) Net weight
PTM-110S	161	172	110	7	14	100	23	103	-	67.5	77.5	30	67	47	135	286	2#	13
PTM-135S	186	172	135	7	14	100	23	103	-	67.5	77.5	50	67	47	135	234	2#	15
PTC(M)-160S	267	225	160	7	18	130	30	125	98	80	102	100	64	45	230	389	3#	25
PTC-135S	186	172	135	7	14	100	23	103	98	67.5	77.5	50	67	47	135	286	2#	15
HTC(M)-160S	267	225	160	7	18	130	30	125	-	67.5	77.5	100	64	45	230	389	3#	25
HTC(M)-210S	317	246	210	7	18	146	30	125	-	67.5	77.5	100	64	45	230	359	3#	36
HTC(M)-255S	394	320	255	7	18	200	30	135	-	80	102	100	87	97	285	482	4#	66

可編程控制器 / 顯示器

可編程控制器

- CNC機器可利用M碼連線。
- 可外接啟動信號開關，腳踏開關。
- 內建鎖緊系統控制，不用再分別輸入。
- 採用AC伺服系統，穩定度高、防雜訊干擾。
- 高精密、高扭力、速度快。
- 內含手搖輪(MPG)，方便工件校正。
- 獨家角度傳輸功能，可直接與CNC機器連線，不用學習程式輸入。
- 採用最新觸控螢幕，顯示最完整的信息，操作方便。(SIMPLE-2010)
- 可驅動最新型馬達，直接驅動型(DD MOTOR)旋轉工作台。(SIMPLE-2010)

SIMPLE-2010

EASY-2013

Single Axis Controller

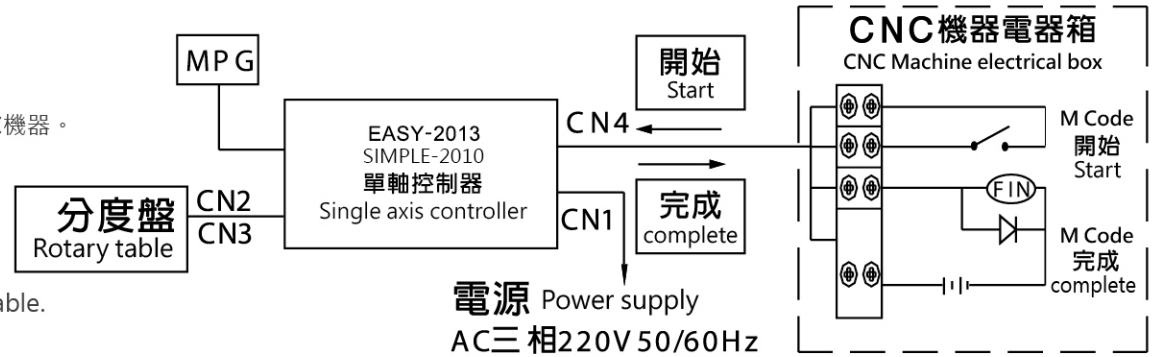
- CNC machine can employ M-code.
- Can be connected with start , stop signal .
- Built-in clamping system control, no need to input separately.
- Adopted AC servo motor that have high stability and anti-signal interference.
- High precision, high torque, and high speed.
- Hand wheel (MPG) is standard. It is for amending workpiece easier.
- Exclusive angle transmission function, which can be directly connected to CNC machine without inputting learning program.
- Use the latest touch screen to display the most completed information and easy to operate.(SIMPLE-2010)
- Drive the latest motor, direct drive (DD MOTOR) rotary table. (SIMPLE-2010)

CNC連線方式

- 由CNC機器送出一個M碼(如:M80)。
- SIMPLE-2010 / EASY-2013可編程控制器啟動，使分度盤旋轉。
- 執行完成後，SIMPLE-2010 / EASY-2013可編程控制器，再送回一個完成信號給CNC機器。
- CNC機器繼續執行下一步的CNC程式。

CNC Machine Connection Method

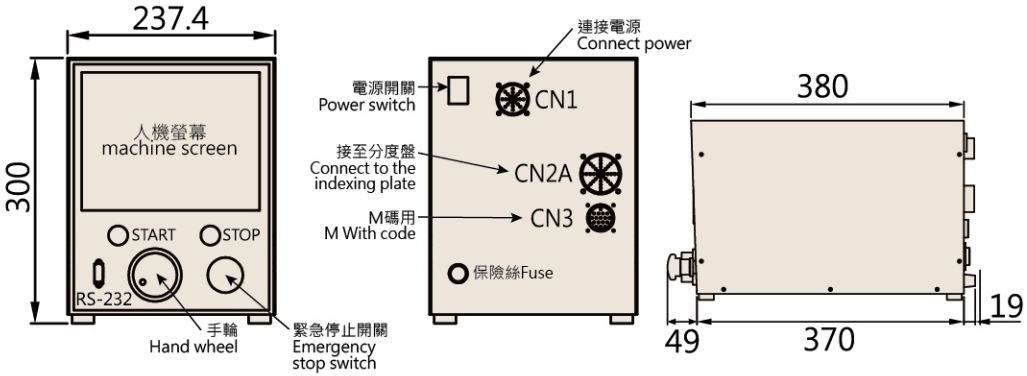
- An M code (eg M80) is sent by the CNC machine.
- SIMPLE-2010 / EASY-2013 programmable controller starts to rotate the rotary table.
- After the execution is completed, the SIMPLE-2010 / EASY-2013 programmable controller will send back a finish signal to the CNC machine.
- The CNC machine continues to execute the next CNC program.



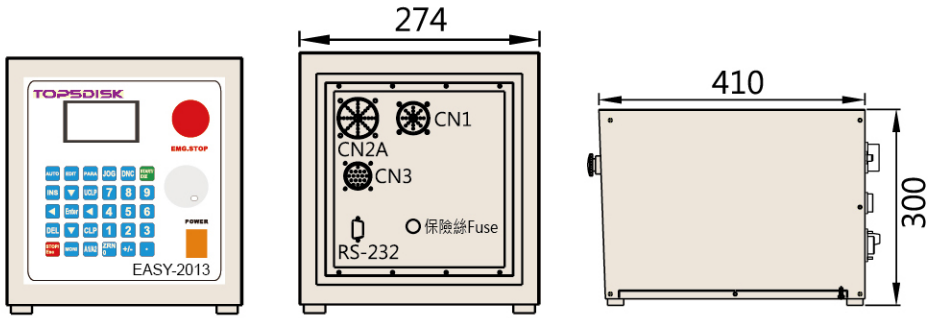
外觀尺寸說明圖
THE OUTLINE OF DIMENSION

Unit:mm

SIMPLE-2010



EASY-2013



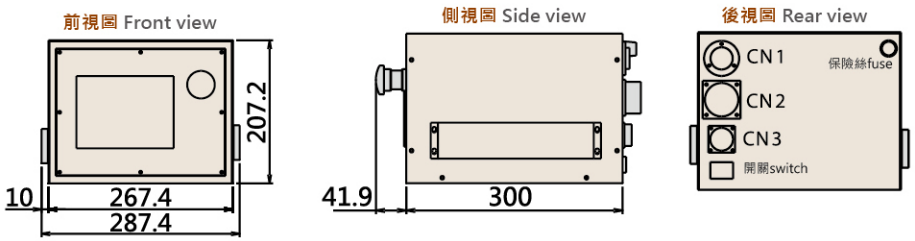
適用機型 Applicable Models

	4th軸(安川) 4thaxis(Yaskawa)	傾斜軸(安川) Tilt axis(Yaskawa)	雙軸(安川) Double axis(Yaskawa)
TDE-125/TE-125	SP10-Y7J400 / EZ13-Y7J400	-	-
TD-170/TE-170	SP10-Y7G900 / EZ13-Y7G900	-	-
TD-200/TE-200	SP10-Y7G900 / EZ13-Y7G900	-	-
TD-255/TE-255	SP10-Y7G1300 / EZ13-Y7G1300	-	-
TD-320/TE-400	SP10-Y7G2000 / EZ13-Y7G2000	-	-
TD-500	SP10-Y7G3000 / EZ13-Y7G3000	-	-
TTD-125	SP10-Y7J400 / EZ13-Y7J400	SP10-Y7G900 / EZ13-Y7G900	SP10-Y7J400-Y7G900 / EZ13-Y7J400-Y7G900
TTD-255	SP10-Y7G900 / EZ13-Y7G900	SP10-Y7G1300 / EZ13-Y7G1300	SP10-Y7G900-Y7G1300 / EZ13-Y7G900-Y7G1300

可編程控制器/顯示器 CONTROLLER/DISPLAY

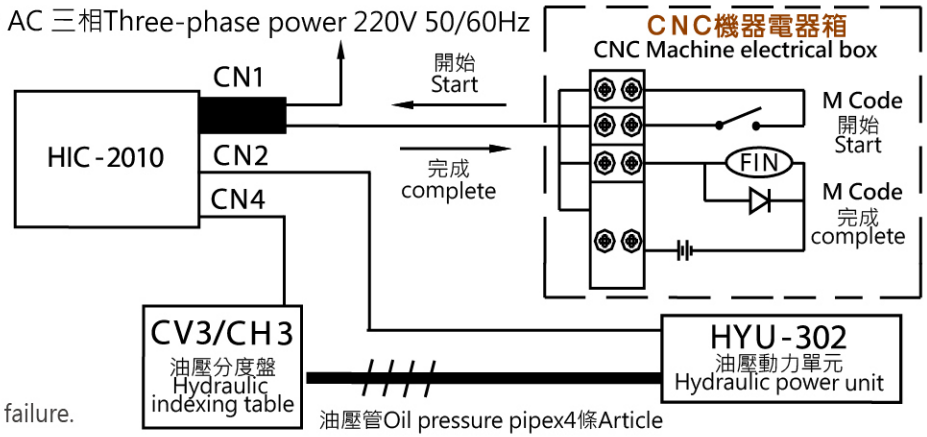
油壓分度盤可編程控制器 HIC-2010

- CNC機器可利用M碼連線。
- 可外接啟動信號。
- 設定最小分割角度的倍數及正反轉。
- 搭配CH3、CV3系列油壓分度盤。
- 有停電記憶功能，使油壓分度盤在停電後動作依然正常。
- 採用最新觸控螢幕，顯示最完整的信息，操作方便。



CNC機械連線方式

- 由CNC機器送出一個M碼(如: M80)。
- HIC-2010可編程控制器啟動，使分度盤旋轉。
- 執行完成後，HIC-2010可編程控制器，再送回一個完成信號給CNC機器。
- CNC機器繼續執行下一步的CNC程式。



Hydraulic Index Table Controller HIC-2010

- CNC machine can employ M-code.
- An external start signal can be used.
- Can set multiple of Min. Indexing degree and CW / CCW rotate.
- Can match with CH3, CV3 series hydraulic Index Table.
- There is power failure memory function, so that the hydraulic indexing table still works normally after power failure.
- Use the latest touch screen to display the most completed information and easy to operate.

CNC Mechanical ConnectionCNC Machine Connection Method

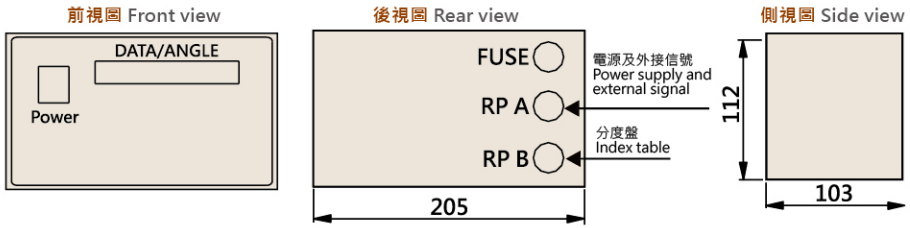
- An M code (eg M80) is sent by the CNC machine.
- HIC-2010 programmable controller starts to rotate the rotary table.
- After the execution is completed, the HIC-2010 programmable controller will send back a finish signal to the CNC machine.
- The CNC machine continues to execute the next CNC program.

數位角度顯示器 TRO-2005

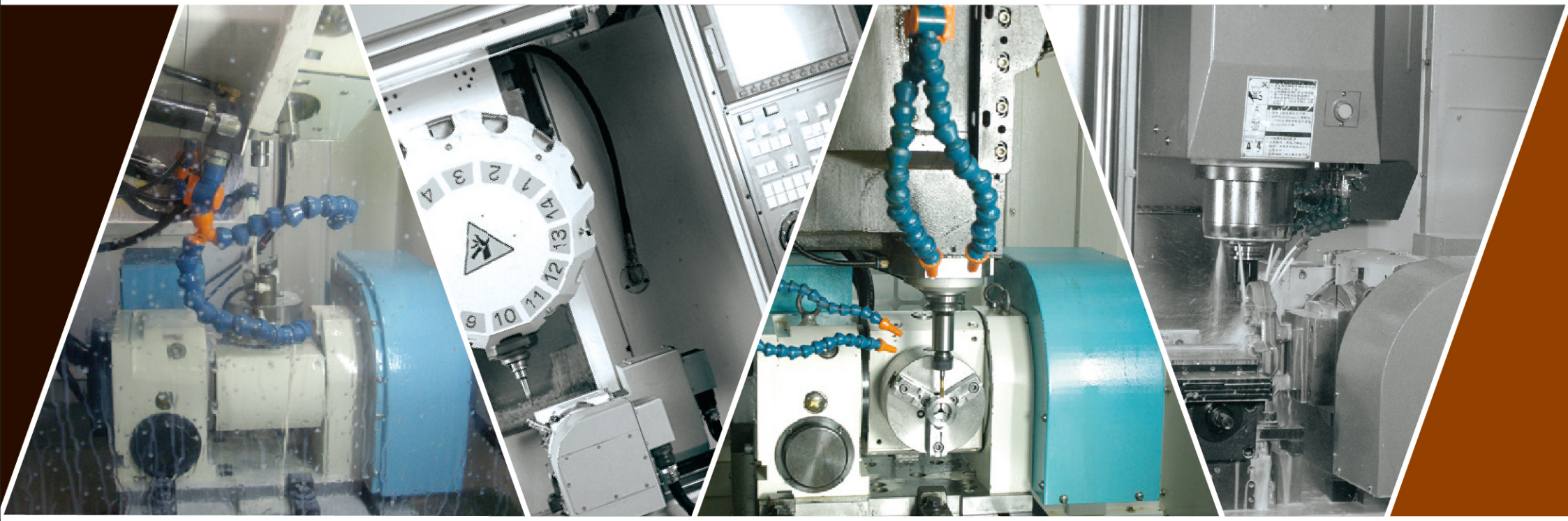
- 停電記憶。
- 可設任意原點。
- 操作簡易。
- 解析度0.02度。
- 角度單位：十進制(0.001°) 或60進制(度、分、秒)。
- 搭配分度盤使用。

Digital Angle Display TRO-2005

- Power-failure Memory.
- Able to set any point as Zero point.
- Easy operation.
- Resolution is 0.02 degrees.
- Angle Unit: can be decimal system(0.001) or sexaqenary (degree, minute, second)
- Match with rotary table.

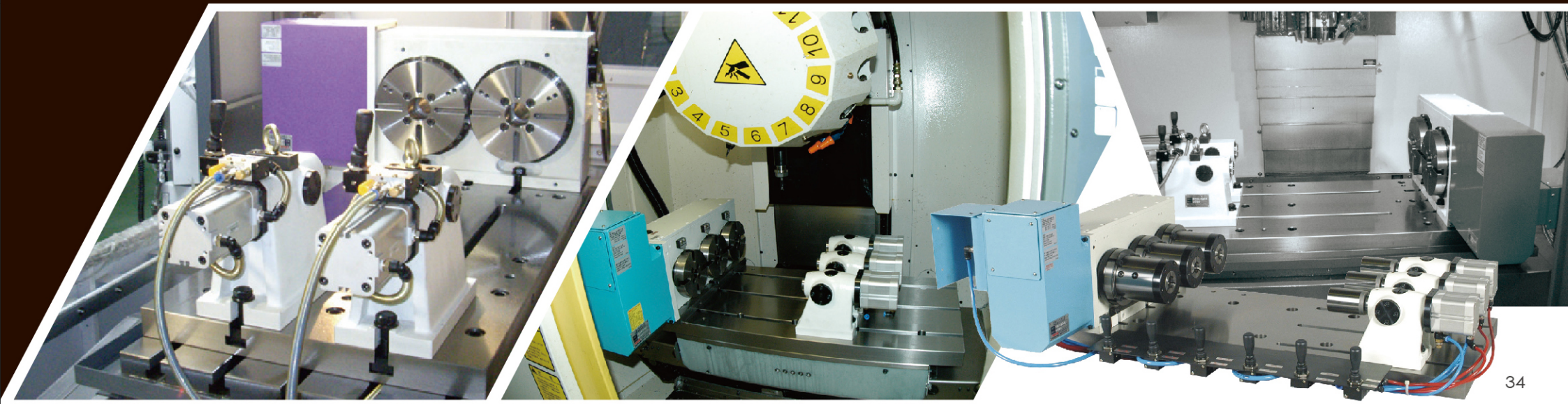


使用範例 APPLICATION EXAMPLE



▼ 多主軸NC旋轉工作台應用 Multi-spindle NC Rotary Table

NC雙軸旋轉工作台應用 NC TILTING ROTARY TABLE ▲



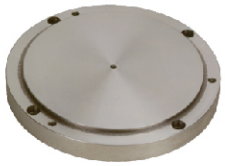
LB/LD圓型L塊 Circle Type L Jig Bracket

LB@TD170
- 適用機型 Applicable models
- 型式B:圓型盤鎖 Type B: Standard of circle type
- 型式D:圓型直鎖 Type D: Direct lock of circle type
- L塊型號L Jig bracket model

LA/LC角型L塊 Angle Type L Jig Bracket

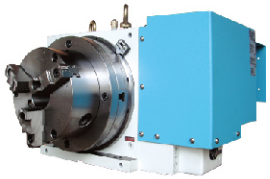
LB@TD170
- 適用機型 Applicable models
- 型式B:圓型盤鎖 Type B: Standard of circle type
- 型式D:圓型直鎖 Type D: Direct lock of circle type
- L塊型號L Jig bracket model

BP三爪背板 Back Plate



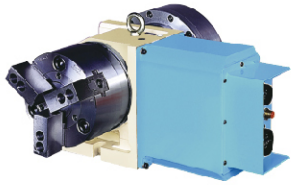
BP6xxx@TD170
- 適用機型 Applicable models
- 中心孔徑 Central aperture
- 三爪尺寸 Three-jaw chuck size
- 三爪背板型號 Three-jaw back plate model

強力型前鎖式三爪 Powerful Front Lock 3 Jaw Chuck



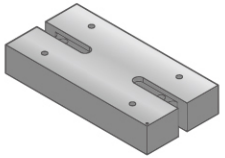
3M6 @TD170
- 適用機型 Applicable models
- 三爪尺寸 Three-jaw chuck size
- 手動三爪+背板整組型號 Manual three-jaw chuck+back plate full set model

油壓/空壓三爪 Hydraulic / Pneumatic 3 Jaw Chuck



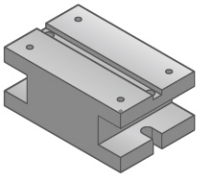
3H6@TD170
- 適用機型 Applicable models
- 三爪尺寸 Three-jaw chuck size
- 3H油壓/3P空壓(三爪整組型號) 3H Hydraulic/3P Pneumatic hydraulic three-jaw chuck full set model

墊高塊A型 Raiser: A Type(for MT)



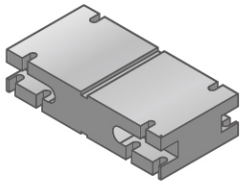
BHAxxx@TD170
- 適用機型 Applicable models
- 墊高塊高度 Raiser height
- 型式A:平型(配MT系列) Type A: Flat (with MT series)
- 墊高塊型號 Raiser model

墊高塊B型 Raiser: B Type(for MT)



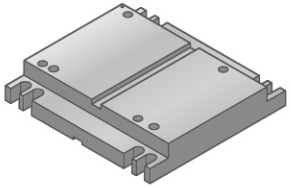
BHBxxx@TD170
- 適用機型 Applicable models
- 墊高塊高度 Raiser height
- 型式B：工字型(配MT系列) Type B: I type(with MT series)
- 墊高塊型號 I type Raiser model

墊高塊C型 Raiser: C Type(for TD & FT)



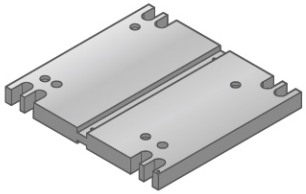
BHCxxx@TD170
- 適用機型 Applicable models
- 墊高塊高度 Raiser height
- 型式C：工字型(配TD&FT系列) Type C: I type(with TD&FT series)
- 墊高塊型號 Raiser model

墊高塊D型 Raiser: D Type(for TD & FT)



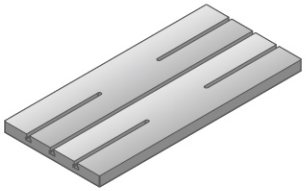
BHDxxx@TD170
- 適用機型 Applicable models
- 墊高塊高度 Raiser height
- 型式D：凸字型(配TD&FT系列) Type D: 凸 shape(with TD&FT series)
- 墊高塊型號 Raiser model

墊高塊E型 Raiser: E Type(for TD & FT)



BHExxx@TD170
- 適用機型 Applicable models
- 墊高塊高度 Raiser height
- 型式E：平型(配TD&FT系列) Type E: Flat (with TD&FT series)
- 墊高塊型號 Raiser model

治具底板 Base Plate



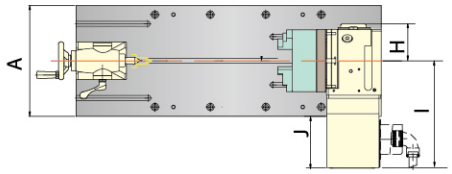
14- 82530-100

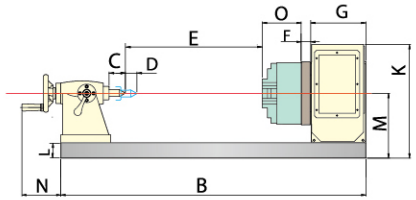
- 14 — T型槽(Slot)M14
- 82530 — 長(L)825x寬(W)300
- 100 — CNC機器T型槽鍵距 Pitch of CNC machine T-slot

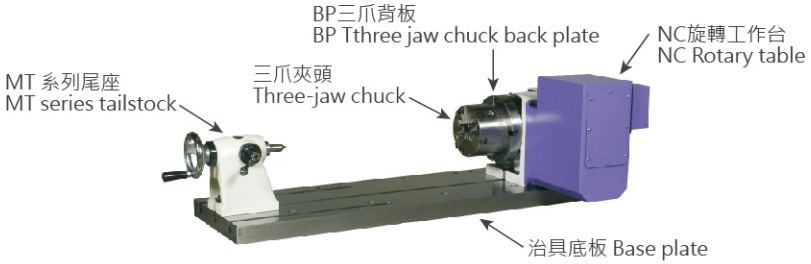
18- 120045-100

- 18 — T型槽(Slot)M18
- 120045 — 長(L)1200x寬(W)450
- 100 — CNC機器T型槽鍵距 Pitch of CNC machine t-slot

RTB四軸頂針尾座模組 RTB 4th Axis Spindle Tailstock Model



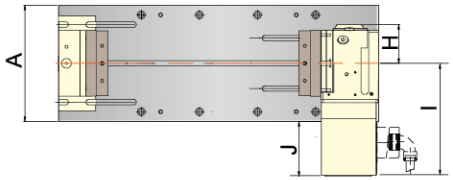


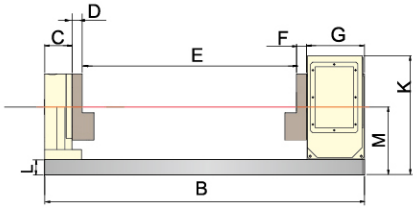


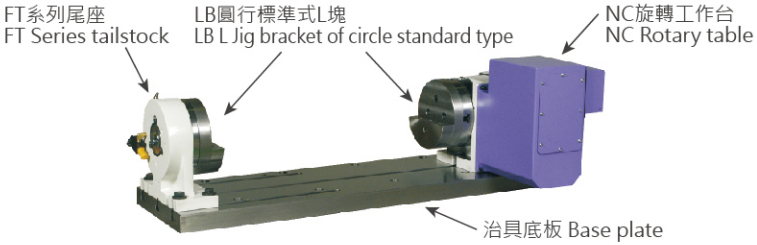
Unit:mm

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	搭配三爪尺寸 With three-jaw chuck size
TD170+MT135S	300	825	42	30	349	20	179	85	338	188	304	40	175	112	105	6″
TD200+MT160S	300	825	47	50	230	20	179	85	362	212	347	40	200	132	119	7″
TD255+MT160S	450	1200	47	50	569	22	213	160	400	175	412	50	210	132	119	8″
TD320+MT210S	450	1200	47	50	540	26	223	205	502	277	430	50	260	132	134	9″

RFB四軸圓盤尾座模組 RFB 4th Axis Faceplate Tailstock Model





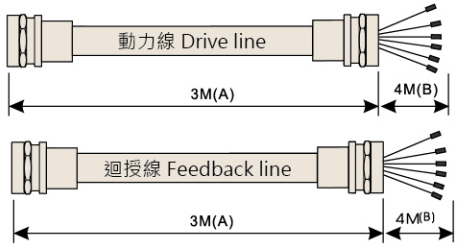


Unit:mm

	A	B	C	D	E	F	G	H	I	J	K	L	M
TD170+FT135	300	825	101	25	495	25	179	85	338	188	304	40	175
TD200+FT160A	300	825	101	25	495	25	179	85	362	212	347	40	200
TD255+FT160	450	1200	171	25	724	25	213	160	400	175	412	50	210
TD320+FT210	450	1200	194	25	687	25	223	205	502	277	430	50	260
CV3255+FT160	450	1200	101	25	860	25	189	180	180	-	392	50	210
CV3320+FT255A	450	1200	221	25	616	25	221	230	230	5	500	50	305

（標準長度Standard length 3M/4M）

CBS-A單頭型 CBS-A Single-ended Type



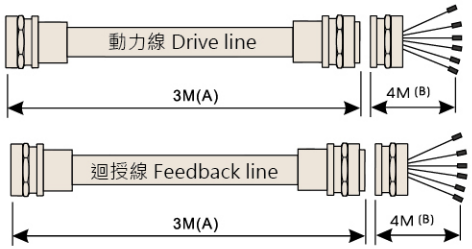
CBSA-3040-0/L

- 0: 直頭(Straight end), L:90°彎頭(Curved end)
- CNC機器電器箱內線長度 CNC machine electronic box inner cable length
- 外部線長 External cable length
- 外部蛇管單頭型型號 Model No of single-ended type external cable

CBSA-3040B-0/L

- 0: 直頭(Straight end), L:90°彎頭(Curved end)
- 包外鋼絲鐵網 External clad steel wire
- CNC機器電器箱內線長度 CNC machine electronic box inner cable length
- 外部線長 External cable length
- 外部蛇管單頭型型號 Model No of single-ended type external cable

CBS-B雙頭型 CBS-B Double-ended Type



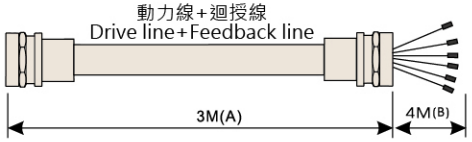
CBSB-3040-0PLS

- CNC機器軍規接頭規格 CNC Machine MS connector specification
- 第四軸軍規接頭規格 4th Axis MS connector specification
- 0: 直頭(Straight end), L:90°彎頭(Curved end) P:公座(Male receptacle), S:母座(Female receptacle)
- CNC機器電器箱內線長度 CNC machine electronic box inner cable length
- 外部線長 External cable length(A)
- 外部蛇管雙頭型型號 Model No of double-ended type external cable

CBSB-3040B-0PLS

- CNC機器軍規接頭規格 CNC Machine MS connector specification
- 第四軸軍規接頭規格 4th Axis MS connector specification
- 0: 直頭(Straight end), L:90°彎頭(Curved end) P:公座(Male receptacle), S:母座(Female receptacle)
- 包外鋼絲鐵網 External clad steel wire
- CNC機器電器箱內線長度 CNC machine electronic box inner cable length
- 外部線長 External cable length(A)
- 外部蛇管雙頭型型號 Model No of double-ended type external cable

CBS-C二合一單頭型 CBC-C Combo Single-ended Type



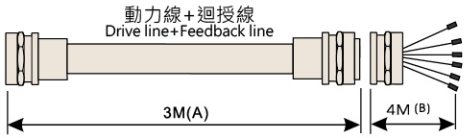
CBSC-3040-0/L

- 0: 直頭(Straight end), L:90°彎頭(Curved end)
- CNC機器電器箱內線長度 CNC machine electronic box inner cable length
- 外部線長 External cable length(A)
- 外部蛇管二合一單頭型型號 Model No of combo single-ended type external cable

CBSC-3040B-0/L

- 0: 直頭(Straight end), L:90°彎頭(Curved end)
- 包外鋼絲鐵網 External clad steel wire
- CNC機器電器箱內線長度(B) CNC machine electronic box inner cable length
- 外部線長(A) External cable length(A)
- 外部蛇管二合一單頭型型號 Model No of combo single-ended type external cable

CBS-D二合一雙頭型 CBC-D Combo Double-ended Type



CBSD-3040-0PLS

- 第四軸軍規接頭規格 4th Axis MS connector specification
- CNC機器軍規接頭規格 CNC Machine MS connector specification
- 0: 直頭(Straight end), L:90°彎頭(Curved end) P:公座(Male receptacle), S:母座(Female receptacle)
- CNC機器電器箱內線長度 CNC machine electronic box inner cable length
- 外部線長 External cable length(A)
- 外部蛇管二合一雙頭型型號 Model No of combo double-ended type external cable

CBSD-3040B-0PLS

- 第四軸軍規接頭規格 4th Axis MS connector specification
- CNC機器軍規接頭規格 CNC Machine MS connector specification
- 0: 直頭(Straight end), L:90°彎頭(Curved end) P:公座(Male receptacle), S:母座(Female receptacle)
- 包外鋼絲鐵網 External clad steel wire
- CNC機器電器箱內線長度 CNC machine electronic box inner cable length
- 外部線長 External cable length(A)
- 外部蛇管二合一雙頭型型號 Model No of combo double-ended type external cable

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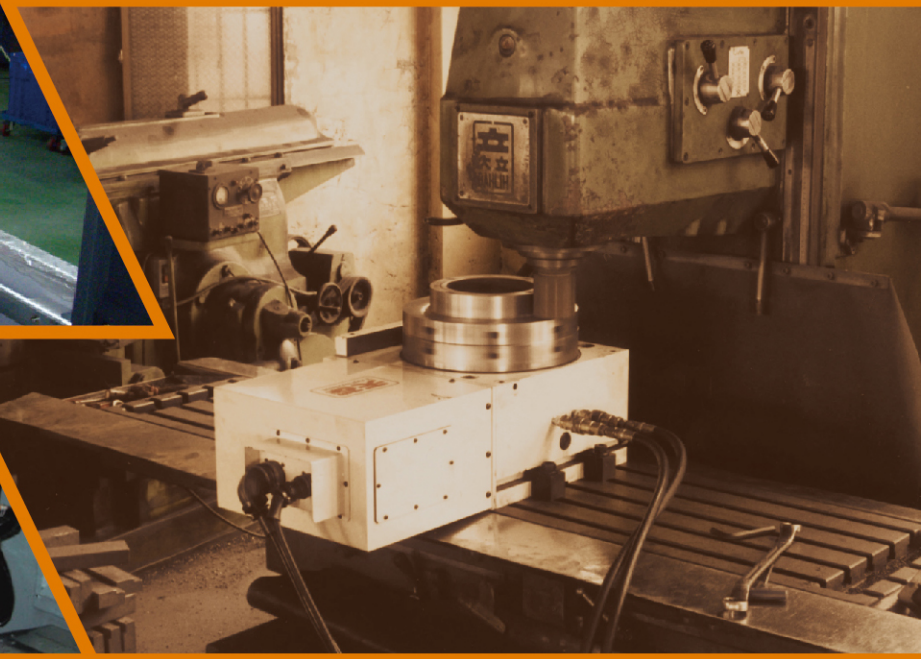
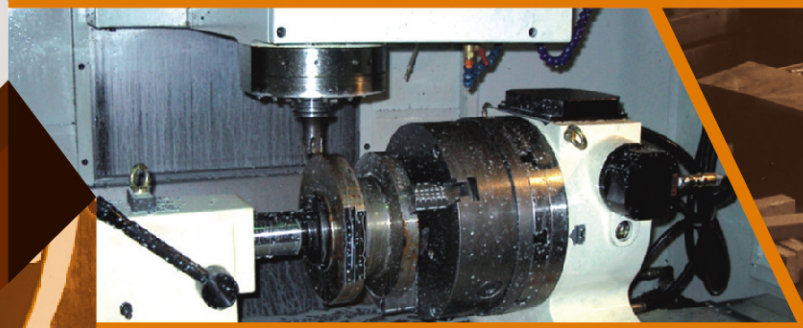
使用範例

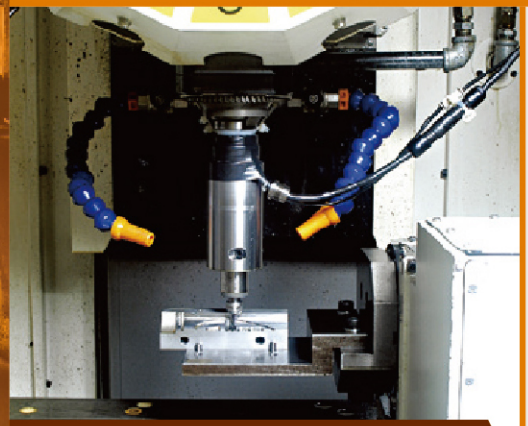
APPLICATION EXAMPLE

▼油壓分度盤應用

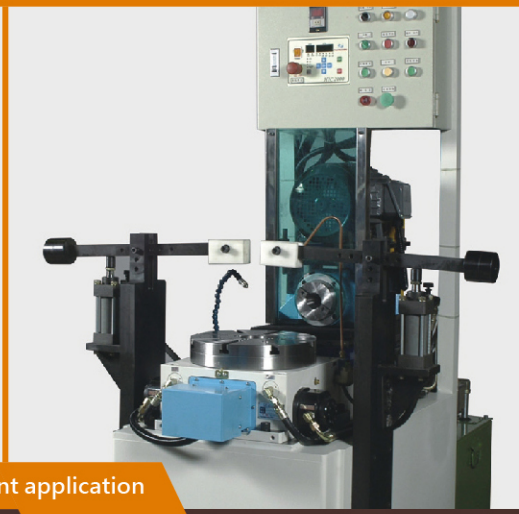




▲ NC旋轉工作台應用 NC Rotary table



▲應用於模具雕刻
Applied to mold engraving



▲搭配檢測儀器應用 With detection instrument application

相關產品 RELATED PRODUCTS

空油轉換器 Air Booster

AB-0650

- 輸出油量：50cc
- 增加倍數：6.25倍。
- 空壓源：5-8kg/cm^2。
- 外觀尺寸：110x110×211cm。
- 重量：5kgs。

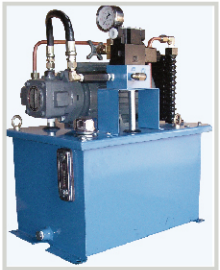
- Output oil capacity: 50cc
- Pressure Boost Multiplier: 6.25multiple
- Pneumatic Pressure: 5~8kg/cm^2
- The Outline Dimension: 110x110x211cm
- Weight: 5kgs

標準附件 The Additional Parts

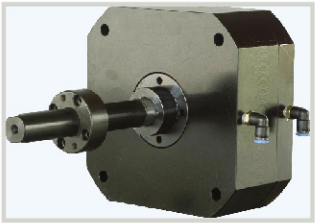
- 1/4"五口二位單線圈電磁閥(電壓可供選擇使用)1組。
- 1/4"油管x5M 1條。
- 配管用之接頭零件包1組。

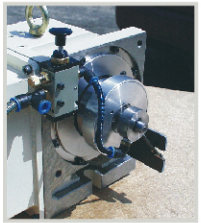
- 1/4" 5 ports / 2 positions Single Coil Solenoid (you can choose the voltage):1 set
- 1/4 Oil Tube x 5M: 1 pc
- Plumbing for Connector' s Parts Pack: 1 set

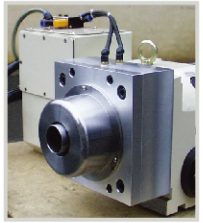
油壓單元 Hydraulic Unit

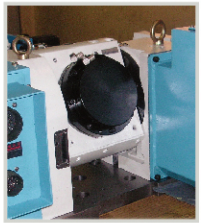


迴轉缸及迴轉接頭 Cylinder and Rotary Joint

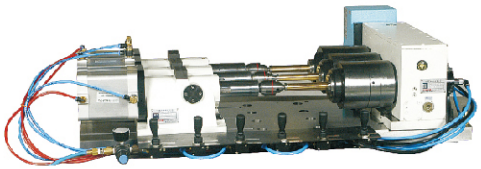


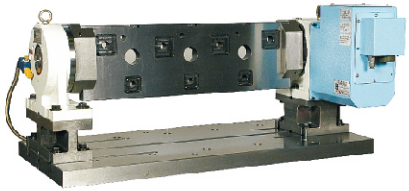




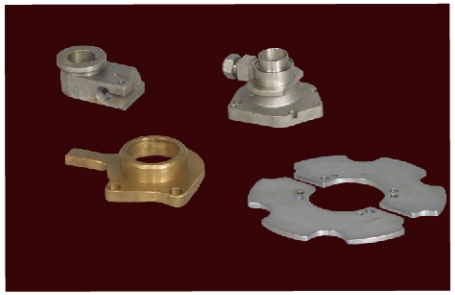


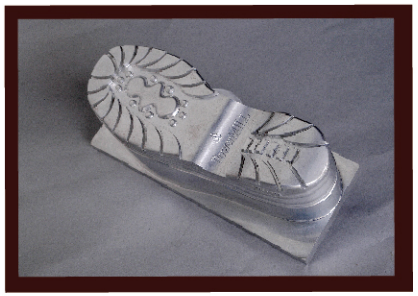
搭配治具板應用 Example of Application with Fixture





加工範例 Processing Example





伺服馬達參考表 SERVO MOTOR REFERENCE TABLE

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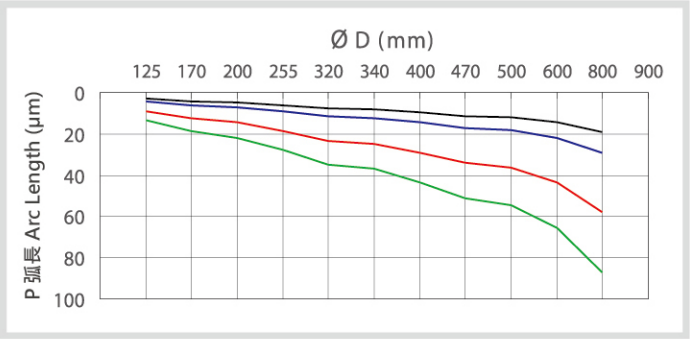
NC旋轉工作台搭配伺服馬達參考表 NC rotary table with servo motor reference table

CNC機器系統：三菱M80, HG系列 CNC Machine System: Mitsubishi M80, HG Series

馬達 Servo motor	驅動器 Amplifier	可搭配NC旋轉工作台 Can be equipped NC rotary table
HG75S-D48	MDS-EJ-V1-30	TTD-125(旋rotary axis)
HG105S-D48	MDS-EJ-V1-30	TDE-125 / TE-125
HG54S-D48	MDS-EJ-V1-30	TD-170 / TD-170L / TD-200 / TTD-125(傾tilting axis) TDM-170 / TE-170 / TE-200 / TD-125-3L
HG104S-D48	MDS-EJ-V1-40	TD-255 / TD255L / TDE-255 / TTD-255 / TDM-255
HG154S-D48	MDS-EJ-V1-80	TD-255 / TD255L / TDE-255 / TTD-255 / TDM-255
HG204S-D48	MDS-EJ-V1-80	TD-320 / TD-400 / TD-500 / TD-630

角度誤差公式 Formula of Angle Error



±5(10)弧秒 Arc seconds

±7.5(15)弧秒 Arc seconds

±15(30)弧秒 Arc seconds

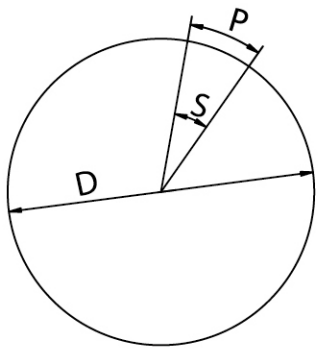
±22.5(45)弧秒 Arc seconds

CNC機器系統：發那科0iMD/0iMF,αi系列 CNC Machine System: FANUC 0iMD/0iMF, αi Series

馬達 Servo motor		驅動器 Amplifier		可搭配NC旋轉工作台 Can be equipped NC rotary table
A2/5000i(ABS)	A06B-0205-B000 A06B-2205-B000	SVM1-20i	A06B-6114-H103 A06B-6240-H103	TDE-125 / TTD-125(旋rotary axis) / TE-125
A4/4000i(ABS)	A06B-0223-B000 A06B-2223-B000	SVM1-40i	A06B-6117-H104 A06B-6240-H104	TD-170 / TD-170L / TD-200 / TTD-125(傾tilting axis) TD-125-3L / TDM-170 / TE-170 / TE-200
A8/3000i(ABS)	A06B-0227-B000 A06B-2227-B000	SVM1-40i	A06B-6117-H104 A06B-6240-H104	TD-255 / TD255L / TDE-255 / TTD-255 / TDM-255
A12/3000i(ABS)	A06B-0243-B100 A06B-2243-B100	SVM1-80i	A06B-6114-H105 A06B-6240-H104	TD-320 / TD-400 / TD-500 / TD-630

CNC機器系統：發那科0iMD/0iMF,βi系列 CNC Machine System: FANUC 0iMD/0iMF, βi Series

馬達 Servo motor		驅動器 Amplifier		可搭配NC旋轉工作台 Can be equipped NC rotary table
B2/4000iS	A06B-0061-B003 A06B-2061-B003	BSVM1-20i	A06B-6130-H002 A06B-6160-H002	TDE-125 / TTD-125(旋rotary axis) / TE-125
B4/4000iS	A06B-0063-B003 A06B-2063-B003	BSVM1-20i	A06B-6130-H002 A06B-6160-H002	TDE-125
B8/3000iS	A06B-0075-B003 A06B-2075-B003	BSVM1-20i	A06B-6130-H002 A06B-6160-H002	TD-170 / TD-170L / TD-200 / TTD-125(傾tilting axis) TDM-170 / TE-170 / TE-200
B12/3000iS	A06B-0078-B003 A06B-2078-B003	BSVM1-40i	A06B-6130-H003 A06B-6160-H003	TD-255 / TD255L / TDE-255 / TTD-255 / TDM-255
B22/3000iS	A06B-0085-B003 A06B-2085-B003	BSVM1-40i	A06B-6130-H003 A06B-6160-H003	TD-320 / TD-400 / TD-500 / TD-630



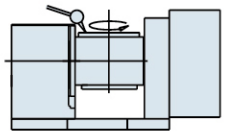
P=弧長Arc length(μ)

S=角度Angle (弧秒arc seconds)

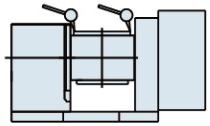
D=直徑diameter(mm)

$$P = \frac{S \cdot D}{413} \ (\mu m)$$

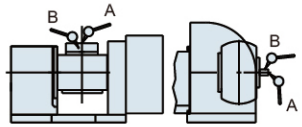
NC雙軸旋轉工作台精度表
NC Two-axis Rotary Table Accuracy Table (For TTD-125/TTD-255H/TTD-255HB)



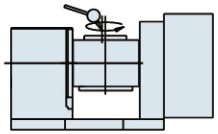
檢查項目：主軸端面(旋轉軸)振幅
容許公差：0.015(TTD-125) 0.02 (TTD-255)
(TTD-255HB)
Inspection item: spindle end face (rotary axis) amplitude
Allowable tolerance:
0.015(TTD-125) 0.02 (TTD-255) / (TTD-255HB)



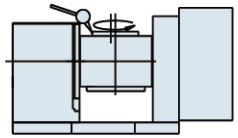
檢查項目：主軸端面(旋轉軸)與底面
平行度(內凹)
容許公差：0.02
Inspection item: spindle end face(rotary axis)
Parallel to the bottom surface (concave)
Allowable tolerance: 0.02



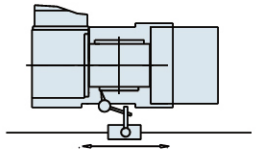
檢查項目：傾斜軸與底面導塊平行度(全長)
容許公差：0.02
Inspection item: Parallelism of the tilting axis and the bottom guide block (full length)
Allowable tolerance: 0.02



檢查項目：主軸(旋轉軸)中心孔旋轉偏擺
容許公差：0.01 全長
Inspection item: Spindle (rotary axis) center hole rotation yaw
Allowable tolerance: 0.01 full length



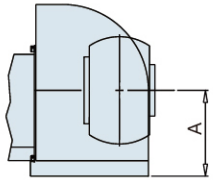
檢查項目：主軸外徑(旋轉軸)偏擺
容許公差：0.015 全長
Inspection item: spindle outer diameter (rotary shaft) yaw
Allowable tolerance: 0.015 full length



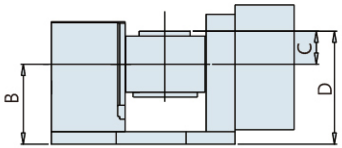
檢查項目：主軸端面(旋轉軸)與底面導塊垂直度
容許公差：0.02 全長
Inspection item: perpendicularity of the spindle end face (rotary axis) and the bottom guide block
Allowable tolerance: 0.02 full length

檢查項目：傾斜軸分割精度(累積誤差)
容許公差：60"
檢查項目：旋轉軸分割精度(累積誤差)
容許公差：45"(TTD-125) / 15"(TTD-255) / 15"(TTD-255HB)
Inspection item: Tilting axis division accuracy(cumulative error)
Allowable tolerance: 60"
Inspection item: Rotary axis division accuracy (cumulative error)
Allowable tolerance:
45" (TTD-125) / 15"(TTD-255) / 15"(TTD-255HB)

中心高度(A)
Center height (A)

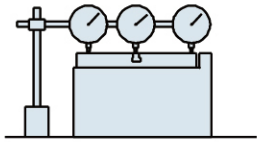


(B)(C)(D)尺寸size

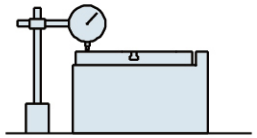


容許公差Allowable tolerance：
TTD-125 A(160) B(160) C(73) D(233)
容許公差Allowable tolerance：
TTD-255 A(220) B(220) C(114.5) D(334.5)
TTD-255HB A(220) B(220) C(137) D(357)

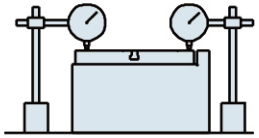
NC旋轉工作台精度表NC Rotary Table Accuracy Table (For TD/TE)



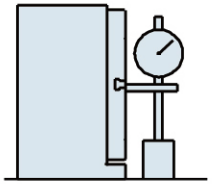
檢查項目：盤面真直度(中間較低)
容許公差：0.02 全長
Inspection item:
straightness of the faceplate (lower in the middle)
Allowable tolerance: 0.02 full length



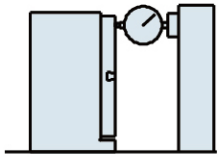
檢查項目：盤面之振幅
容許公差：0.02
Inspection item:
amplitude of the faceplate surface
Allowable tolerance: 0.02



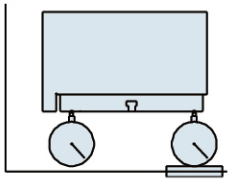
檢查項目：盤面與本台底座之平行度
容許公差：0.02 全長
Inspection item: Parallelism between the faceplate surface and he base of the platform
Allowable tolerance: 0.02 full length



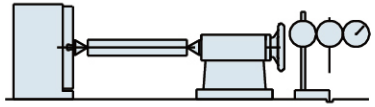
檢查項目：主軸孔之振幅
容許公差：0.01
Inspection item:
Check item: amplitude of spindle hole
Allowable tolerance: 0.01



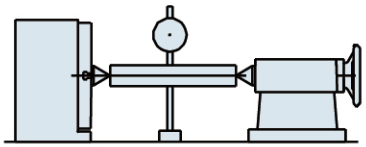
檢查項目：盤面與分度盤底座之垂直度
容許公差：0.02 全長
Inspection item: the verticality of the faceplate surface and the index plate base
Allowable tolerance: 0.02 full length



檢查項目：盤面與本台底座導塊中心線之垂直度
容許公差：0.02 全長
Inspection item: the perpendicularity between the faceplate surface and the center line of the base guide block of the platform
Allowable tolerance: 0.02 full length



檢查項目：分度盤與尾座中心線對本台底座導塊之平行度
容許公差：0.02 /300
Inspection item: Parallelism of indexing plate and tailstock center line to the base guide block of the platform
Allowable tolerance: 0.02 /300



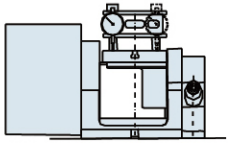
檢查項目：分度盤與尾座中心線之高度公差(尾座側微高)
容許公差：0.02 / 300
Inspection item: height tolerance of indexing plate and tailstock center line (slightly high at tailstock side)
Allowable tolerance: 0.02 / 300

檢查項目：分割精度(光學儀器測之)
容許公差：15″ ~90″ (依機型區分)
Inspection item: segmentation accuracy (measured by optical instruments)
Allowable tolerance: 15″ ~90″
(depending on the model)

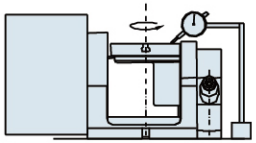
ACCURACY CHECKLIST

芳嘉天碟 TOPSDISK

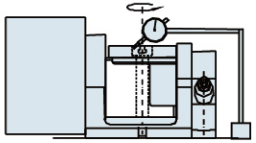
手動傾斜NC旋轉工作台Manual Tilt NC Rotary Table (For TDM)



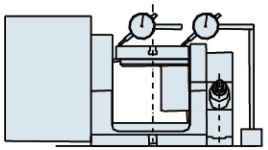
檢查項目：盤面真直度(中間較低)
容許公差：0.02
Inspection item:
Straightness of the faceplate(lower in the middle)
Allowable tolerance: 0.02



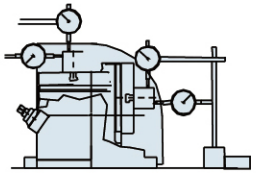
檢查項目：盤面之振幅
容許公差：0.02
Inspection item: amplitude of the faceplate surface
Allowable tolerance: 0.02



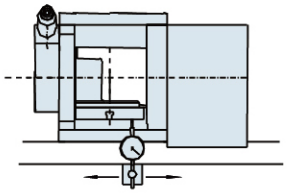
檢查項目：主軸孔之振幅
容許公差：0.01
Inspection item: amplitude of spindle hole
Allowable tolerance: 0.01



檢查項目：盤面與本台底座之平行度
容許公差：0.02 全長
Inspection item: Parallelism between the faceplate surface and the base of the platform
Allowable tolerance: 0.02 full length



檢查項目：盤面與分度盤底座之垂直度
容許公差：0.015 全長
Inspection item: the verticality of the faceplate surface and the index plate base
Allowable tolerance: 0.015 full length

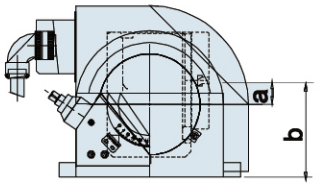


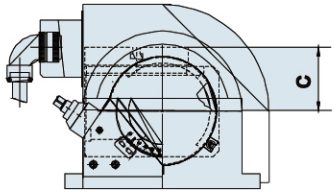
檢查項目：盤面與本台底座導塊中心線之垂直度
容許公差：0.02 全長
Inspection item: the perpendicularity between the faceplate surface and the center line of the base guide block of the platform
Allowable tolerance: 0.02 full length

檢查項目：分割精度(光學儀器測之)
容許公差：30″ / 15″
檢查項目：重覆精度(光學儀器測之)
容許公差：4"
Inspection ite m: segmentation accuracy(measured by optical instruments)
Allowable tolerance: 30″ / 15″
Inspection item:
Repeatability (measured by optical instruments)
Allowable tolerance: 4"

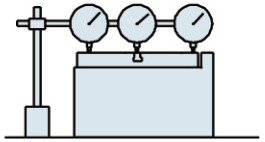
容許公差：
Allowable tolerance：

TDM-170	A(42.25)	B(170)	C(104.5)
TDM-255HB	A(0)	B(210)	C(137)

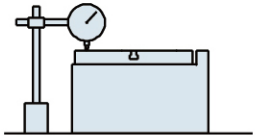




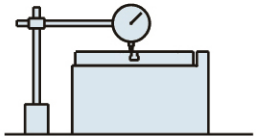
油壓分度盤檢驗表Hydraulic Index Table Checklist (For CH3-340~CH3-600/CH3-800/CV3)



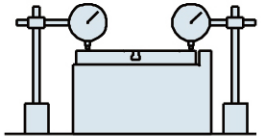
檢查項目：盤面真直度(中間較低)
容許公差：(CH3-340 ~ CH3-600) 0.02 全長
(CH3-800) 0.03 全長 (CV3) 0.02 全長
Inspection item:
straightness of the panel(lower in the middle)
Allowable tolerance: (CH3-340~CH3-600)0.02 Full length
(CH3-800) 0.03 full length (CV3) 0.02 full length



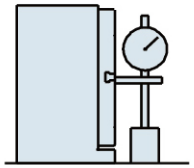
檢查項目：盤面之振幅
容許公差：(CH3-340 ~ CH3-600) 0.02
(CH3-800) 0.03(CV3) 0.02
Inspection item: amplitude of the faceplate surface
Allowable tolerance: (CH3-340 ~ CH3-600)
0.02(CH3-800) 0.03(CV3) 0.02



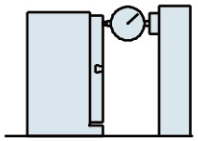
檢查項目：主軸孔之振幅
容許公差：(CH3-340 ~ CH3-600) 0.02
(CH3-800) 0.03
Inspection item: amplitude of spindle hole
Allowable tolerance:
(CH3-340 ~ CH3-600) 0.02(CH3-800) 0.03



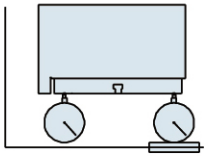
檢查項目：盤面與本台底座之平行度
容許公差：(CH3-340 ~ CH3-600) 0.02 全長
(CH3-800) 0.03 全長/(CV3) 0.02 全長
Inspection item: Parallelism between the faceplate surface and the base of the platform
Allowable tolerance: (CH3-340 ~ CH3-600) 0.02 Full length
(CH3-800) 0.03 full length(CV3) 0.02 full length



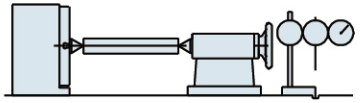
檢查項目：主軸孔之振幅
容許公差：(CV3) 0.02
Inspection item:
amplitude of spindle hole
Allowable tolerance:
(CV3) 0.02



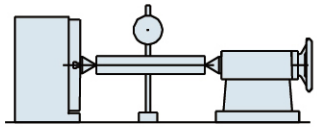
檢查項目：盤面與分度盤底座之垂直度
容許公差：(CV3) 0.02 全長
Inspection item: the verticality of the faceplate surface and the index plate base
Allowable tolerance: (CV3) 0.02 full length



檢查項目：盤面與本台底座導塊
中心線之垂直度
容許公差：(CV3) 0.02 全長
Inspection item: faceplate surface and base block Center line verticality
Allowable tolerance: (CV3) 0.02 full length

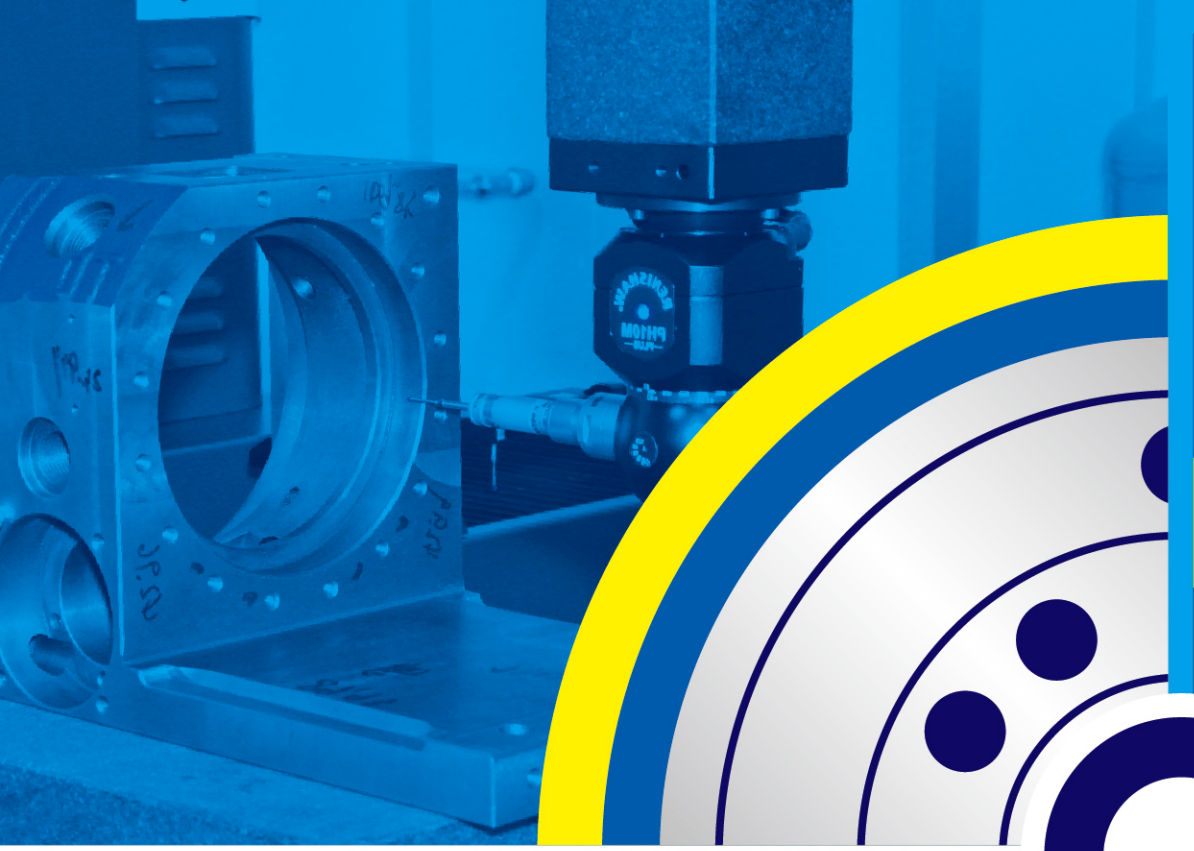


檢查項目：分度盤與尾座中心線對本台
底座導塊之平行度
容許公差：(CV3) 0.02 /300
Inspection item: indexing plate and tailstock center line to this station
Parallelism of the base guide block
Allowable tolerance: (CV3) 0.02 /300



檢查項目：分度盤與尾座中心線之高度公差
(尾座側微高)
容許公差：(CV3) 0.02 / 300
Inspection item: height tolerance of indexing plate and tailstock center line
(slightly high at tailstock side)
Allowable tolerance: (CV3) 0.02 / 300

檢查項目：分割精度
(光學儀器測之)
容許公差：±5″
Inspection item:
Segmentation accuracy
(measured by optical instrument)
Allowable tolerance: ±5"



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