



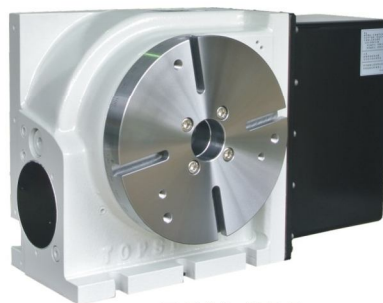
勁捷 Gem Jack

預壓式凸輪傳動  
Preload barrel cam



# 預壓凸輪式旋轉工作台

## PRELOAD BARREL CAM TYPE ROTARY TABLE



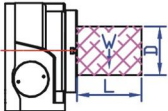
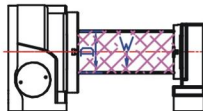
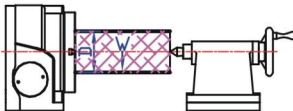
FCM-255

背隙趨近於零  
相較傳統旋轉工作台,有更好的剛性  
搭配強力煞車,確保定位加工時的穩定性  
為滾動摩擦,有更好的傳動效率  
最小分割角度:0.001度

Backlash approach zero  
Better rigidity, compared to traditional rotary table  
Apply with powerful brake to ensure position machining stability  
Better transmission efficiency due to rolling friction  
Min. division degree: 0.001 degree.

規格說明	FCM-255P	FCM-255H
使用方法 Use Method	立式專用 Vertical	
鎖緊方式 Clamp Method	空壓Pneumatic 5kg/cm <sup>2</sup>	油壓Hydraulic 35kg/cm <sup>2</sup>
盤面尺寸 Faceplate Dimension	φ255mm	
貫穿孔徑 Spindle Through Hole Diameter	φ40mm	
圓盤中心孔徑 Faceplate Centre Hole Diameter	φ50H7mm	
中心高度 Centre Height	185mm	
盤面T型槽寬度 Faceplate T-Slot Width	12H7mm	
定位鍵 Position Key	18h7mm	
伺服馬達 Servo Motor	發那科 Fanuc	B8i/β12i/α4i/α8i
	三菱 Meldas	HF104S/HF154S
總減速比 Total Speed Reduction Ratio	1/50	
最小設定單位 Min. Increment Unit	0.001°	
累積分割精度 Indexing Accuracy	±15弧秒Arc.SEC.	
重覆精度 Repeat Accuracy	10弧秒Arc.SEC.	
鎖緊力 Clamp Force	50kgf/m	110kgf/m
最高轉速 Max. Rpm	60rpm@馬達Motor3000RPM	
凸輪承受轉矩 Cam torque	連續 Continuous	286NM
	最大 Maximum	1007NM
淨重(不含馬達) Net Weight (Without Motor)	113KGS	

### 最大負載參考表 Max. Workpiece of Capacity

無尾座 No Tailstock	使用圓盤尾座 use Faceplate Tailstock	使用頂針尾座 use Spindle Tailstock
 <p>W:100kgs D:φ300mm L:200mm</p>	 <p>W:250kgs D:φ255mm L:700mm</p>	 <p>W:150kgs D:φ255mm L:700mm</p>

# PRELOAD BARREL CAM

## 預壓式凸輪

勁捷 Gem Jack

本精密凸輪由勁捷公司提供



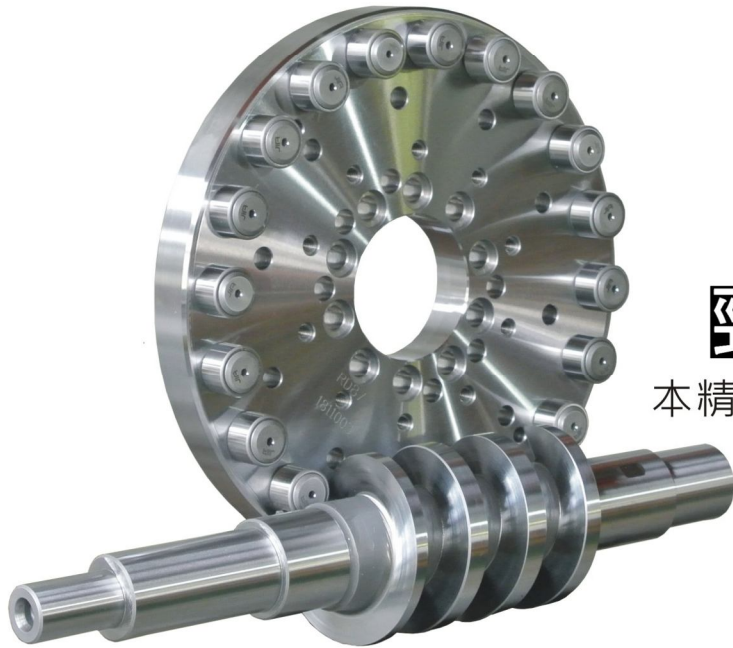
背隙趨近於零

相較傳統蝸桿蝸輪,有更好的剛性  
為滾動摩擦,有更好的傳動效率

Backlash approach zero

Better rigidity, compared to traditional WORM SET

Better transmission efficiency due to rolling friction





# CD5-360 系列 Series

## 實用型雙軸模組 Practical Dual Axis Module

- \*Features: can apply with general VCM and clamp workpieces at one time for 5-Faces machining
- \*Tilting Axis is Barrel Cam Type rotary table for better rigidity and use powerful brake to ensure accuracy when positioning machining
- \*Rotary Axis use direct drive rotary table for high speed positioning which enlarge the machining space
- \*Alter machining range and center height according to special requirements of customer workpieces and under the allowance of machine space & travel
- \*especially fit for Cuboid type workpiece machining, eg most of Aluminum die casting, Auto parts

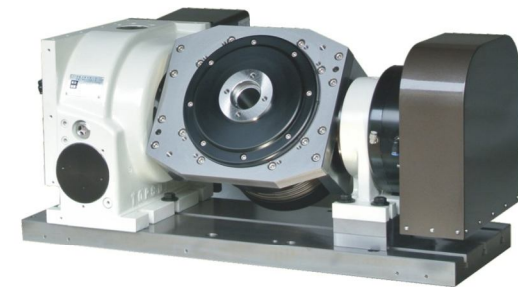


- \*可搭配一般立式加工中心機,可一次裝夾工件,五面加工
- \*傾斜軸採凸輪式旋轉工作台,提高剛性,並採用強力煞車,確保定位加工時的精度
- \*旋轉軸採用直驅式旋轉工作台,高速定位,可加工空間變大
- \*可依客戶的工件及特殊需求,在機台的空間及行程允許下,更改可加工範圍,及中心高度
- \*特別適合扁平型工件加工,如大部份的鋁壓鑄件、汽車零件

### 適用加工物 Applicable workpieces:

規格說明 Specification	規格尺寸 Measurements
圓型工件 Round workpiece	最大旋徑 Max. Rotary Diameter(Da): Φ360mm(以內)
正方形工件 Square workpiece	(Wd&L): 250x250mm以內
長方形工件 Rectangle workpiece	對角線 Diagonal(Dg): 360mm以內
工件高度 (依機台不同) Workpiece Height (depends on machine)	最高 Highest(H): 200mm以內
允許荷重 Allowable Loads	荷重 Loads(W): 50kg

規格說明 Specification	CD5-360
鎖緊方式 Clamp Method	空壓 Pneumatic 5kg/cm <sup>2</sup>
傾斜範圍 Tilting range	-5°~+95°
盤面尺寸 Faceplate Dimension	-
主軸外徑 Spindle OD	Φ100mm
0度時之盤面高度 Table Height at 0 degree.	331.25mm
90度時之盤面高度 Table Height at 90 degree.	225mm
中心孔徑 Center hole	鼻端孔徑 Nose dia Φ55H7x15Lmm 貫穿孔徑 Thru dia Φ40mm
盤面T型槽寬度 Faceplate T- Slot width	-
定位鍵 Position Key	-



CD5-360

規格說明 Specification		旋轉軸 Rotary Axis	傾斜軸 Tilting Axis
伺服馬達 Servo Motor	發那科 Fanuc	-	B8i/β12i/α4i/α8i
	三菱 Meltas	-	HF104S/HF154S
總減速比 Total Speed Reduction Ratio		-	1/50
額定電流 Cont. Current		4.5A	-
最大電流(1秒) Maximum Current (one second)		13.5A	-
額定轉矩 Cont. Torque		57Nm	-
最大轉矩(1秒) Maximum Torque (one second)		171Nm	-
連續運轉轉速 Continuous rpm		75 rpm	-
最大轉速(1秒) Max. Rpm (one second)		150rpm	60 rpm
定位精度(累積) Positioning accuracy (accumulative)		±15弧秒 Arc.SEC.	
重覆精度 Repeat Accuracy		10弧秒 Arc.SEC.	
鎖緊力 Clamping Force		50kgf/m	
淨重(不含馬達) Net weight		272KGS	

## CD5-360 系列 Series



### 實用型雙軸模組(範例計算) Practical Dual Axis Module

提供加工機以下尺寸, 可計算出

1. 0°時可用工件高度

2. 90°時可用工作高度

兩者取最小尺寸即是可用工件高度

Provide machine below measurements to calculate:

1. Applicable workpiece height when 0 degree

2. Applicable workpiece height when 90 degree

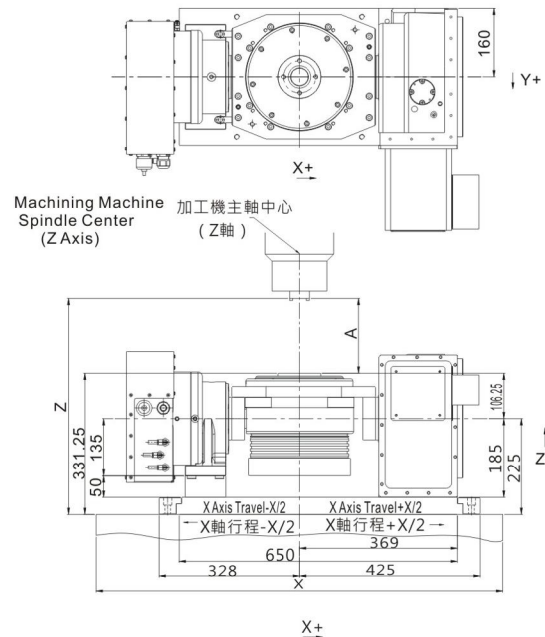
Choose the min. Measurement in between, which is the height of appliable workpiece.

工作台尺寸 Working Table Measuremen	950mmX450mm
X軸行程(X) X Axis Travle (X)	800mm
Y軸行程(Y) Y Axis Travel (Y)	450mm
Z軸行程 Z Axis Travel	510mm
加工機主軸中心至Z軸座距離(b) Distance from Machining Machine Spindle Center to Z Axis(B)	450mm
加工機工作台荷重 Machining Machine Working Table Loads	400KG

傾斜軸0°位置 Tilting Axis 0°Position

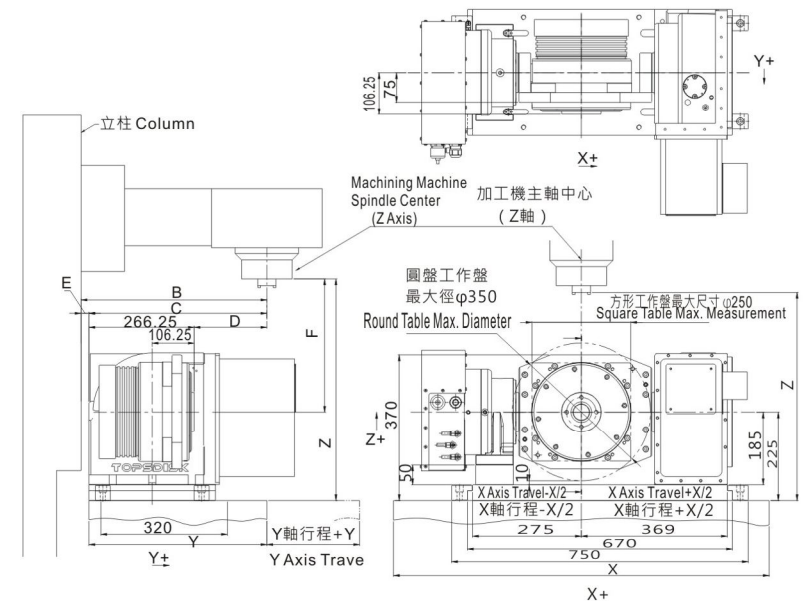
機型 Model		CD5-360
傾斜軸 0° 位置 Tilting Axis 0° Position		設定尺寸 Setting Measurement
工具機主軸端面至旋轉軸主軸端面距離 Distance from Machine Spindle Nose to Rotary Axis Spindle Nose	A	328.75
加工機主軸端面至工作台最大距離 Max. Distance from Machine Spindle Nose to Working table.	Z	660

註：A與D只能選最短的可用工件長度  
Remark: A and D can only select shortest workpiece length



傾斜軸90°位置 Tilting Axis 90°Position

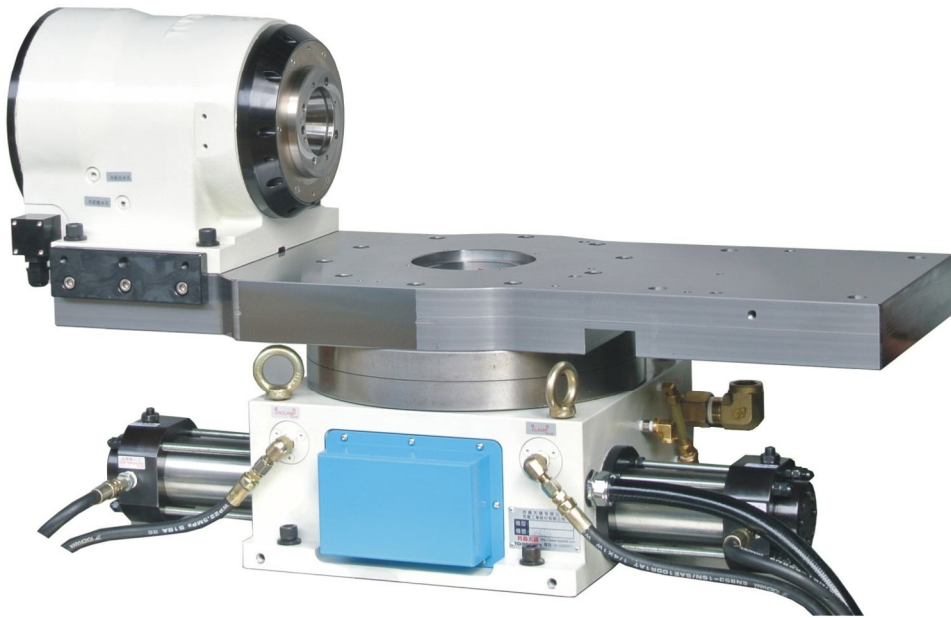
機型 Model		CD5-360
傾斜軸90° 位置 Tilting Axis 90° Position		設定尺寸 Setting Measurement
加工機主軸中心至立柱距離 Distance from Machine Spindle Center to Column	B	490
加工機主軸中心至旋轉工作台最大距離 Max. Distance from Machine Spindle Center to Rotary Table	C	450
加工機主軸中心至旋轉軸主軸端面距離 Distance from Machine Spindle Center to Rotary Axis Spindle Nose	D	183.75
旋轉工作台至立柱最小距離(可變設定值) Min. Distance from Rotary Table to Column (Variable Setting Value)	E	40
加工機主軸端面至旋轉工作台中心最大距離 Max. Distance from Machine Spindle Nose to Rotary Table Center	F	435





# Special tooling grinding Rotary Table

## 特殊刀具研磨旋轉工作台



1. Rotary Axis apply direct drive motor, which can frequent CW、CCW, fast positioning, Backlash approach zero, enhance using lifetime and higher workpieces accuracy.

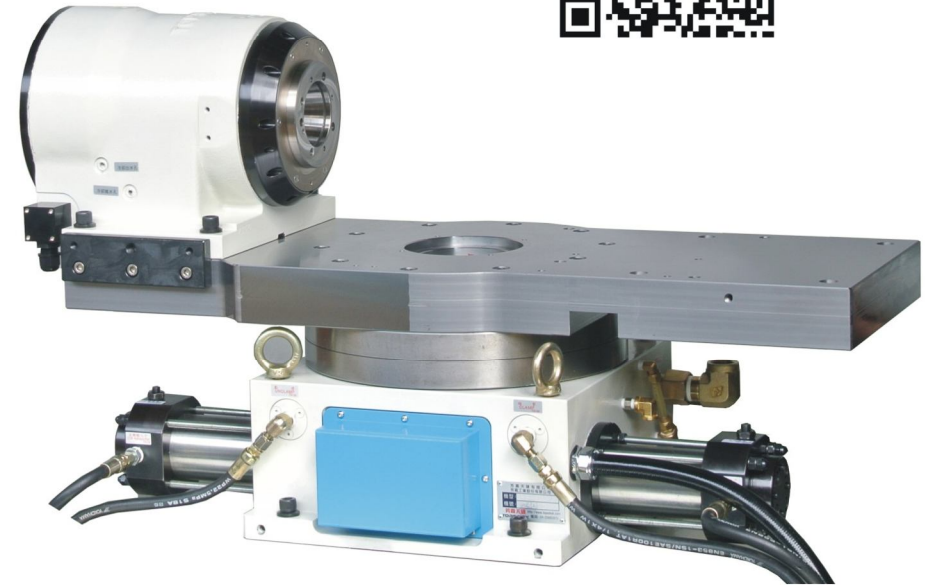
2. Division Axis apply 3-pieces Hirth Coupling positioning, high repeatability and indexing accuracy can achieve  $\pm 5$  seconds.

# Special tooling grinding Rotary Table

## 特殊刀具研磨旋轉工作台



1. 旋轉軸採用直驅電機，  
可頻繁正反轉，快速定位，  
背隙趨近於零，增長壽命  
及工件精度

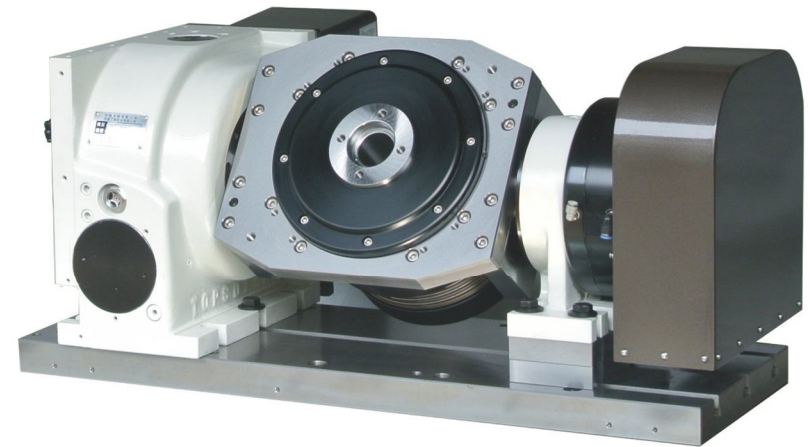


2. 分度軸使用三片式離合器定位，重複精度高，  
分度精度可達 $\pm 5$ 秒。



# 實用型雙軸模組 Practical Dual Axis Module

- \*可搭配一般立式加工中心機, 可一次裝夾工件, 五面加工
- \*傾斜軸採凸輪式旋轉工作台, 提高剛性, 並採用強力煞車, 確保定位加工時的精度
- \*旋轉軸採用直驅式旋轉工作台, 高速定位, 可加工空間變大
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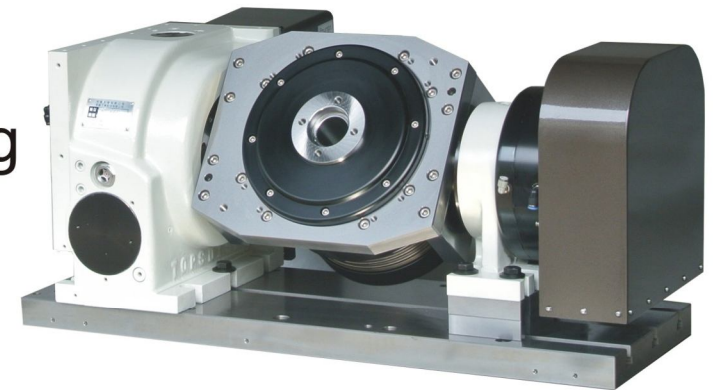






# Practical Dual Axis Module

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# 雙軸直驅旋轉工作台

## DD Tilting Table

- \* DD Motor Drive , No backlash.
- \* High repeatability.
- \* High Speed, 90-degree division time less than 1 second
- \* Adopt with Topsdisk controller and specialized for processing indexing machining
- \* Min. Indexing degree: 0.001 degree.
- \* Depend on accuracy to install optional encoders.



OD5-135



# 雙軸直驅旋轉工作台

## DD Tilting Table

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



OD5-135