

中空旋轉平台

# Hollow Rotary Table

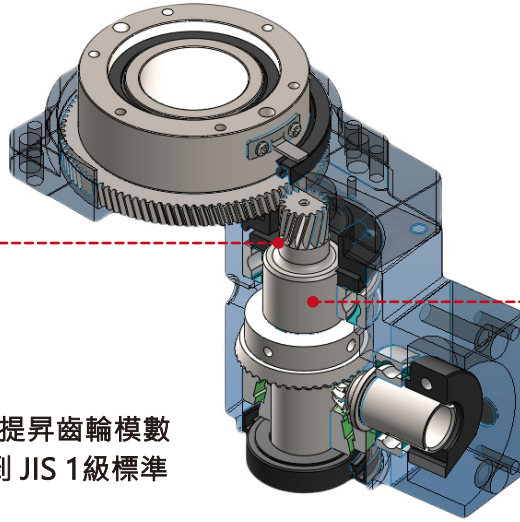


重複精度

Repetitive precision

$\leq 10$  arc/sec

# GD MD



### 強化型齒係數

Intensive gear modulus

在MD系列的基礎上，再提昇齒輪模數、硬度及研磨精度，達到 JIS 1級標準 (原MD系列為 JIS 2級)

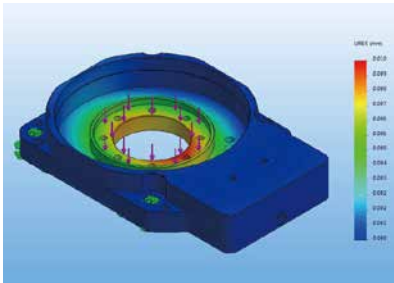
Based on MD series, improving gear modulus, hardness and precesion to achieve standard JIS 1.

### 二段減速一體化

One-piece gear ratio

小齒主軸與二段齒做同軸一體化製作，大幅提昇同心度及齒輪轉矩。

Improving concentricity and gear torque by manufacturing one-piece small gear and two section gear



### 齒輪係數電腦模擬分析

Gear modulus simulate analysis

運用設計軟體設計軟體，計算齒輪的運轉力矩及模擬運轉噪音。

It is simulate for gear, hoise and intensity by software.

模數	:	
壓力角	:	
螺旋角	:	
齒數	:	
齒深	:	
扭力	:	
回轉數	:	

為了噪音跟強度的改善，而優化齒形，齒筋狀在理論上所產生的誤差。

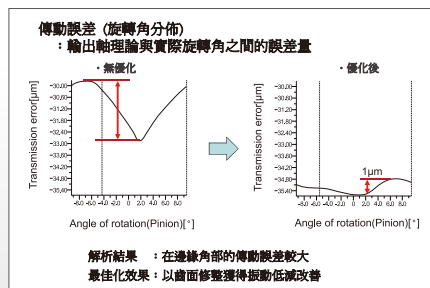
- ① 壓力角修整
- ② 螺旋角修整
- ③ 齒形Crowning修整
- ④ 齒筋Crowning修整(齒面修整)
- ⑤ BIAS修整(傾角修整)
- ⑥ 齒頂修整
- ⑦ Relieving修整

### 材料剛性、電腦模擬分析

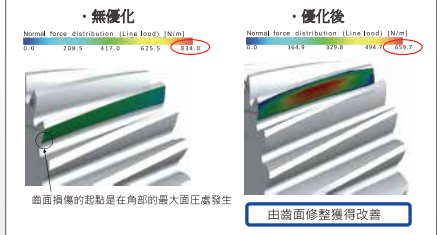
Material rigidity, simulate analysis

旋轉盤機體於設計時，利用軟體分析載重，轉動應力及熱變形等誤差數據分析

We rely on software which analyze loading, heat deformation data for design structure.



### 齒面設計的解析和效果的有效性

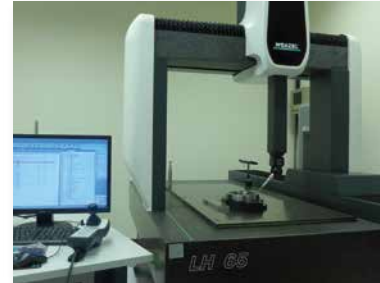


# Quality control is our strategy

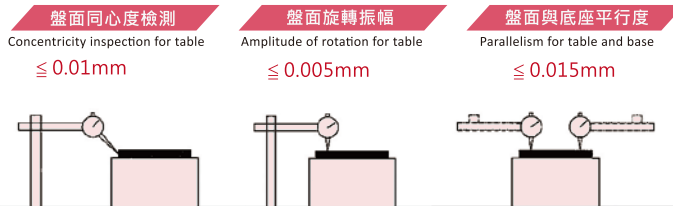
## 幾何公差檢驗

Geometric dimensioning and tolerancing inspection

使用3次元儀器，全檢旋轉台組裝後的公差數據。  
In order to achieve reliable quality, we rely on the software of material, gear analysis and we have advanced equipment for inspection. Dasen guards a pass and do 100% inspection for the product.

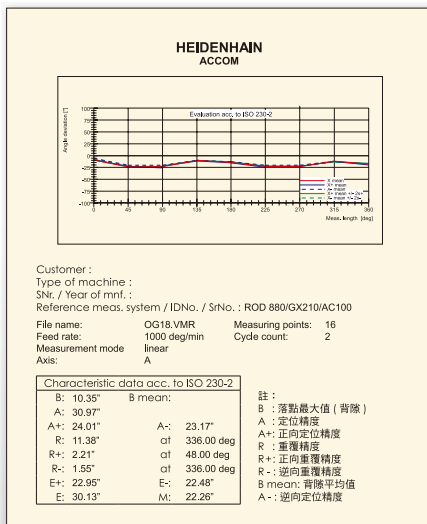


## 盤面精度檢測 Positioning precision inspection



## 旋轉精度檢驗

Heidenhain positioning precision inspection



## 齒輪背隙及傳動精度經由“海德漢” 角度分析儀檢驗

Gear precision is inspected by  
Heidenhain

**MD 60 R - 5 - V2**

60

100

130

200

275

**R**

F: 附馬達連結法蘭  
R: 轉向二段減速  
P: 直向二段減速

**5**

減速比 Ratio

**V2**

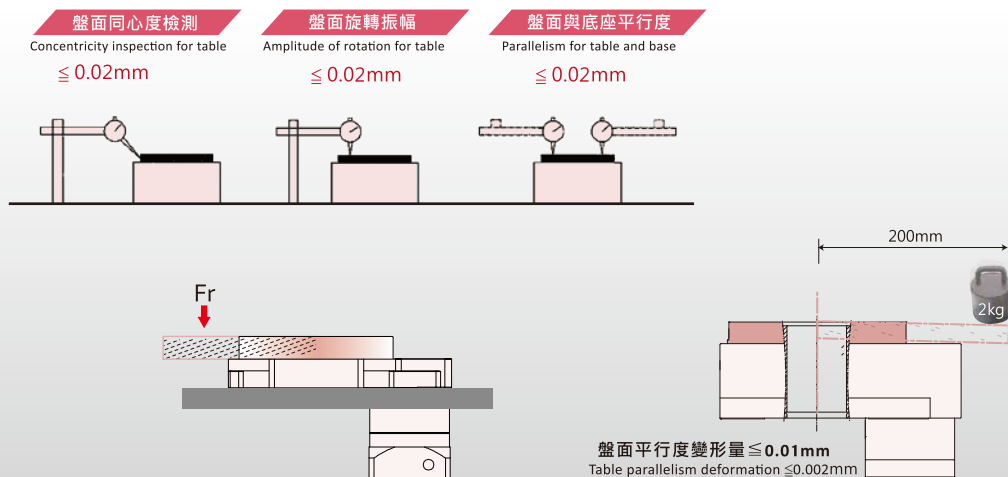
馬達規格 Motor type

V1 : 伺服Ø8-PCD45-M3 V2 : 伺服Ø8-PCD46-M4	T1 : 步進Ø5-PCD43.8-M3 T2 : 步進Ø6-PCD43.8-M3 T3 : 步進Ø8-PCD43.8-M3
各廠牌100W AC 伺服馬達	各廠牌42型步進馬達

型號 / 規格 Model	步進馬達直結型		MD60F	MD60R	MD60P
	MD60-10-□	MD60-5-5A			
旋轉平台軸承 Rotation of bearing	深溝滾珠 + 止推滾珠軸承				
容許轉矩 Max. torque	5		25		
減速比 Gear ratio	10	5	15	20	
重覆精度 Repetitive precision	≤ 10		≤ 30	≤ 60	
定位精度 (相對) Positioning precision	± 20		± 30	± 60	
旋轉平台同心度 Rotation of concentricity	≤ 0.02				
精度壽命 Lifetime of precision	20000				
容許徑向力 (Fr) Max. radial force	10				
保護等級 Protection rating	IP40				
質量 Weight	1	1	0.7	1	0.9

· 原點Sensor規格(選購) OMRON EE-SX672

### 盤面精度檢測 Positioning precision inspection



# MD60-5-5A

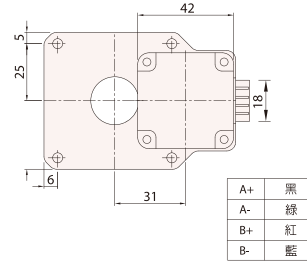
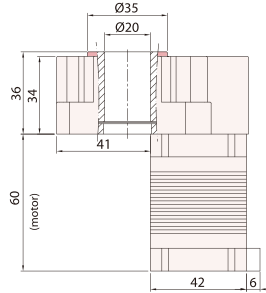
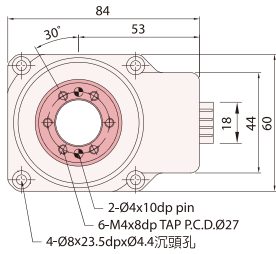
# MD60-10-□

步進馬達型號

限直結任何廠牌42型，  
軸心 $\phi 5-\phi 6$ 步進馬達

### 型號識別

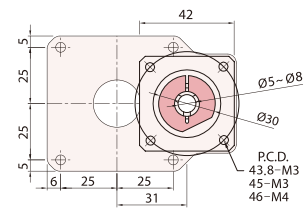
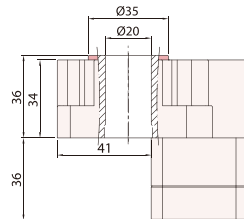
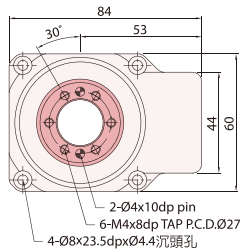
MD60-5-5A  
MD60-10TS42L  
MD60-10□



# MD60F

### 型號識別

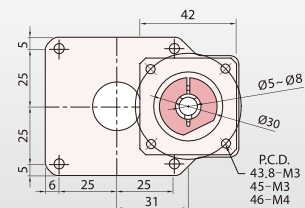
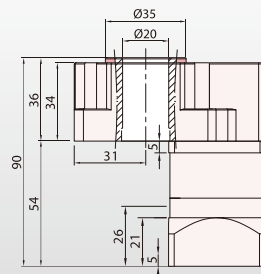
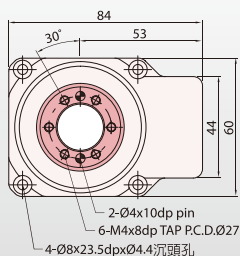
MD60F-5T1 MD60F-5V1  
MD60F-5T2 MD60F-5V2



# MD60P

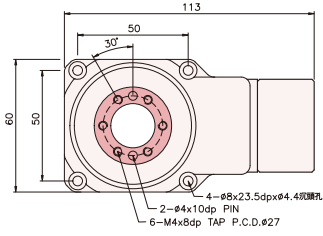
### 型號識別

MD60P-20T1 MD60P-20V1  
MD60P-20T2 MD60P-20V2  
MD60P-20T3

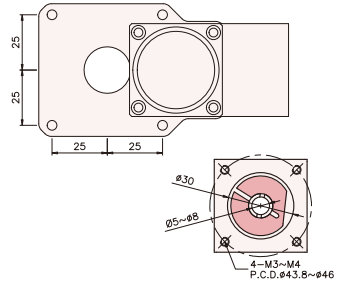
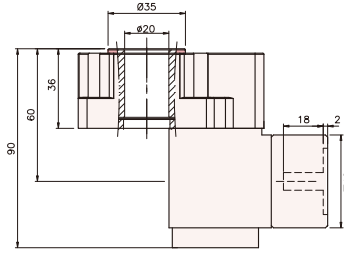


# MD60R

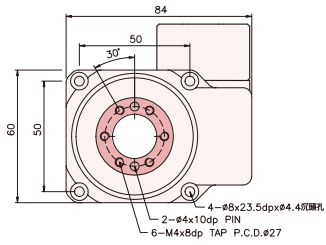
## R



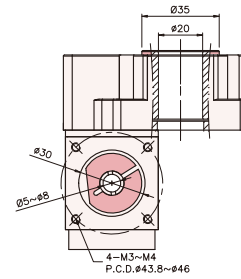
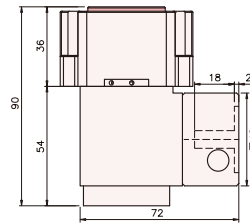
型號識別	
MD60R-15T1	MD60R-15V1
MD60R-15T2	MD60R-15V2
MD60R-15T3	



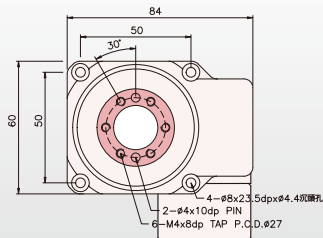
# MD60R-R



型號識別	
MD60R-R15T1	MD60R-R15V1
MD60R-R15T2	MD60R-R15V2
MD60R-R15T3	



# MD60R-L



型號識別	
MD60R-L15T1	MD60R-L15V1
MD60R-L15T2	MD60R-L15V2
MD60R-L15T3	

