



行星減速機

RV 減速器

諧波減速器

中空旋轉平台

## TQG 台崎減速機

**台灣臺崎精密工業企業社**  
 台灣地址：台北縣新莊市丹鳳工業園中正路8號  
 電話：886-2-22198586  
 傳真：886-2-22198587

**台崎機電設備(上海)有限公司**  
 地址：上海市嘉定區嘉鬆北路4777號敏機工業區  
 電話：021-69009655 / 69009656  
 傳真：021-69009657  
 Email: tqg@tqg6.com  
 https://taiqiseiko.com

**台崎機電設備(天津)有限公司**  
 地址：天津市南開區新南馬路二區六棟118-1號  
 電話：022-87809659 傳真：020-87809695  
 Email: tqg@tqg6.com  
 https://taiqiseiko.com

**台崎機電設備(廣東)有限公司**  
 地址：東莞市長安鎮振安東路158號  
 電話：0755-23344669 傳真：0755-23342973  
 Email: tqg@tqg6.com  
 https://taiqiseiko.com

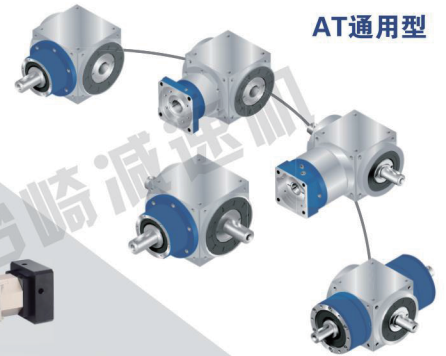
TQG 台崎減速機

台崎機電設備(上海)有限公司

台崎機電設備(廣東)有限公司

## TQG 台崎減速機

# 90度直角伺服減速器



AT通用型



AAW精密型



PAW標準型



台崎減速機

## Company Introduction

臺崎減速機——是從專業製造齒輪工廠開始發展，工廠同仁和技術團隊在齒輪設計和製造有二十多年的生產經驗，後期成立行星減速器事業部，借鑒德國行星減速器的傳動原理，結合公司內部臺灣技術工藝的消化吸收，完善出系列的伺服和步進電機專用的行星減速器規格產品，所生產的伺服減速器產品具有低背隙(5-7arcmin)，低噪音(60dB)，高效率(≥95%)的特徵，減速機的輸入接口可以搭配任意品牌工廠的伺服馬達和步進馬達，行星減速器功能具有提高馬達轉子的慣性，提高剛性和縮短啟動與停止的定位時間，可以使馬達的功率小型化，提升機器在運轉時高慣性負載的安定性和降低震動的缺點。

行星減速器產品規格尺寸可以直接換裝德標和日標的減速機規格，產品系列齊全，尺寸與精度和日系和德系減速機完全一致，我工廠也可以承接非標的減速機規格和尺寸，產品廣泛運用工具機(龍門機床)，激光切割機，木工雕刻機，全伺服紙巾機，精度凹凸板印刷機，精密塗布機，伺服彎管機，數控彈簧機等自動化程度較高設備！

工廠匹配大量庫存，希望與國內伺服電機廠家及系統集成商，共同扎根自動化機械行業和機器人行業領域，為中國機器人和自動化機械提升及工業4.0目標提供優質的自動化產品。

Taiqi Electromechanical Equipment (Shanghai) Co., Ltd. (following called TQG reducer company) is developed from a professional gear manufacturing plant. The factory colleagues and technical team have more than 20 years of production experience in gear design and manufacturing. In the later stage, the precision planetary gearbox division was established. Drawing on the transmission principle of the German planetary gearbox and combining with the digestion and absorption of the company's internal Taiwan technology, we have improved out a series of precision planetary gearboxes with full specifications for servo and stepper motors. The servo gearbox products manufactured by TQG reducer company are with features of low backlash (5-7arcmin), low noise (60dB) and high efficiency (≥95%). The input interface of TQG planetary gearbox can be matched with any brand of servo motors and stepper motors on the market.

The TQG precision planetary gearbox has the functional characteristics of improving the inertia of the motor rotor; improving the rigidity and shortening the start and stop positioning time, which can miniaturize the power of the motor, improve the stability of the high inertia load and reduce the vibration during the operation of the machine.

The product specifications of TQG reducers can directly replace the equivalent sizes of standard planetary gearbox from German and Japanese. The TQG reducer company has a complete product range, and the size and precision are exactly the same as those of the Japanese and German precision speed reducers. Besides, our factory can also accept customization of non-standard gearbox models and specifications. The TQG planetary gearboxes are widely used in tool machines (gentry machine tools), laser cutting machines, woodworking engraving machines, full servo tissue machines, precision embossing printing machines, precision coating machines, servo bending machines, CNC spring machines, and other highly automated equipment.

The TQG reducer factory matches a large number of stock and hopes to cooperate with domestic and overseas servo motor manufacturers and system integrators to take root in the field of automation machinery industry and robot industry, and provide high-quality automation products for China robot, automation machinery upgrading and industrial 4.0 goals.



生產檢測中心  
Production testing center



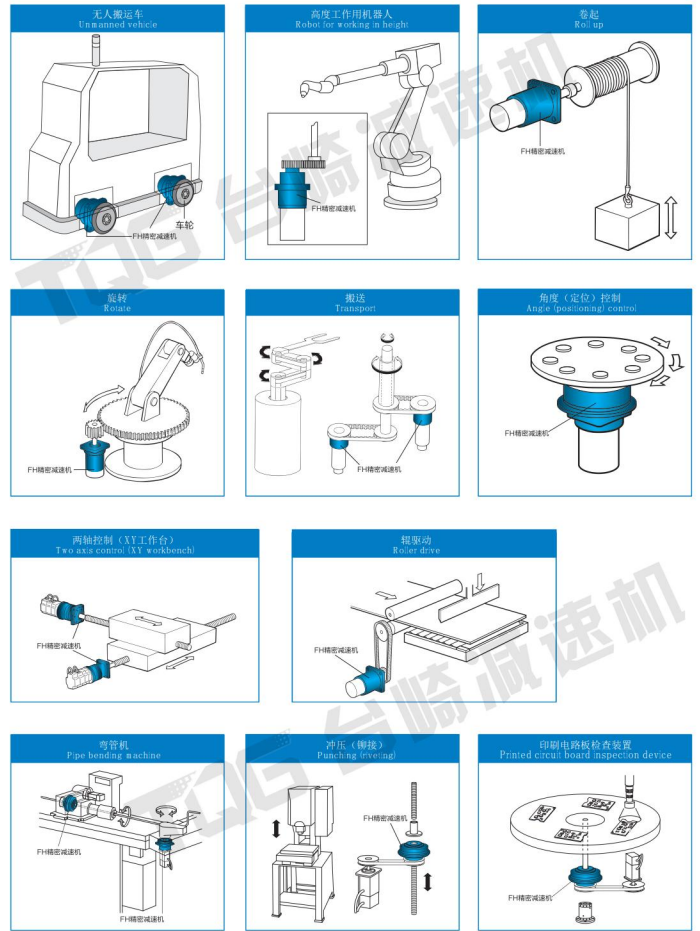
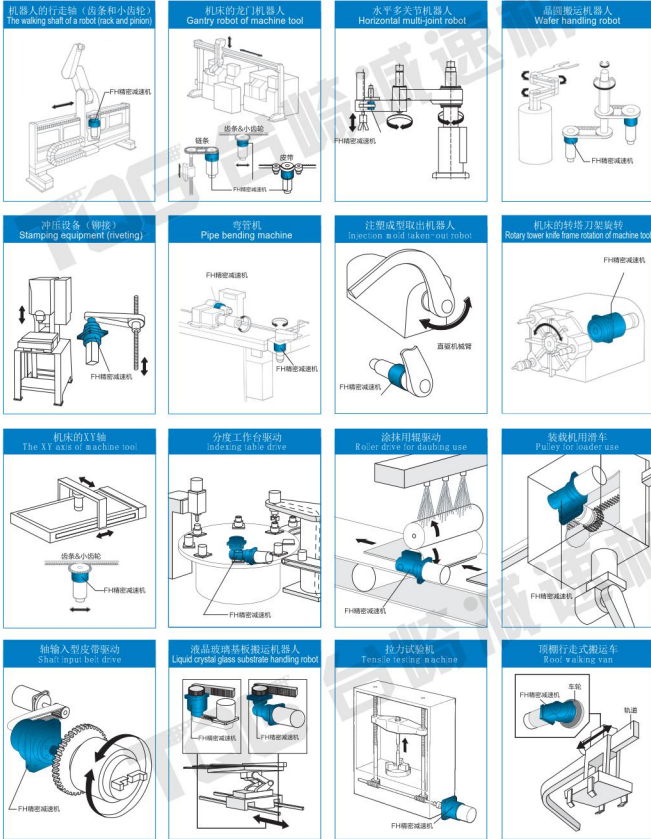
### 90度型式精密減速機剖面圖與簡介:



- 高強度：**高精度螺旋齒輪，採用鎳鎢合金鋼SCM415 HRC60度。
- 高效率：**高效率行星機構和精密螺旋齒輪機構之組合。
- 高剛性：**本齒箱有優良的剛性結構，採用雙錐形軸承支撐，對於輸出端負載變化大的場合特別適合。
- 多樣化：**輸出軸種類多樣化，有單出力軸型、雙出力軸型、中空軸型、中空法蘭型、中空軸錐形迫緊型、螺桿直線型、螺牙直線型。
- 減速比：**單段1：3-1：10 雙段1：12-1：100
- 體積小、省空間：**框號55MM-220MM
- 輸出扭矩：**15Nm-1600Nm，螺旋傘齒輪模數M1.0-M6.0
- 安裝容易：**5個面方向皆可安裝。
- 適用容量：**50W-15KW
- 專利設計：**本齒箱已申請通過多種專利。

## 產品應用行業 PRODUCT APPLICATION INDUSTRY

半導體晶圓製造設備、機器人、机床等需要精密運動控制的前沿領域得到廣泛應用  
Semiconductor liquid crystal manufacturing equipment, robots, machine tools, and other frontiers of precision motion control are widely used.



## 產品目錄 CONTENTS

<b>AT</b> 軸輸入轉向器 Shaft Input Steering Gearbox	AT series		01-08
<b>AT-F</b> 法蘭輸入90度減速器 Flange Input 90 Degree Reducer	AT-F series		09-24
<b>PAW-A(B)</b> 標準型90度減速機 Standard Type 90 Degree Reducer	PAW-A(B) series		25-32
<b>PT</b> 標準型轉向器 Standard Type Steering Gearbox	PT series		33-37
<b>AAW-AS(BS)</b> 精密型90度減速機 Precision Type 90 Degree Reducer	AAW-AS(BS) series		39-47
<b>AAW-BS</b> 90度螺桿減速機 90 Degree Screw Reducer	AAW-BS series		48
<b>AATM</b> 精密型轉向器 Precision Type Steering Gearbox	AATM series		49-53
<b>AAT</b> 精密型轉向器 Precision Type Steering Gearbox	AAT series		54-56
<b>AATM-2AX</b> 90度兩軸轉向器 90 Degree Two Shaft Steering Gearbox	AATM-2AX series		59-60

## 減速機的訂購 Purchase of Reducer

**AT065 - L - 1 - S1**

減速機型號：Reducer Model  
AT065, AT075, AT090, AT110, AT140, AT170, AT210, AT240, AT280

減速比：Reduction Ratio  
單節：1, 1.5, 2, 3, 4, 5

減速機型式：Reducer Type  
L / L1 / H / C / R1 / LM / RM / 4M

軸型式選擇：Selection of Shaft Type  
S1: 平滑直軸 Smooth Straight Shaft  
S2: 附鍵直軸 Attached Key Straight Shaft

選用範例 Selection Example: AT065-L-1-S1

**AT210 - FL1 - 200 - S1 / MOTOR**

減速機型號：Reducer Model  
AT065, AT075, AT090, AT110, AT140, AT170, AT210, AT240, AT280

減速比：Reduction Ratio  
單節：1, 1.5, 2, 3, 4, 5  
雙節：7, 10, 15, 20, 25, 35, 50  
三節：75, 100, 125, 150, 200, 250, 350, 500

馬達型號：Motor Model  
馬達製造商及型號  
Motor Manufacture & Model

減速機型式：Reducer Types  
FL / FLM1 / FLM2 / FL1 / FL1M1 / FL1M2 / FR1 / FR1M1 / FR1M2 / FH / FHM1 / FHM2 / FC / FCM1 / FCM2

軸型式選擇：Shaft Type Selection  
S1: 平滑直軸 Smooth Straight Shaft  
S2: 附鍵直軸 Attached Key Straight Shaft

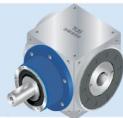
選用範例 Selection Example: AT210-FL1-200-S1 / SIEMENS 1FK6 032-6AK71



# AT-H系列孔輸入型

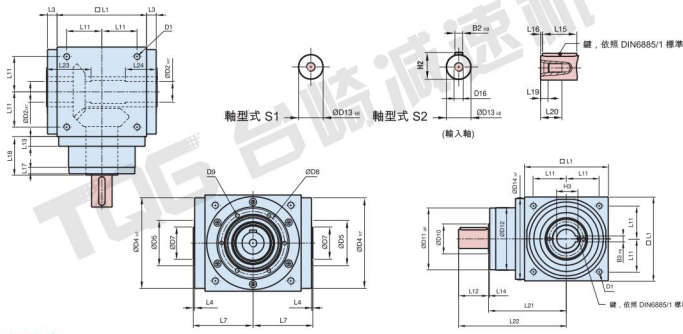
Hole Input Type

尺寸 (單節1-stage, 減速比ratio i=1~5)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

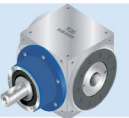
Unit:mm

Table with 12 columns (R+ Sizes AT065H to AT280H) and 20 rows (D1 to H2) listing dimensions in mm.

# AT-C系列孔輸出帶抱箍型

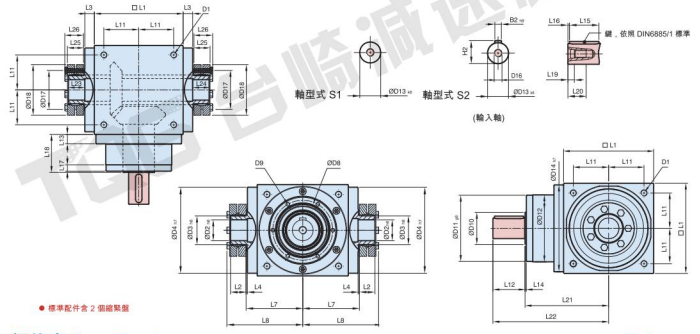
Hole Output Hoop Type

尺寸 (單節1-stage, 減速比ratio i=1~5)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

Table with 12 columns (R+ Sizes AT065C to AT280C) and 20 rows (D1 to H2) listing dimensions in mm.

# AT-LM (左) /AT-RM(右)系列 雙出軸方向相反型

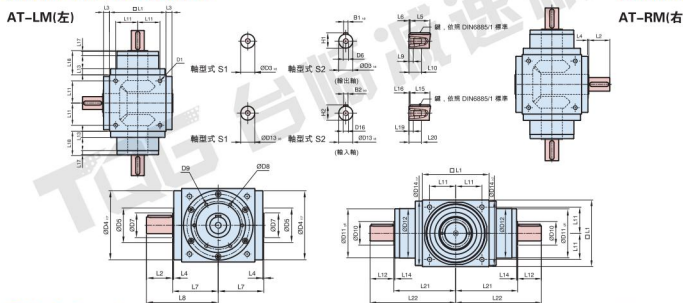
Double Output Shaft Opposite Direction Type

尺寸(單節1-stage, 減速比ratio i=1)



外形尺寸圖 Dimensions:

Unit:mm



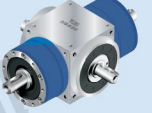
規格表 Specifications:

Unit:mm

Table with 12 columns (R+ Sizes AT065LM/AM to AT280LM/AM) and 20 rows (D1 to H2) listing dimensions in mm.

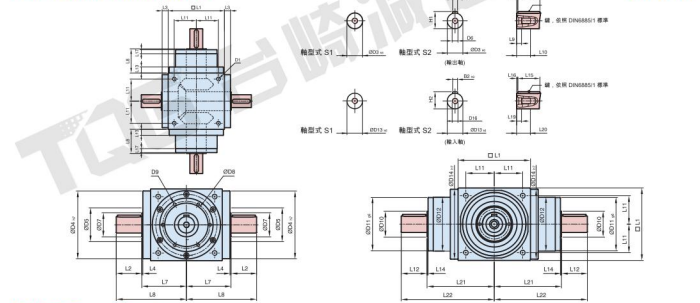
# AT-4M系列 Series

尺寸(單節1-stage, 減速比ratio i=1)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

Table with 12 columns (R+ Sizes AT065 4M to AT280 4M) and 20 rows (D1 to H2) listing dimensions in mm.

### ATF 輸入法蘭型系列

Input Flange series 產品規格

減速機性能資料 Performance Files Reducer



Table with columns for Specification, Stage, Ratio, and various model codes (AT065 FL, AT075 FL, etc.). It lists performance metrics like Rated output torque (Nm) and Max. acceleration torque (Nm) for different gear stages (1, 2, 3) and ratios.

1. 減速比 [I=N1/N2] Reduction Ratio. 2. 作用於輸出軸中心位置之力 Fmax. 背隙值在 2% 額定出力 Tm 的扭力下所測得.

### ATF 輸入法蘭型系列

Input Flange Series 產品規格

減速機轉動慣量 Rotary inertia of reducer



Table with columns for Specification, Stage, Ratio, and various model codes. It lists rotary inertia values (kg·cm²) for different gear stages and ratios.

#### 重量 Weight

Table with columns for Reducer model, Stage, Ratio, and model codes. It lists the weight (Kg) for various ATF reducer models.

### AT-FL 系列雙輸出軸型式

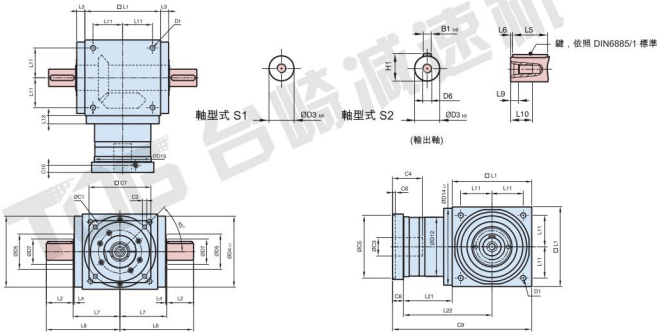
Double Output Shaft Type

尺寸 (單節 1-stage, 減速比 ratio i=1~5)



外形尺寸圖 Dimensions:

Unit:mm



#### 規格表 Specifications:

Table with columns for Size, Model, and various dimensions (D1, D3, etc.). It lists specifications for AT-FL series reducers with 1-stage reduction ratio.

3. C1-C10 是公制標準馬達連接板之尺寸，請上網點選"減速機選用"找出正確之尺寸。

### AT-FL 系列雙輸出軸型式

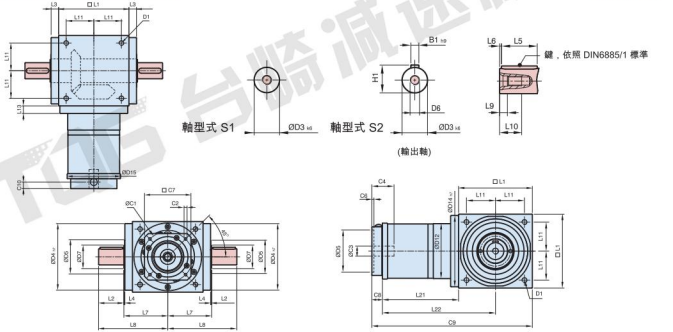
Double Output Shaft Type

尺寸 (雙節 2-stage, 減速比 ratio i=7~50)



外形尺寸圖 Dimensions:

Unit:mm



#### 規格表 Specifications:

Table with columns for Size, Model, and various dimensions (D1, D3, etc.). It lists specifications for AT-FL series reducers with 2-stage reduction ratio.

4. C1-C10 是公制標準馬達連接板之尺寸，請上網點選"減速機選用"找出正確之尺寸。

## AT-FL系列雙出軸型式

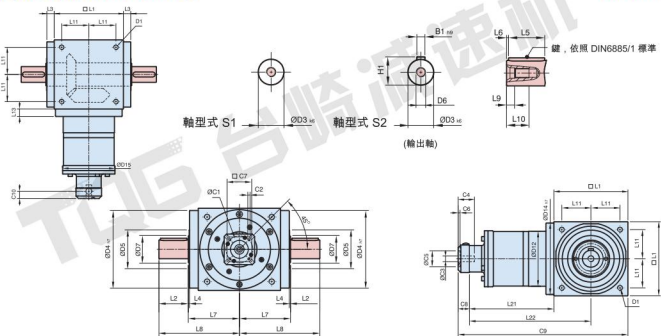
### Double Output Shaft Type

尺寸 (三節 3-stage, 減速比ratio i=75~500)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

尺寸	AT110 FL	AT140 FL	AT170 FL	AT210 FL	AT240 FL	AT280 FL
D1	M8	M10	M12	M16	M16	M16
D3 <sub>66</sub>	22	32	40	50	55	60
D4 <sub>67</sub>	108	135	165	205	235	275
D5	53	66	83	104	124	144
D6	M8	M12	M16	M16	M16	M20
D7	33	47	55	75	85	110
D12	106	104	128	160	180	200
D14 <sub>67</sub>	108	135	165	205	235	275
D15	107	127	158	198	228	268
L1	110	140	170	210	240	280
L2	40	50	60	75	85	110
L3	15	15	15	20	25	25
L4	2	2	2	2	2	2
L5	32	45	50	70	80	100
L6	4	2.5	5	2.5	2.5	5
L7	72	87	102	127	147	167
L8	112	137	162	202	232	277
L9	7.2	10	12	12	12	15
L10	19	28	36	36	36	42
L11	44	55	67	85	95	110
L13	15	15	15	20	25	25
L22	191.5	229.5	268.5	331	389	418
C1	46	46	70	100	100	100
C2	M4	M4	M5	M5	M6	M6
C3	≤12	≤12	≤16	≤16	≤24	≤24
C4	30	30	34	40	40	40
C5	30	30	50	50	80	80
C6	3.5	3.5	8	4	4	4
C7	42	42	60	60	92	92
C8	21.5	21.5	21.5	21.5	20	20
C9	268	321	375	457.5	529	578
C10	14.5	14.5	15.5	15.5	13	13
B1 <sub>66</sub>	5	5	43	14	16	18
H1	24.5	35	43	53.5	59	64

5. C1-C10 是公制標準馬達連接板之尺寸，請上網點選"減速機選用"找出正確之尺寸。

## AT-FL1 (左) /AT-FR1(右)系列

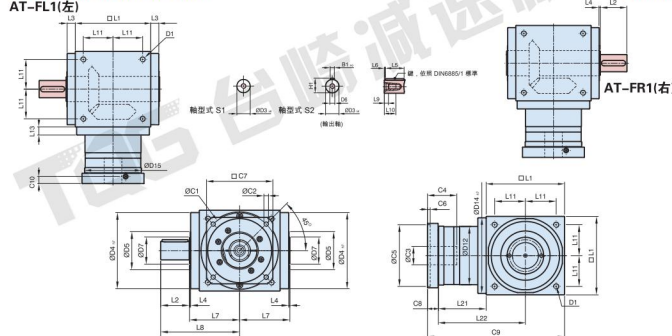
### 單出軸型式 Single Output Shaft Type

尺寸 (單節 1-stage, 減速比ratio i=1~5)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

尺寸	AT055 FL1/FR1	AT075 FL1/FR1	AT090 FL1/FR1	AT110 FL1/FR1	AT140 FL1/FR1	AT170 FL1/FR1	AT210 FL1/FR1	AT240 FL1/FR1	AT280 FL1/FR1
D1	M4	M6	M6	M8	M10	M12	M16	M16	M16
D3 <sub>66</sub>	13	16	18	22	32	40	50	55	60
D4 <sub>67</sub>	63	73	88	108	135	165	205	235	275
D5	31	35	43	53	66	83	104	124	144
D6	M4	M5	M5	M8	M12	M16	M16	M16	M20
D7	21	22	28	33	47	55	75	85	110
D12	62	72	86	106	104	128	160	180	200
D14 <sub>67</sub>	63	73	88	108	135	165	205	235	275
D15	62.9	72.9	87	107	105	127	158	178	198
L1	65	75	90	110	140	170	210	240	280
L2	19.5	30	35	40	50	60	75	85	110
L3	13	14.5	15	15	15	15	20	25	25
L4	2	2	2	2	2	2	2	2	2
L5	16	25	28	32	45	50	70	80	100
L6	2	2.5	3.5	4	2.5	5	2.5	2.5	5
L7	47.5	54	62	72	87	102	127	147	167
L8	67	84	97	112	137	162	202	232	277
L9	4.5	4.8	4.8	7.2	10	12	12	12	15
L10	10	12.5	12.5	19	28	36	36	36	42
L11	27	30	36	44	55	67	85	95	110
L13	13	15	15	15	15	15	20	25	25
L21	49	60.5	63	69.5	95	130	144.5	144.5	144.5
L22	81.5	98	108	124.5	155.5	180	235	264.5	275
C1	46	70	100	100	130	165	215	215	235
C2	M4	M5	M6	M6	M8	M10	M12	M12	M12
C3	≤11 / ≤12	≤14 / ≤15.875 / ≤16	≤19	≤24	≤32	≤38	≤42	≤48	≤55
C4	30	34	40	40	50	60	85	85	116
C5	30	50	80	80	110	130	180	180	200
C6	3.5	4	4	4	5	6	6	6	6
C7	42	60	90	90	115	142	190	190	220
C8	19.5	19	17	17	19.5	22.5	29	29	33
C9	133.5	154.5	170	196.5	245	297.5	369	413.5	478
C10	13.25	13.5	10.75	10.75	13	15	20.75	20.75	53.5
B1 <sub>66</sub>	5	5	6	6	10	12	14	16	18
H1	15	18	20.5	24.5	35	43	53.5	59	64

6. C1-C10 是公制標準馬達連接板之尺寸，請上網點選"減速機選用"找出正確之尺寸。

\* AT055 FL1/FR1 提供 C3 ≤12 option. \* AT075 FL1/FR1 提供 C3 ≤15 option. \* AT075 FL1/FR1 提供 C3 ≤15.875 option.

## AT-FL1 (左) /AT-FR1(右)系列

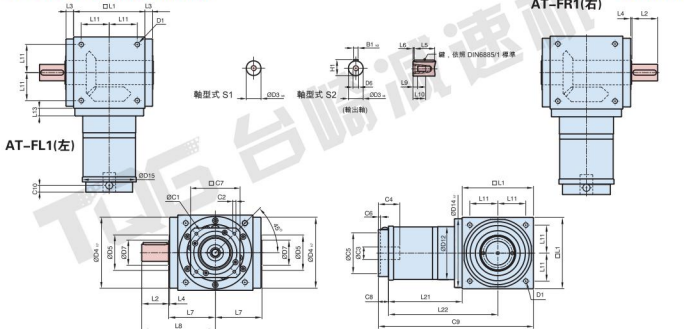
### 單出軸型式 Single Output Shaft Type

尺寸 (雙節 2-stage, 減速比ratio i=7~50)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

尺寸	AT065 FL1/FR1	AT075 FL1/FR1	AT090 FL1/FR1	AT110 FL1/FR1	AT140 FL1/FR1	AT170 FL1/FR1	AT210 FL1/FR1	AT240 FL1/FR1	AT280 FL1/FR1
D1	M4	M6	M6	M8	M10	M12	M16	M16	M16
D3 <sub>66</sub>	13	16	18	22	32	40	50	55	60
D4 <sub>67</sub>	63	73	88	108	135	165	205	235	275
D5	31	35	43	53	66	83	104	124	144
D6	M4	M5	M5	M8	M12	M16	M16	M16	M20
D7	21	22	28	33	47	55	75	85	110
D12	62	72	86	106	104	128	160	180	200
D14 <sub>67</sub>	63	73	88	108	135	165	205	235	275
D15	62.9	72.9	87	107	106	127	158	178	198
L1	65	75	90	110	140	170	210	240	280
L2	19.5	30	35	40	50	60	75	85	110
L3	13	14.5	15	15	15	15	20	25	25
L4	2	2	2	2	2	2	2	2	2
L5	16	25	28	32	45	50	70	80	100
L6	2	2.5	3.5	4	2.5	5	2.5	2.5	5
L7	47.5	54	62	72	87	102	127	147	167
L8	67	84	97	112	137	162	202	232	277
L9	4.5	4.8	4.8	7.2	10	12	12	12	15
L10	10	12.5	12.5	19	28	36	36	36	42
L11	27	30	36	44	55	67	85	95	110
L13	13	15	15	15	15	15	20	25	25
L21	75	84.5	99	122	144.5	157.5	206.5	239	248
L22	107.5	122	144	177	214.5	242.5	311.5	359	388
C1	46	46	70	100	100	130	165	165	165
C2	M4	M4	M5	M5	M6	M6	M8	M8	M8
C3	≤12	≤12	≤16	≤24	≤24	≤24	≤32	≤38	≤38
C4	30	30	34	40	40	40	50	60	60
C5	30	30	50	80	80	80	110	130	130
C6	3.5	3.5	8	4	4	4	5	6	6
C7	42	42	60	60	92	92	115	142	142
C8	21.5	21.5	21.5	20	20	20	21	31	31
C9	161.5	181	210.5	252	304.5	347.5	440.5	510	559
C10	14.55	14.5	15.5	13	13	13	16	21	21
B1 <sub>66</sub>	5	5	6	6	10	12	14	16	18
H1	15	18	20.5	24.5	35	43	53.5	59	64

7. C1-C10 是公制標準馬達連接板之尺寸，請上網點選"減速機選用"找出正確之尺寸。

## AT-FL1 (左) /AT-FR1(右)系列

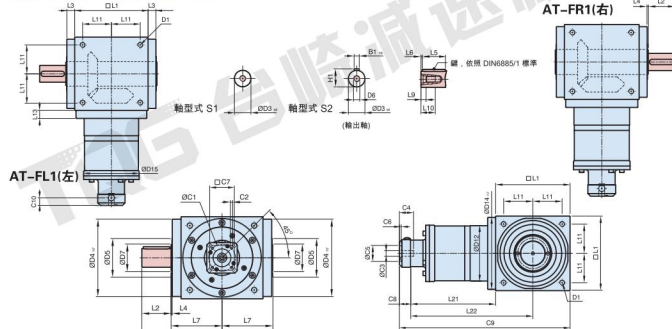
### 單出軸型式 Single Output Shaft Type

尺寸 (三節 3-stage, 減速比ratio i=75~500)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

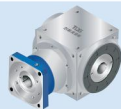
尺寸	AT110 FL1/FR1	AT140 FL1/FR1	AT170 FL1/FR1	AT210 FL1/FR1	AT240 FL1/FR1	AT280 FL1/FR1
D1	M8	M10	M12	M16	M16	M16
D3 <sub>66</sub>	22	32	40	50	55	60
D4 <sub>67</sub>	108	135	165	205	235	275
D5	53	66	83	104	124	144
D6	M8	M12	M16	M16	M16	M20
D7	33	47	55	75	85	110
D12	106	104	128	160	180	200
D14 <sub>67</sub>	108	135	165	205	235	275
D15	107	127	158	198	228	268
L1	110	140	170	210	240	280
L2	40	50	60	75	85	110
L3	15	15	15	20	25	25
L4	2	2	2	2	2	2
L5	32	45	50	70	80	100
L6	4	2.5	5	2.5	2.5	5
L7	72	87	102	127	147	167
L8	112	137	162	202	232	277
L9	7.2	10	12	12	12	15
L10	19	28	36	36	36	42
L11	44	55	67	85	95	110
L13	15	15	15	20	25	25
L21	136.5	169.5	214.5	268.5	331	389
L22	191.5	229.5	268.5	331	389	418
C1	46	46	70	100	100	100
C2	M4	M4	M5	M5	M6	M6
C3	≤12	≤12	≤16	≤16	≤24	≤24
C4	30	30	34	40	40	40
C5	30	30	50	50	80	80
C6	3.5	3.5	8	4	4	4
C7	42	42	60	60	92	92
C8	21.5	21.5	21.5	20	20	20
C9	268	321	375	457.5	529	578
C10	14.5	14.5	15.5	15.5	13	13
B1 <sub>66</sub>	5	5	6	6	10	12
H1	24.5	35	43	53.5	59	64

8. C1-C10 是公制標準馬達連接板之尺寸，請上網點選"減速機選用"找出正確之尺寸。

# AF-FH系列孔輸出型式

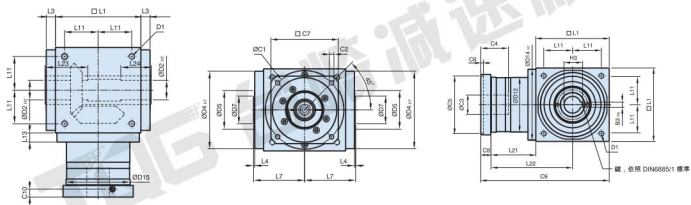
Hole Output Type

尺寸 (單節 1-stage, 減速比 ratio i=1~5)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

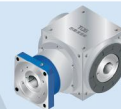
尺寸 Sizes	AT065FH	AT075FH	AT090FH	AT110FH	AT140FH	AT170FH	AT210FH	AT240FH	AT280FH		
D1	M4	M6	M6	M8	M10	M12	M16	M16	M16		
D2 <sub>H7</sub>	13	14	18	22	32	40	50	55	60		
D4 <sub>H7</sub>	63	73	88	108	135	165	205	235	275		
D5	31	35	43	53	68	83	104	124	144		
D7	21	22	28	33	47	55	75	85	110		
D12	62	72	86	106	104	128	160	180	200		
D14 <sub>H7</sub>	63	73	88	108	135	165	205	235	275		
D15	62.9	72.9	87	107	105	127	158	178	198		
L1	65	75	90	110	140	170	210	240	280		
L3	13	14.5	15	15	15	15	20	25	25		
L4	2	2	2	2	2	2	2	2	2		
L7	47.5	54	62	72	87	102	127	147	167		
L11	27	30	36	44	55	67	85	95	110		
L13	13	15	15	15	15	15	20	25	25		
L21	49	60.5	63	69.5	85.5	95	130	144.5	135		
L22	81.5	98	108	124.5	155.5	180	235	264.5	275		
L23	40	47	52	53	70	80	95	115	115		
L24	30	32	35	35	50	55	65	80	80		
C1 <sup>10</sup>	46	70	100	100	130	165	215	215	235		
C2 <sup>11</sup>	M4	M5	M6	M6	M8	M10	M12	M12	M12		
C3 <sup>10</sup>	* ≤11 / ≤12		* ≤14 / ≤15.875 / ≤16		≤19	≤24	≤32	≤38	≤42	≤48	≤55
C4 <sup>11</sup>	30	34	40	40	50	60	85	85	116	116	
C5 <sup>10</sup>	30	50	80	80	110	130	180	180	200	200	
C6 <sup>11</sup>	3.5	8	4	4	5	6	6	6	6	6	
C7 <sup>11</sup>	42	60	90	90	115	142	190	190	220	220	
C8 <sup>11</sup>	19.5	19	17	17	19.5	22.5	29	29	63	63	
C9 <sup>11</sup>	133.5	170	196.5	245	287.5	369	413.5	478	478	478	
C10 <sup>10</sup>	13.25	13.5	10.75	10.75	13	15	20.75	20.75	53.5	53.5	
B3 <sub>P9</sub>	5	5	6	6	10	12	14	16	18	18	
H3	15.3	16.3	20.8	24.8	35.3	43.3	53.8	59.3	64.4	64.4	

9. C1~C10 是公制標準馬達連接板之尺寸, 請上網點選“減速機選用”找出正確之尺寸。  
\* AT065 FH1 提供 C3 ≤12 option. \* AT075 FH1 提供 C3 ≤16 option. \* AT075 FH2 提供 C3 ≤15.875 option.

# AF-FH系列孔輸出型式

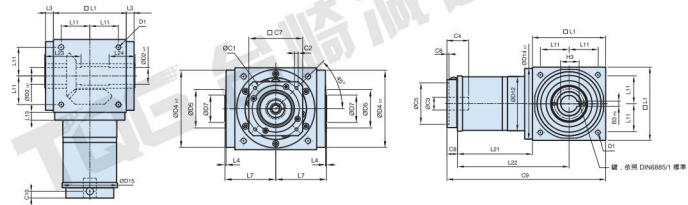
Hole Output Type

尺寸 (雙節 2-stage, 減速比 ratio i=7~50)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

尺寸 Sizes	AT065FH	AT075FH	AT090FH	AT110FH	AT140FH	AT170FH	AT210FH	AT240FH	AT280FH	
D1	M4	M6	M6	M8	M10	M12	M16	M16	M16	
D2 <sub>H7</sub>	13	14	18	22	32	40	50	55	60	
D4 <sub>H7</sub>	63	73	88	108	135	165	205	235	275	
D5	31	35	43	53	68	83	104	124	144	
D7	21	22	28	33	47	55	75	85	110	
D12	62	72	86	106	104	128	160	180	200	
D14 <sub>H7</sub>	63	73	88	108	135	165	205	235	275	
D15	62.9	72.9	87	107	106	127	158	178	198	
L1	65	75	90	110	140	170	210	240	280	
L3	13	14.5	15	15	15	15	20	25	25	
L4	2	2	2	2	2	2	2	2	2	
L7	47.5	54	62	72	87	102	127	147	167	
L11	27	30	36	44	55	67	85	95	110	
L13	13	15	15	15	15	15	20	25	25	
L21	75	84.5	99	122	144.5	157.5	206.5	239	248	
L22	107.5	122	144	177	214.5	242.5	311.5	359	388	
L23	40	47	52	53	70	80	95	115	115	
L24	30	32	35	35	50	55	65	80	80	
C1 <sup>10</sup>	46	46	70	70	100	100	130	165	165	
C2 <sup>10</sup>	M4	M4	M5	M6	M6	M6	M8	M10	M10	
C3 <sup>10</sup>	* ≤11 / ≤12		* ≤16		≤24	≤24	≤32	≤38	≤48	≤55
C4 <sup>10</sup>	30	30	34	40	40	40	50	60	60	
C5 <sup>10</sup>	30	30	50	80	80	80	110	130	130	
C6 <sup>10</sup>	3.5	3.5	8	4	4	4	5	6	6	
C7 <sup>10</sup>	42	42	60	92	92	92	115	142	142	
C8 <sup>10</sup>	21.5	21.5	21.5	20	20	20	24	31	31	
C9 <sup>10</sup>	161.5	181	210.5	252	304.5	347.5	440.5	510	559	
C10 <sup>10</sup>	14.5	14.5	15.5	13	13	13	16	21	21	
B3 <sub>P9</sub>	5	5	6	6	10	12	14	16	18	18
H3	15.3	16.3	20.8	24.8	35.3	43.3	53.8	59.3	64.4	64.4

10. C1~C10 是公制標準馬達連接板之尺寸, 請上網點選“減速機選用”找出正確之尺寸。

# AT-FH系列孔輸出型式

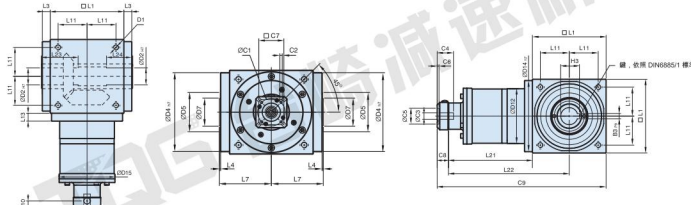
Hole Output Type

尺寸 (三節 3-stage, 減速比 ratio i=75~500)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

尺寸 Sizes	AT110FH	AT140FH	AT170FH	AT210FH	AT240FH	AT280FH					
D1	M8	M10	M12	M16	M16	M16					
D2 <sub>H7</sub>	22	32	40	50	55	60					
D4 <sub>H7</sub>	108	135	165	205	235	275					
D5	53	68	83	104	124	144					
D7	33	47	55	75	85	110					
D12	106	104	128	160	180	200					
D14 <sub>H7</sub>	108	135	165	205	235	275					
D15	107	106	127	158	178	198					
L1	110	140	170	210	240	280					
L3	15	15	15	20	25	25					
L4	2	2	2	2	2	2					
L7	72	87	102	127	147	167					
L11	44	55	67	85	95	110					
L13	15	15	15	20	25	25					
L21	136.5	159.5	183.5	226	269	278					
L22	191.5	229.5	268.5	331	389	418					
L23	53	70	80	95	115	115					
L24	35	50	55	65	80	80					
C1 <sup>11</sup>	46	46	70	70	100	100					
C2 <sup>11</sup>	M4	M4	M5	M6	M6	M6					
C3 <sup>11</sup>	* ≤12		* ≤16		≤16	≤24	≤32	≤38	≤42	≤48	≤55
C4 <sup>11</sup>	30	30	34	40	40	40	50	60	60	116	116
C5 <sup>11</sup>	30	30	50	50	80	80	110	130	180	180	200
C6 <sup>11</sup>	3.5	3.5	8	8	4	4	4	5	6	6	6
C7 <sup>11</sup>	42	42	60	60	92	92	115	142	190	190	220
C8 <sup>11</sup>	21.5	21.5	21.5	21.5	20	20	24	31	31	63	63
C9 <sup>11</sup>	268	321	375	457.5	529	578	720	829	829	829	829
C10 <sup>11</sup>	14.5	14.5	15.5	15.5	13	13	16	21	21	53.5	53.5
B3 <sub>P9</sub>	6	10	12	14	16	18	18	18	18	18	18
H3	24.8	35.3	43.3	53.8	59.3	64.4	64.4	64.4	64.4	64.4	64.4

11. C1~C10 是公制標準馬達連接板之尺寸, 請上網點選“減速機選用”找出正確之尺寸。

# AT-FC系列孔輸出帶抱箍型式

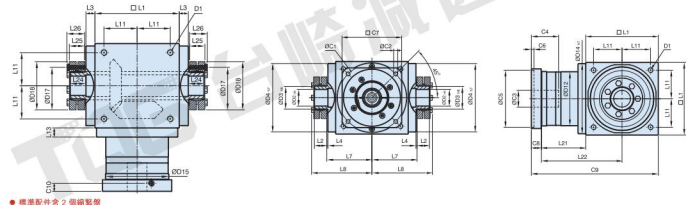
Hole Output Hoop Type

尺寸 (單節 1-stage, 減速比 ratio i=1~5)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

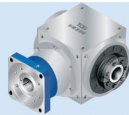
Unit:mm

尺寸 Sizes	AT065FC	AT075FC	AT090FC	AT110FC	AT140FC	AT170FC	AT210FC	AT240FC	AT280FC		
D1	M4	M6	M6	M8	M10	M12	M16	M16	M16		
D2 <sub>H8</sub>	13	14	18	22	32	40	50	55	60		
D3 <sub>H8</sub>	16	16	22	25	44	50	62	68	75		
D4 <sub>H7</sub>	63	73	88	108	135	165	205	235	275		
D12	62	72	86	106	104	128	160	180	200		
D14 <sub>H7</sub>	63	73	88	108	135	165	205	235	275		
D15	62.9	72.9	87	107	105	127	158	178	198		
D17	26	26	36	38	61	70	86	86	100		
D18	41	41	50	50	80	90	110	115	138		
L1	65	75	90	110	140	170	210	240	280		
L2	14	14	18	18	24	26	29	29	30.5		
L3	13	14.5	15	15	15	15	20	25	25		
L4	2	2	2	2	2	2	2	2	2		
L7	47.5	54	62	72	87	102	127	147	167		
L8	66	72.5	85	95	116.5	113.5	161.5	181.5	205		
L11	27	30	36	44	55	67	85	95	110		
L13	13	15	15	15	15	15	20	25	25		
L21	49	60.5	63	69.5	85.5	95	130	144.5	135		
L22	81.5	98	108	124.5	155.5	180	235	264.5	275		
L23	15	15	20	20	26	28	31	31	32.5		
L24	15	15	20	20	26	28	31	31	32.5		
L25	15	15	19.5	19.5	25.5	27.5	30.5	30.5	32.5		
L26	18.5	18.5	23	23	29.5	31.5	34.5	34.5	38		
C1 <sup>12</sup>	46	70	100	100	130	165	215	215	235		
C2 <sup>12</sup>	M4	M5	M6	M6	M8	M10	M12	M12	M12		
C3 <sup>12</sup>	* ≤11 / ≤12		* ≤14 / ≤15.875 / ≤16		≤19	≤24	≤32	≤38	≤42	≤48	≤55
C4 <sup>12</sup>	30	34	40	40	50	60	85	85	116	116	
C5 <sup>12</sup>	30	50	80	80	110	130	180	180	200	200	
C6 <sup>12</sup>	3.5	8	4	4	5	6	6	6	6	6	
C7 <sup>12</sup>	42	60	90	90	115	142	190	190	220	220	
C8 <sup>12</sup>	19.5	19	17	17	19.5	22.5	29	29	63	63	
C9 <sup>12</sup>	133.5	170	196.5	245	287.5	369	413.5	478	478	478	
C10 <sup>12</sup>	13.25	13.5	10.75	10.75	13	15</					

# AT-FC系列孔輸出帶抱箍

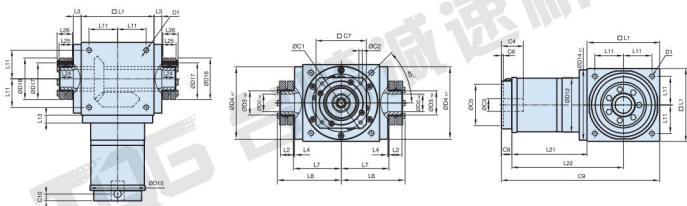
Hole Output Hoop Type

尺寸 (雙節 2-stage, 減速比 ratio  $i=7\sim 50$ )



外形尺寸圖 Dimensions:

Unit:mm



●標準配件含 2 個端蓋

規格表 Specifications:

Unit:mm

尺寸 Sizes	AT06FC	AT075FC	AT090FC	AT110FC	AT140FC	AT170FC	AT210FC	AT240FC	AT280FC
D1	M4	M6	M6	M8	M10	M12	M16	M16	M16
D2 <sub>H8</sub>	13	14	18	22	32	40	50	55	60
D3 <sub>H8</sub>	16	16	22	25	44	50	62	68	75
D4 <sub>H7</sub>	63	73	88	108	135	165	205	235	275
D12	62	72	86	106	104	128	160	180	200
D14 <sub>H7</sub>	63	73	88	108	135	165	205	235	275
D15	62.9	72.9	87	107	106	127	158	178	198
D17	26	26	36	38	61	70	86	86	100
D18	41	41	50	50	80	90	110	115	138
L1	65	75	90	110	140	170	210	240	280
L2	14	14	18	18	24	26	29	29	30.5
L3	13	14.5	15	15	15	15	20	25	25
L4	2	2	2	2	2	2	2	2	2
L7	47.5	54	62	72	87	102	127	147	167
L8	66	72.5	85	95	116.5	133.5	161.5	181.5	205
L11	27	30	36	44	55	67	85	95	110
L13	13	15	15	15	15	15	20	25	25
L21	75	84.5	99	122	144.5	157.5	206.5	239	248
L22	107.5	122	144	177	214.5	242.5	311.5	359	388
L23	15	15	20	20	26	28	31	31	32.5
L24	15	15	20	20	26	28	31	31	32.5
L25	15	15	19.5	19.5	25.5	27.5	30.5	30.5	32.5
L26	18.5	18.5	23	23	29.5	31.5	34.5	34.5	38
C1 <sup>13</sup>	46	46	70	100	100	100	130	165	165
C2 <sup>13</sup>	M4	M4	M5	M6	M6	M6	M8	M10	M10
C3 <sup>13</sup>	≤12	≤12	≤16	≤24	≤24	≤24	≤32	≤38	≤38
C4 <sup>13</sup>	30	30	34	40	40	40	50	60	60
C5 <sup>13</sup>	30	30	50	80	80	80	110	130	130
C6 <sup>13</sup>	3.5	3.5	8	4	4	4	5	6	6
C7 <sup>13</sup>	42	42	60	92	92	92	115	142	142
C8 <sup>13</sup>	21.5	21.5	21.5	20	20	20	24	31	31
C9 <sup>13</sup>	161.5	181	210.5	252	304.5	347.5	440.5	510	559
C10 <sup>13</sup>	14.5	14.5	15.5	13	13	13	16	21	21

13 C1~C10 是公制標準馬達連接板之尺寸。請上網點選「減速機選用」找出正確之尺寸。

# AT-FC系列孔輸出帶抱箍

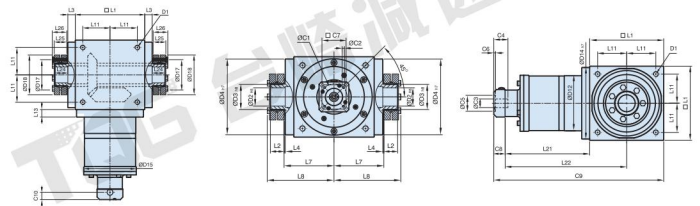
Hole Output Hoop Type

尺寸 (三節 3-stage, 減速比 ratio  $i=75\sim 500$ )



外形尺寸圖 Dimensions:

Unit:mm



●標準配件含 2 個端蓋

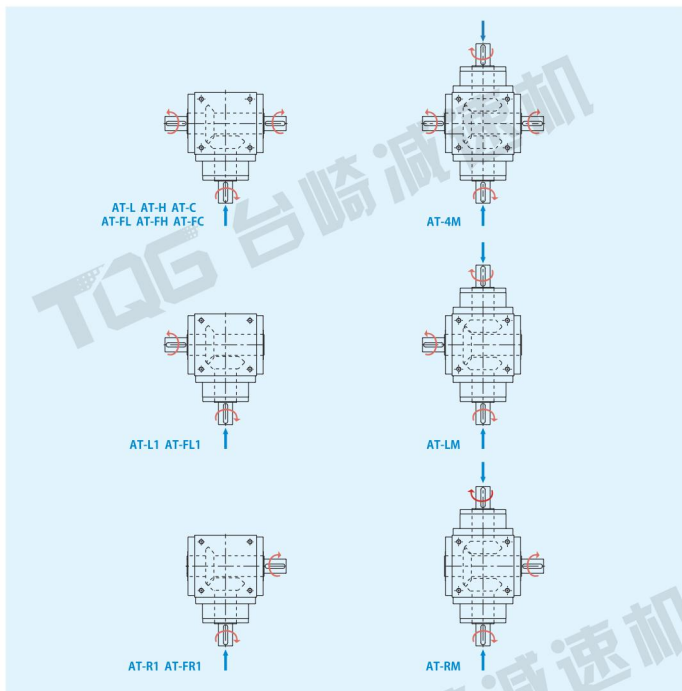
規格表 Specifications:

Unit:mm

尺寸 Sizes	AT110FC	AT140FC	AT170FC	AT210FC	AT240FC	AT280FC
D1	M8	M10	M12	M16	M16	M16
D2 <sub>H8</sub>	22	32	40	50	55	60
D3 <sub>H8</sub>	25	44	50	62	68	75
D4 <sub>H7</sub>	108	135	165	205	235	275
D12	106	104	128	160	180	200
D14 <sub>H7</sub>	108	135	165	205	235	275
D15	107	106	127	158	178	198
D17	38	61	70	86	86	100
D18	50	80	90	110	115	138
L1	110	140	170	210	240	280
L2	18	24	26	29	29	30.5
L3	15	15	15	20	25	25
L4	2	2	2	2	2	2
L7	72	87	102	127	147	167
L8	95	116.5	133.5	161.5	181.5	205
L11	44	55	67	85	95	110
L13	15	15	15	20	25	25
L21	136.5	159.5	183.5	226	269	278
L22	191.5	229.5	268.5	331	389	418
L23	20	26	28	31	31	32.5
L24	20	26	28	31	31	32.5
L25	19.5	25.5	27.5	30.5	30.5	32.5
L26	23	29.5	31.5	34.5	34.5	38
C1 <sup>13</sup>	46	46	70	100	100	100
C2 <sup>13</sup>	M4	M4	M5	M6	M6	M6
C3 <sup>13</sup>	≤12	≤12	≤16	≤24	≤24	≤24
C4 <sup>13</sup>	30	30	34	40	40	40
C5 <sup>13</sup>	30	30	50	80	80	80
C6 <sup>13</sup>	3.5	3.5	8	4	4	4
C7 <sup>13</sup>	42	42	60	92	92	92
C8 <sup>13</sup>	21.5	21.5	21.5	20	20	20
C9 <sup>13</sup>	288	321	375	457.5	529	578
C10 <sup>13</sup>	14.5	14.5	15.5	13	13	13

14 C1~C10 是公制標準馬達連接板之尺寸。請上網點選「減速機選用」找出正確之尺寸。

## 轉向圖 Diagram of Rotate Direction



## 縮緊盤附件選配 Selection of Shrink Disc Accessories

(單位: mm)

C / FC 系列	D1	D2	D3	H1	H2
SSD-d16xdw14	41	16	26	15	18.5
SSD-d22xdw18	50	22	36	19.5	23
SSD-d25xdw22	50	25	38	19.5	23
SSD-d44xdw32	80	44	61	25.5	29.5
SSD-d50xdw40	90	50	70	27.5	31.5
SSD-d62xdw50	110	62	86	30.5	34.5
SSD-d68xdw55	115	68	86	30.5	34.5
SSD-d75xdw60	138	75	100	32.5	38

適用於多軸連動場合:

TFT-LCD 升降機構、各種升降、水平連動機構... 等機構

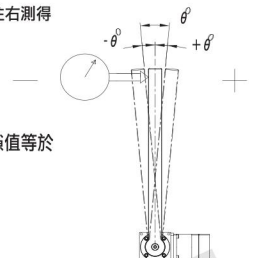


減速機-背隙測定值:

入力軸固定, 出力軸施以微小力距(額定值的5%), 測量棒往左再往右測得的  $\theta^+$  (+  $\theta^+$  與 -  $\theta^-$ ) 即為背隙。

背隙值的計算:

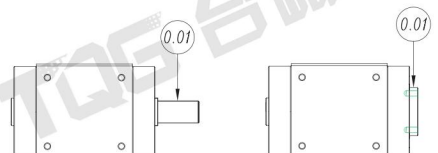
例: 當  $360^\circ$  裡最大  $\theta$  為  $0.05^\circ$  (3弧分), 半徑 500MM, 背隙值等於  $(500 * 2 * \pi) \div (360 * 60) * 3 = 0.436\text{MM}$   
 $\theta$  為  $0.05^\circ$  (3弧分) =  $0.436\text{MM}$  (背隙值或齒隙)



減速機-出力軸偏擺與同心度

1. 輸出軸的偏擺與同心度的高低對其壽命有絕對的影響, 出力軸偏擺過大易產生偏擺運動, 對齒輪產生磨損壽命縮短。

2. 全系列使用 NSK 錐形滾柱軸承, 軸偏擺要求  $0.01\text{MM}$  以內 (測量時施以定額扭距的 5%)。





# PAW-A(B) / PT系列

## 90度精密減速機

90 Degree Precision Speed Reducer

## 多種輸出軸型式 減速機1:1~1:100

Multiple Output Shaft Type Reducer 1:1~1:100

## 適用之伺服馬達容量：0.1kw~15kw

Applicable Servo Motor Capacity: 0.1kw~15kw



1. 中空軸+錐形迫緊環：適用於大負荷場合。  
2. 適用：滾輪機構、輸送搬運機構、凸輪機構、液晶面板翻轉機構、齒條齒輪機構等任何產業之機構。

1. 中空軸旋轉法蘭：適用於大負荷場合。  
2. 適用：旋轉機構、CNC車床機械手臂之翻轉機構。



1. 中空軸(夾緊式)，單中空軸與雙中空軸。  
2. 適用：輸送搬運機構。

1. 中空軸夾緊式加鍵槽：適用於大負荷場合。  
2. 適用：滾輪機構、輸送搬運機構、凸輪機構、液晶面板翻轉機構、齒條齒輪機構。

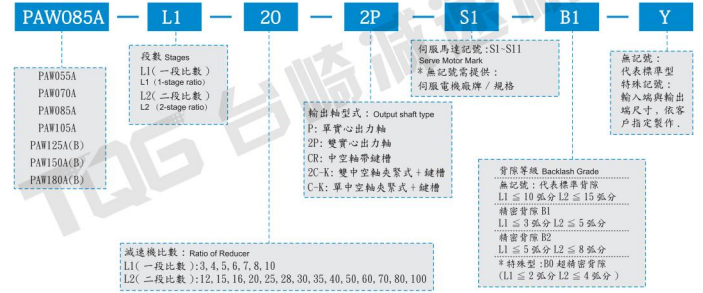


1. 中空軸有鍵槽：新型追加止付牙孔。  
2. 一般輸送機構。

轉向器

# 型號說明 Model Description

## PAW-A(B)系列: PAW055A~PAW180A(B)



# 型號說明 Model Description

## PT系列: PT070A~PT180B



# PAW-A(B) / PT系列-性能参数表

## Performance Parameters Table

規格 Specification	段數 Stages	減速比 (i) Ratio	PAW055A PT070A	PAW085A PT085A	PAW105A PT105A	PAW125A PT125B	PAW150A PT150B	PAW180A	PAW180B PT180B			
額定輸出轉距 (Nm) Rated Output Torque	一段 L1	1/1	30	40	100	230	400	450	600			
		1/3	10	30	40	100	230	100	400	230	900	450
		1/4	15	30	50	150	250	160	500	330	1100	550
		1/5	15	30	50	150	250	160	500	330	1200	550
		1/6	14	30	42	120	230	160	500	290	1100	530
		1/7	14	30	42	120	230	160	500	290	1100	530
	二段 L2	1/12	10	30	40	100	230	100	400	230	900	450
		1/15	10	30	40	100	230	100	400	230	900	450
		1/16	15	30	50	150	250	160	500	330	1200	550
		1/20	15	30	50	150	250	160	500	330	1200	550
		1/25	15	30	50	150	250	160	500	330	1100	550
		1/30	10	30	40	100	230	100	450	330	900	450
最大輸出轉距 (Nm) Max. Output Torque	L1, L2	3-100	3倍額定輸出轉距 (Nm) 3 Times of Rated Output Torque									
		輸入轉速 (rpm) Input Speed	L1, L2	3-100	3000	3000	3000	3000	3000	3000	3000	3000
		標準背隙 (arc-min) Standard Backlash	L1	3-10	≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10
		L2	12-100	≤15	≤15	≤15	≤15	≤15	≤15	≤15	≤15	
		精密背隙2 (arc-min) Precision Backlash 2	L1	3-10	≤5	≤5	≤5	≤5	≤5	≤5	≤5	≤5
		L2	12-100	≤8	≤8	≤8	≤8	≤8	≤8	≤8	≤8	
		精密背隙 01 (arc-min) Precision Backlash 01	L1	3-10	≤3	≤3	≤3	≤3	≤3	≤3	≤3	≤3
		L2	12-100	≤5	≤5	≤5	≤5	≤5	≤5	≤5	≤5	
容許徑向力 00 (Radial) 容許軸向力 00 (Axial)	L1, L2	3-100	1100	3250	3250	5850	9100	9100	14300	14300	19500	19500
L1, L2	3-100	650	3250	3250	5850	9100	9100	14300	14300	19500	19500	
效率 (%) Efficiency	L1	3-10	90%									
L2	12-100	85%										
重量 (kg) Weight	L1	3-10	1.8	2.9	3.8	10.5	15.5	12.5	31	25.5	56.5	37.5
L2	12-100	2.1	3.3	4.3	11.2	17	13.2	35.5	28.5	63.5	42.0	
使用溫度 (°C) Lubrication oil	L1, L2	3-100	-10°C~+80°C									
清潔油 Lubrication oil	L1, L2	3-100	全合成潤滑油 (COMPLEX HV2) Fully Synthetic Grease									
安裝方向	L1, L2	3-100	任意方向 Any Installation Direction									
噪音值 (db) Noise value	L1, L2	3-100	≤68	≤68	≤68	≤70	≤70	≤72	≤72	≤74	≤74	

\*1. 1. 入力轉速帶 ≤1500 RPM 以內. \* 入力軸與法蘭詳細尺寸 C1~C7, 如頁數 38P

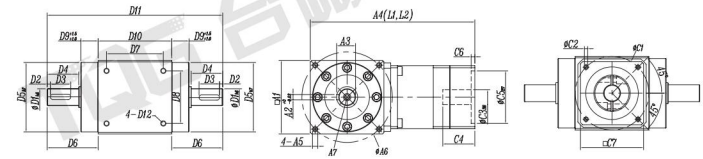
# PAW系列-2P雙出力軸型式

## Double Output Shaft Type

\*PAW055A~PAW180A: 減速比 Ratio (1/3~1/100)



外形尺寸圖 Dimensions: Unit:mm



規格表 Specifications: Unit:mm

規格	PAW055A	PAW070A	PAW085A	PAW105A	PAW125A	PAW125B	PAW150A	PAW150B	PAW180A	PAW180B
A1	55	70	85	105	125	125	150	150	180	180
A2	4	5	6	8	10	10	12	12	14	14
A3	14.5	18	22.5	31	35	35	43	43	53.5	53.5
A4 (mm)	127.5	157	173	223	281	247.5	368	312	403	368
A4 (mm)	153	178	194	250	308.5	274.5	414	340	455	414
A5	M5-10L	M5-12L	M6-12L	M6-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
A6	65	85	100	118	145	145	185	185	200	200
A7	M4	M5	M6	M8	M8	M8	M12	M12	M12	M12
D1	13	16	20	28	32	32	40	40	50	50
D2	3	3	3.5	3	3	3	3	3	3	3
D3	20	20	25	30	40	40	50	50	60	60
D4	26	30	35	40	50	50	63	63	73	73
D5	53.5	66	82	100	120	120	135	135	165	165
D6	40.25	48.5	52.5	60.5	71.5	71.5	85	85	96	96
D7	45	54	68	80	100	100	120	120	141.4	141.4
D8	34	50	52	60	80	80	100	100	141.4	141.4
D9	12.75	16.5	15.5	18.5	19.5	19.5	20	20	21	21
D10	55	70	85	105	125	125	150	150	180	180
D11	135.5	167	190	226	268	268	320	320	372	372
D12	M5-10L	M5-12L	M6-12L	M8-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
C1	≤10	≤90	≤90	≤145	≤200	≤145	≤215	≤200	≤215	≤215
C2	≤M4	≤M6	≤M6	≤M8	≤M12	≤M8	≤M12	≤M12	≤M12	≤M12
C3	≤11	≤19	≤19	≤24	≤35	≤24	≤42	≤35	≤42	≤42
C4	≤30	≤41	≤41	≤62	≤80	≤62	≤116	≤80	≤116	≤116
C5	≤30	≤70	≤70	≤110	≤114.3	≤110	≤180	≤114.3	≤180	≤180
C6	≤3.5	≤5	≤5	≤7	≤7	≤7	≤7	≤7	≤7	≤7
C7	≤60	≤80	≤80	≤120	≤176	≤120	≤196	≤176	≤220	≤176

\* 入力軸與法蘭詳細尺寸 C1~C7, 如頁數 38P

# PAW系列-P單出力軸型式

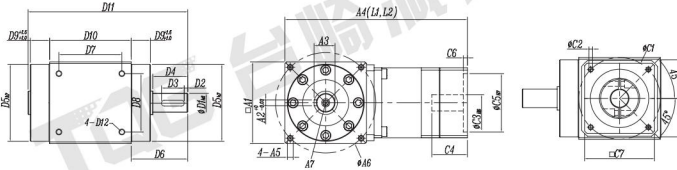
## Single Output Shaft Type

\*PAW070A~~PAW180A:減速比Ratio(1/3~~1/100)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

規格	PAW055A	PAW070A	PAW085A	PAW105A	PAW125A	PAW125B	PAW150A	PAW150B	PAW180A	PAW180B
A1	55	70	85	105	125	125	150	150	180	180
A2	4	5	6	8	10	10	12	12	14	14
A3	14.5	18	22.5	31	35	35	43	43	53.5	53.5
A4 (山鍵型)	127.5	157	173	223	281	281	368	312	403	368
A4 (平鍵型)	153	178	194	250	308.5	308.5	414	340	455	414
A5	MS-10L	MS-12L	M6-12L	M8-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
A6	65	86	100	118	145	145	185	185	200	200
A7	M4	M5	M6	M8	M8	M8	M12	M12	M12	M12
D1	13	16	20	28	32	32	40	40	50	50
D2	3	3	3.5	3	3	3	3	3	3	3
D3	20	20	25	30	40	40	50	50	60	60
D4	26	30	35	40	50	50	63	63	73	73
D5	53.5	66	82	100	120	120	135	135	165	165
D6	40.25	48.5	52.5	60.5	71.5	71.5	85	85	96	96
D7	45	54	68	80	100	100	120	120	141.4	141.4
D8	34	50	52	60	80	80	100	100	141.4	141.4
D9	12.75	16.5	15.5	18.5	19.5	19.5	20	20	21	21
D10	55	70	85	105	125	125	150	150	180	180
D11	109.5	137	155	186	218	218	257	257	299	299
D12	MS-10L	MS-12L	M6-12L	M8-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
C1	≤70	≤90	≤90	≤145	≤200	≤215	≤200	≤215	≤215	≤215
C2	≤M6	≤M6	≤M6	≤M8	≤M12	≤M8	≤M12	≤M12	≤M12	≤M12
C3	≤11	≤19	≤19	≤24	≤35	≤24	≤42	≤35	≤42	≤42
C4	≤30	≤41	≤41	≤62	≤80	≤62	≤116	≤80	≤116	≤116
C5	≤50	≤70	≤70	≤110	≤114.3	≤110	≤180	≤114.3	≤180	≤180
C6	≤3.5	≤5	≤5	≤7	≤7	≤7	≤7	≤7	≤7	≤7
C7	≤60	≤80	≤80	≤120	≤176	≤120	≤196	≤176	≤220	≤176

\*入力軸與法蘭詳細尺寸C1~C7, 如頁數 38P

# PAW系列-2C-K

## 雙中空軸帶鍵型式

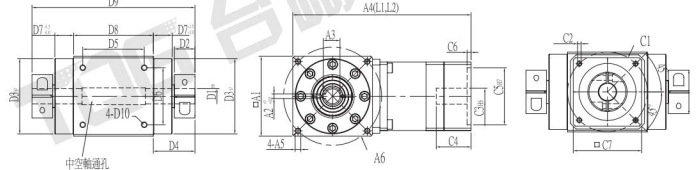
Double Hollow Shaft Key Groove Type

\*PAW070A~~PAW180A:減速比Ratio(1/3~~1/100)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

規格	PAW070A	PAW085A	PAW105A	PAW125A	PAW125B	PAW150A	PAW150B	PAW180A	PAW180B
A1	70	85	105	125	125	150	150	180	180
A2	4	5	6	8	8	10	10	14	14
A3	14.7	16.3	24.7	31.3	31.3	38.3	38.3	53.8	53.8
A4 (山鍵型)	157	173	223	281	281	368	312	403	368
A4 (平鍵型)	178	194	250	308.5	308.5	414	340	455	414
A5	MS-12L	M6-12L	M8-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
A6	86	100	118	145	145	185	185	200	200
D1	13	15	22	28	28	35	35	50	50
D2	18	24	25	24	24	33	33	36.5	36.5
D3	66	82	100	120	120	135	135	165	165
D4	36.5	41.5	45.5	45.5	45.5	55	55	59.5	59.5
D5	54	68	80	100	100	120	120	141.4	141.4
D6	50	52	60	80	80	100	100	141.4	141.4
D7	16.5	15.5	18.5	19.5	19.5	20	20	21	21
D8	70	85	105	125	125	150	150	180	180
D9	143	168	196	216	216	260	260	299	299
D10	MS-12L	M6-12L	M8-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
C1	≤90	≤90	≤145	≤200	≤145	≤215	≤200	≤215	≤215
C2	≤M6	≤M6	≤M8	≤M12	≤M8	≤M12	≤M12	≤M12	≤M12
C3	≤19	≤19	≤24	≤35	≤24	≤42	≤35	≤42	≤42
C4	≤41	≤41	≤62	≤80	≤62	≤116	≤80	≤116	≤116
C5	≤70	≤70	≤110	≤114.3	≤110	≤180	≤114.3	≤180	≤180
C6	≤5	≤5	≤7	≤7	≤7	≤7	≤7	≤7	≤7
C7	≤80	≤80	≤120	≤176	≤120	≤196	≤176	≤220	≤176

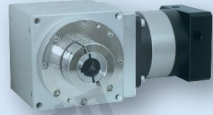
\*入力軸與法蘭詳細尺寸C1~C7, 如頁數 38P

# PAW系列-C-K

## 單中空軸帶鍵型式

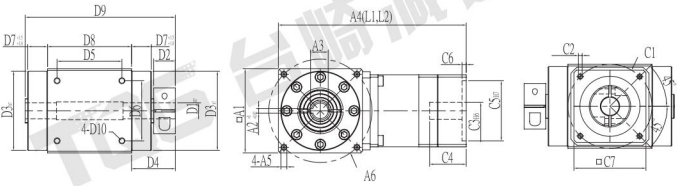
Single Hollow Shaft Key Groove Type

\*PAW070A~~PAW180A:減速比Ratio(1/3~~1/100)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

規格	PAW070A	PAW085A	PAW105A	PAW125A	PAW125B	PAW150A	PAW150B	PAW180A	PAW180B
A1	70	85	105	125	125	150	150	180	180
A2	4	5	6	8	8	10	10	14	14
A3	14.7	16.3	24.7	31.3	31.3	38.3	38.3	53.8	53.8
A4 (山鍵型)	157	173	223	281	281	368	312	403	368
A4 (平鍵型)	178	194	250	308.5	308.5	414	340	455	414
A5	MS-12L	M6-12L	M8-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
A6	86	100	118	145	145	185	185	200	200
D1	13	15	22	28	28	35	35	50	50
D2	18	24	25	24	24	33	33	36.5	36.5
D3	66	82	100	120	120	135	135	165	165
D4	36.5	41.5	45.5	45.5	45.5	55	55	59.5	59.5
D5	54	68	80	100	100	120	120	141.4	141.4
D6	50	52	60	80	80	100	100	141.4	141.4
D7	16.5	15.5	18.5	19.5	19.5	20	20	21	21
D8	70	85	105	125	125	150	150	180	180
D9	125	144	171	192	192	227	227	262.5	262.5
D10	MS-12L	M6-12L	M8-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
D11	5	5	5	6	6	7	7	9	9
D12	2M4	2M4	2M5	2M6	2M6	2M8	2M8	2M12	2M12
C1	≤90	≤90	≤145	≤200	≤145	≤215	≤200	≤215	≤215
C2	≤M6	≤M6	≤M8	≤M12	≤M8	≤M12	≤M12	≤M12	≤M12
C3	≤19	≤19	≤24	≤35	≤24	≤42	≤35	≤42	≤42
C4	≤41	≤41	≤62	≤80	≤62	≤116	≤80	≤116	≤116
C5	≤70	≤70	≤110	≤114.3	≤110	≤180	≤114.3	≤180	≤180
C6	≤5	≤5	≤7	≤7	≤7	≤7	≤7	≤7	≤7
C7	≤80	≤80	≤120	≤176	≤120	≤196	≤176	≤220	≤176

\*入力軸與法蘭詳細尺寸C1~C7, 如頁數 38P

# PAW系列-CR

## 中空軸帶鍵型式

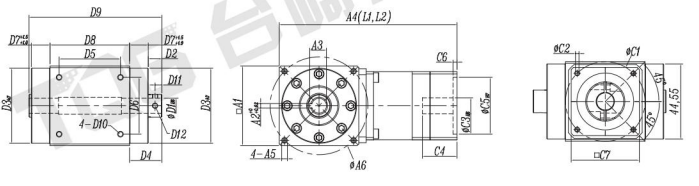
Hollow Shaft Key Groove Type

\*PAW070A~~PAW180A:減速比Ratio(1/3~~1/100)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

規格	PAW070A	PAW085A	PAW105A	PAW125A	PAW125B	PAW150A	PAW150B	PAW180A	PAW180B
A1	70	85	105	125	125	150	150	180	180
A2	4	5	6	8	8	10	10	14	14
A3	14.7	17.3	24.7	31.3	31.3	38.3	38.3	53.8	53.8
A4 (山鍵型)	156.5	173	223	281	281	368	312	403	368
A4 (平鍵型)	177.5	194	250	308.5	308.5	414	340	455	414
A5	MS-12L	M6-12L	M8-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
A6	86	100	118	145	145	185	185	200	200
D1	13	15	22	28	28	35	35	50	50
D2	10	10	10	12	12	14	14	18	18
D3	66	82	100	120	120	135	135	165	165
D4	36.5	25.5	28.5	31.5	31.5	34	34	39	39
D5	54	68	80	100	100	120	120	141.4	141.4
D6	50	52	60	80	80	100	100	141.4	141.4
D7	16.5	15.5	18.5	19.5	19.5	20	20	21	21
D8	70	85	105	125	125	150	150	180	180
D9	125	144	171	192	192	227	227	262.5	262.5
D10	MS-12L	M6-12L	M8-15L	M8-15L	M8-15L	M10-18L	M10-18L	M12-18L	M12-18L
D11	5	5	5	6	6	7	7	9	9
D12	2M4	2M4	2M5	2M6	2M6	2M8	2M8	2M12	2M12
C1	≤90	≤90	≤145	≤200	≤145	≤215	≤200	≤215	≤215
C2	≤M6	≤M6	≤M8	≤M12	≤M8	≤M12	≤M12	≤M12	≤M12
C3	≤19	≤19	≤24	≤35	≤24	≤42	≤35	≤42	≤42
C4	≤41	≤41	≤62	≤80	≤62	≤116	≤80	≤116	≤116
C5	≤70	≤70	≤110	≤114.3	≤110	≤180	≤114.3	≤180	≤180
C6	≤5	≤5	≤7	≤7	≤7	≤7	≤7	≤7	≤7
C7	≤80	≤80	≤120	≤176	≤120	≤196	≤176	≤220	≤176

\*入力軸與法蘭詳細尺寸C1~C7, 如頁數 38P

## PT系列-CR中空軸帶鍵槽型式

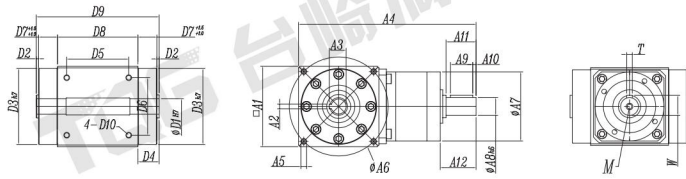
Hollow Shaft Key Groove Type

\*轉向器Steering gear PT070A~PT180B, 速比 Ratio 1:1



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

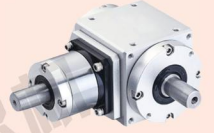
規格	PT070A	PT085A	PT105A	PT125B	PT150B	PT180B
A1	70	85	105	125	150	180
A2	4	5	6	8	10	14
A3	14.7	17.3	24.7	31.3	38.3	53.8
A4	163.7	181.2	205	282.5	271.5	297
A5	4-M5-12L	4-M6-12L	4-M8-15L	4-M8-15L	4-M10-18L	4-M12-18L
A6	86	100	118	145	185	200
A7	62	62	90	120	142	142
A8	16	20	28	28	35	50
A9	20	20	30	30	40	60
A10	3	3	3	3	3	3
A11	27	27	34	34	45	65
A12	32.2	32.2	44	44	51.5	70
D1	13	15	22	28	35	50
D2	2	2	2	2	2	2
D3	66	82	100	120	135	165
D4	18.5	17.5	20.5	21.5	22	23
D5	54	68	80	100	120	141.4
D6	50	52	60	80	100	141.4
D7	16.5	15.5	18.5	19.5	20	21
D8	70	85	105	125	150	180
D9	107	120	146	168	194	226
D10	4-M5-12L	4-M6-12L	4-M8-15L	4-M8-15L	4-M10-18L	4-M12-18L
T	5	6	8	8	10	14
W	18	22.5	31	31	38	53.5
M	M5	M6	M8	M8	M10	M12

\* 入力軸與法蘭詳細尺寸 C1~C7, 如頁數 38P

## PT系列-2P雙出力軸型式

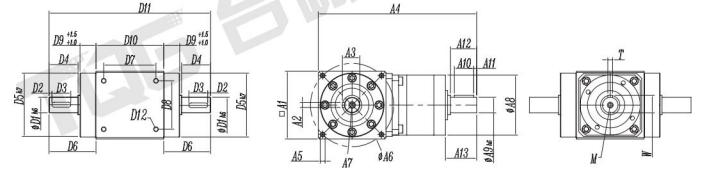
Double Output Shaft Type

\*轉向器Steering gear PT070A~PT180B 減速Ratio1:1



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

規格	PT070A	PT085A	PT105A	PT125B	PT150B	PT180B
A1	70	85	105	125	150	180
A2	5	6	8	10	12	14
A3	18	22.5	31	35	43	53.5
A4	163.7	181.2	204.5	223	282.5	311
A5	4-M5-12L	4-M6-12L	4-M8-15L	4-M8-15L	4-M10-18L	4-M12-18L
A6	86	100	118	145	185	200
A7	M5	M6	M8	M8	M12	M12
A8	62	62	95	95	120	142
A9	16	20	28	28	35	50
A10	20	20	30	30	40	60
A11	3	3	3	3	3	3
A12	27	27	34	34	45	65
A13	32.2	32.2	44	44	51.5	70
D1	16	20	28	32	40	50
D2	3	3.5	3	3	3	3
D3	20	25	30	40	50	60
D4	30	35	40	50	63	73
D5	66	82	100	120	135	165
D6	48.5	52.5	60.5	71.5	85	96
D7	54	68	80	100	120	141.4
D8	50	52	60	80	100	141.4
D9	16.5	15.5	18.5	19.5	20	21
D10	70	85	105	125	150	180
D11	167	190	226	268	320	372
D12	4-M5-12L	4-M6-12L	4-M8-15L	4-M8-15L	4-M10-18L	4-M12-18L
T	5	6	8	8	10	14
W	18	22.5	31	31	38	53.5
M	M5	M6	M8	M8	M10	M12

\* 入力軸與法蘭詳細尺寸 C1~C7, 如頁數 38P

## PT系列-P單出力軸型式

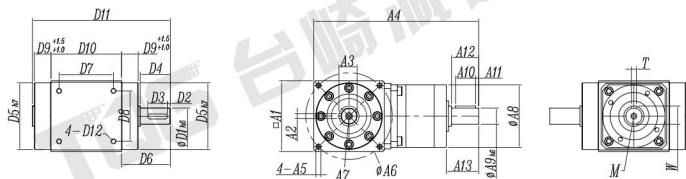
Single Output Shaft Type

\*轉向器PT070A~PT180B, 減速比Ratio1:1



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

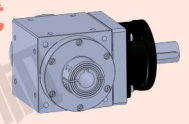
規格	PT070B	PT085B	PT105B	PT125B	PT150B	PT180B
A1	70	85	105	125	150	180
A2	5	6	8	10	12	14
A3	18	22.5	31	35	43	53.5
A4	163.7	181.2	204.5	223	282.5	311
A5	4-M5-12L	4-M6-12L	4-M8-15L	4-M8-15L	4-M10-18L	4-M12-18L
A6	86	100	118	145	185	200
A7	M5	M6	M8	M8	M12	M12
A8	62	62	95	95	120	142
A9	16	20	28	28	35	50
A10	20	20	30	30	40	60
A11	3	3	3	3	3	3
A12	27	27	34	34	45	65
A13	32.2	32.2	44	44	51.5	70
D1	16	20	28	32	40	50
D2	3	3.5	3	3	3	3
D3	20	25	30	40	50	60
D4	30	35	40	50	63	73
D5	66	82	100	120	135	165
D6	48.5	52.5	60.5	71.5	85	96
D7	54	68	80	100	120	141.4
D8	50	52	60	80	100	141.4
D9	16.5	15.5	18.5	19.5	20	21
D10	70	85	105	125	150	180
D11	137	155	186	218	257	299
D12	M5-12L	M6-12L	M8-15L	M8-15L	M10-18L	M12-18L
T	5	6	8	8	10	14
W	18	22.5	31	31	38	53.5
M	M5	M6	M8	M8	M10	M12

\* 入力軸與法蘭詳細尺寸 C1~C7, 如頁數 38P

## PT系列-2C-K雙中空軸帶鍵槽型式

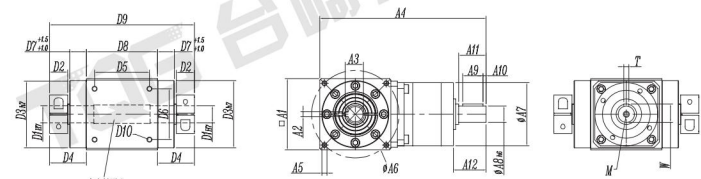
Double Hollow Shaft Key Groove Type

\*轉向器PT070A~PT180B, 減速比Ratio1:1



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

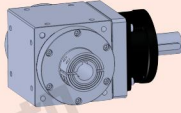
規格	PT070A	PT085A	PT105A	PT125B	PT150B	PT180B
A1	70	85	105	125	150	180
A2	4	5	6	8	10	14
A3	14.7	17.3	24.7	31.3	38.3	53.5
A4	163.7	181.2	204.5	223	282.5	311
A5	4-M5-12L	4-M6-12L	4-M8-15L	4-M8-15L	4-M10-18L	4-M12-18L
A6	86	100	118	145	185	200
A7	62	62	95	95	120	142
A8	16	20	28	28	35	50
A9	20	20	30	30	40	60
A10	3	3	3	3	3	3
A11	27	27	34	34	45	65
A12	32.2	32.2	44	44	51.5	70
D1	13	15	22	28	35	50
D2	18	24	25	24	33	36.5
D3	66	82	100	120	135	165
D4	36.5	41.5	45.5	45.5	55	59.5
D5	54	68	80	100	120	141.4
D6	50	52	60	80	100	141.4
D7	16.5	15.5	18.5	19.5	20	21
D8	70	85	105	125	150	180
D9	107	120	146	168	194	226
D10	4-M5-12L	4-M6-12L	4-M8-15L	4-M8-15L	4-M10-18L	4-M12-18L
T	5	6	8	8	10	14
W	18	22.5	31	31	38	53.5
M	M5	M6	M8	M8	M10	M12

\* 入力軸與法蘭詳細尺寸 C1~C7, 如頁數 38P

PT系列-C-K單中空軸帶鍵槽型式

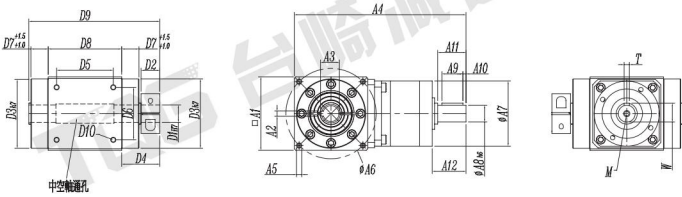
Single Hollow Shaft Key Groove Type

\*轉向器PT070A~PT180B,減速比Ratio1:1



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

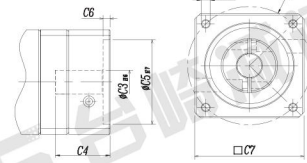
Unit:mm

Table with 7 columns: Model (PT070A, PT085A, PT105A, PT125B, PT150B, PT180B), Dimensions (A1-M), and Torque (T, W, M).

\* 入力軸與法蘭詳細尺寸 C1~C7, 如頁數 38P

PAW-A(B) / PT系列 series

入力端詳細尺寸圖 Detailed Sizes Diagram of Input End



\* 入力軸與法蘭詳細尺寸 C1~C7.

\* 馬達記號是指不同廠牌の入力端尺寸.

\* 特製品: 可依客戶指定製作入力端尺寸.

Table with 2 columns: Model (PAW055A, PAW070A/PAW085A, PAW105A) and Dimensions (C1-C7) for various motor sizes.

Table with 2 columns: Model (PAW125A/PAW150B, PAW150A/PAW180B) and Dimensions (C1-C7) for various motor sizes.

Table with 2 columns: Model (PAW180A) and Dimensions (C1-C7) for various motor sizes.

\* 入力軸與法蘭詳細尺寸 C1~C7, 如頁數 38P

AAW-AS(BS) / AAT(M)系列

90度精密減速機

90 Degree Precision Speed Reducer

多種輸出軸型式、減速比: 1:2~1:500

Multiple Output Shaft Type Reduction Ratio 1:2~1:500

適用之伺服馬達容量: 0.1kw~45kw

Applicable Servo Motor Capacity : 0.1kw~45kw



大型中空旋轉法蘭: 適用於大負荷場合. TFT-LCD 面板翻轉、旋轉機構、機械手臂底座旋轉、擺臂旋轉、分度旋轉...等機構.



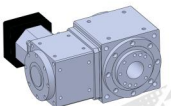
中空軸迫緊環: 適用於大負荷場合. 滾輪機構、凸輪機構、輸送搬運...等機構.



出口軸型: 適用於大負荷場合. 聯軸機構、皮帶傳送...等機構.



螺桿減速機: 適用於直線運動場合. 垂直、水平之直線運動...等機構.



中空旋轉平台: 適用於大負荷場合. TFT-LCD 面板翻轉、分度盤機構...等機構.



轉向器

AAW-AS(BS) / AAT(M)系列-性能表:

Performance table

Large performance table with columns for Model, Stages, Reduction Ratio, Input Torque, Output Torque, Input Speed, Backlash, Precision Backlash, Efficiency, Weight, Temperature, Lubrication, and Noise.

\*1/2, 入力轉速需 ≤2000 RPM以內.

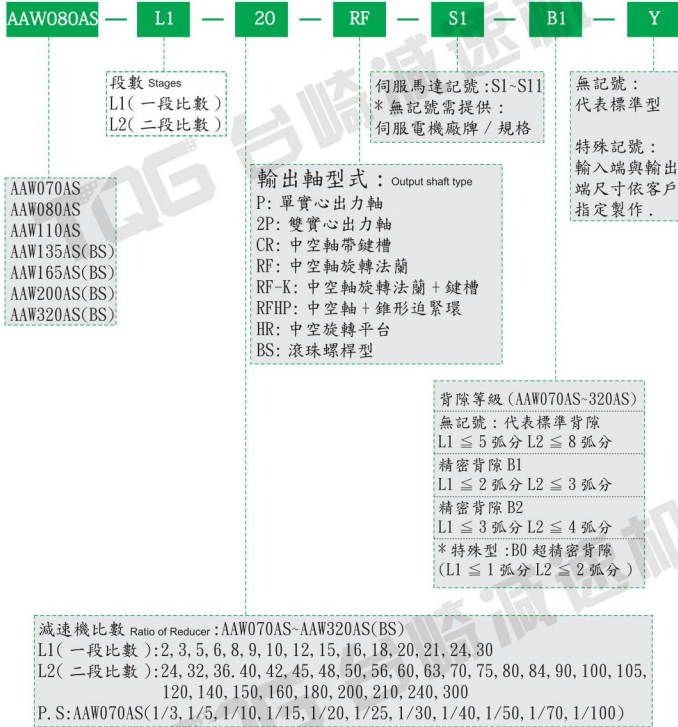
\*1/3, 入力轉速需 ≤3000 RPM以內.

\* 入力軸與法蘭詳細尺寸 C1~C7, 如頁數 57P

# 型號說明 Model Description



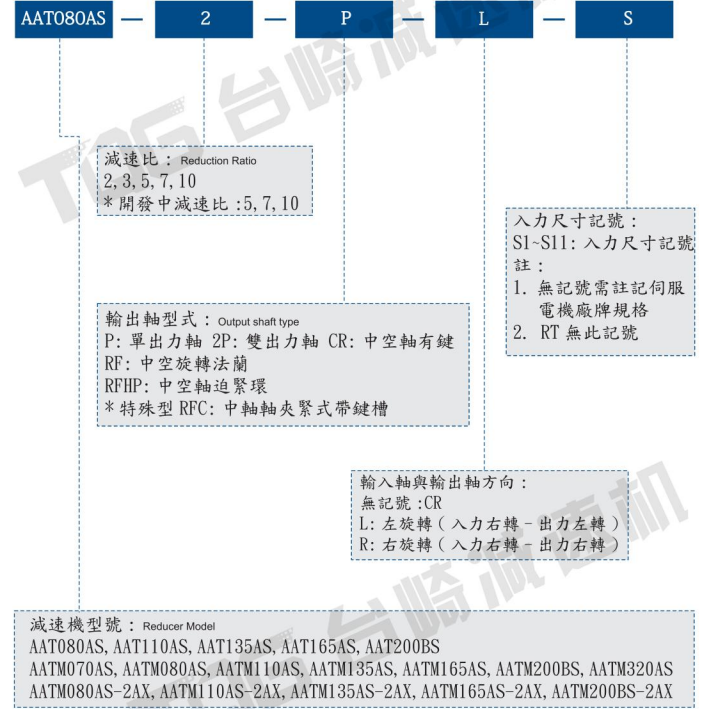
## AAW系列: AAW070AS~AAW320AS(BS)



# 型號說明 Model Description



## AAT系列: AAT(M)070AS~AAT(M)320AS



# AAW-A(B)S系列-RF

## 大中空軸旋轉法蘭型式

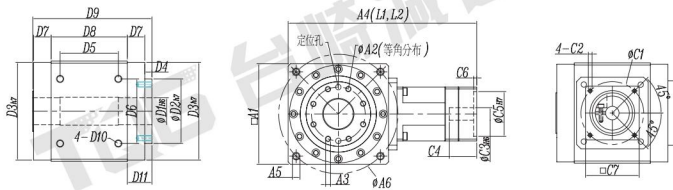
### Big Hollow Shaft Rotary Flange Type

\*AAW070AS~AAW320AS:減速比Ratio(1/2~1/500)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

規格	AAW070AS	AAW080AS	AAW110AS	AAW135AS	AAW135BS	AAW165AS	AAW165BS	AAW200AS	AAW200BS	AAW320AS	AAW320BS
A1	70	80	110	138	135	168	165	200	200	320	320
A2	30	36	50	70	70	95	95	124	124	193	193
A3	4-M5-10L	4-M5-10L	4-M5-15L	4-M5-15L	4-M5-15L	4-M5-15L	4-M5-15L	4-M5-15L	4-M5-15L	4-M5-15L	4-M5-15L
A4 (L2標準)	160/168	175/167	226/224	303/290	252/250	359/343	334/321	397/413	423/407	671	539
A4 (L1標準)	183/199	206/190	268/255	362/331	290/277	434/389	393/356	487/464	469/424	741	590
A5	4-M5-10L	4-M5-12L	4-M5-15L	4-M10-18L	4-M10-18L	4-M12-20L	4-M12-20L	4-M16-30L	4-M16-30L	4-M20-30L	4-M20-30L
A6	75	93	130	160	160	193	193	240	240	380	380
D1	16	20	30	40	40	55	55	80	80	110	110
D2	38	45	65	85	85	110	110	140	140	220	220
D3	60	78	106	133	133	163	163	195	195	306	306
D4	8.25	7	9.5	9.5	9.5	17	17	22	22	17.5	17.5
D5	42.43	49.5	68	86	78	106	100	141	129	170	170
D6	42.43	49.5	65	83	83	105	105	130	130	220	220
D7	6.25	13	15	10	19	13	19	8.5	22	30	30
D8	70	67	90	120	102	142	130	182	155	236	236
D9	92.25	102	131.5	151.5	151.5	187	187	223	223	316.5	316.5
D10	4-M5-10L	4-M5-12L	4-M5-15L	4-M10-18L	4-M10-18L	4-M14-16L	4-M14-16L	4-M14-20L	4-M14-20L	6-M20-35L	6-M20-35L
D11	14.5	20	24.5	30	28.5	30	36	30.5	44	47.5	47.5
C1	≤70	≤90	≤145	≤200	≤145	≤215	≤215	≤215	≤215	≤400	≤265
C2	≤M5	≤M6	≤M8	≤M12	≤M8	≤M12	≤M12	≤M12	≤M12	≤M18	≤M14
C3	≤14	≤19	≤24	≤35	≤24	≤42	≤35	≤42	≤42	≤60	≤55
C4	≤31	≤41	≤62	≤80	≤62	≤116	≤80	≤116	≤116	≤145	≤116
C5	≤50	≤70	≤110	≤114.3	≤110	≤180	≤114.3	≤180	≤180	≤300	≤230
C6	≤3.5	≤3.5	≤7	≤7	≤7	≤7	≤7	≤7	≤7	≤7	≤7
C7	≤62	≤80	≤120	≤180	≤120	≤200	≤180	≤200	≤200	≤350	≤250

\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P

# AAW-A(B)S系列-RFHP

## 大中空軸迫緊環型式

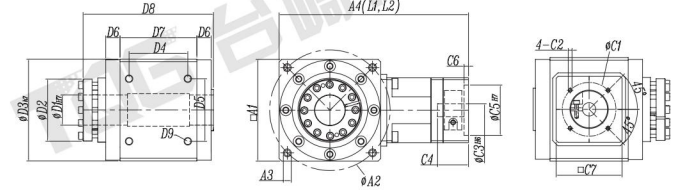
### Big Hollow Shaft Tight Ring Type

\*AAW070AS~AAW320A(B)S:減速比Ratio(1/2~1/500)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

規格	AAW080AS	AAW110AS	AAW135AS	AAW135BS	AAW165AS	AAW165BS	AAW200AS	AAW200BS	AAW320AS	AAW320BS
A1	80	110	138	135	168	165	200	200	320	320
A2	93	130	160	160	193	193	240	240	380	380
A3	4-M6-12L	4-M6-15L	4-M10-18L	4-M10-18L	4-M12-20L	4-M12-20L	4-M16-30L	4-M16-30L	4-M20-35L	4-M20-35L
A4 (L2標準)	175/167	226/224	303/290	252/250	359/343	334/321	397/413	423/407	671	539
A4 (L1標準)	206/190	268/255	362/331	290/277	434/389	393/356	487/464	469/424	741	590
D1	20	30	40	40	55	55	65	65	105	105
D2	45	65	85	85	110	110	140	140	220	220
D3	78	106	133	133	163	163	195	195	306	306
D4	49.5	68	86	78	106	100	141	129	175	175
D5	49.5	65	83	83	105	105	130	130	220	220
D6	13	15	10	19	13	19	8.5	22	30	30
D7	67	90	120	102	142	130	182	155	236	236
D8	113	144.5	173.5	173.5	206	206	243.5	243.5	337	337
D9	4-M6-12L	4-M6-15L	4-M10-18L	4-M10-18L	4-M14-16L	4-M14-16L	4-M14-20L	4-M14-20L	6-M20-35L	6-M20-35L
C1	≤90	≤145	≤200	≤145	≤215	≤215	≤215	≤215	≤400	≤265
C2	≤M6	≤M8	≤M12	≤M8	≤M12	≤M12	≤M12	≤M12	≤M18	≤M14
C3	≤19	≤24	≤35	≤24	≤42	≤35	≤42	≤42	≤60	≤55
C4	≤41	≤62	≤80	≤62	≤116	≤80	≤116	≤116	≤145	≤116
C5	≤70	≤110	≤114.3	≤110	≤180	≤114.3	≤180	≤180	≤300	≤230
C6	≤3.5	≤7	≤7	≤7	≤7	≤7	≤7	≤7	≤7	≤7
C7	≤80	≤120	≤180	≤120	≤200	≤180	≤200	≤200	≤350	≤250

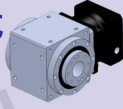
\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P



## AATM系列-RF大中空軸旋轉法蘭型式

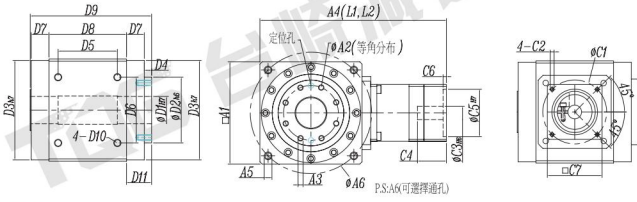
### Big Hollow Shaft Rotary Flange Type

\*AATM070AS~AATM320AS,減速比Ratio(1/2~1/10)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

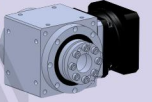
規格	AATM070AS	AATM080AS	AATM110AS	AATM135AS	AATM165AS	AATM200BS	AATM320AS
A1	70	80	110	138	168	200	320
A2	30	36	50	70	95	124	193
A3	6-M5-10L	8-M5-10L	8-M5-15L	8-M8-15L	8-M8-15L	12-M8-15L	12-M14-25L
A4	146.5	157.7	192.5	244.5	278	312	491.5
A5	4-M5-10L	4-M6-12L	4-M8-15L	4-M10-18L	4-M12-20L	4-M16-30L	4-M20-35L
A6	75	93	130	160	193	240	380
D1	16	20	30	40	55	80	110
D2	38	45	65	85	110	140	220
D3	60	78	106	133	163	195	306
D4	8.25	7	9.5	9.5	17	22	17.5
D5	42.43	49.5	68	86	106	129	170
D6	42.43	49.5	65	83	105	130	220
D7	6.25	13	15	10	13	22	30
D8	70	67	90	120	142	155	236
D9	92.25	102	131.5	151.5	187	223	316.5
D10	4-M5-10L	4-M6-12L	4-M8-15L	4-M10-18L	4-M14-16L	4-M14-20L	6-M20-30L
D11	14.5	20	24.5	19.5	30	44	47.5
C1	≤70	≤90	≤145	≤200	≤215	≤215	≤450
C2	≤M5	≤M6	≤M8	≤M12	≤M12	≤M12	≤M18
C3	≤14	≤19	≤24	≤35	≤42	≤42	≤65
C4	≤31	≤41	≤62	≤80	≤116	≤116	≤135
C5	≤70	≤110	≤110	≤114.3	≤180	≤180	≤350
C6	≤3.5	≤3.5	≤7	≤7	≤7	≤7	≤7
C7	≤62	≤80	≤120	≤180	≤200	≤200	≤400

\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P

## AATM系列-RFHP中空軸迫緊環形式

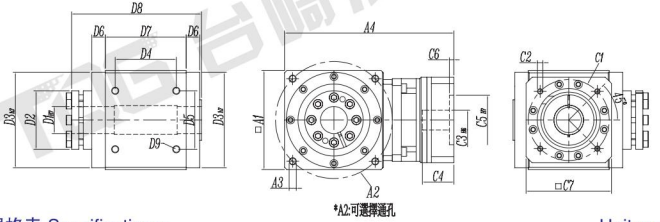
### Hollow Shaft Tight Ring Type

\*AATM080AS~AATM320AS,減速比Ratio(1/2~1/10)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

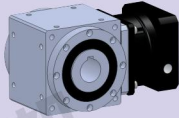
規格	AATM080AS	AATM110AS	AATM135AS	AATM165AS	AATM200BS	AATM320AS
A1	80	110	138	168	200	320
A2	93	130	160	193	240	380
A3	4-M6-12L	4-M8-12L	4-M10-15L	4-M12-18L	4-M16-30L	4-M20-35L
A4	157.7	192.5	244.5	278	312	491.5
D1	20	30	40	55	65	105
D2	45	65	85	110	140	170
D3	78	106	133	163	195	306
D4	49.5	68	86	106	129	170
D5	49.5	65	83	105	130	220
D6	13	15	10	13	22	30
D7	67	90	120	142	155	236
D8	113	144.5	173.5	206	243.5	302
D9	4-M6-12L	4-M8-15L	4-M10-18L	4-M14-16L	4-M14-25L	4-M20-30L
C1	≤90	≤145	≤145	≤200	≤215	≤450
C2	≤M6	≤M8	≤M8	≤M12	≤M12	≤M18
C3	≤19	≤24	≤24	≤35	≤42	≤65
C4	≤41	≤62	≤62	≤80	≤116	≤135
C5	≤70	≤110	≤110	≤114.3	≤180	≤350
C6	≤5	≤7	≤7	≤7	≤7	≤7
C7	≤80	≤120	≤120	≤176	≤196	≤400

\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P

## AATM系列-CR中空軸帶鍵槽型式

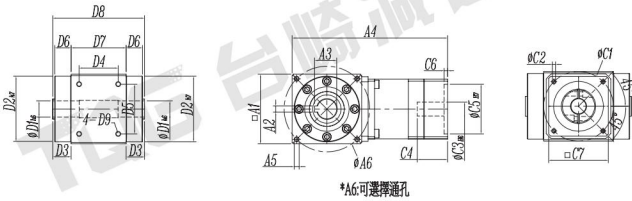
### Hollow Shaft Key Groove Type

\*AATM080AS~AATM200BS,減速比Ratio(1/2~1/10)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

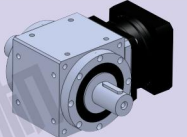
規格	AATM080AS	AATM110AS	AATM135AS	AATM165AS	AATM200BS
A1	80	110	138	168	200
A2	6	8	12	14	18
A3	22.7	33.3	43.3	58.8	84.4
A4	157.7	192.5	244.5	278	312
A5	4-M6-12L	4-M8-12L	4-M10-15L	4-M12-18L	4-M16-30L
A6	93	130	160	193	240
D1	20	30	40	55	75
D2	78	106	133	163	195
D3	14.25	17	13	15	23.5
D4	49.5	68	86	106	129
D5	49.5	65	83	105	130
D6	13	15	10	13	22
D7	67	90	120	142	155
D8	96.5	124	146	170	202
D9	4-M6-12L	4-M8-15L	4-M10-18L	4-M14-16L	4-M14-25L
C1	≤90	≤145	≤145	≤200	≤215
C2	≤M6	≤M8	≤M8	≤M12	≤M12
C3	≤19	≤24	≤24	≤35	≤42
C4	≤41	≤62	≤62	≤80	≤116
C5	≤70	≤110	≤110	≤114.3	≤180
C6	≤5	≤7	≤7	≤7	≤7
C7	≤80	≤120	≤120	≤176	≤196

\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P

## AATM系列-2P雙出力軸型式

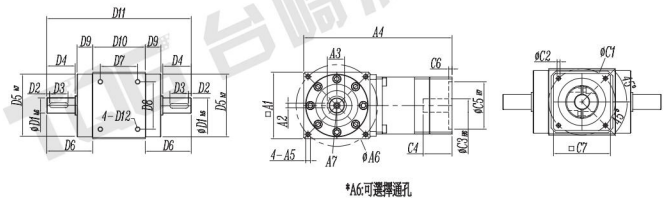
### Double Output Shaft Type

\*AATM080AS~AATM200BS,減速比Ratio(1/2~1/10)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

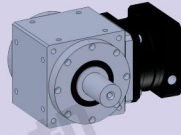
規格	AATM080AS	AATM110AS	AATM135AS	AATM165AS	AATM200BS
A1	80	110	138	168	200
A2	6	8	12	16	20
A3	22.5	33	43	59	79.5
A4	157.7	192.5	244.5	278	312
A5	4-M6-12L	4-M8-12L	4-M10-15L	4-M12-18L	4-M16-30L
A6	93	130	160	193	240
A7	M6	M8	M12	M16	M20
D1	20	30	40	55	75
D2	5	5	5	3	5
D3	25	35	45	70	90
D4	35	45	55	80	100
D5	78	106	133	163	195
D6	49.75	62	68	95	123.5
D7	49.5	68	86	106	129
D8	49.5	65	83	105	130
D9	13	15	10	13	22
D10	67	90	102	130	155
D11	166.5	214	256	332	402
D12	4-M6-12L	4-M8-15L	4-M10-18L	4-M14-16L	4-M14-25L
C1	≤90	≤145	≤145	≤200	≤215
C2	≤M6	≤M8	≤M8	≤M12	≤M12
C3	≤19	≤24	≤24	≤35	≤42
C4	≤41	≤62	≤62	≤80	≤116
C5	≤70	≤110	≤110	≤114.3	≤180
C6	≤5	≤7	≤7	≤7	≤7
C7	≤80	≤120	≤120	≤176	≤196

\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P

## AATM系列-P單出力軸型式

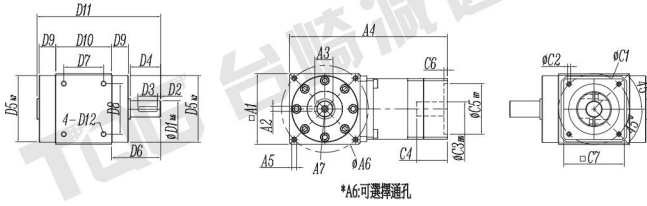
### Single Output Shaft Type

\*AATM080~AATM320AS,減速比Ratio(1/2~1/10)



外形尺寸圖 Dimensions:

Unit:mm



\*A6:可選擇通孔

規格表 Specifications:

Unit:mm

規格	AATM080AS	AATM110AS	AATM135AS	AATM165AS	AATM200BS	AATM320AS
A1	80	110	138	168	200	320
A2	6	8	12	16	20	32
A3	22.5	33	43	59	79.5	127
A4	173.7	192.5	244.5	278	312	491.5
A5	4-M6-12L	4-M8-12L	4-M10-15L	4-M12-18L	4-M16-30L	4-M20-35L
A6	93	130	160	193	240	380
A7	M6	M8	M12	M16	M20	M20
D1	20	30	40	55	75	120
D2	5	5	5	3	5	15
D3	25	35	45	70	90	120
D4	35	45	55	80	100	150
D5	78	106	133	163	195	306
D6	49.75	62	68	95	123.5	183
D7	49.5	68	86	106	129	170
D8	49.5	65	83	105	130	220
D9	13	15	10	13	22	30
D10	67	90	120	142	155	155
D11	131.5	169	201	252	302	365
D12	4-M6-12L	4-M8-15L	4-M10-18L	4-M14-16L	4-M14-25L	4-M20-30L
C1	≤90	≤145	≤145	≤200	≤215	≤450
C2	≤M6	≤M8	≤M8	≤M12	≤M12	≤M18
C3	≤19	≤24	≤24	≤35	≤42	≤65
C4	≤41	≤62	≤62	≤80	≤116	≤135
C5	≤70	≤110	≤110	≤114.3	≤180	≤350
C6	≤5	≤7	≤7	≤7	≤7	≤7
C7	≤80	≤120	≤120	≤176	≤196	≤400

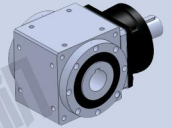
\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P

## AAT系列-CR中空軸帶鍵槽型式

### Hollow Shaft Key Groove Type

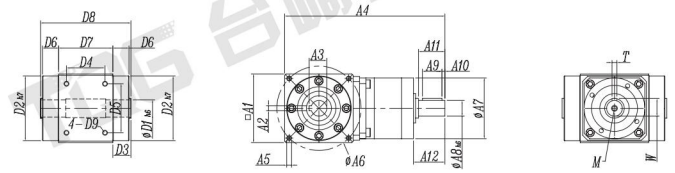
\*轉向器AAT080AS~AAT200BS,速比Ratio(1/2,1/3)

\*訂製品速比Ratio of Customized Product(1/5,1/10)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

規格	AAT080AS	AAT110AS	AAT135AS	AAT165AS	AAT200BS
A1	80	110	138	168	200
A2	6	8	12	14	18
A3	22.7	33.3	43.3	58.8	84.4
A4	173.9	208.5	259.5	317	355
A5	4-M6-12L	4-M8-15L	4-M10-18L	4-M12-20L	4-M16-30L
A6	93	130	160	193	240
A7	62	95	120	142	142
A8	20	28	35	50	50
A9	20	30	40	50	50
A10	3	3	3	3	3
A11	27	34	45	65	65
A12	32.2	41	51.5	70	70
D1	20	30	40	55	75
D2	78	106	133	163	195
D3	14.75	17	13	15	23.5
D4	49.5	68	86	106	141
D5	49.5	65	83	105	130
D6	13	15	10	13	22
D7	67	90	120	142	155
D8	96.5	124	146	172	202
D9	4-M6-12L	4-M8-12L	4-M10-18L	4-M14-16L	4-M14-25L
T	6	8	10	14	14
W	22.5	31	38	53.5	53.5
M	M6	M8	M8	M12	M12

\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P

## AAT-系列-2P雙出力軸型式

### Double Output Shaft Type

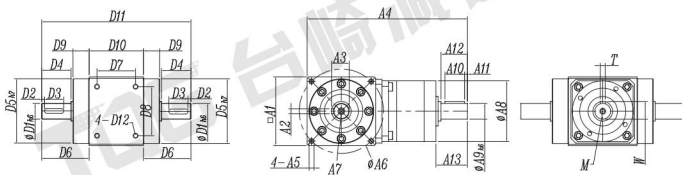
\*轉向器AAT080AS~AAT200BS,速比Ratio(1/2,1/3)

\*訂製品速比Ratio of Customized Product (1/5,1/10)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

規格	AAT080AS	AAT110AS	AAT135AS	AAT165AS	AAT200BS
A1	80	110	138	168	200
A2	6	8	12	16	20
A3	22.5	33	43	59	79.5
A4	173.9	208.5	259.5	317	355
A5	4-M6-12L	4-M8-15L	4-M10-18L	4-M12-20L	4-M16-30L
A6	93	130	160	193	240
A7	M6	M8	M12	M16	M20
A8	62	95	120	142	142
A9	20	28	35	50	50
A10	20	30	40	60	60
A11	3	3	3	3	3
A12	27	40	45	65	65
A13	32.2	44	51.5	70	70
D1	20	30	40	55	75
D2	5	5	5	5	5
D3	25	35	45	70	90
D4	35	45	55	80	100
D5	78	106	133	163	195
D6	49.75	62	68	95	123.5
D7	49.5	68	86	106	141
D8	49.5	65	83	105	130
D9	13	15	10	13	22
D10	67	90	120	142	155
D11	166.5	214	256	332	402
D12	4-M6-12L	4-M8-12L	4-M10-18L	4-M14-16L	4-M14-25L
T	6	8	10	14	14
W	22.5	31	38	53.5	53.5
M	M6	M8	M8	M12	M12

\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P

## AAT系列-P單出力軸型式

### Single Output Shaft Type

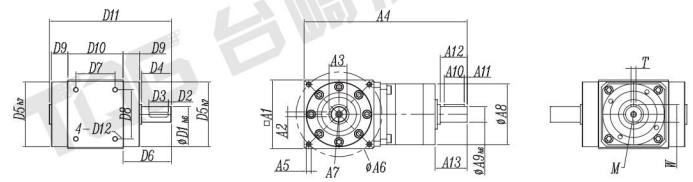
\*轉向器AAT080AS~AAT200BS,速比Ratio(1/2,1/3)

\*訂製品速比Ratio of Customized Product (1/5,1/10)



外形尺寸圖 Dimensions:

Unit:mm



規格表 Specifications:

Unit:mm

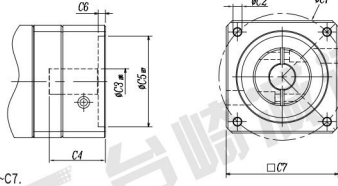
規格	AAT080AS	AAT110AS	AAT135AS	AAT165AS	AAT200BS
A1	80	110	135	165	200
A2	6	8	12	16	20
A3	22.5	33	43	59	79.5
A4	173.9	208.5	222	317	355
A5	4-M6-12L	4-M8-15L	4-M10-18L	4-M12-20L	4-M16-30L
A6	93	130	160	193	240
A7	M6	M8	M12	M16	M20
A8	62	95	120	142	142
A9	20	28	35	50	50
A10	20	30	40	60	60
A11	3	3	3	3	3
A12	27	40	45	65	65
A13	32.2	44	51.5	75	70
D1	20	30	40	55	75
D2	5	5	5	5	5
D3	25	35	45	70	90
D4	35	45	55	80	100
D5	78	106	133	163	195
D6	49.75	62	68	95	110
D7	49.5	68	86	106	141
D8	49.5	65	83	105	130
D9	13	15	10	13	22
D10	67	90	120	142	155
D11	131.5	169	201	252	302
D12	4-M6-12L	4-M8-12L	4-M10-18L	4-M14-16L	4-M14-25L
T	6	8	10	14	14
W	22.5	31	38	53.5	53.5
M	M6	M8	M8	M12	M12

\*入力軸與法蘭詳細尺寸C1~C7,如頁數57P



# AAW-AS(BS) / AAT(M)系列

## 入力端詳細尺寸圖 Detailed Sizes Diagram of Input End



\*入力軸與法蘭詳細尺寸C1-C7.

\*馬達記號是指不同廠牌之入力端尺寸.

\*特製品:可依客戶指定製作入力端尺寸.

型號	AAW070AS/AATM080AS/AAW080AS										AATM110AS/AAW110AS/AAW135BS									
	S1	S2	S3	S4	S5	S6	S7	S8	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	
C1	45	46	70	70	70	90	90	66.7	70	70	70	90	90	90	100	145	145	145		
C2	M3	M4	M4	M4	M5	M5	M6	M4	M4	M4	M5	M5	M6	M6	M6	M8	M8	M8		
C3 H6	8	8	11	14	14	14	14	6.35	11	14	14	14	16	19	16	19	22	24		
C4	31	31	31	31	31	31	31	31	41	41	41	41	41	41	41	58	58	58		
C5 H7	30	30	50	50	50	70	70	38.1	50	50	50	70	70	70	80	110	110	110		
C6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5	5	5	5	5	5	5	5	5	5	5		
C7	62	62	62	62	62	80	80	62	90	90	90	90	90	90	130	130	130	130		

型號	AATM135AS/AAW135AS/AAW165BS										AATM165AS/AAW165AS/AATM200BS/AAW200BS							
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S1	S2	S3	S4	S5	S6	S7	S8
C1	90	90	100	115	115	130	145	145	145	145	115	115	145	145	145	145	200	165
C2	M6	M6	M6	M6	M8	M8	M8	M8	M8	M8	M6	M8	M8	M8	M8	M8	M12	M10
C3 H6	16	19	16	24	24	19	22	24	28	24	24	19	22	24	28	35	32	
C4	54	54	54	54	62	62	62	62	63	60	60	65	65	65	65	81	65	
C5 H7	70	70	80	95	95	110	110	110	110	110	95	95	110	110	110	114.3	130	
C6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
C7	120	120	120	120	120	120	120	120	120	142	142	142	142	142	142	176	142	

型號	AAW200AS/AAW320BS										AAW320AS						
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S1	S2	S3	S4	S5	S6	S7
C1	145	145	145	115	200	200	165	215	235	235	265	200	200	215	215	235	265
C2	M8	M8	M8	M6	M12	M12	M10	M12	M12	M10	M12	M12	M12	M12	M12	M12	M12
C3 H6	19	22	24	28	35	42	32	38	42	55	35	42	38	42	42	55	55
C4	75	75	75	75	81	81	81	116	116	116	116	116	116	116	116	116	116
C5 H7	110	110	110	110	114.3	114.3	130	180	200	200	230	114.3	114.3	180	200	200	230
C6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
C7	180	180	180	180	180	180	192	220	220	250	220	220	220	220	200	200	250

\*入力軸與法蘭詳細尺寸C1-C7,如頁數57P

-57- www.gearmotor8.com

# 減速機與馬達安裝說明書

## Installation Instruction of Reducer & Motor

Step 1: 確認馬達減速機規格,並將馬達及減速機之安裝面擦拭乾淨。

Step 2: 取下馬達上原先之鎖緊。

Step 3: 如有需要請加上軸襯套。

Step 4: 將馬達與減速機並立擺設,以螺絲扭力值表(表一)建議扭力值之5%,依1-4的順序,用扳手將附墊片之螺絲輕輕鎖上。

Step 5: 將馬達與減速機直立擺設,參照表一建議之扭力值,以扭力扳手將螺絲鎖緊。

Step 6: 將馬達與減速機直立擺設,以螺絲扭力表(表一)建議之扭力值,依1-4的順序,用扭力扳手將螺絲鎖緊。

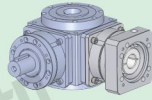
螺絲尺寸	六角頭尺寸 [mm]	強度 8.8 螺絲之鎖緊力 [Nm]	強度 10.9 螺絲之鎖緊力 [Nm]	強度 12.9 螺絲之鎖緊力 [Nm]
		[In-lbs]	[In-lbs]	[In-lbs]
M3×0.5P	2.5	1.3	1.8	2.1
M4×0.7P	3	2.7	4.1	4.9
M5×0.8P	4	6.1	8.2	9.8
M6×1P	5	11	14	17
M8×1.25P	6	25	34	41
M10×1.5P	8	49	67	80
M12×1.75P	10	85	116	139
M14×2P	12	137	186	223
M16×2P	14	210	286	343

# AATM080AS~~200BS-2AX-□-CR-S□

\*2AX:2軸型式

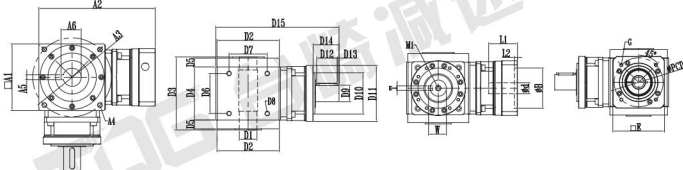
\*□:減速比(1/2,1/3),客製品(1/5,1/10)

\*S□:S1~S11(入力端尺寸記號)



外形尺寸圖 Dimensions:

Unit:mm



## AATM080AS~~200BS-2AX-□-CR-S□:尺寸表

規格	AATM080AS-2AX	AATM110AS-2AX	AATM135AS-2AX	AATM165AS-2AX	AATM200BS-2AX
A1	80	110	138	168	200
A2	157.7	192.5	244.5	278	312
A3	53	130	160	195	240
M	4-M6-2L	4-M6-1.5L	4-M10-1.5L	4-M12-2L	4-M16-3XL
A5	6	8	12	14	16
A6	22.7	33.3	43.3	58.8	74.3
øD1H	20	30	40	55	70
øD1H7	78	106	133	163	195
D9	96	124	146	172	202
D4	67	90	100	142	155
D5	13	15	10	13	22
D6	49.5	66	86	106	129
D7	49.5	65	83	105	130
D8	4-M6-2L	4-M6-1.5L	4-M10-1.5L	4-M12-2L	4-M16-3XL
øD10H	20	28	35	50	50
øD10	70	110	110	110	110
øD11	62	95	120	142	142
D12	20	35	40	60	60
D13	3	3	3	3	3
D14	32.2	44	51.5	75	75
D15	173.9	209.5	259.5	317	355
T	6	8	12	14	14
W	22.5	31	43.3	53.5	53.5
M1	M6	M8	M10	M12	M12
ød1H	≤19	≤24	≤35	≤42	≤42
øB1H	≤70	≤110	≤143	≤180	≤180
L1	≤41	≤60	≤80	≤116	≤116
L2	≤5	≤6	≤6	≤6	≤6
PCD	≤90	≤145	≤200	≤255	≤255
G	≤4M6	≤4M8	≤4M12	≤4M12	≤4M12
□B	≤80	≤120	≤176	≤230	≤230

\*入力軸與法蘭詳細尺寸C1-C7,如頁數57P

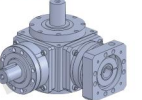
-59- www.gearmotor8.com

# AATM080AS~~200BS-2AX-□-CR-S□

\*2AX:2軸型式

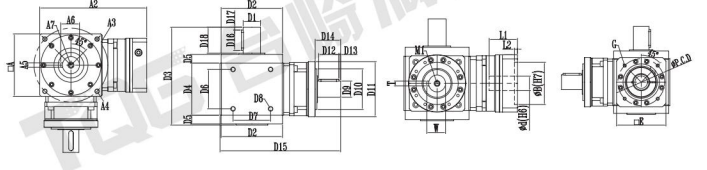
\*□:減速比(1/2,1/3),客製品(1/5,1/10)

\*S□:S1~S11(入力端尺寸記號)



外形尺寸圖 Dimensions:

Unit:mm



## AATM080AS~~200BS-2AX-□-P-S□:尺寸表

規格	AATM080AS-2AX	AATM110AS-2AX	AATM135AS-2AX	AATM165AS-2AX	AATM200BS-2AX
A1	80	110	138	168	200
A2	157.7	192.5	244.5	278	312
A3	53	130	160	195	240
M	4-M6-2L	4-M6-1.5L	4-M10-1.5L	4-M12-2L	4-M16-3XL
A5	6	8	12	14	16
A6	22.5	33	43	58	74.5
øD1H	20	30	40	55	75
øD1H7	78	106	133	163	195
D9	131.5	169	201	252	302
D4	67	90	100	142	155
D5	13	15	10	13	22
D6	48.5	66	86	106	129
D7	48.5	65	83	105	130
D8	4-M6-2L	4-M6-1.5L	4-M10-1.5L	4-M12-2L	4-M16-3XL
øD10H	20	28	35	50	50
øD10	70	110	110	110	110
øD11	62	95	120	142	142
D12	20	35	40	60	60
D13	3	3	3	3	3
D14	32.2	44	51.5	75	75
D15	173.9	209.5	259.5	317	355
D16	25	35	45	70	90
D17	2	5	5	5	5
D18	35	45	55	80	100
T	6	8	12	14	14
W	22.5	31	43.3	53.5	53.5
M1	M6	M8	M10	M12	M12
ød1H	≤19	≤24	≤35	≤42	≤42
øB1H	≤70	≤110	≤143	≤180	≤180
L1	≤41	≤60	≤80	≤116	≤116
L2	≤5	≤6	≤6	≤6	≤6
PCD	≤90	≤145	≤200	≤255	≤255
G	≤4M6	≤4M8	≤4M12	≤4M12	≤4M12
□B	≤80	≤120	≤176	≤230	≤230

\*入力軸與法蘭詳細尺寸C1-C7,如頁數57P

-60- www.gearmotor8.com