



# HIGH PRECISION

PLANETARY GEARHEADS

行星式減速機



## 公司簡介

### COMPANY INTRODUCTION

#### ▶ 科技與口碑結合的領先品牌、減速機與馬達專業製造廠

世協電機股份有限公司成立於1990年，歷經近二十年之踏實經營，目前已是資本額達新台幣一億一仟萬元的專業減速機及馬達製造公司。自2006年起，在江豐洲董事長的積極領導下，銳意革新、創新產品、提升品質，積極引進先進精密檢測儀器與生產設備，同時全面導入ERP系統，為公司持續創造競爭力。

銷售方面，全國北、中、南三區均有優秀行銷專員分區專責服務，韓國、大陸及香港等各區亦均有指定代理商，構成綿密銷售服務網。秉持滿足顧客、服務至上的理念，提供「最快交期、最好售服和最佳品質」的三最服務。現在世協品牌之產品更拓展外銷，遍及世界各國。

「世協電機」長期投入高精度、高品質減速機與週邊傳動機構的研發。主要產品減速機與馬達，在市場上多年來已獲得客戶深厚的肯定與極佳之口碑，市佔率持續名列首位。近年所開發出之高精密行星式減速機，更是以優良品質與穩定性能享譽業界，不但在台灣、韓國及大陸市場受到廣大客戶的青睞，也大量外銷至歐、美等世界各地。在台灣多家上市公司及世界知名企業所使用的機器設備中，均可看到世協行星式減速機在其中扮演著重要的角色。

世協行星式減速機配合伺服、步進、直流馬達等傳動系統，可降低轉速，提高輸出扭矩和降低負載慣量，將動力完整的傳輸至應用端，具備體積小、精度高、低背隙、高效率、高輸出轉速、高輸出扭矩、運轉平順及低噪音等特性，適用於工具機械、包裝機械、產業機器人、半導體設備、航太工業、醫療設備及檢驗測試儀器等等各種精密自動化機器設備中。

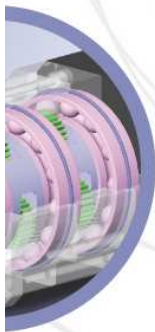
「世協電機」已先後取得CE、3C、UL及ISO9001認證等榮譽。本著「誠」、「創」、「積」、「精」的經營理念，致力成為市場先趨的指標，「世協電機」將持續以堅強之經營團隊，秉持邁向國際化目標及拉大同業競爭門檻之藍海策略，營造未來更專業化的永續經營體系，奠定「**科技與口碑結合的領先品牌**」之地位。



▶ **As a leading brand in gear technology, Sesame Motor Corp. is a professional manufacturer of speed reducers and motors.** Founded in 1990, Sesame has expanded continuously into a USD\$3.7 million-capital company after two decades of operation. Under the leadership of President Feng-Chou Chiang since 2006, Sesame Motor Corp. vigorously innovates new products and increases overall quality, utilizes advanced hi-tech instruments and equipments, as well as incorporates the ERP system, enabling the company to maintain its competitiveness.

In marketing, Sesame has sales representatives in Taiwan's metropolitan cities, as well as agents in Korea, China and Hong Kong, building a close sales network. Bearing the principle of satisfying customers and bringing good service in mind, we provide the "quickest delivery, best after-sale service and superior quality." Nowadays, the Sesame brand has opened up new markets and was exported to countries worldwide.





► **Sesame Motor Corp. is devoted to the R & D of high precision and quality gears and related transmission systems.** Our

main products, which include speed reducers and motors, have gained esteemed reputation amongst customers, enabling us to occupy one of the leading positions in the market. In recent years, Sesame has also successfully developed a new generation of high precision planetary gearheads which received special attention: not only well-recognized by customers in Taiwan, Korea and China, but also exported to Europe and the U.S., known to the international market for their excellent quality. Sesame's planetary gearheads can be seen in machines and equipments of several listed companies in Taiwan and world-known brands.

The Sesame Brand planetary gearheads are used in conjunction with servo, stepping, and DC motor transmission systems, ideal for reducing speed, increasing output torque and decreasing load inertia, transferring power to applied equipments fully. The planetary gearheads possess qualities such as compact size, high precision, low backlash, high efficiency, high output speed and torque, smooth operation and low noise, especially applicable for a wide variety of precise automation systems such as tool machinery, packing machines, industry robots, semiconductors, aerospace industry, medical equipments and testing instruments.

Sesame Motor Corp. has obtained CE, CCC, UL, and ISO9001 certification successfully. With the principle of "Honesty, Creativity, Positivity, Innovation" in mind, we strive to become a goal-mark as the market's pioneer. Sesame Motor Corp. will continue to grow and service with our steadfast team, aiming toward full internationalization and increasing our competitive edge, in order for us to build a sustainable professional cooperation with **"A Top Brand of Superior Technology and Reputation Combined"** soundly established.

# QC設備

## QC EQUIPMENT

齒輪測試儀  
CNC Gear Measuring  
Instrument(TTi-300E)



電樞自動檢驗設備  
Armature Tester

三次元量測儀  
CMM Sheffield  
Max-lite



斷槽檢測設備  
Rotor Measuring  
Instrument



光學影像量測儀  
Optical Vision  
Measuring Instrument  
(JMT 400E)





**加工設備 滾齒機**

**PROCESSING & EX-WORKS:  
 HOBBIING MACHINE**



**HAMAIGNI 50**



**KASHIFUJI KN151 CNC**



**KOEPFER KP200 CNC**



**KASHIFUJI KA220 CNC**

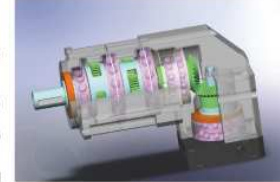


**HAMAI N80H CNC**

# 目錄

## TABLE OF CONTENTS

<i>Product Name Coding System</i>	7
<i>Customer Spec Form</i>	8
<i>PGL Dimensions</i>	9
<i>PGR Dimensions</i>	10
<i>PGL/PGR Spec Table / PML Spec Table</i>	11
<i>PML Dimensions</i>	12
<i>PGT Dimensions</i>	13
<i>PGT Spec Table</i>	14



### Size 42

<i>Single Stage</i>	15
<i>Double Stage</i>	16
<i>Right Angle, Single Stage</i>	17
<i>Right Angle, Double Stage</i>	18



### Size 60

<i>Single Stage</i>	19
<i>Double Stage</i>	20
<i>Right Angle, Single Stage</i>	21
<i>Right Angle, Double Stage</i>	22



### Size 90

<i>Single Stage</i>	23
<i>Double Stage</i>	24
<i>Right Angle, Single Stage</i>	25
<i>Right Angle, Double Stage</i>	26



### Size 115

<i>Single Stage</i>	27
<i>Double Stage</i>	28
<i>Right Angle, Single Stage</i>	29
<i>Right Angle, Double Stage</i>	30



### Size 142

<i>Single Stage</i>	31
<i>Double Stage</i>	32
<i>Right Angle, Single Stage</i>	33
<i>Right Angle, Double Stage</i>	34



### Size 180

<i>Single Stage</i>	35
<i>Double Stage</i>	36



### Size 220

<i>Single Stage</i>	37
<i>Double Stage</i>	38



# 產品應用

## FACTORY & EQUIPMENT: APPLICATIONS

伺服馬達搭配行星式減速機可做精密定位，應用範圍廣，例如：

Designed to be used with servo motors for precise positioning, planetary gearheads can be found in a wide variety of automation machinery such as:

- 航空 Aerospace、
- 衛星 Satellite、
- 醫療 Medical、
- 軍事科技 Military Technology、
- 晶圓設備 Wafer Foundry and
- 機器人 Robotics...等自動化設備中皆可見到行星式減速機的出現。

其他應用包括：

Other applications include:

- 切割機 Cutting、
  - 噴繪機 Inkjet Printing、
  - 焊接機 Welding、
  - 機床 CNC Systems、
  - 印刷 Printing、
  - 包裝 Packaging、
  - 紡織 Weaving、
  - 塑膠機械 Plastic Machinery and the
  - 汽車 Automobile Industry...
- 等多種工業自動化場合。



# 認證 CERTIFICATION

## ISO9001:2000



## CE Certificate



## CHINA COMPULSORY CERTIFICATION (CCC)



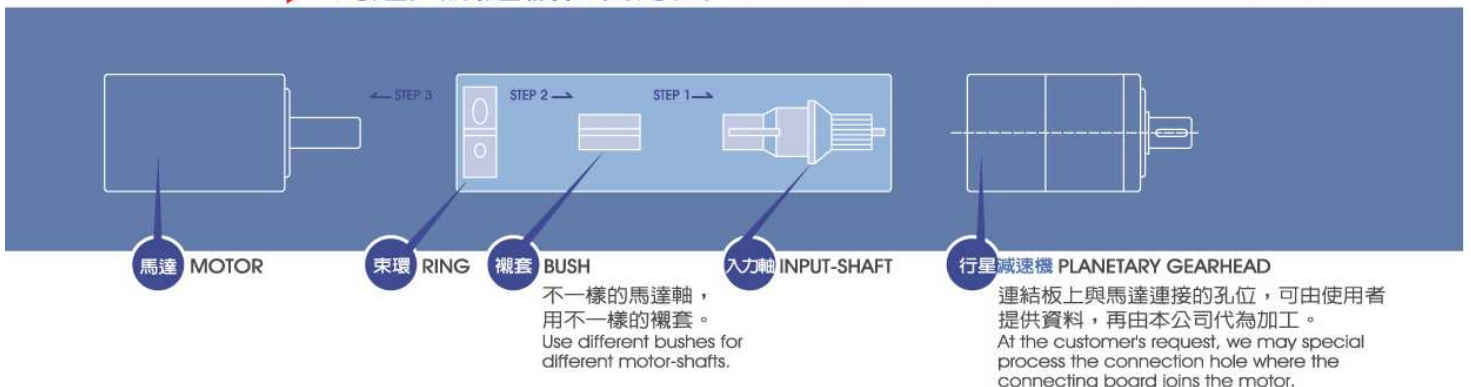
# 型號定義

## CODING SYSTEM



<b>P</b> <b>G</b> <b>L</b>  <b>60</b> <b>I</b> <b>30</b> <b>I</b> <b>P1</b> <b>I</b> <b>Y</b> <b>I</b> <b>MOTOR</b>	行星式減速機 (Planetary) 連接方式 (Input) 機型 (Model)  框號 (Size) 減速比 (Speed Reduction Ratio) 背隙 (Backlash) 特殊規格 (Customer Specification) 馬達型號 (Motor Model)	G:空心入力軸 Collet Chuck M:馬達直結型 Motor  X:標準型 Standard L:精密型 Precision T:強力型 High Loading H:螺旋齒輪 Helical Gear R:直角型 Right Angle  42:□42 60:□60 90:□90 115:□115 142:□142 180:□180 單節式 Single Stage:3,4,5,6,7,8,9,10 雙節式 Double Stage:12,15,16,18,20,21,24,25,27,28,30,32,35,36,40,42 45,48,49,50,54,56,60,63,64,70,72,80,81,90,100 P0:超精密級 Micro Backlash P1:精密等級 Classic Backlash P2:標準背隙 Standard Backlash  馬達型號 (Motor Model)
---	---	--

## ▶ 馬達與減速機組合方法 CONNECTION OF MOTOR & GEARHEAD



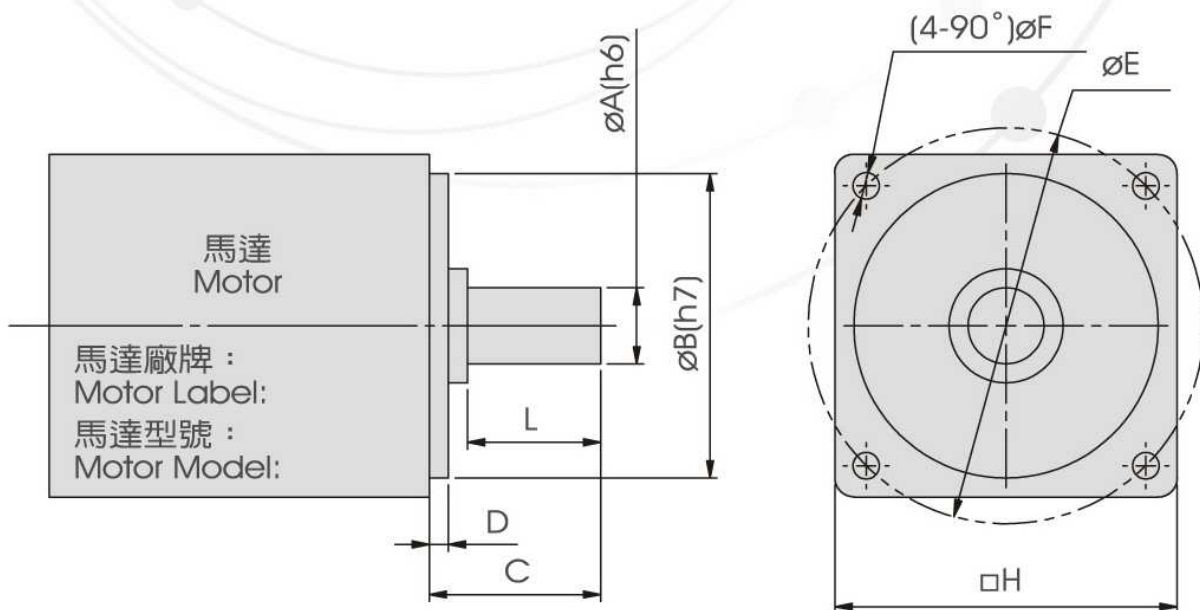
- 束環、束環襯套、入力軸與馬達穩固組合後，請謹慎與行星式減速機結合後，以防止傷及減速機的內部結構。  
After the ring, the bush, and the input-shaft are securely assembled with the motor, please join the parts with the planetary gearhead cautiously with a slight clockwise and /or counter-clockwise motion, until the planetary gearhead engages the input-shaft.

\* 在正常的使用狀態下，本公司出廠的產品保固一年或10,000小時，以先到期為準。  
Under normal usage and loading, our products come with a one-year or 10,000-hour limited warranty, whichever comes first.



# 客戶填寫資料

## CUSTOMER SPEC FORM



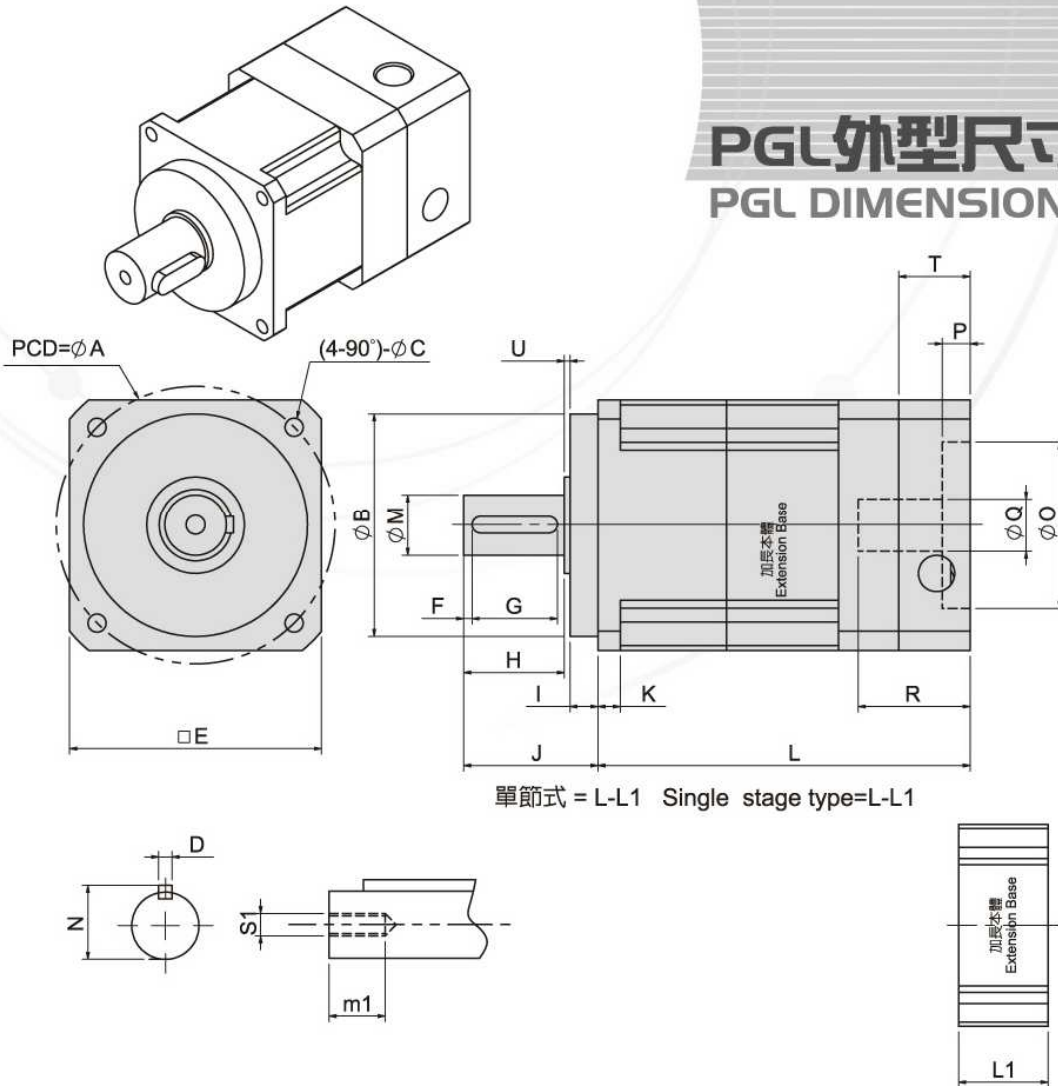
### 規格 SPECIFICATIONS

Motor Shaft Dia.	Flange Dia.	Motor Shaft Length	Flange Height	P.C.D of Bore	Bore Dia.	Motor Flange Square	Actual Length of Motor Shaft	Backlash
馬達軸外徑	馬達凸緣外徑	馬達軸長度	馬達凸緣高度	螺絲孔中心距	螺絲孔直徑	馬達面尺寸	馬達軸有效長	要求背隙
øA(h6)	øB(h7)	C	D	øE	øF	□H	L	P0/P1/P2

- 請把貴公司所使用的馬達尺寸依此表格填寫並告知本公司。  
Please fill in the form according to the size of the motor that you use and inform us.

# PGL外型尺寸圖

## PGL DIMENSIONS



單節式 = L-L1 Single stage type=L-L1

### 規格 SPECIFICATIONS

Unit:mm

機型MODEL	A	B*1	C	D	E	F	G	H	U	I	J	K	L	L1	N	M*2	m1	S1	P	Q*3	R	T
PGL42	50	35	3.4	5	42	2	15	19	1.5	5.5	26	4	88.6	26	15	13	10	M4	≤7	≤8	14~27	20
PGL60	70	50	5.5	5	60	2	25	28	1.5	7	37	6	108	28	18	16	12.5	M5	≤10	≤14	20~34	22
PGL90	100	80	6.5	6	90	3	30	36	2	10	48	8	133	40	24.5	22	19	M8	≤10	≤24	25~40	25.5
PGL115	130	110	8.5	10	115	5	40	51	4	8	63	12	164	48	35	32	28	M12	≤10	≤28	28~51	32
PGL142	165	130	10.5	12	142	5	60	79	6	8	93	18	222	61	43	40	38	M16	≤14	≤35	35~60	35
PGL180	215	160	13	16	182	6	70	82	2.5	20	104.5	16	271.5	90	59	55	49	M20	≤15	≤50	38~80	49
PGL220	250	180	17	20	220	7	90	105	3	30	138	20	418	139	79.5	75	42	M20	≤15	≤55	47~100	72

連結板 (Bracket)

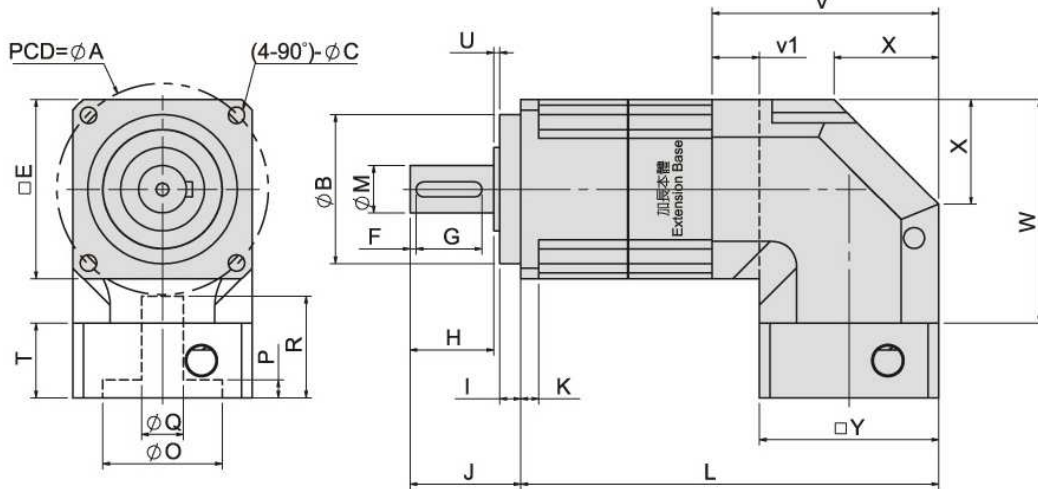
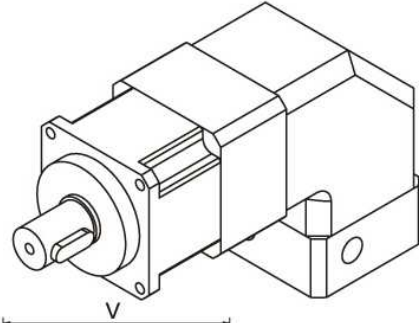
- O\*部位尺寸：依客戶所選擇的馬達法蘭面尺寸決定。  
O\*4：Size may vary according to the motor flange chosen.
- 本公司有權針對以上數據規格逕行設計變更不先行告知。  
Specifications subject to change without notice.

- \* 1. 凸緣直徑尺寸：尺寸公差同"f8"。  
Flange diameter:Tolerance in accordance with "f8".
- \* 2. 出力軸外徑尺寸：尺寸公差同"h6"。  
Output shaft dia:Tolerance in accordance with "h6".
- \* 3. 入力軸外徑尺寸：尺寸公差同"F7"。  
Input shaft dia:Tolerance in accordance with "F7".
- \* 4. 引導直徑尺寸：尺寸公差同"H8"。  
Guide diameter:Tolerance in accordance with "H8".

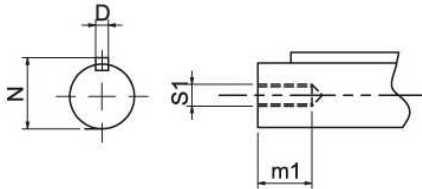


# PGR外型尺寸圖

## PGR DIMENSIONS



單節式 = L-L1 Single stage type=L-L1



### 規格 SPECIFICATIONS

Unit:mm

機型MODEL	A	B*1	C	D	E	F	G	H	U	I	J	K	L	L1	N	M*2	m1	S1	Q*3	R	T	V	v1	W	X
PGR42	50	35	3.4	5	42	2	15	19	1.5	5.5	26	4	103.6	26	15	13	10	M4	≤8	14~27	20	49.3	X	49.3	26
PGR60	70	50	5.5	5	60	2	25	28	1.5	7	37	6	139.7	28	18	16	12.5	M5	≤14	25~37	33	75.7	X	74.8	35
PGR90	100	80	6.5	6	90	3	30	36	2	10	48	8	206	40	24.5	22	19	M8	≤24	28~41	25.5	120	X	120	40
PGR115	130	110	8.5	10	115	5	40	53	2	8	63	12	221	48	35	32	28	M12	≤28	30~51	45	115	X	122.5	75
PGR142	165	130	10.5	12	142	5	60	79	6	8	93	18	318	61	43	40	38	M16	≤35	35~55	35	178	36	174	70
																							連結板 (Bracket)		

- O\*部位尺寸：依客戶所選擇的馬達法蘭面尺寸決定。  
O\*4 : Size may vary according to the motor flange chosen.
- 本公司有權針對以上數據規格逕行設計變更不先行告知。  
Specifications subject to change without notice.

- \* 1. 凸緣直徑尺寸：尺寸公差同"f8"。  
Flange diameter:Tolerance in accordance with "f8".
- \* 2. 出力軸外徑尺寸：尺寸公差同"h6"。  
Output shaft dia:Tolerance in accordance with "h6".
- \* 3. 入力軸外徑尺寸：尺寸公差同"F7"。  
Input shaft dia:Tolerance in accordance with "F7".
- \* 4. 引導直徑尺寸：尺寸公差同"H8"。  
Guide diameter:Tolerance in accordance with "H8".

# PGL/PGR性能規格共表

## PGL/PGR SPECIFICATION TABLE

\*本公司有權對以下數據規格逕行設計變更不先行告知。  
The above figures/specifications are subject to change without prior notice.

規格 Specifications		節數 Stage	減速比 Ratio	PGL-42 PGR-42	PGL-60 PGR-60	PGL-90 PGR-90	PGL-115 PGR-115	PGL-142 PGR-142	PGL-180	PGL-220
額定輸出力矩 Nominal Output Torque	Kg · m	1	3	1.41	4.51	9.71	28.91	43.37	117.4	170.4
			4	1.22	3.66	7.61	25.41	38.12	107.62	160.62
			5	1.41	4.39	8.69	28.91	43.37	117.4	170.4
			6	1.28	4.02	8.15	27.14	40.71	107.62	160.62
			7	1.21	3.67	7.61	22.31	33.47	107.62	160.62
			8	1.11	3.31	6.52	20.66	30.99	77.84	120.84
			9	1	2.93	5.43	17.79	26.69	77.92	120.92
			10	1.03	1.8	4.17	17.79	26.69	77.84	120.84
			12	1.22	4.02	8.15	27.14	40.71	65.73	118.73
			15	1.22	4.02	8.15	27.14	40.71	65.73	118.73
		16	1.2	3.98	7.61	25.43	38.15	65.73	118.73	
		18	1.21	4.01	8.15	27.14	40.71	65.73	118.73	
		20	1.22	3.66	7.61	25.41	38.12	68.51	121.51	
		21	1.26	4.39	8.69	28.91	43.37	65.73	118.73	
		24	1.22	4.21	7.61	27.75	41.63	64.56	117.56	
		25	1.41	4.39	8.69	28.91	43.63	65.73	118.73	
		27	1.21	4.01	8.15	27.14	40.71	65.73	118.73	
		28	1.22	4.02	8.15	27.14	40.71	65.76	118.73	
		30	1.28	4.02	8.15	27.14	40.71	68.51	121.51	
		32	1.22	4.21	8.69	27.75	41.63	65.73	118.73	
		35	1.21	3.66	7.61	22.31	33.47	68.51	121.51	
		36	1.21	4.01	8.15	27.14	40.71	65.73	118.73	
		40	1.11	3.31	6.52	20.66	30.99	61.36	114.36	
		42	1.28	4.02	8.15	27.14	40.71	65.73	118.73	
		45	1	2.93	5.43	17.79	26.69	62.48	115.48	
		48	1.28	4.02	8.15	27.14	40.71	64.56	117.56	
		49	1.21	4.01	8.15	27.14	40.71	64.56	117.56	
		50	1.41	4.02	8.69	28.91	43.66	65.73	118.73	
		54	1.28	4.02	8.15	27.14	40.71	64.56	117.56	
		56	1.21	4.01	8.15	27.14	40.71	64.56	117.56	
		60	1.28	4.02	8.15	27.14	40.71	68.51	121.51	
		63	1.21	4.01	8.15	27.14	40.71	68.51	121.51	
		64	1.11	3.31	6.52	25.43	38.12	64.56	117.56	
		70	1.21	3.67	7.61	22.31	33.47	68.51	121.51	
		72	1.21	4.01	6.52	20.66	30.99	68.51	121.51	
		80	1.11	1.8	6.52	20.66	30.99	62.48	115.48	
81	1	1.8	5.43	17.79	26.69	52.45	105.45			
90	1	1.8	5.43	17.79	26.69	52.45	105.45			
100	1	1.8	4.17	17.79	26.69	52.45	105.45			
最大輸出力矩 Max. Output Torque	Kg · m		2.5倍額定輸出力矩 2.5 times of Nominal Output Torque							
額定輸入轉速 Nominal Input Speed	rpm	1,2	3-100	3000	3000	3000	2500	2000	2000	2000
最大輸入轉速 Max. Input Speed	rpm	1,2	3-100	6000	6000	6000	5000	4000	4000	4000
超精密背隙 Micro Backlash P0	arcmin	1	3-10	≦3	≦3	≦3	≦3	≦3	≦3	≦3
		2	12-100	≦5	≦5	≦5	≦5	≦5	≦5	≦5
精密背隙 Classic Backlash P1	arcmin	1	3-10	≦6	≦6	≦6	≦6	≦6	≦6	≦6
		2	12-100	≦10	≦10	≦10	≦10	≦10	≦10	≦10
標準背隙 Standard Backlash P2	arcmin	1	3-10	≦12	≦12	≦12	≦12	≦12	≦12	≦12
		2	12-100	≦15	≦15	≦15	≦15	≦15	≦15	≦15
扭轉剛性 Torsional Rigidity	Kg · m	1,2	3-100	1.04	2.85	2.85	15.5	30	57	110
使用溫度 Operating Temp.	°C		3-100	-10°C~+50°C						
使用壽命 Service Life	hr		3-100	一年或一萬小時 (One year or 10,000-hours, whichever comes first.)						
效率 Efficiency	%	1	3-10	≧95%						
		2	12-100	≧90%						
重量 Weight	kg	1	3-10	0.6	1.2	1.2	7.5	15.6	26	80
		2	12-100	0.8	1.9	1.9	12	20.7	36	100
安裝方向 Mounting Position		1,2	3-100	任意方向 Any direction						
噪音值 Noise Level	dB/1m	1,2	3-100	57	57	57	65	65	65	70
潤滑 Lubrication		1,2	3-100	尿素基滑脂 Urea derivatives						

數據來源 Test Data by: SGS



# PML性能規格共表

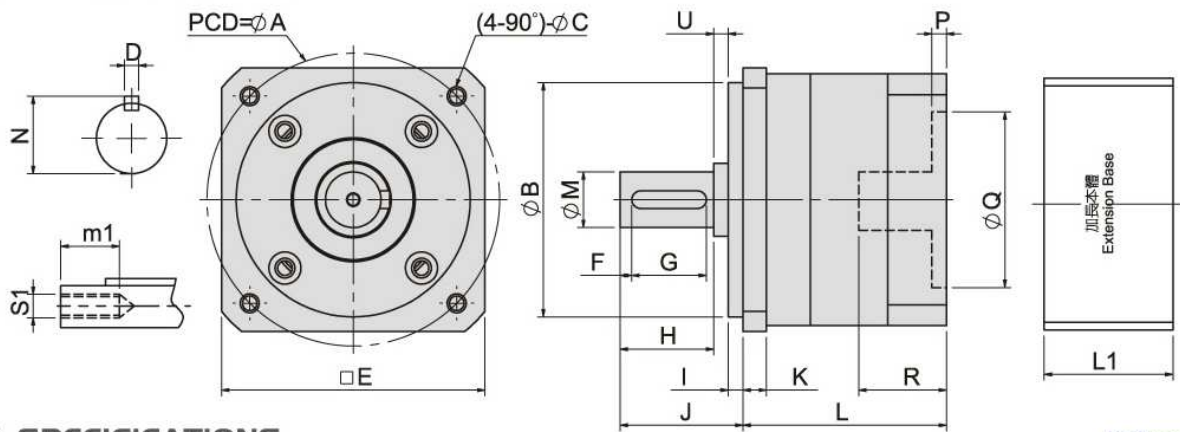
## PML SPECIFICATION TABLE

\* 本公司有權對以下數據規格逕行設計變更不先行告知。  
 The above figures/specifications are subject to change without prior notice.

規格 Specifications		節數 Stage	減速比 Ratio	PML-42	PML-60	PML-90
額定輸出力矩 Nominal Output Torque  數據來源 Test Data by: SGS	Kg · m	1	3	0.78	1.93	5.15
			4	0.68	1.61	4.5
			5	0.78	1.93	5.15
			6	0.71	1.76	4.82
			7	0.68	1.61	4.5
			8	0.61	1.45	3.86
			9	0.5	1.29	3.21
最大輸出力矩 Max. Output Torque	Kg · m			2.5倍額定輸出力矩 2.5 times of Nominal Output Torque		
額定輸入轉速 Nominal Input Speed	rpm	1	3-10	3000	2500	2500
最大輸入轉速 Max. Input Speed	rpm	1	3-10	6000	6000	5000
超精密背隙 Micro Backlash P0	arcmin	1	3-10	≤5	≤5	≤5
精密背隙 Classic Backlash P1	arcmin	1	3-10	≤10	≤10	≤10
標準背隙 Standard Backlash P2	arcmin	1	3-10	≤15	≤15	≤15
扭轉剛性 Torsional Rigidity	Kg · m	1	3-10	0.9	2	6
使用溫度 Operating Temp.	°C	1	3-10	-10°C~+50°C		
使用壽命 Service Life	hr		3-10	一年或一萬小時 (One year or 10,000-hours, whichever comes first.)		
效率 Efficiency	%	1	3-10	≥95%		
重量 Weight	kg	1	3-10	0.6	1.2	3.2
安裝方向 Mounting Position		1	3-10	任意方向 Any direction		
噪音值 Noise Level	dB/1m	1	3-10	57	57	60
潤滑 Lubrication		1	3-10	尿素基滑脂 Urea derivatives		

# PML外型尺寸共表

## PML DIMENSIONS



### 規格 SPECIFICATIONS

Unit:mm

機型 MODEL	A	B*1	C	D	E	F	G	H	U	I	J	K	L	N	M*2	P	R	L1	S1	m1
PGR42	50	35	3.4	5	42	2	15	19	1.5	5.5	26	4	90.5	15	13	≤7	14~27	26	M4	10
PGR60	70	50	5.5	5	60	2	25	28	2	7	37	6	124	18	16	≤10	25~37	28	M5	12.5
PGR90	100	80	6.5	6	90	3	30	36	2	10	48	8	150	24.5	19	≤10	28~44	40	M8	19

 加長板  
(Extension bracket)

\* 1. 凸緣直徑尺寸：尺寸公差同"f8"。

Flange diameter:Tolerance in accordance with "f8".

\* 2. 出力軸外徑尺寸：尺寸公差同"h6"。

Output shaft dia:Tolerance in accordance with "h6".

\* 3. 入力軸外徑尺寸：尺寸公差同"F7"。

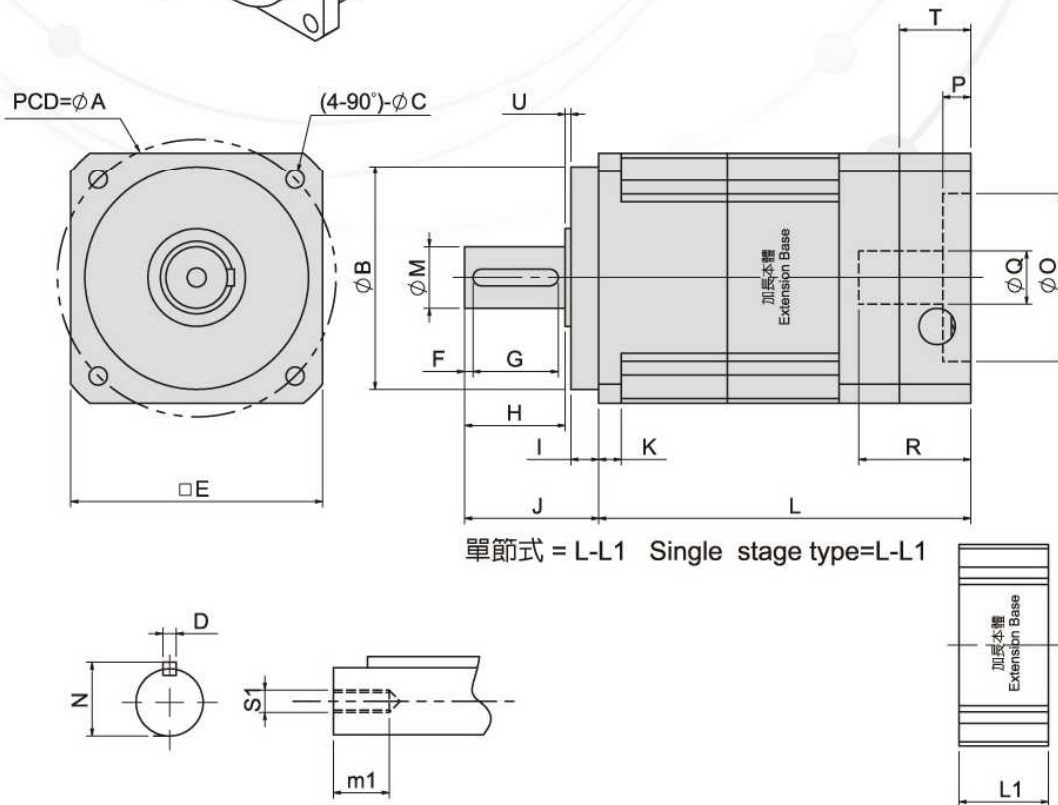
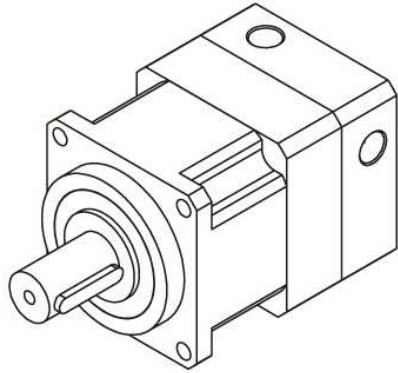
Input shaft dia:Tolerance in accordance with "F7".

\* 4. 引導直徑尺寸：尺寸公差同"H8"。

Guide diameter:Tolerance in accordance with "H8".

# PGT外型尺寸圖

## PGT DIMENSIONS



### 規格 SPECIFICATIONS

Unit:mm

機型MODEL	A	B*1	C	D	E	F	G	H	U	I	J	K	L	L1	N	M*2	m1	S1	P	Q*3	R	T
PGT60	70	50	5.5	5	60	2	25	28	2	7	37	6	120	35	18	16	12.5	M5	≤10	≤14	23~34	22
PGT90	100	80	6.5	6	90	3	30	36	2	10	48	8	151.5	47	24.5	22	19	M8	≤10	≤24	28~40	25.5
PGT115	130	110	8.5	10	115	5	40	51	2	12	65	10	185	57	35	32	28	M12	≤10	≤28	30~51	34

連結板 (Bracket)

- O\*部位尺寸：依客戶所選擇的馬達法蘭面尺寸決定。  
O\*4 : Size may vary according to the motor flange chosen.
- 本公司有權針對以上數據規格逕行設計變更不先行告知。  
Specifications subject to change without notice.

- \* 1. 凸緣直徑尺寸：尺寸公差同"f8"。  
Flange diameter:Tolerance in accordance with "f8".
- \* 2. 出力軸外徑尺寸：尺寸公差同"h6"。  
Output shaft dia:Tolerance in accordance with "h6".
- \* 3. 入力軸外徑尺寸：尺寸公差同"F7"。  
Input shaft dia:Tolerance in accordance with "F7".
- \* 4. 引導直徑尺寸：尺寸公差同"H8"。  
Guide diameter:Tolerance in accordance with "H8".



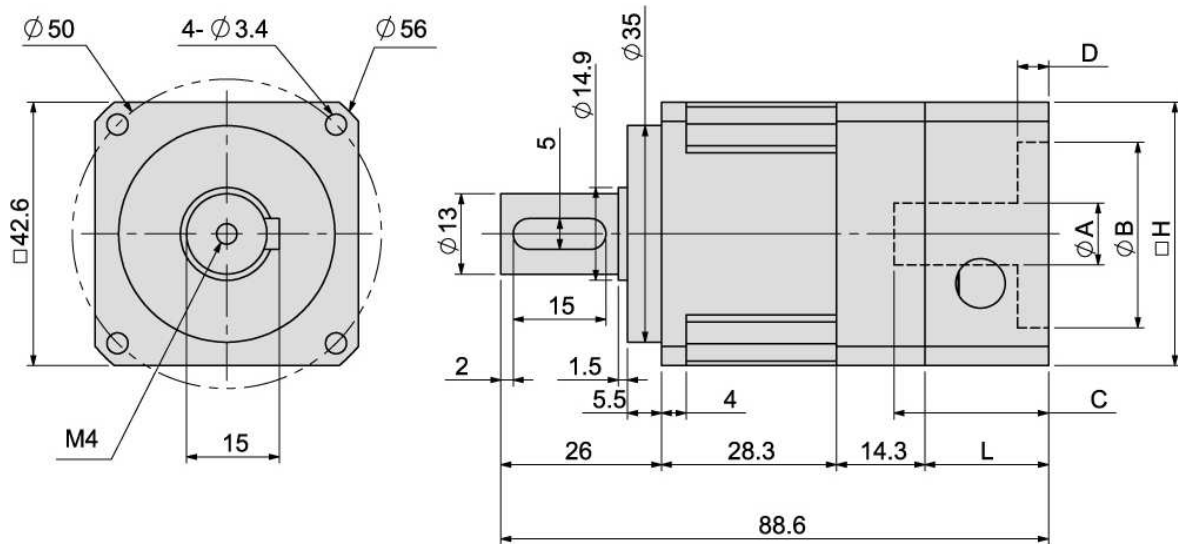
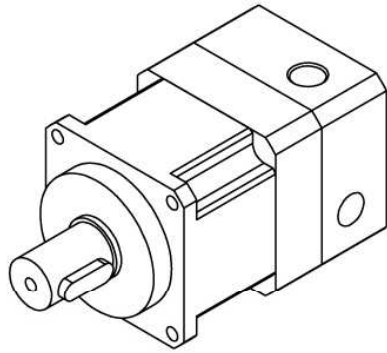
# PGT性能規格共表

## PGT SPECIFICATION TABLE

\* 本公司有權對以下數據規格逕行設計變更不先行告知。  
 The above figures/specifications are subject to change without prior notice.

規格 Specifications	節數 Stage	減速比 Ratio	PGT-60	PGT-90	PGT-115	
額定輸出力矩 Nominal Output Torque  數據來源 Test Data by: SGS	1	3	11.12	26.02	45	
		4	10.27	23.92	41.5	
		5	11	25	45	
		6	10.63	24.46	43.23	
		7	10.28	23.92	38.4	
		8	9.92	22.83	36.75	
		9	9.54	21.74	33.88	
		10	8.41	20.48	33.88	
		12	10.63	24.46	43.23	
		15	10.63	24.46	43.23	
	2	16	10.59	23.92	41.52	
		18	10.62	24.46	43.23	
		20	10.27	23.92	41.5	
		21	11	25	45	
		24	10.82	23.92	43.84	
		25	11	25	45	
		27	10.62	24.46	43.23	
		28	10.63	24.46	43.23	
		30	10.63	24.46	43.23	
		32	10.82	25	43.84	
		35	10.27	23.92	38.4	
		36	10.62	24.46	43.23	
		40	9.92	22.83	36.75	
		42	10.63	24.46	43.23	
		45	9.54	21.74	33.88	
		48	10.63	24.46	43.23	
		49	10.62	24.46	43.23	
		50	10.63	25	45	
		54	10.63	24.46	43.23	
		56	10.62	24.46	43.23	
	60	10.63	24.46	43.23		
	63	10.62	24.46	43.23		
64	9.92	22.83	41.52			
70	10.28	23.92	38.4			
72	10.62	22.83	36.75			
80	8.41	22.83	36.75			
81	8.41	21.74	33.88			
90	8.41	21.74	33.88			
100	8.41	20.48	33.88			
最大輸出力矩 Max. Output Torque	Kg · m		2.5倍額定輸出力矩 2.5 times of Nominal Output Torque			
額定輸入轉速 Nominal Input Speed	rpm	1,2	3-100	3000	3000	2500
最大輸入轉速 Max. Input Speed	rpm	1,2	3-100	6000	6000	5000
超精密背隙 Micro Backlash P0	arcmin	1	3-10	≤3	≤3	≤3
		2	12-100	≤5	≤5	≤5
精密背隙 Classic Backlash P1	arcmin	1	3-10	≤6	≤6	≤6
		2	12-100	≤10	≤10	≤10
標準背隙 Standard Backlash P2	arcmin	1	3-10	≤12	≤12	≤12
		2	12-100	≤15	≤15	≤15
扭轉剛性 Torsional Rigidity	Kg · m	1,2	3-100	2.85	2.85	15.5
使用溫度 Operating Temp.	°C		3-100	-10°C~+50°C		
使用壽命 Service Life	hr		3-100	一年或一萬小時 (One year or 10,000-hours, whichever comes first.)		
效率 Efficiency	%	1	3-10	≥95%		
		2	12-100	≥90%		
重量 Weight	kg	1	3-10	1.2	1.2	7.5
		2	12-100	1.9	1.9	12
安裝方向 Mounting Position		1,2	3-100	任意方向 Any direction		
噪音值 Noise Level	dB/1m	1,2	3-100	57	65	65
潤滑 Lubrication		1,2	3-100	尿素基滑脂 Urea derivatives		

型號 TYPE NO **PGL 42**   
 外型 EXTERIOR **Single Stage Type**

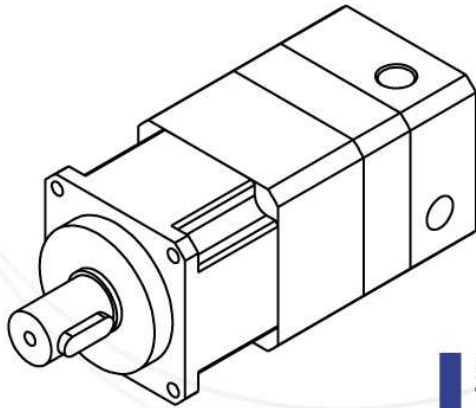


**規格 SPECIFICATIONS**

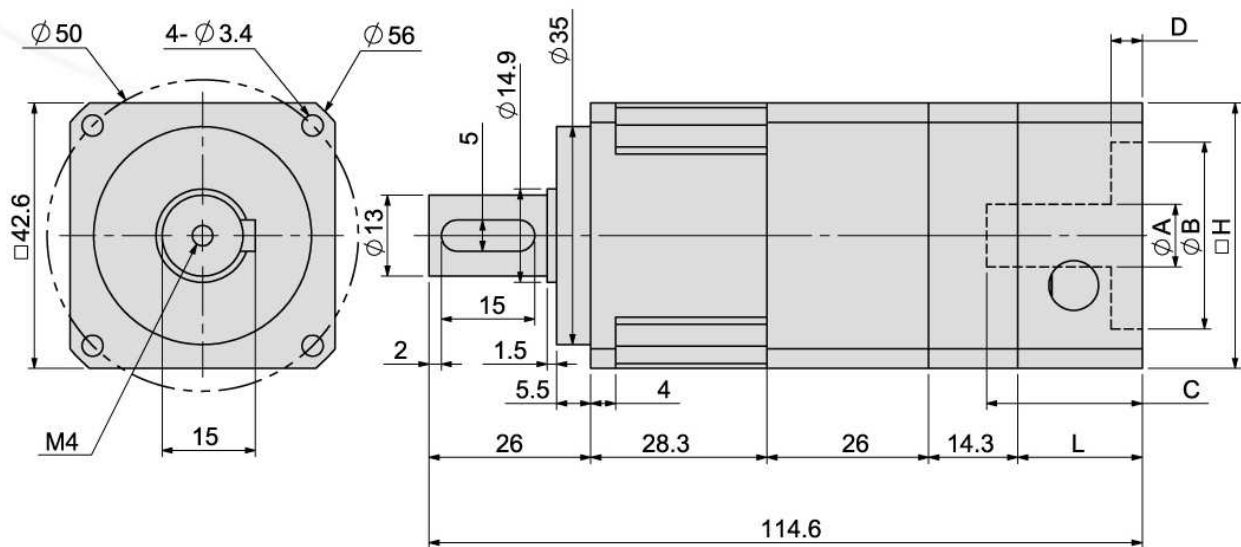
減速比Gear Ratio	連接板Bracket					
單節式Single Stage : 3,4,5,6,7,8,9,10	A	B	C	D	L	H
	≤8	22~54	18~39	2~7	20~32	42.6~60
	PCDøE: ø43~70			Bore Dia: M3~M5		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	1.41	1.22	1.41	1.28	1.21	1.11	1	1.03





型號 TYPE NO **PGL 42** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

減速比 Gear Ratio

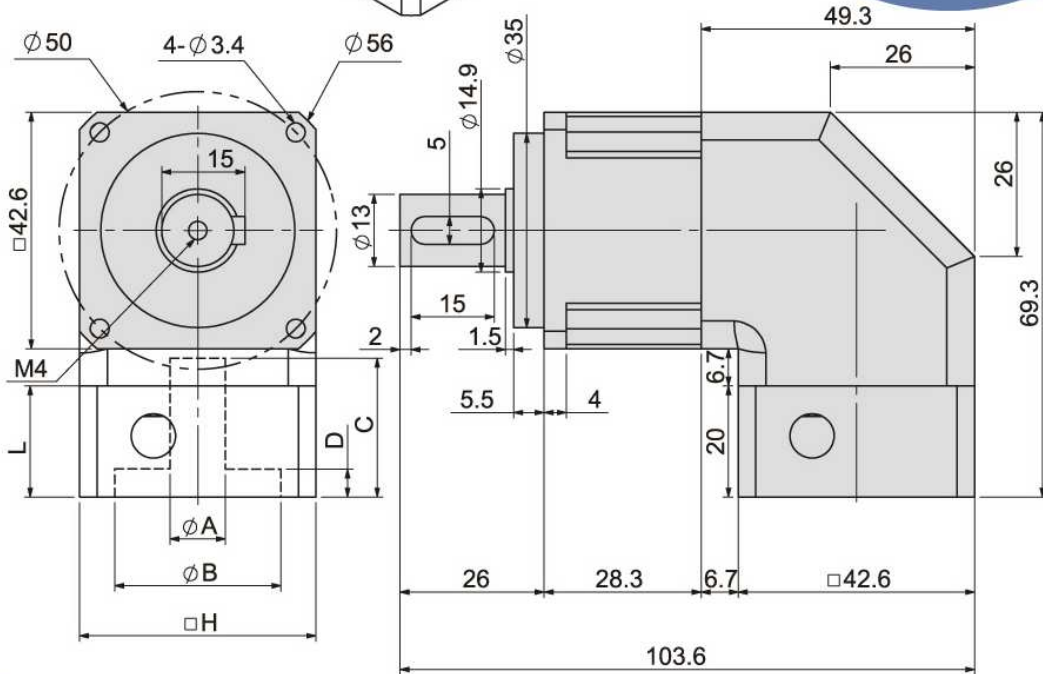
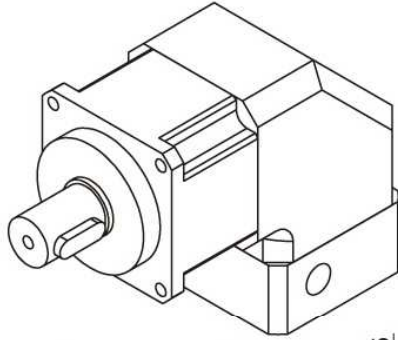
連接板 Bracket

雙節式 Double Stage :  
 12, 15, 16, 18, 20, 21, 24, 25,  
 27, 28, 30, 32, 35, 36, 40, 42,  
 45, 48, 49, 50, 54, 56, 60, 63,  
 64, 70, 72, 80, 81, 90, 100

A	B	C	D	L	H
$\leq 8$	22~54	18~39	2~7	20~32	42.6~60
PCD $\phi$ E: $\phi 43\sim 70$			Bore Dia: M3~M5		

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	1.22	1.22	1.41	1.28	1.11	1.41	1.21	1

型號 TYPE NO **PGR 42**   
 外型 EXTERIOR **Single Stage Type**

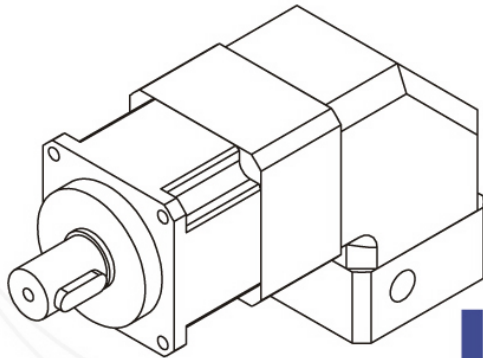


**規格 SPECIFICATIONS**

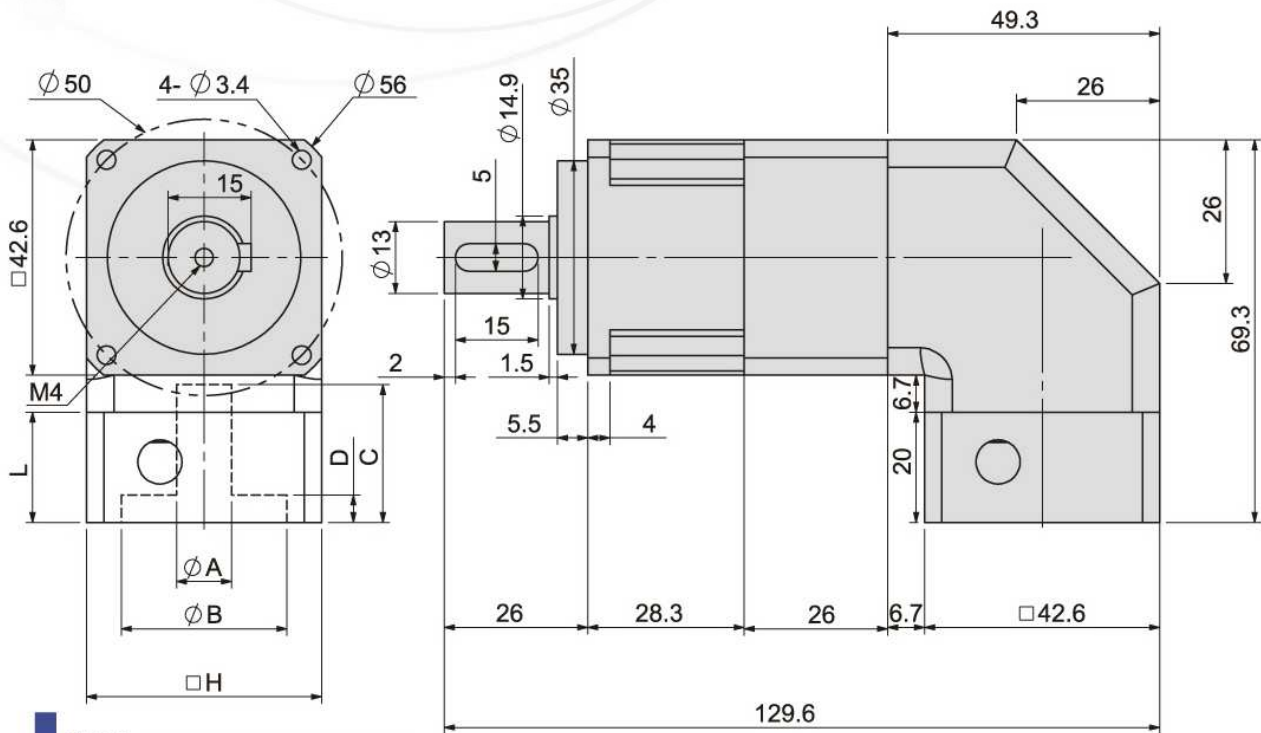
減速比Gear Ratio	連接板Bracket					
單節式Single Stage : 3,4,5,6,7,8,9,10	A	B	C	D	L	H
	$\leq 8$	22~54	18~39	2~7	20~32	42.6~60
	PCD $\phi$ E: $\phi 43\sim 70$			Bore Dia: M3~M5		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	1.41	1.22	1.41	1.28	1.21	1.11	1	1.03





型號 TYPE NO **PGR 42** ▶▶  
 外型 EXTERIOR **Double Stage Type**


**規格 SPECIFICATIONS**

減速比 Gear Ratio

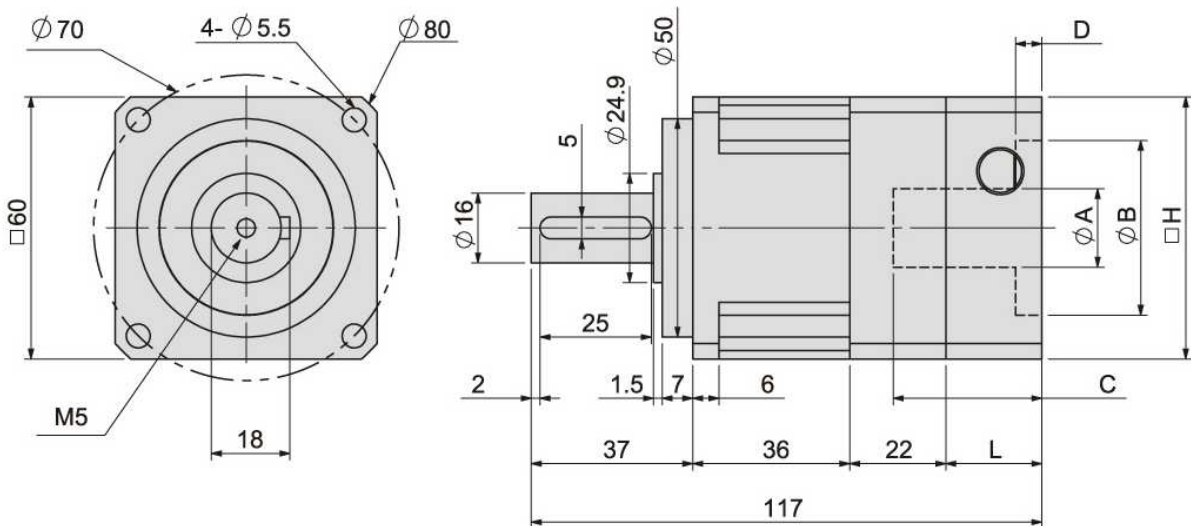
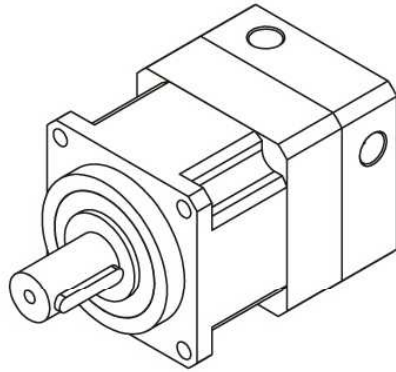
連接板 Bracket

 雙節式 Double Stage :  
 12, 15, 16, 18, 20, 21, 24, 25,  
 27, 28, 30, 32, 35, 36, 40, 42,  
 45, 48, 49, 50, 54, 56, 60, 63,  
 64, 70, 72, 80, 81, 90, 100

A	B	C	D	L	H
$\leq 8$	22~54	18~39	2~7	20~32	42.6~60
PCD $\phi$ E: $\phi 43\sim 70$			Bore Dia: M3~M5		

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	1.22	1.22	1.41	1.28	1.11	1.41	1.21	1

型號 TYPE NO **PGL 60**   
 外型 EXTERIOR **Single Stage Type**

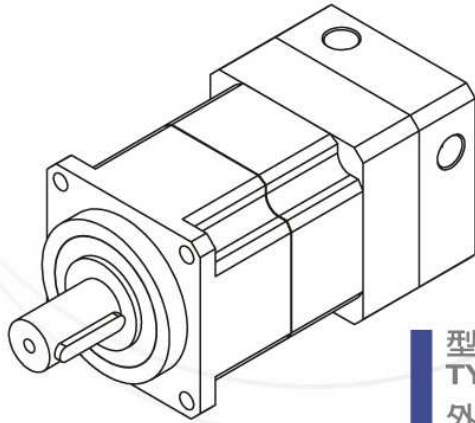


### 規格 SPECIFICATIONS

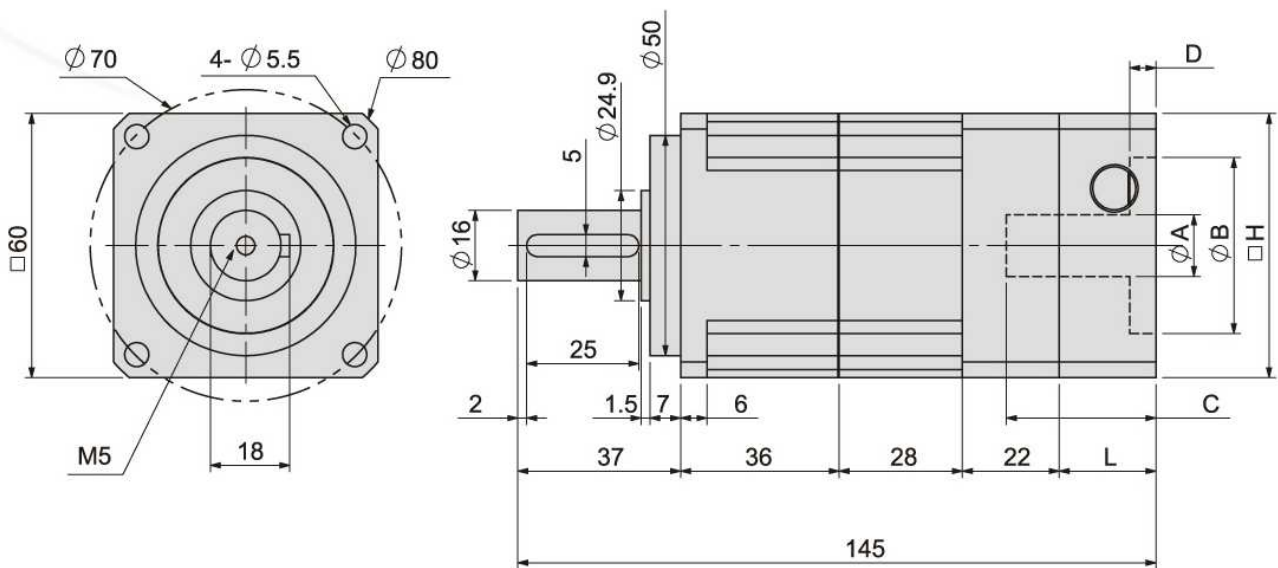
減速比Gear Ratio	連接板Bracket					
單節式Single Stage : 3,4,5,6,7,8,9,10	A	B	C	D	L	H
	≤14	22~83	20~44	2~10	22~32	60~90
	PCDøE: ø36~90			Bore Dia: M3~M6		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	4.51	3.66	4.39	4.02	3.67	3.31	2.93	1.8





型號 TYPE NO **PGL 60** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

減速比 Gear Ratio

連接板 Bracket

雙節式 Double Stage :  
 12, 15, 16, 18, 20, 21, 24, 25,  
 27, 28, 30, 32, 35, 36, 40, 42,  
 45, 48, 49, 50, 54, 56, 60, 63,  
 64, 70, 72, 80, 81, 90, 100

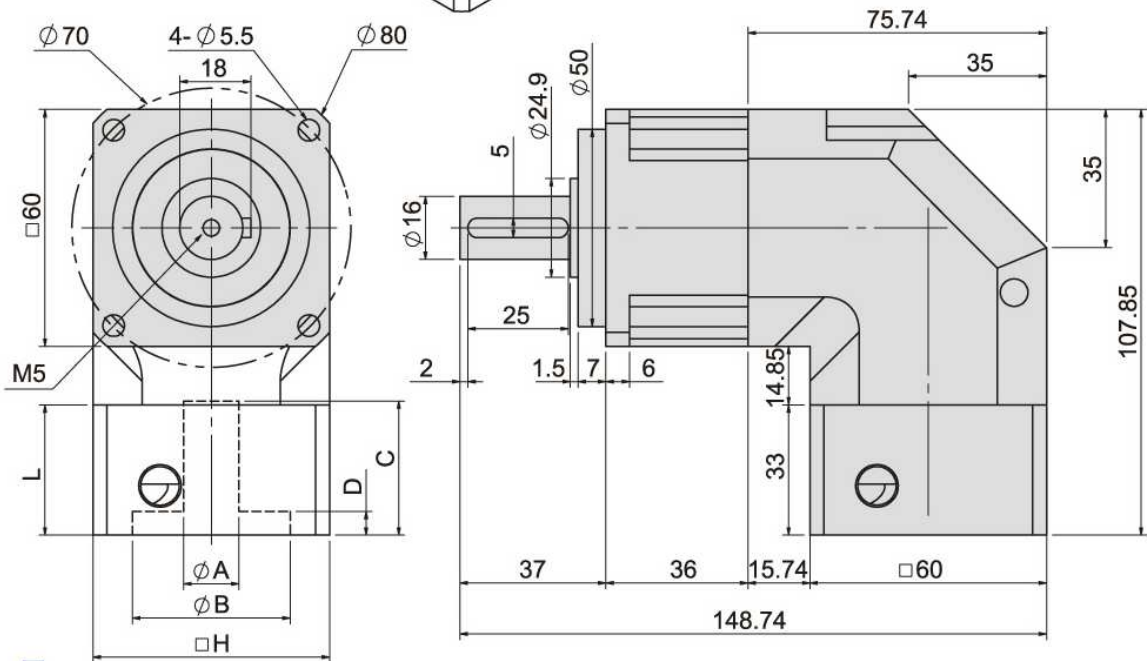
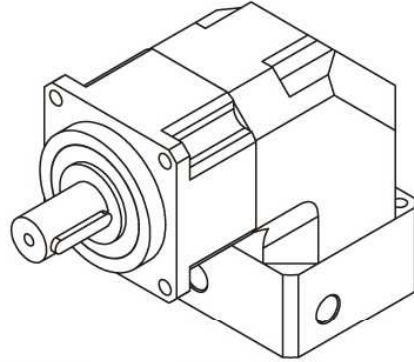
A	B	C	D	L	H
≤ 14	22~83	20~44	2~10	22~32	60~90

PCD $\phi$ E:  $\phi$ 36~90

Bore Dia: M3~M6

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	4.02	3.66	4.39	4.02	3.31	4.02	3.67	1.8

型號 TYPE NO **PGR 60**   
 外型 EXTERIOR **Single Stage Type**

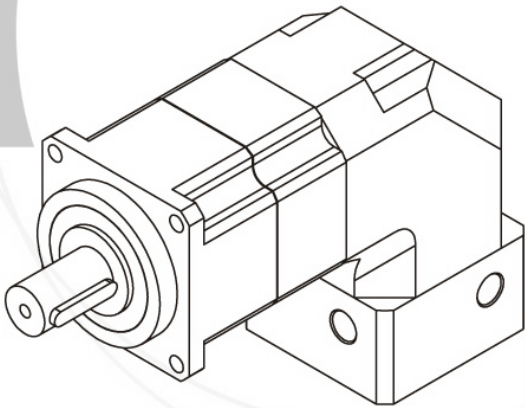


**規格 SPECIFICATIONS**

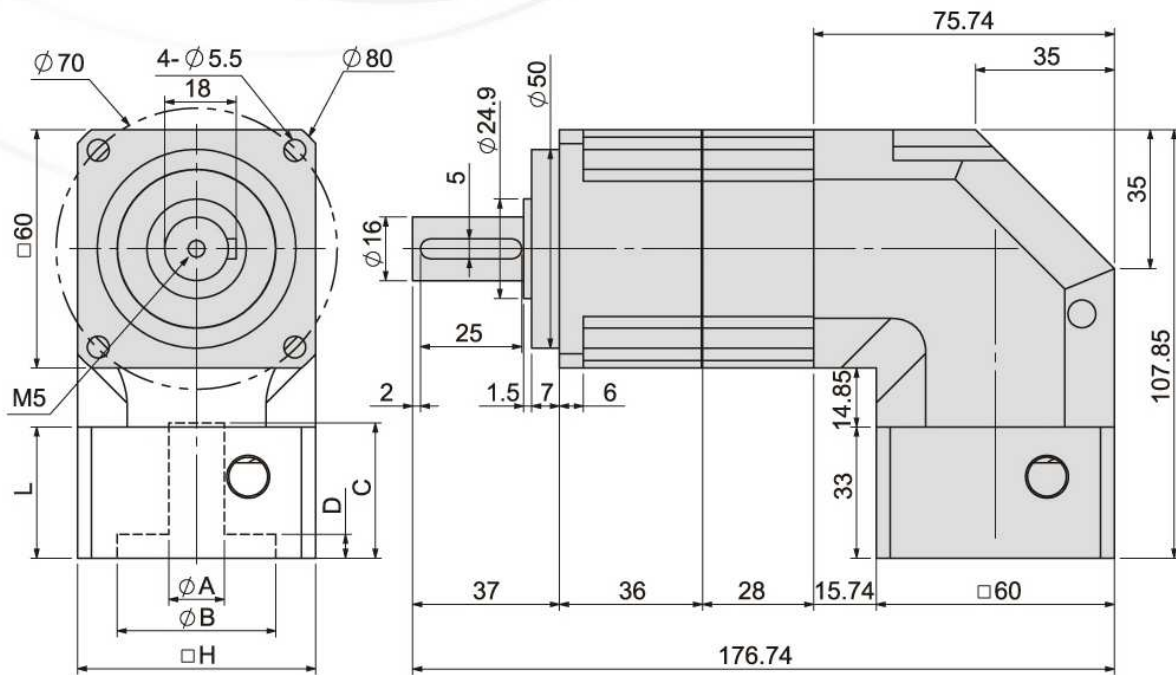
減速比Gear Ratio	連接板Bracket					
	A	B	C	D	L	H
單節式Single Stage : 3,4,5,6,7,8,9,10	$\leq 14$	22~83	25~39	2~10	33~35	60~90
	PCD $\phi$ E: $\phi 39\sim 90$			Bore Dia: M3~M6		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	4.51	3.66	4.39	4.02	3.67	3.31	2.93	1.8





型號 TYPE NO **PGR 60** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

減速比 Gear Ratio

連接板 Bracket

雙節式 Double Stage :  
 12, 15, 16, 18, 20, 21, 24, 25,  
 27, 28, 30, 32, 35, 36, 40, 42,  
 45, 48, 49, 50, 54, 56, 60, 63,  
 64, 70, 72, 80, 81, 90, 100

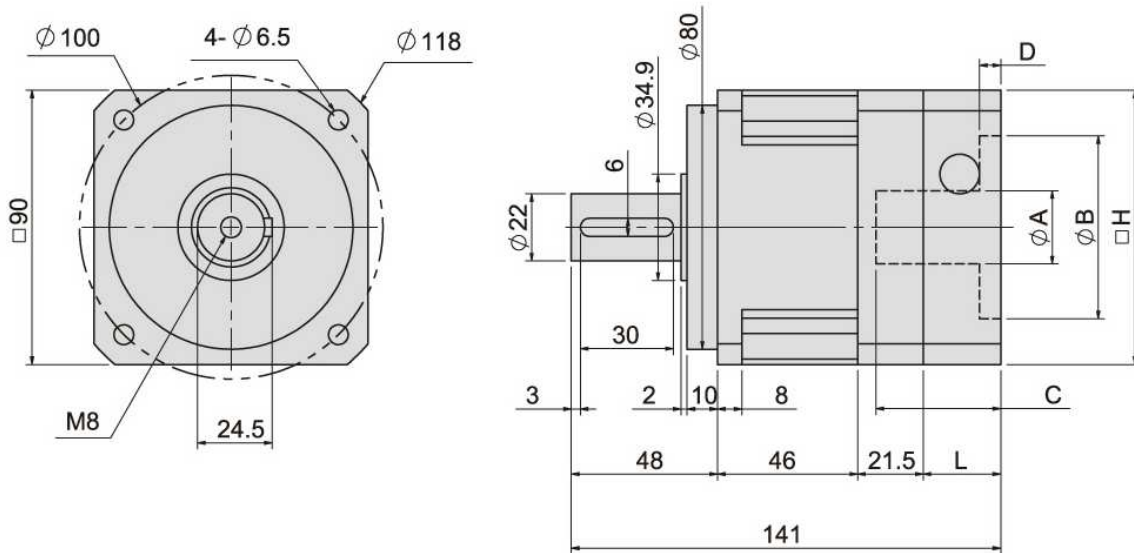
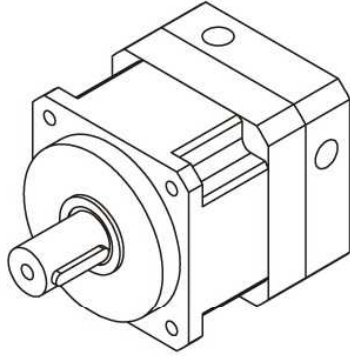
A	B	C	D	L	H
$\leq 14$	22~83	25~39	2~10	33~35	60~90

PCD $\phi$ E:  $\phi 39\sim 90$

Bore Dia: M3~M6

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	4.02	3.66	4.39	4.02	3.31	4.02	3.67	1.8

型號 TYPE NO **PGL 90**   
 外型 EXTERIOR **Single Stage Type**

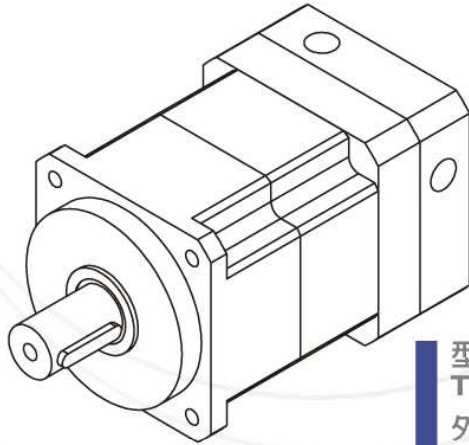


### 規格 SPECIFICATIONS

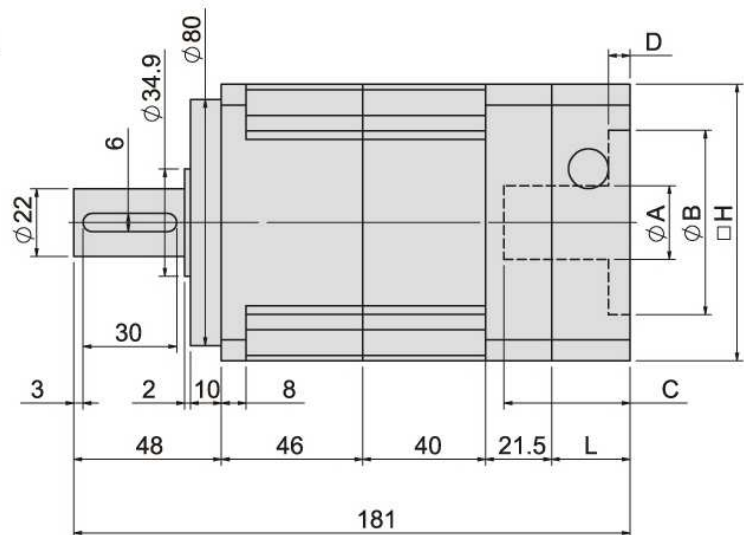
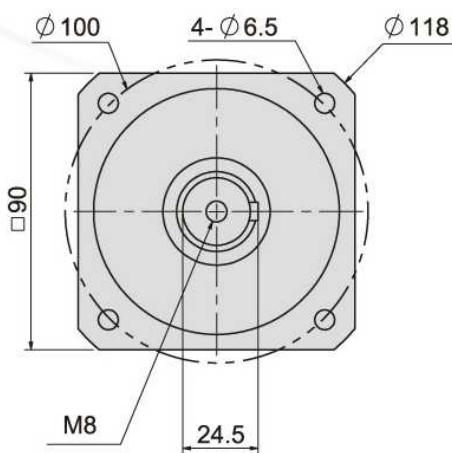
減速比Gear Ratio	連接板Bracket					
單節式Single Stage : 3,4,5,6,7,8,9,10	A	B	C	D	L	H
	≤24	50~110	25~60	4~10	25.5~47.5	90~130
	PCDøE: ø70~145			Bore Dia: M4~M10		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	9.71	7.61	8.69	8.15	7.61	6.52	5.43	4.17





型號 TYPE NO **PGL 90** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

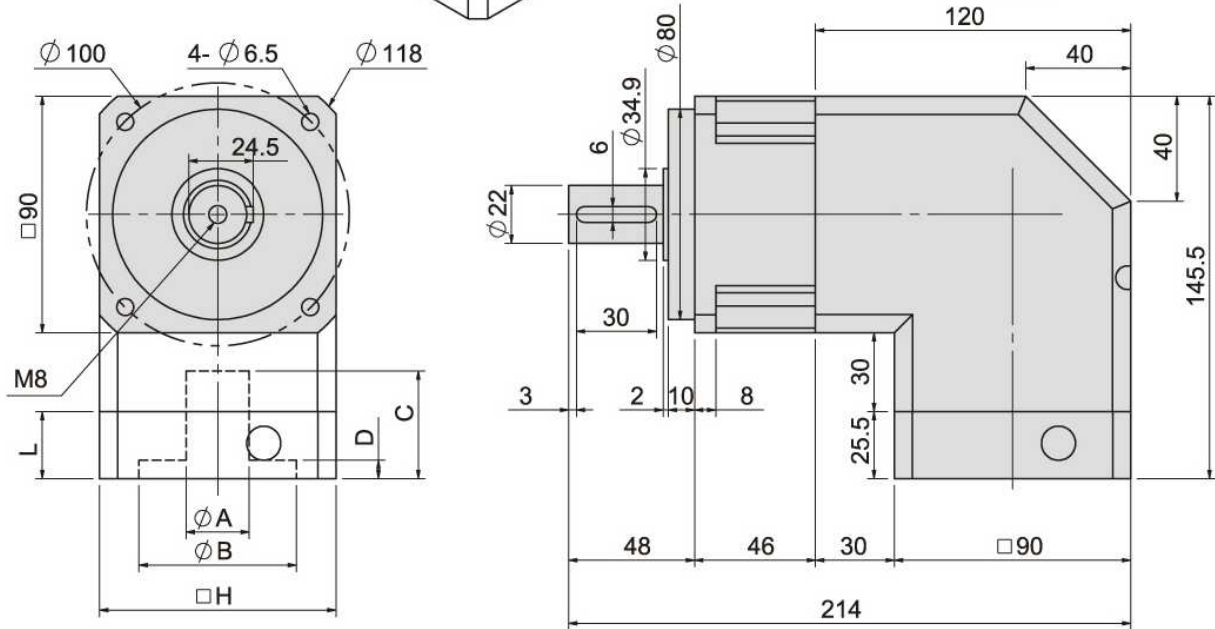
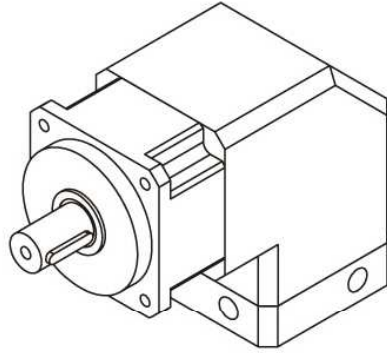
減速比 Gear Ratio

連接板 Bracket

雙節式 Double Stage : 12,15,16,18,20,21,24,25, 27,28,30,32,35,36,40,42, 45,48,49,50,54,56,60,63, 64,70,72,80,81,90,100	A	B	C	D	L	H
	≤24	50~110	25~60	4~10	24.5~47.5	90~130
	PCD∅E: ∅70~145			Bore Dia: M4~M10		

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	8.15	7.61	8.69	8.15	6.52	8.69	7.61	4.17

型號 TYPE NO **PGR 90**   
 外型 EXTERIOR **Single Stage Type**

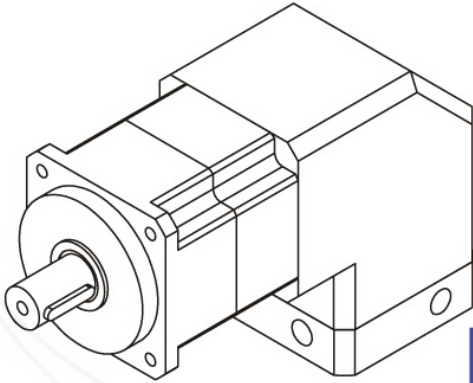


### 規格 SPECIFICATIONS

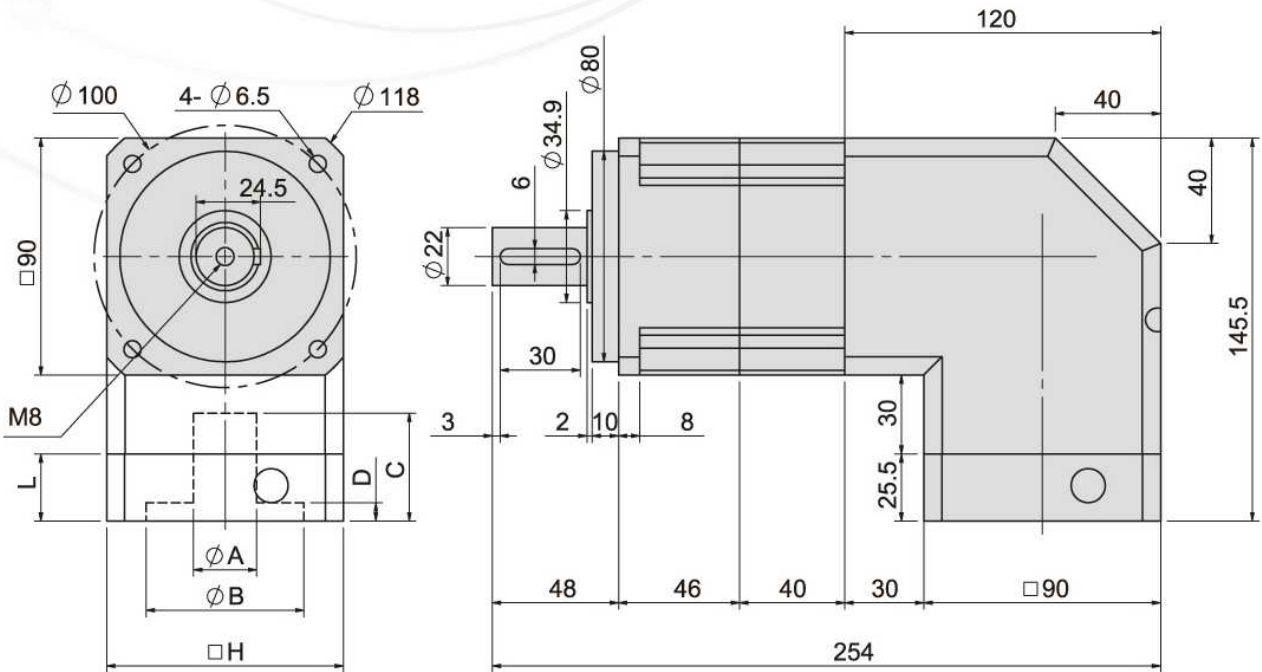
減速比Gear Ratio	連接板Bracket					
	A	B	C	D	L	H
單節式Single Stage : 3,4,5,6,7,8,9,10	≤24	50~110	28~57	4~10	25.5~47.5	90~130
	PCDøE: ø70~145			Bore Dia: M4~M10		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	9.71	7.61	8.69	8.15	7.61	6.52	5.43	4.17





型號 TYPE NO **PGR 90** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

減速比 Gear Ratio

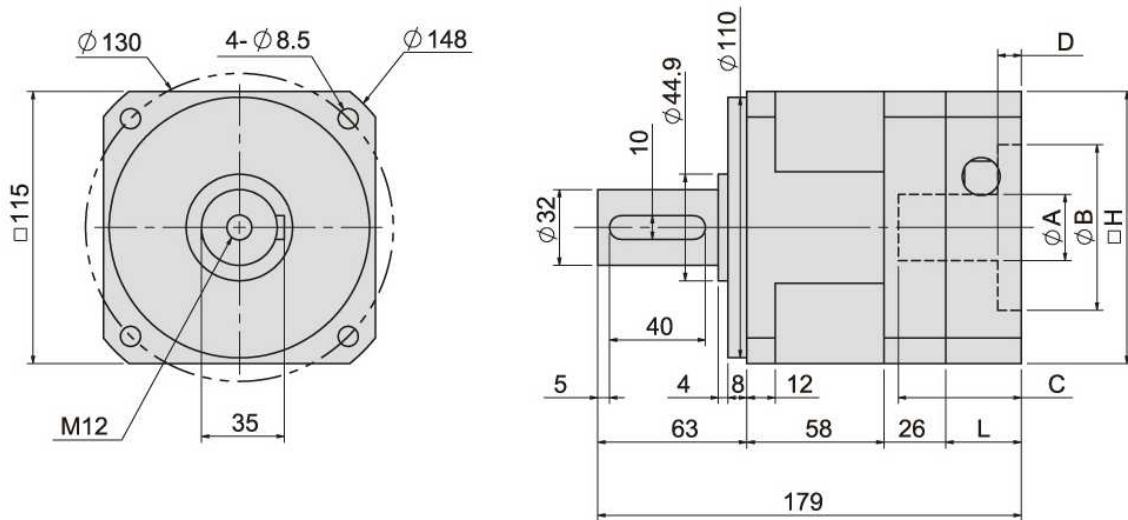
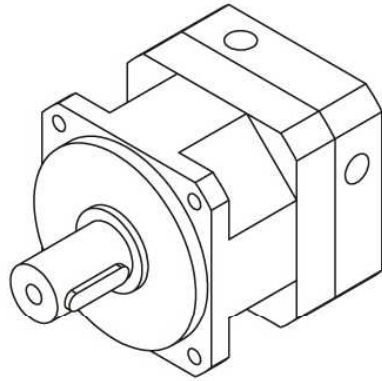
連接板 Bracket

雙節式 Double Stage :  
 12,15,16,18,20,21,24,25,  
 27,28,30,32,35,36,40,42,  
 45,48,49,50,54,56,60,63,  
 64,70,72,80,81,90,100

A	B	C	D	L	H
$\leq 24$	50~110	28~57	4~10	25.5~47.5	90~130
PCD $\phi$ E: $\phi 70 \sim 145$			Bore Dia: M4~M10		

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	8.15	7.61	8.69	8.15	6.52	8.69	7.61	4.17

型號 TYPE NO **PGL 115** ▶▶  
 外型 EXTERIOR **Single Stage Type**

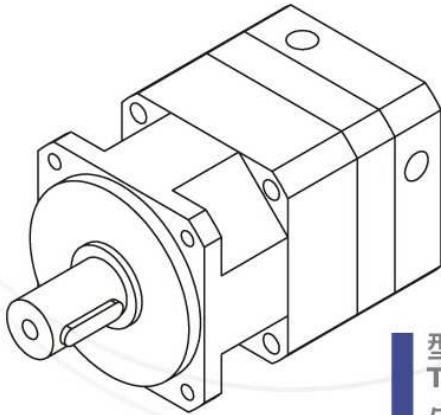


### 規格 SPECIFICATIONS

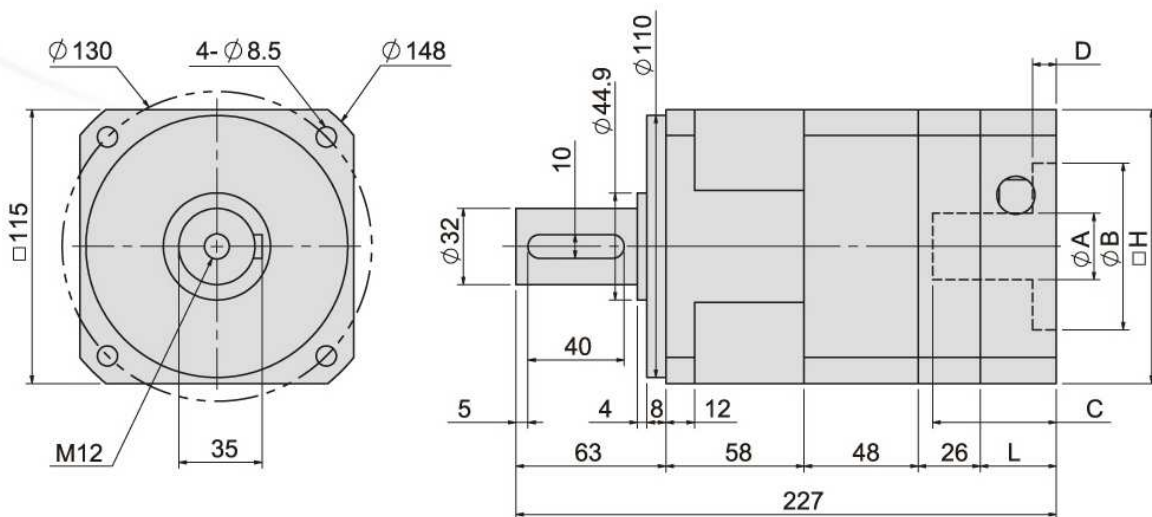
減速比Gear Ratio	連接板Bracket					
單節式Single Stage : 3,4,5,6,7,8,9,10	A	B	C	D	L	H
	≤28	60~110	30~80	4~10	32~55	115~130
	PCDøE: ø90~145			Bore Dia: M8~M10		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	28.91	25.41	28.91	27.14	22.31	20.66	17.79	17.79





型號 TYPE NO **PGL 115** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

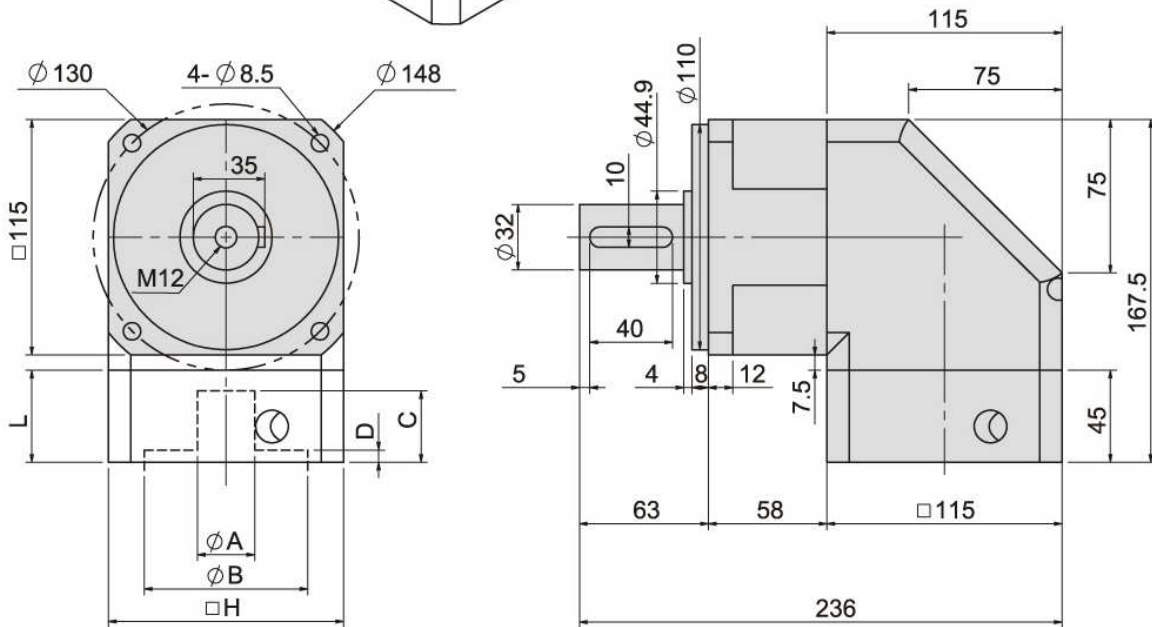
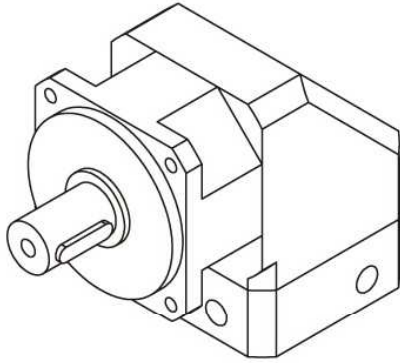
減速比 Gear Ratio

連接板 Bracket

雙節式 Double Stage : 12,15,16,18,20,21,24,25, 27,28,30,32,35,36,40,42, 45,48,49,50,54,56,60,63, 64,70,72,80,81,90,100	A	B	C	D	L	H
	≤ 28	60~110	30~80	4~10	32~55	115~130
	PCD∅E: ∅90~145			Bore Dia: M8~M10		

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	27.14	25.41	28.91	27.14	20.66	28.91	22.31	17.79

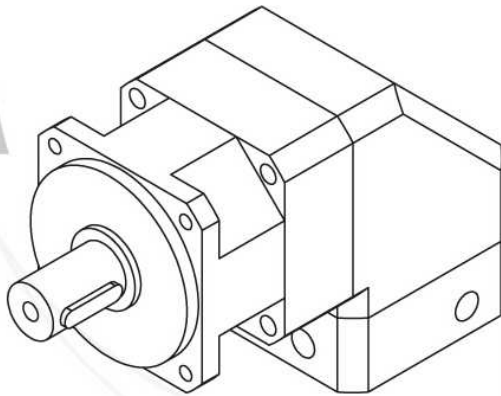
型號 TYPE NO **PGR 115** ▶▶  
 外型 EXTERIOR **Single Stage Type**



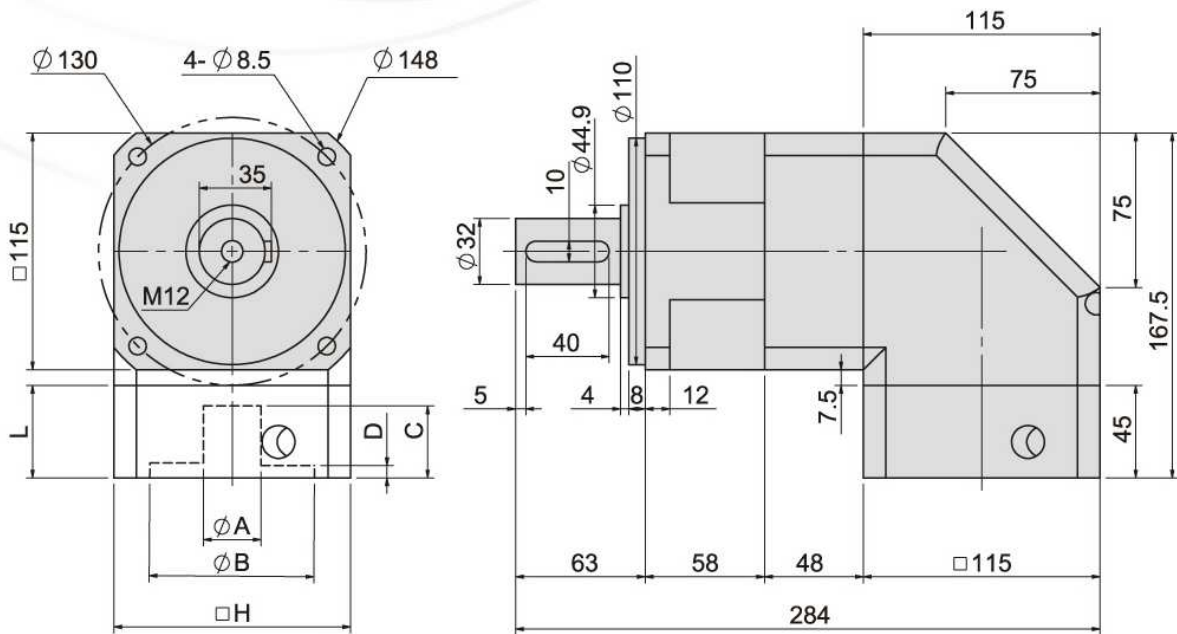
### 規格 SPECIFICATIONS

減速比Gear Ratio	連接板Bracket					
	A	B	C	D	L	H
單節式Single Stage : 3,4,5,6,7,8,9,10	≤28	60~110	30~60	4~10	45~55	115~130
	PCDøE: ø90~145			Bore Dia: M8~M10		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	28.91	25.41	28.91	27.14	22.31	20.66	17.79	17.79



型號 TYPE NO **PGR 115** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

減速比 Gear Ratio

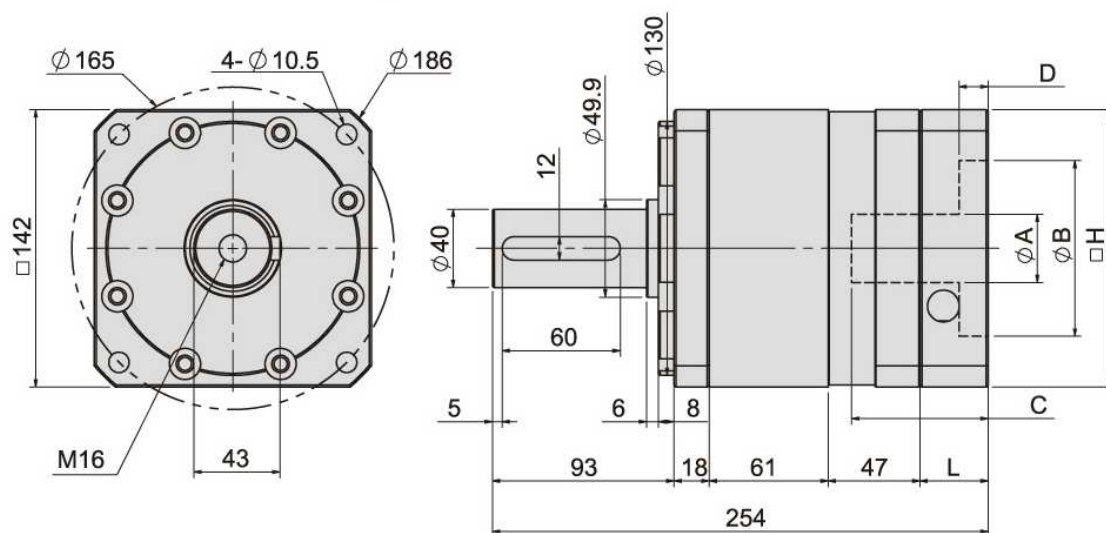
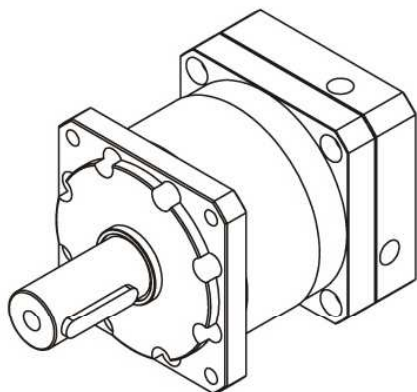
連接板 Bracket

雙節式 Double Stage : 12,15,16,18,20,21,24,25, 27,28,30,32,35,36,40,42, 45,48,49,50,54,56,60,63, 64,70,72,80,81,90,100	A	B	C	D	L	H
	$\leq 28$	60~110	30~60	4~10	45~55	115~130
	PCD $\phi$ E: $\phi 90 \sim 145$			Bore Dia: M8~M10		

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	27.14	25.41	28.91	27.14	20.66	28.91	22.31	17.79



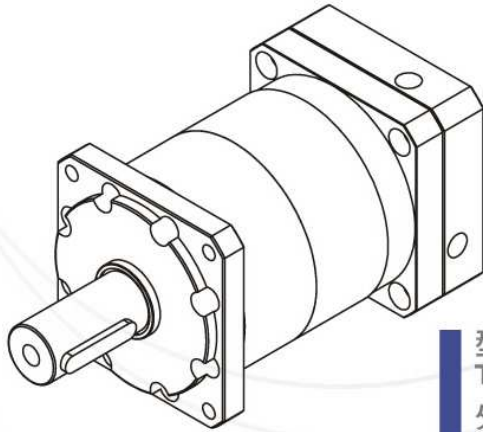
型號 TYPE NO **PGL 142** ▶▶  
 外型 EXTERIOR **Single Stage Type**



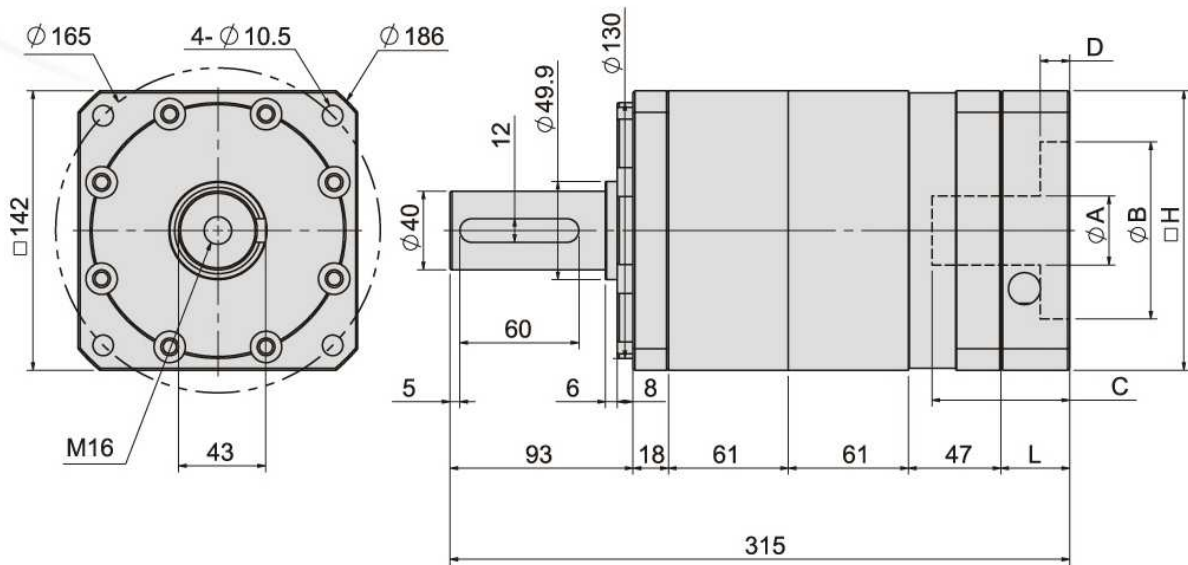
規格 SPECIFICATIONS

減速比Gear Ratio	連接板Bracket					
單節式Single Stage : 3,4,5,6,7,8,9,10	A	B	C	D	L	H
	≤ 35	95~180	40~79	4~10	35~53	142~200
	PCDøE: ø115~215			Bore Dia: M8~M13		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	43.37	38.12	43.37	40.71	33.47	30.99	26.69	26.69



型號 TYPE NO **PGL 142** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

減速比 Gear Ratio

連接板 Bracket

雙節式 Double Stage :  
 12, 15, 16, 18, 20, 21, 24, 25,  
 27, 28, 30, 32, 35, 36, 40, 42,  
 45, 48, 49, 50, 54, 56, 60, 63,  
 64, 70, 72, 80, 81, 90, 100

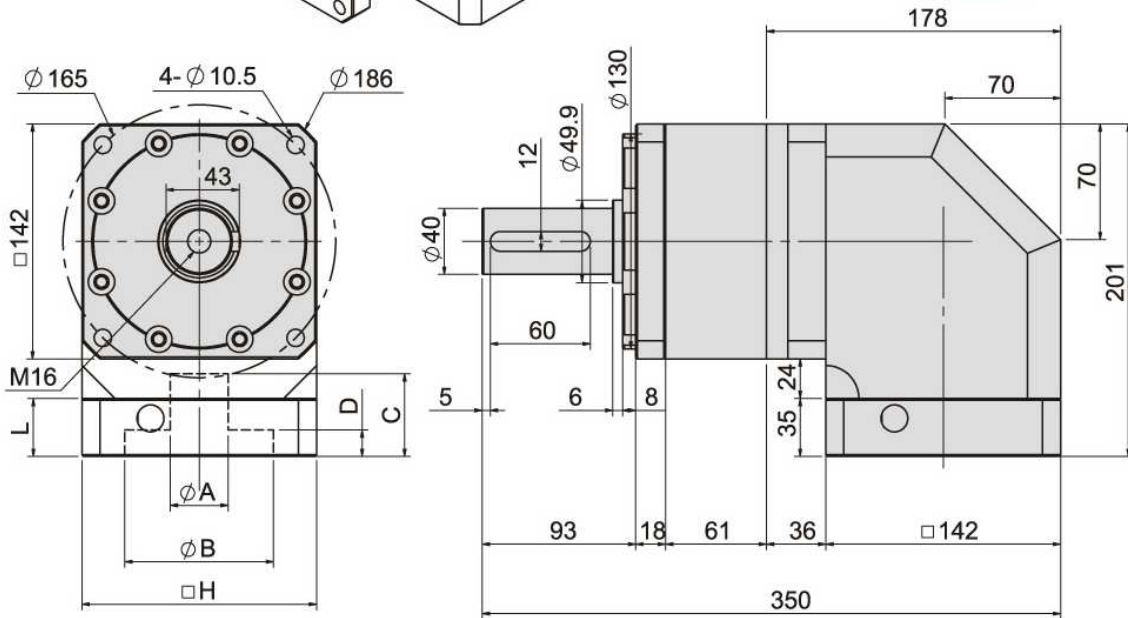
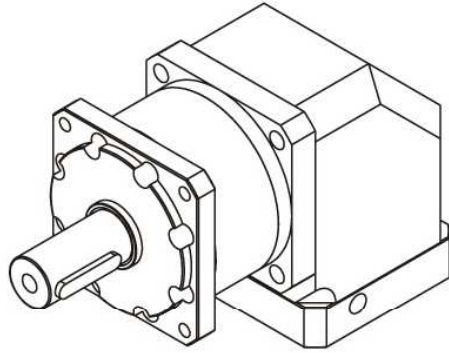
A	B	C	D	L	H
$\leq 35$	95~180	40~79	4~10	35~53	142~200

PCD $\phi$ E:  $\phi 115 \sim 215$

Bore Dia: M8~M13

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	40.71	38.12	43.63	40.71	30.99	43.66	33.47	26.69

型號 TYPE NO **PGR 142** ▶▶  
 外型 EXTERIOR **Single Stage Type**

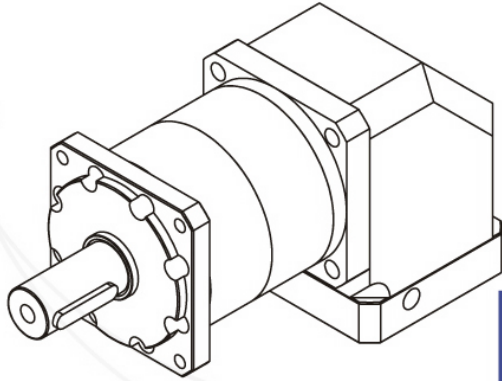


規格 SPECIFICATIONS

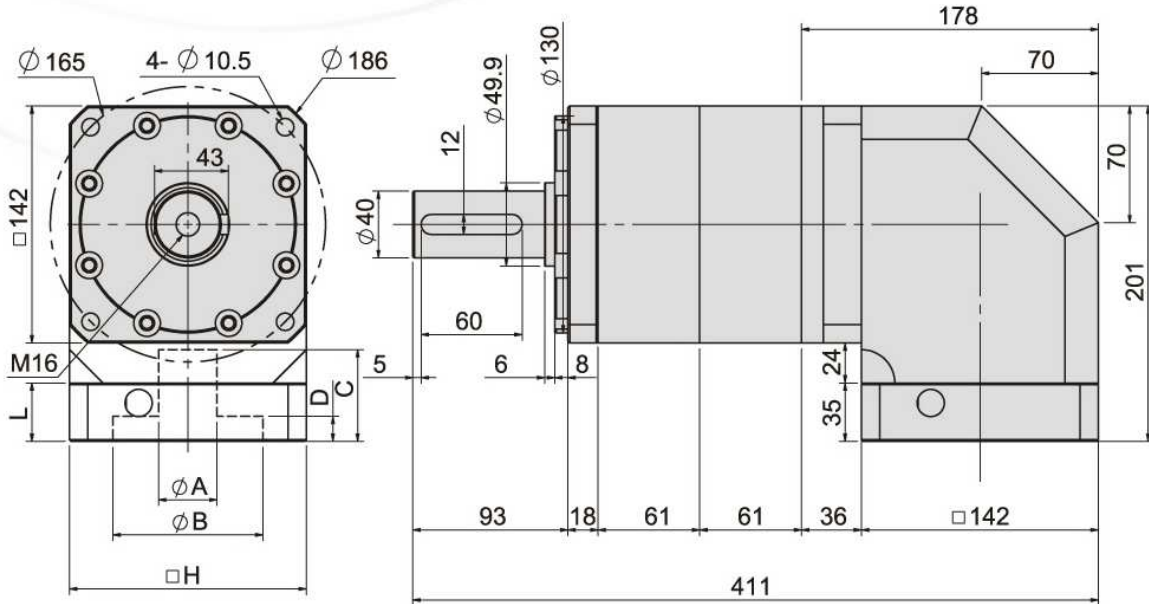
減速比Gear Ratio	連接板Bracket					
	A	B	C	D	L	H
單節式Single Stage : 3,4,5,6,7,8,9,10	$\leq 35$	95~180	40~79	4~10	35~53	142~200
	PCD $\phi$ E: $\phi 115\sim 215$			Bore Dia: M8~M13		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	43.37	38.12	43.37	40.71	33.47	30.99	26.69	26.69





型號 TYPE NO **PGR 142** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

減速比 Gear Ratio

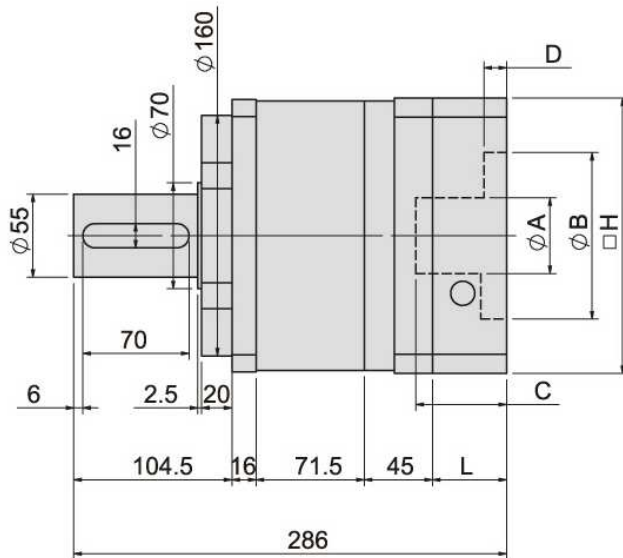
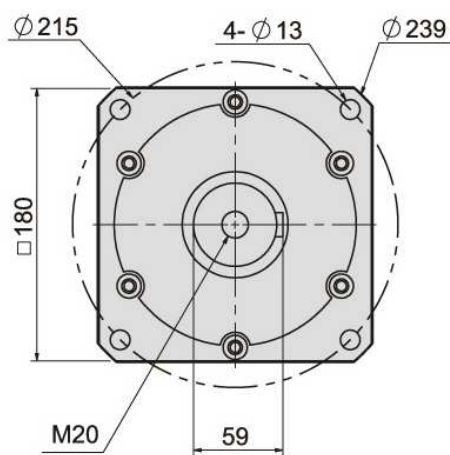
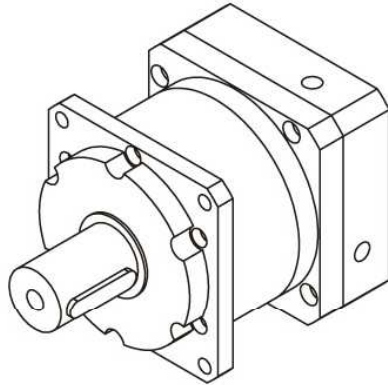
連接板 Bracket

雙節式 Double Stage :  
 12, 15, 16, 18, 20, 21, 24, 25,  
 27, 28, 30, 32, 35, 36, 40, 42,  
 45, 48, 49, 50, 54, 56, 60, 63,  
 64, 70, 72, 80, 81, 90, 100

A	B	C	D	L	H
$\leq 35$	95~180	40~79	4~10	35~53	142~200
PCD $\phi$ E: $\phi 115\sim 215$			Bore Dia: M8~M13		

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	40.71	38.12	43.63	40.71	30.99	43.66	33.47	26.69

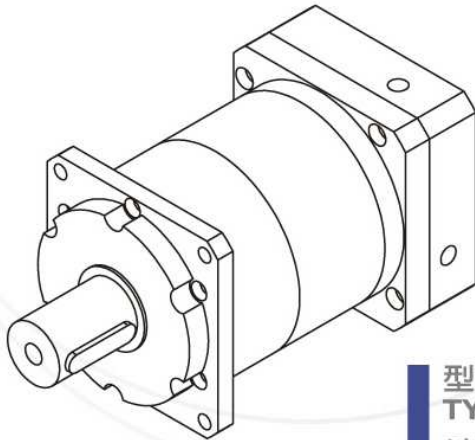
型號 TYPE NO **PGL 180** ▶▶  
 外型 EXTERIOR **Single Stage Type**



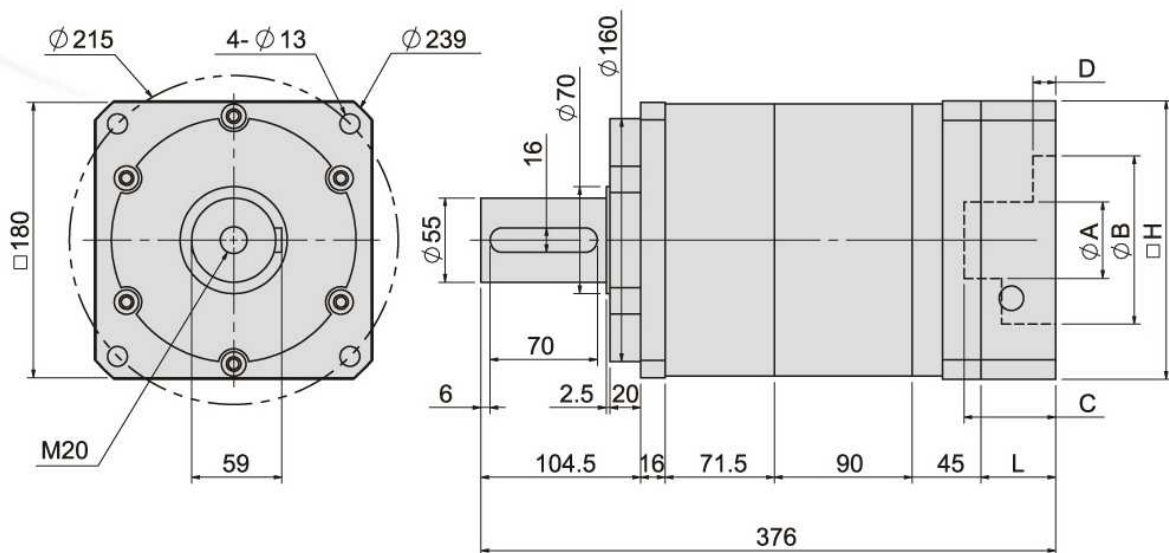
**規格 SPECIFICATIONS**

減速比Gear Ratio	連接板Bracket					
單節式Single Stage : 3,4,5,6,7,8,9,10	A	B	C	D	L	H
	≤ 50	110~200	35~118	4~10	42~85	180~220
	PCDøE: ø180~235			Bore Dia: M10~M13		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	117.4	107.62	117.4	107.62	107.62	77.84	77.92	77.84



型號 TYPE NO **PGL 180** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

減速比 Gear Ratio

連接板 Bracket

雙節式 Double Stage :  
 12,15,16,18,20,21,24,25,  
 27,28,30,32,35,36,40,42,  
 45,48,49,50,54,56,60,63,  
 64,70,72,80,81,90,100

A	B	C	D	L	H
≤ 50	110~220	35~118	4~10	42~85	180~220

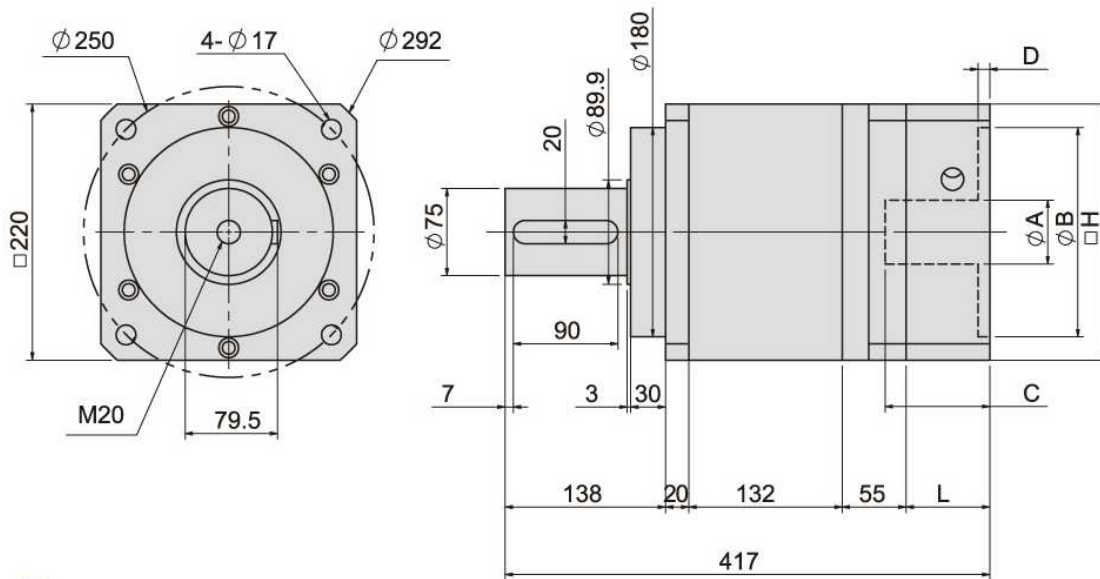
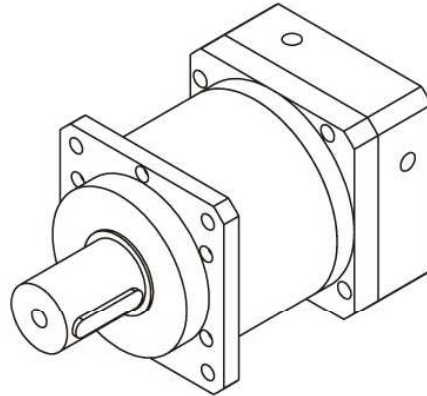
PCD $\phi$ E:  $\phi$ 180~235

Bore Dia: M10~M13

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	65.73	68.51	65.73	68.51	61.36	65.73	68.51	52.45



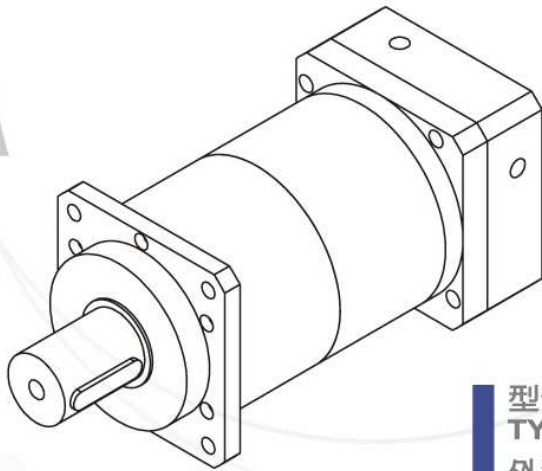
型號 TYPE NO **PGL 220** ▶▶  
 外型 EXTERIOR **Single Stage Type**



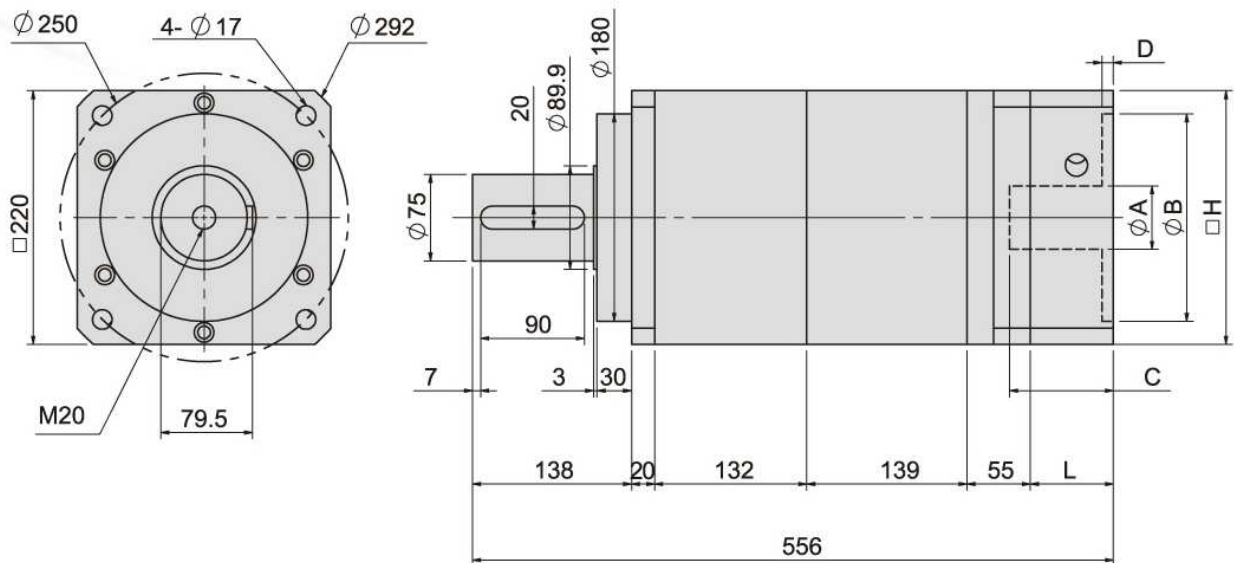
**規格 SPECIFICATIONS**

減速比Gear Ratio	連接板Bracket					
	A	B	C	D	L	H
單節式Single Stage : 3,4,5,6,7,8,9,10	≤55	180~200	60~120	4~10	72~90	220
	PCD $\phi$ E: $\phi$ 180~235			Bore Dia: M10~M13		

減速比Gear Ratio	3	4	5	6	7	8	9	10
額定輸出力矩 Nominal Output Torque Kg/m	170.4	160.62	170.4	160.62	160.62	120.84	120.92	120.84



型號 TYPE NO **PGL 220** ▶▶  
 外型 EXTERIOR **Double Stage Type**



### 規格 SPECIFICATIONS

減速比 Gear Ratio

連接板 Bracket

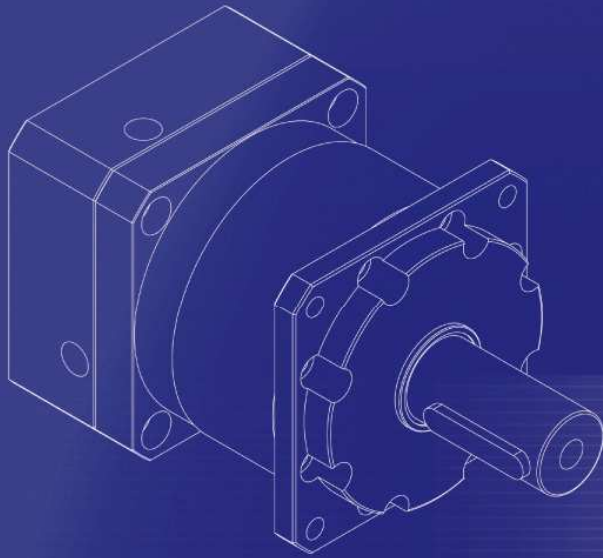
雙節式 Double Stage :  
 12, 15, 16, 18, 20, 21, 24, 25,  
 27, 28, 30, 32, 35, 36, 40, 42,  
 45, 48, 49, 50, 54, 56, 60, 63,  
 64, 70, 72, 80, 81, 90, 100

A	B	C	D	L	H
≤ 55	180~220	60~120	4~10	72~90	220

PCD $\phi$ E:  $\phi$ 180~235

Bore Dia: M10~M13

減速比 Gear Ratio	15	20	25	30	40	50	70	100
額定輸出力矩 Nominal Output Torque Kg/m	118.73	121.51	118.73	121.51	114.36	118.73	121.51	105.45



## SESAME MOTOR CORP.

○ 台灣總公司 / HEADQUARTERS

台中縣大雅鄉民生路四段333巷66號  
No. 33, Lane 66, Sec. 4, Minsheng Rd.  
Taya Town, Taichung County 428, Taiwan

- TEL:886-4-2568-0400 FAX:886-4-2565-2503
- E-mail:info@sesamemotor.com.tw
- <http://www.sesamemotor.com.tw>

經銷商 / AGENT