



成大精機工業股份有限公司
CHENTA GEAR SPEED REDUCER
CHENTA PRECISION MACHINERY IND. INC.
JEN WU MACHINERY CO., LTD.

總公司

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ALUMINUM HOUSING/
HOLLOW OUTPUT PEDUCERS/
WORM GEAR

成大鋁殼中空軸蝸輪減速機



鋁合金外殼和義大利型式相容
COMPARABLE TO ITALIAN MODEL



公司介紹 COMPANY PROFILE

1. 1960年本公司董事長陳茂正先生創設“成大機械廠”於高雄市自強二路，工廠取名“成大”乃本於其對母校成功大學機械系在機械專業知識教育養成之感恩及飲水思源之情。

2. 成大機器廠成立後，專門從事汽車船舶引擎曲軸之研磨再生，汽缸搪缸及柴油引擎校正等機械加工工程，當時為南台灣之翹楚，由於技術精良服務親切，開業後旋即聞名遐邇，生意蓬勃。

3. 1971年本於公司發展應有自主性產品，才能永續經營遂與日本減速機製造廠技術合作，開始生產製造自有品牌之成大齒輪減速機，發展至今，公司員工近90名，產品以自有之CHENTA品牌行銷全球。主要市場為台灣、亞洲、北美洲及中東，至今已執台灣業界之牛耳。並在海外設立美國分公司及中國上海分公司。

4. 建廠以來，本公司即本著“結合一流人才，研發製造高品質的產品”為信念。產品政策以“品質保證”“交貨準確”“價格競爭”“生產合理”及“行銷國際”為追求目標。

5. 累積40多年之機械製造經驗及誠信經營精神，本公司已自然形成一種優良的公司文化，此精神文化乃是公司最寶貴之資源，表諸文字即是“新”“實”“勤”“效”，乃創新、信實、勤快、效益，之意也。

6. 全體員工受此公司文化之薰陶，工作勤奮盡忠職守。在良好工作環境下，協力合作積極創新。使公司持續穩定發展，營造共同效益。

7. 本公司將在現有資源文化基礎上，繼續秉持敬業精神，以客戶至上的服務態度，精益求精，生產高品質具競爭價位之齒輪減速機回饋國內外客戶，與客戶攜手成長，以臻永續經營之目標。

公司概要

公司名稱：成大精機工業股份有限公司
CHNTA PRECISION MACHINERY IND. INC.

成立：民國60年（1971年）

職工人數：90名

廠房面積：仁武廠7000m²

上海廠6800m²



IN 1960, Mr. Mao Cheng Chen, president of the company, and two other colleagues in the department of Mechanical Engineering of the Tainan Engineering College (predecessor of Cheng Kung University) established a company called "Chen Ta Machinery Works". It was named "Chen Ta" in remembrance of, and also giving acknowledgement to, their alma mater, Cheng Kung University (called Chen Ta in short) from where Mr. Chen and his colleagues had received their specialized mechanical education.

2. Chen Ta Machinery Works specialized in machining jobs such as grinding/re-building of the crankshafts of automobile and vessel engines, cylinder overhaul, and diesel engine adjustment. Back then, she was the best of her field in southern Taiwan. Due to the excellent technique and the cordial service, the company name was soon well known and the business became prosperous.

29 In 1971, to support a long-term operation, the company needed her own products, so the technique cooperation between CHENTA and Japan reducer manufacturer began. From then on, CHENTA started manufacturing her own brand, "CHENTA GEAR REDUCERS". Now the company has about 90 employees, and her products have been marketing to the world under the name of "CHENTA". The major markets are in Taiwan, Asia, and North America. In Taiwan, she remains at the top of the field and also established branch offices in America and in Shanghai (in China).

4. Since the beginning of the company, our conviction is to "Gather excellent human resource, and research and manufacture high quality products". Our product policy is targeting at "Guaranteed Quality", "On Time Delivery", "Competitive Prices", "Rational Production", and "International Marketing".

5. With more than 40 years of experience in mechanical manufacturing and honest operation, a fine culture has naturally grown inside the cooperation. This spirit is the most precious resource of our company. The motto of our company is based on "INNOVATION", "HONESTY", "DILIGENCE", and "EFFICIENCY".

6. Influenced gradually under such fine culture, all employees in CHENTA work hard and take responsibility. They cooperate with each other and innovate actively. With their efforts, CHENTA keep developing and growing up to fight for the mutual benefit.

7 To reach our long term operation goal, based on the company's existing cultural resources, we will: have high expertise in the field; serve our customers with respect; constantly improve ourselves; manufacture high quality and affordable speed reducers for customers throughout the world, all so that we can grow together with our customers.

COMPANY PROFILE

Company Name: CHNTA PRECISION MACHINERY IND. INC.

Established: 1971

Employee: 90 persons

Plant Sizes: Jen Wu Plant 7000m²

Shanghai Plant 6800m²



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Process & Measure 加工及量測

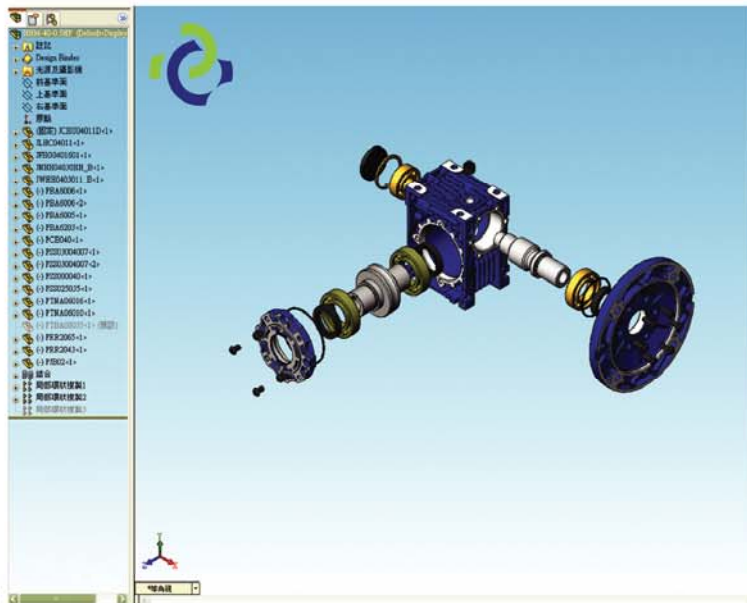


電腦輔助設計

Computer-Aided Design

本公司除了原有的標準2D繪圖軟體進行設計工作，也導入了3D機械設計軟體。完整的3D能表現接近實際的外型，使客戶能了解產品的整體架構，進行更深入的討論修改時，能與客戶在溝通上更無障礙。在交期上，更能大大縮短設計、工程圖、設計修改的時間，以最短時間供應，協助客戶提升市場競爭力。另外，許多客戶也已經採用3D軟體進行機械設備的設計，使得市面上對3D的需求性日益提高。未來，3D運用會更加廣泛。

Besides standard 2D CAD drawing software, we also lead in 3D Mechanical design software to design our products. Complete 3D drawing simulates to the real-world condition to make customers get the whole structure of the product. For further discussion and amendment, it makes communicate more easily. As for delivery, it shortens the time for design, CAD drawing and amending. It helps get products to market fast; in the mean while, promote the competition on market. Furthermore, many customers also use 3D software for mechanical design and it makes the need for 3D become more and more. In the future, the use for 3D is becoming general.



鋁殼中空軸減速機 產品特性說明

Features

產品特色 |

本體表面粉體烤漆處理美觀不生銹，外型安裝尺寸與義大利型式相容。

特點有：

- 1) 採用鋁合金外殼材質輕
- 2) 小巧結構設計節省安裝空間
- 3) 高精度
- 4) 可正逆傳動運轉
- 5) 傳動平穩低噪音
- 6) 多種附件可供選擇且安裝容易
- 7) 減重設計可直接加掛於設備上而不致增加設備負擔
- 8) 散熱面積加大設計，使機器更耐用
- 9) 全方位安裝設計，適用於各種方向配置
- 10) 採用高強度中空輸出軸，比一般鑄鐵承載力更高
- 11) 蝸桿採用鉻鉬合金鋼，經滲碳熱處理後，牙部研磨，強度大幅提高。

Features/

Power coating on housing prevents from rusting.

The mounting dimension is compatible with Italian gearboxes.

- 1) Aluminum alloy die-cast gearbox.
- 2) Compact structure saves mounting space.
- 3) Highly accurate.
- 4) Runs forward and backward.
- 5) Stable transmission with reduced vibration and noise.
- 6) With various accessories to choose and easily install.
- 7) Light-duty design, can install right upon the equipment.
- 8) Enlarge facial area, make it easy to radiate heat and promote durability.
- 9) Universal installation design, suitable for all installation.
- 10) High strength Hollow Output Shaft, bear highly than cast iron reducer.
- 11) Input Shaft made of Cr-Mo Alloy Steel, under carburized heat treatment, it heighten the strength extremely.



鋁殼中空軸之型號編碼說明

Numbering Configuration of Aluminum Hollow Shaft

H H M 030 010

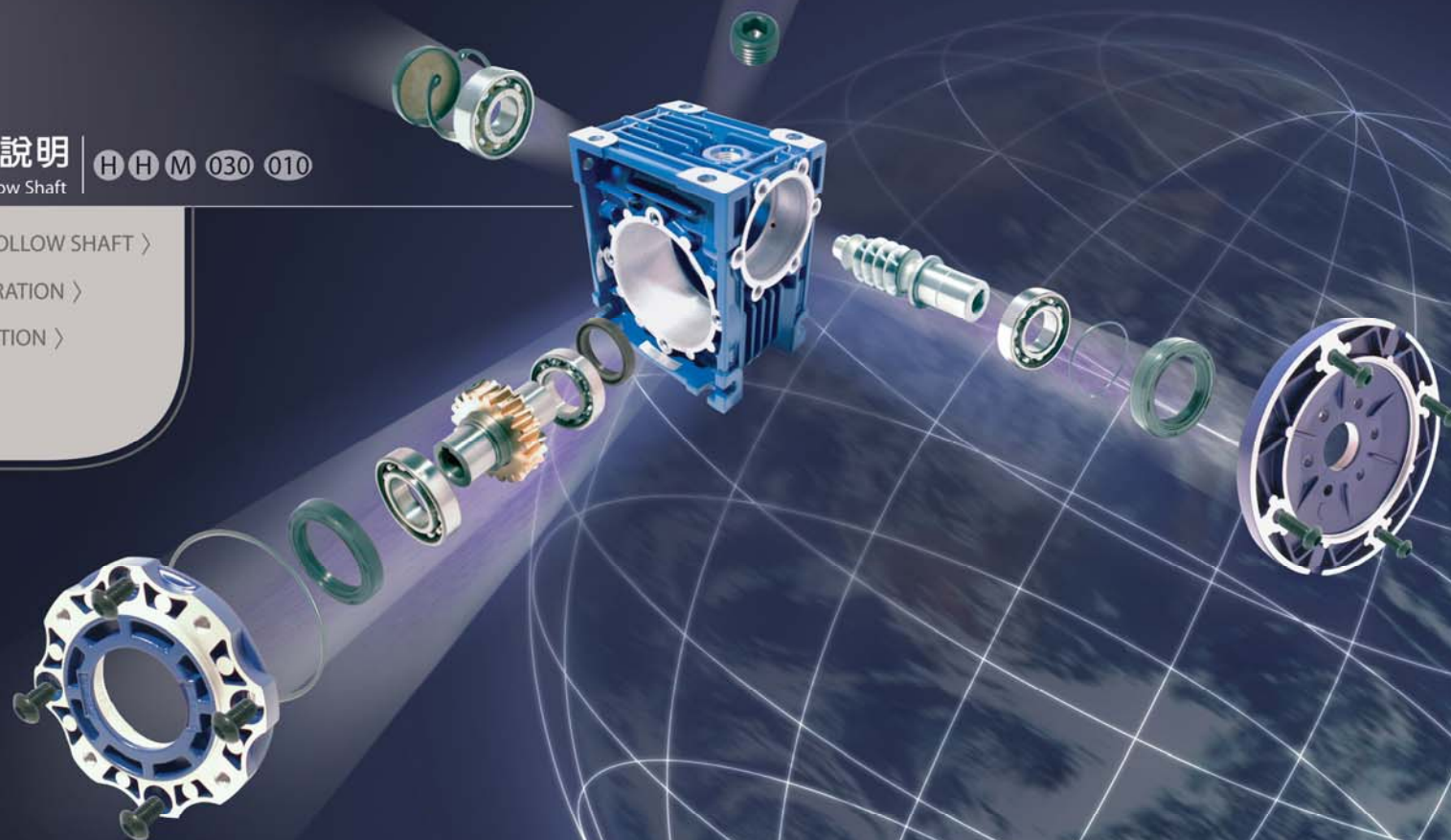
H : 鋁合金中空軸 | ALUMINUM HOLLOW SHAFT >

H : 出力型式 | OUTPUT CONFIGURATION >

M : 入力型式 | INPUT CONFIGURATION >

030 : 型號 | SIZE >

010 : 速比 | GEAR RATIO >



制式機種衍伸配件說明 Extension

	HHM	p.16	HHM原型機種 HHM Original Model		選配組件 Accessories A、B
	HMM	p.17	出力法蘭+HHM原型機種 HHM Original Model+Mounting Flange=HMM		選配組件 Accessories A
	HSM	p.18	單雙出力軸+HHM原型機種 HHM Original Model+(Single) Double Output Shaft=HSM		選配組件 Accessories B
	HHS	p.19	HHS原型機種 HHS Original Model		選配組件 Accessories A、B
	HMS	p.20	出力法蘭+HHS原型機種 HHS Original Model+Mounting Flange=HMS		選配組件 Accessories A
	HSS	p.21	單雙出力軸+HHS原型機種 HHS Original Model+Mounting Flange=HMS		選配組件 Accessories B
	HHF	p.22	附裝微型馬達 HHF with Small Motor		選配組件 Accessories A、B
	HHG	p.23	附裝微型齒輪馬達 HHG with Small Gear motor		選配組件 Accessories A、B

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制式機種可另行選擇
配件組 Accessories



單雙出力軸
(Single) Double Output Shaft



扭力臂 Torque Arm

HHS 配件衍生機型 (HHS+扭力臂 Torque Arm、HMS、HHS)



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鋁殼中空軸減速機編碼說明 Numbering System

H H M 030 010

速比 | GEAR RATIO >

1/10, 1/15, 1/20, 1/25, 1/30, 1/40, 1/50, 1/60, 1/80

型號 | SIZE >

030, 040, 050, 063, 075, 090

(THE CENTER DISTANCE BETWEEN INPUT AND OUTPUT SHAFTS)

入力型式 | INPUT CONFIGURATION >

M: 入力法蘭 (MOTOR FLANGE)

S: 實心入力軸 (SOLID INPUT SHAFT)

F: 配微型馬達 (ASSEMBLE WITH SMALL MOTOR UNDER 90W)

G: 配微型齒輪減速馬達 (ASSEMBLE WITH SMALL GEAR MOTOR)

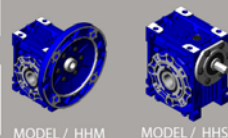
出力型式 | OUTPUT CONFIGURATION >

H: 中空出力 (HOLLOW OUTPUT)

M: 出力法蘭 (MOUNTING FLANGE / OUTPUT FLANGE)

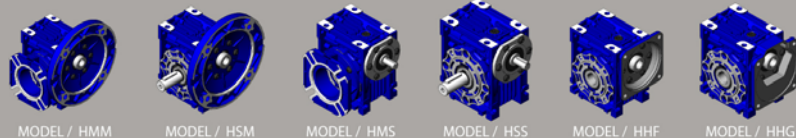
減速機型式 | TYPE OF GEAR REDUCER >

H: 鋁合金中空軸 (ALUMINUM HOLLOW SHAFT)



MODEL / HHM

MODEL / HHS



MODEL / HHM

MODEL / HSM

MODEL / HMS

MODEL / HSS

MODEL / HHF

MODEL / HHG

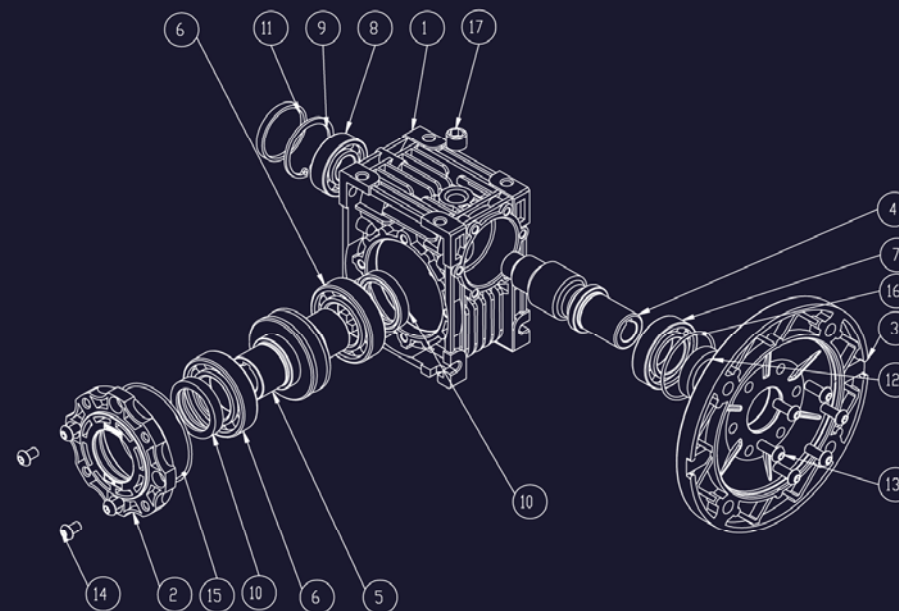
備註: 1. 本系列鋁殼中空軸蝸輪減速機, 其外型安裝尺寸和義大利型式相容

2. 本系列減速機, 除SIZE 30型內加高效能油脂外, 其餘型號(SIZE)均加SHC-634合成機油

REMARKS: 1. THE MOUNTING DIMENSION IS COMPATIBLE WITH ITALIAN GEARBOXES.

2. FULL SERIES SUPPLIED WITH SYNTHETIC GEAR OIL EXCEPT SIZE 30 WHICH IS SUPPLIED WITH HIGH EFFICIENCY GEARSE.

零件分解圖 Basic Structure

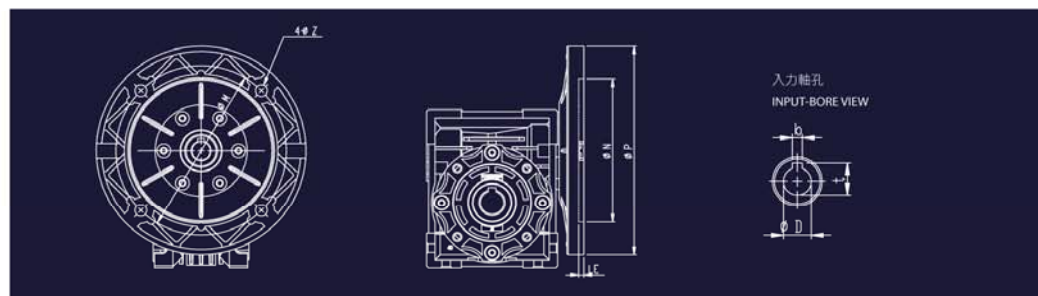


編號 ITEM	名 稱 PARTS NAME	數量 QTY	編號 ITEM	名 稱 PARTS NAME	數量 QTY	編號 ITEM	名 稱 PARTS NAME	數量 QTY
1	本體 Housing	1pc	7	軸承 Bearing	1pc	13	螺絲 Bolt	6pcs
2	出力蓋 Cover	1 pc	8	軸承 Bearing	1pc	14	螺絲 Bolt	4pcs
3	法蘭 Flange	1pc	9	扣環 SnapRing	1pc	15	O型環 O-Ring	1pc
4	入力軸 InputShaft	1pc	10	油封 Oil Seal	2pcs	16	O型環 O-Ring	1pc
5	蝸輪 Worm Wheel	1pc	11	油封 OilSeal	1pc	17	塞頭 Plug	1pc
6	軸承 Bearing	2pcs	12	油封 Oil Seal	1pc			

●材質說明 Material Glance

- 本體 HOUSING、蓋類 COVERS/ 鋁壓鑄 ADC-12 | Aluminum diecasting
- 蝸輪 GEAR WHEEL/ 鋁青銅 ALBC3 | Aluminum bronce
- 蝸輪受 HUB/ 球墨鑄鐵 FCD-45 | Ductile castiron
- 蝸桿 INPUT SHAFT/ 鉻鉬合金鋼 SCM415 | Cr-Mo Alloy steel
- 配件: 出力軸 OUTPUT SHAFT/ 中碳鋼 S45C | Carbon steel

各型號可搭配之馬達框號規格及可供應之速比
Available motor frames and ratios



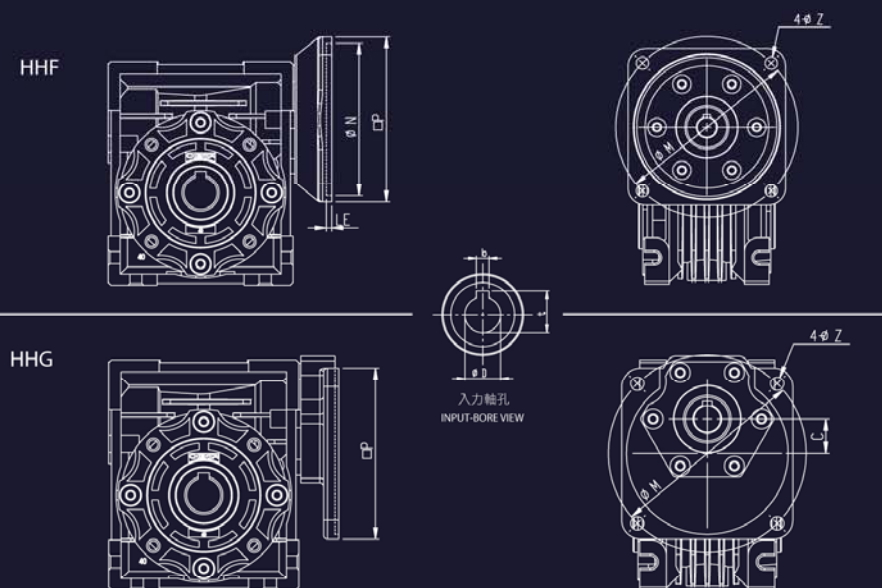
型號	SIZE	馬達框號 MOTOR FRAME IEC	入力法蘭 FLANGE					入力孔 Input Bore			速比 Ratio									
			N	M	P	Z	LE	D	t	b	10	15	20	25	30	40	50	60	80	
30	1/8HP	56B5	80	100	120	7	4	9	10.4	3	●	●	●	●	●	●	●	●	●	
	1/8HP	56B14	50	65	80	6	3	9	10.4	3										
	1/4HP	63B5	95	115	140*	9	4	11	12.8	4	●	●	●	●	●	●	●	●	●	
	1/4HP	63B14	60	75	90	6	3	11	12.8	4										
40	1/4HP	63B5	95	115	140*	9	4	11	12.8	4	●	●	●	●	●	●	●	●	●	
	1/4HP	63B14	60	75	90	6	3	11	12.8	4										
	1/2HP	71B5	110	130	160	9	4	14	16.3	5	●	●	●	●	●	●				
	1/2HP	71B14	70	85	105	7	3	14	16.3	5										
50	1/4HP	63B5	95	115	140	9	4	11	12.8	4						●	●	●	●	
	1/2HP	71B5	110	130	160	9	4	14	12.8	5	●	●	●	●	●	●	●	●	●	
	1/2HP	71B14	70	85	105	7	3	14	16.3	5										
	1HP	80B5	130	165	200	11	4	19	21.8	6	●	●	●	●	●					
63	1HP	80B14	80	100	120	7	4	19	21.8	6										
	1/2HP	71B5	110	130	160	9	4	14	16.3	5						●	●	●	●	
	1/2HP	71B14	70	85	105	7	3	14	16.3	5										
	1HP	80B5	130	165	200	11	4	19	21.8	6	●	●	●	●	●	●	●	●		
75	1HP	80B14	80	100	120	7	4	19	21.8	6										
	2HP	90B5	130	165	200	11	4	24	27.3	8	●	●	●	●	●					
	2HP	90B14	95	115	140	8.5	4	24	27.3	8										
	3HP	100/112B5	180	215	250	14	5	28	31.3	8	●	●								
90	3HP	100/112B14	110	130	160	9	4	28	31.3	8										
	1HP	80B5	130	165	200	11	4	19	21.8	6							●	●	●	●
	1HP	80B14	80	100	120	7	4	19	21.8	6										
	2HP	90B5	130	165	200	11	4	24	27.3	8	●	●	●	●	●	●	●	●		
100	2HP	90B14	95	115	140	8.5	4	24	27.3	8										
	3HP	100/112B5	180	215	250	14	5	28	31.3	8	●	●	●	●	●					
	3HP	100/112B14	110	130	160	9	4	28	31.3	8										

Unit:mm

註：1. 表示可供應之速比 (Available ratios)

2. 選配馬達時，請注意法蘭尺寸 (Notice Flange Dimension)

HHF & HHG 可搭配之馬達框號規格及可供應之速比
HHF & HHG Available motor frames and ratios



型號 Size	馬達框號 MOTOR FRAME	入力法蘭 Flange					入力孔 Input Bore			速比 Ratio									
		N/C	M	P	Z	LE	D	t	b		10	15	20	25	30	40	50	60	80
30	HHF 25w 微型馬達 25w Small Motor	□80	73	94	□80	6	3	9x18L	10.5	3	●	●	●	●	●	●	●	●	●
	HHF 40~90w 微型馬達 40~90w Small Motor	□90	83	104	□90	7	3	11x20L	13	4	●	●	●	●	●	●	●	●	●
	HHG 25w 微型齒輪馬達 25w Small Gear Motor	□80	15	94	□80	6		9x18L	10.5	3	●	●	●	●	●	●	●	●	●
	HHG 40w 微型齒輪馬達 40w Small Gear Motor	□90	18	104	□90	7		11x20L	13	4	●	●	●	●	●	●	●	●	●
40	HHF 40~90w 微型馬達 40~90w Small Motor	□90	83	104	□90	7	3	11x20L	13	4	●	●	●	●	●	●	●	●	●
	HHG 40w 微型齒輪馬達 40w Small Gear Motor	□90	18	104	□90	7		11x20L	13	4	●	●	●	●	●	●	●	●	●
	HHG 60~90w 微型齒輪馬達 60~90w Small Gear Motor	□90	18	104	□90	7		14x27L	16.3	5	●	●	●	●	●	●	●	●	●

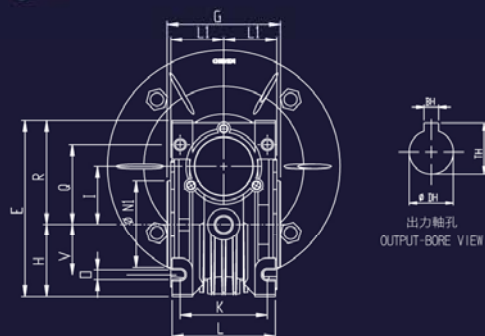
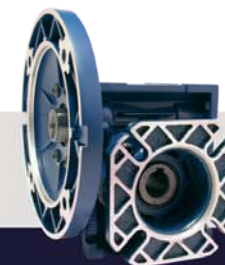
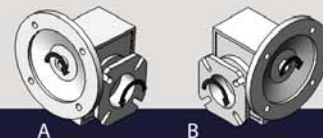
Unit:mm

註：● 表示可供應之速比 (Available ratios)

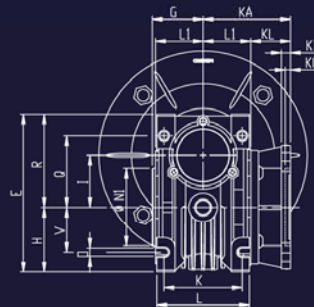
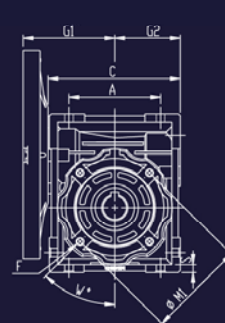
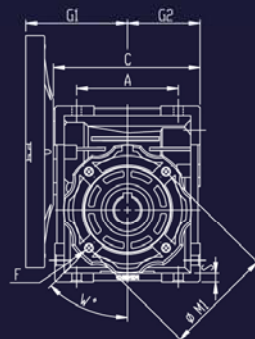


型號 MODEL / HHM 外型尺寸

軸向圖
Shaft Direction



出力軸孔
OUTPUT-BORE VIEW



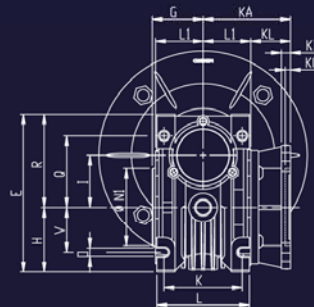
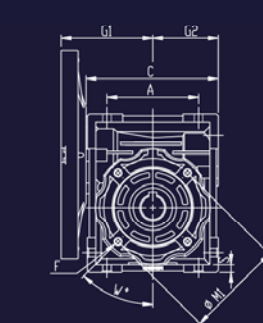
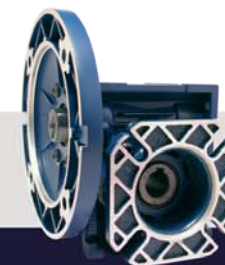
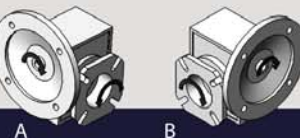
出力軸孔
OUTPUT-BORE VIEW

型號 SIZE	速比 RATIO	A	C	E	F	G	G1	G2	H	I	K	L	L1
30	1/10	54	81	97	4-M6*11	63	55	40	40	30	44	56	29
40	1/15	70	101	121.5	4-M6*8	78	70	50	50	40	60	71	36.5
50	1/20	80	121	144	4-M8*10	92	80	60	60	50	70	85	43.5
63	1/25	100	146	174	8-M8*14	112	101	72	72	63	85	103	53
75	1/30	120	174	205	8-M8*14	120	114.5	86	86	75	90	112	57
90	1/40	140	208	238	8-M10*18	140	131.5	103	103	90	100	130	67

型號 SIZE	速比 RATIO	M1	N1	O	Q	R	S	V	W	出力軸孔 Output Bore		
30	1/10	65	55	6.5	44	57	5.5	27	90°	DH	BH	TH
40	1/15	75	60	6.5	55	71.5	6	35	45°	18	6	20.8
50	1/20	85	70	8.5	64	84	7	40	45°	25	8	28.3
63	1/25	95	80	8.5	80	102	8	50	45°	25	8	28.3
75	1/30	115	95	11	93	119	8	60	45°	28	8	31.3
90	1/40	130	110	13	102	135	11	70	45°	35	10	38.3

註：入力軸參考 p.14
As for input bore dimension, please refer to p.14

型號 MODEL / HMM 外型尺寸



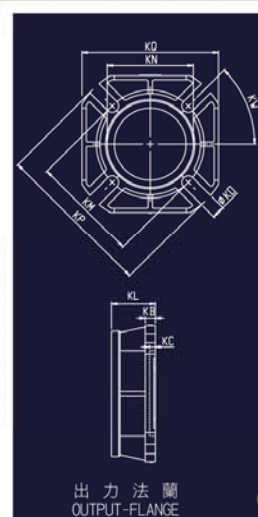
出力軸孔
OUTPUT-BORE VIEW

型號 SIZE	速比 RATIO	A	C	E	F	G	G1	G2	H	I	K	L	L1	M1	N1
30	1/10	54	81	97	4-M6*11	31.5	55	40	40	30	44	56	29	65	55
40	1/15	70	101	121.5	4-M6*8	39	70	50	50	40	60	71	36.5	75	60
50	1/20	80	121	144	4-M8*10	46	80	60	60	50	70	85	43.5	85	70
63	1/25	100	146	174	8-M8*14	56	101	72	72	63	85	103	53	95	80
75	1/30	120	174	205	8-M8*14	60	114.5	86	86	75	90	112	57	115	95
90	1/40	140	208	238	8-M10*18	70	131.5	103	103	90	100	130	67	130	110

型號 SIZE	速比 RATIO	O	Q	R	S	V	W	出力軸孔 Output Bore		
30	1/10	6.5	44	57	5.5	27	90°	DH	BH	TH
40	1/15	6.5	55	71.5	6	35	45°	18	6	20.8
50	1/20	8.5	64	84	7	40	45°	25	8	28.3
63	1/25	8.5	80	102	8	50	45°	25	8	28.3
75	1/30	11	93	119	8	60	45°	28	8	31.3
90	1/40	13	102	135	11	70	45°	35	10	38.3

型號 SIZE	速比 RATIO	出力法蘭 Output Flange									
30	1/10	KA	KB	KC	KL	KM	KN	KO	KP	KQ	KW
40	1/15	54.5	6	4	25.5	68	50	6.5	80	70	45°
50	1/20	67	7	4	30.5	75	60	9	110	95	45°
63	1/25	90	9	5	46.5	85	70	11	125	110	45°
75	1/30	98.5	10	6	45.5	150	115	11	180	142	45°
90	1/40	122	14	6	65	165	130	14	205	170	45°
	1/50	111	13	6	44	175	152	14	210	200	45°

註：入力軸參考 p.14
As for input bore dimension, please refer to p.14

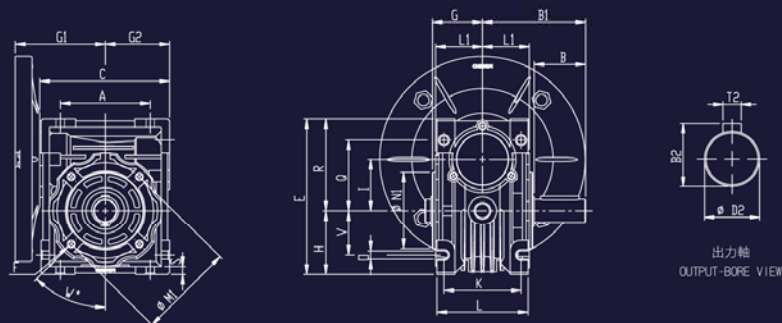
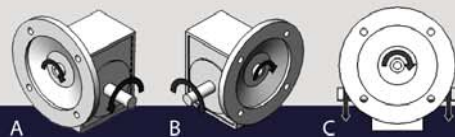


出力法蘭
OUTPUT-FLANGE



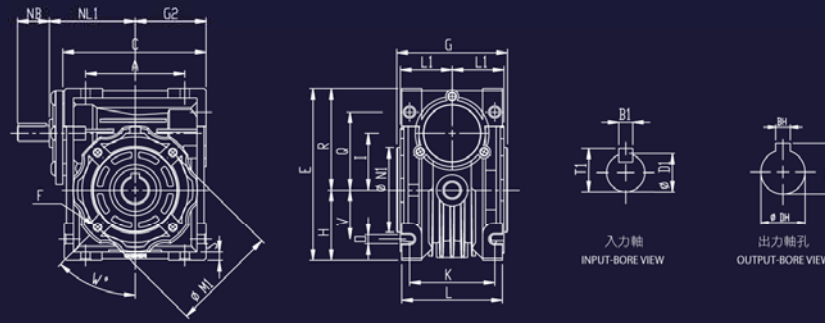
型號 MODEL / HSM 外型尺寸

軸向圖
Shaft Direction



出力軸
OUTPUT-BORE VIEW

型號 MODEL / HHS 外型尺寸



入力軸
INPUT-BORE VIEW

出力軸孔
OUTPUT-BORE VIEW

型號 SIZE	速比 RATIO	A	C	E	F	G	G1	G2	H	I	K	L	L1	M1
30	1/10	54	81	97	4-M6*11	31.5	55	40	40	30	44	56	29	65
40	1/15	70	101	121.5	4-M6*8	39	70	50	50	40	60	71	36.5	75
50	1/20	80	121	144	4-M8*10	46	80	60	60	50	70	85	43.5	85
63	1/25	100	146	174	8-M8*14	56	101	72	72	63	85	103	53	95
75	1/30	120	174	205	8-M8*14	60	114.5	86	86	75	90	112	57	115
90	1/40	140	208	238	8-M10*18	70	131.5	103	103	90	100	130	67	130

型號 SIZE	速比 RATIO	N1	O	Q	R	S	V	W	出力軸 Output Shaft				
									B1	B	D2	B2	T2
30	1/10	55	6.5	44	57	5.5	27	90°	62.5	30	14	5	16
40	1/15	60	6.5	55	71.5	6	35	45°	80.2	40	18	6	20.5
50	1/20	70	8.5	64	84	7	40	45°	97.2	50	25	8	28
63	1/25	80	8.5	80	102	8	50	45°	107.2	50	25	8	28
75	1/30	95	11	93	119	8	60	45°	121.6	60	28	8	31
90	1/40	110	13	102	135	11	70	45°	151.6	80	35	10	38

型號 SIZE	速比 RATIO	A	C	E	F	G	G2	H	I	K	L	L1	M1	N1	O
30	1/10	54	81	97	4-M6*11	63	40	40	30	44	56	29	65	55	6.5
40	1/15	70	101	121.5	4-M6*8	78	50	50	40	60	71	36.5	75	60	6.5
50	1/20	80	121	144	4-M8*10	92	60	60	50	70	85	43.5	85	70	8.5
63	1/25	100	146	174	8-M8*14	112	72	72	63	85	103	53	95	80	8.5
75	1/30	120	174	205	8-M8*14	120	86	86	75	90	112	57	115	95	11
90	1/40	140	208	238	8-M10*18	140	103	103	90	100	130	67	130	110	13

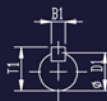
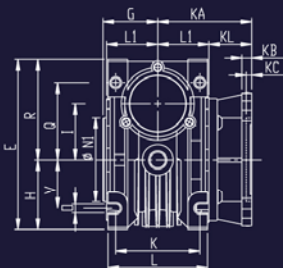
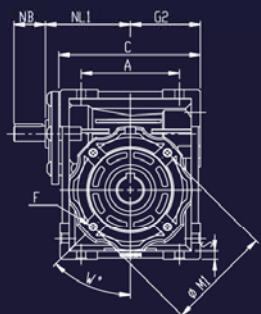
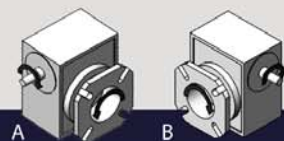
型號 SIZE	速比 RATIO	Q	R	S	V	W	出力軸孔 Output Bore			入力軸 Input Shaft				
							DH	BH	TH	NB	NL1	D1	B1	T1
30	1/10	44	57	5.5	27	90°	14	5	16.3	20	50	9	3	10.2
40	1/15	55	71.5	6	35	45°	18	6	20.8	22.5	60.5	11	4	12.5
50	1/20	64	84	7	40	45°	25	8	28.3	29.5	74.5	14	5	16
63	1/25	80	102	8	50	45°	25	8	28.3	40	90	19	6	21.5
75	1/30	93	119	8	60	45°	28	8	31.3	50	105	24	8	27
90	1/40	102	135	11	70	45°	35	10	38.3	50	125	24	8	27

註：入力軸參考 p.14
As for input bore dimension, please refer to p.14



型號 MODEL / HMS 外型尺寸

軸向圖
Shaft Direction

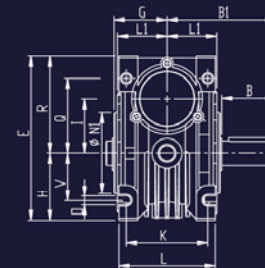
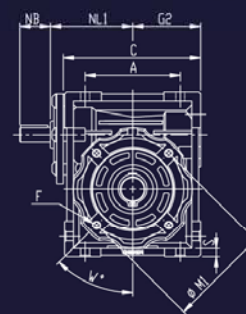
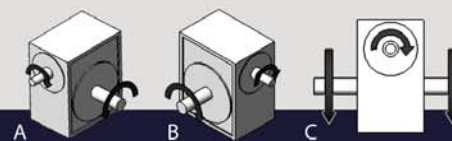


入力軸
INPUT-BORE VIEW

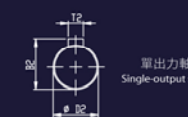


出力軸孔
OUTPUT-BORE VIEW

型號 MODEL / HSS 外型尺寸



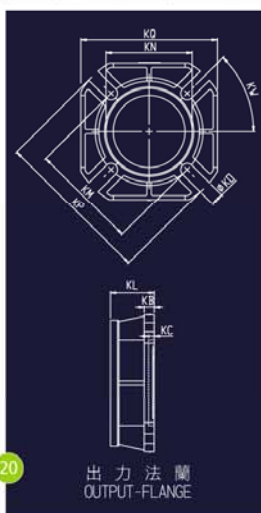
入力軸
Input shaft



單出力軸
Single-output shaft



型號 SIZE	速比 RATIO	A	C	E	F	G	G2	H	I	K	L	L1	M1	N1	O	Q
30	1/10	54	81	97	4-M6*11	31.5	40	40	30	44	56	29	65	55	6.5	44
40	1/15	70	101	121.5	4-M6*8	39	50	50	40	60	71	36.5	75	60	6.5	55
50	1/20	80	121	144	4-M8*10	46	60	60	50	70	85	43.5	85	70	8.5	64
63	1/25	100	146	174	8-M8*14	56	72	72	63	85	103	53	95	80	8.5	80
75	1/30	120	174	205	8-M8*14	60	86	86	75	90	112	57	115	95	11	93
90	1/40	140	208	238	8-M10*18	70	103	103	90	100	130	67	130	110	13	102



出力法蘭
OUTPUT-FLANGE

型號 SIZE	速比 RATIO	R	S	V	W	出力軸孔 Output Bore			入力軸 Input Shaft					
						DH	BH	TH	NB	NL1	D1	B1	T1	
30	1/10	57	5.5	27	90°	14	5	16.3	20	50	9	3	10.2	
40	1/15	71.5	6	35	45°	18	6	20.8	22.5	60.5	11	4	12.5	
50	1/20	84	7	40	45°	25	8	28.3	29.5	74.5	14	5	16	
63	1/25	102	8	50	45°	25	8	28.3	40	90	19	6	21.5	
75	1/30	119	8	60	45°	28	8	31.3	50	105	24	8	27	
90	1/40	135	11	70	45°	35	10	38.3	50	125	24	8	27	

型號 SIZE	速比 RATIO	入力法蘭 Output Flange							
		KA	KB	KC	KL	KM	KN	KO	KW
30	1/10	54.5	6	4	25.5	68	50	6.5	80
40	1/15	67	7	4	30.5	75	60	9	110
50	1/20	90	9	5	46.5	85	70	11	125
63	1/25	98.5	10	6	45.5	150	115	11	180
75	1/30	122	14	6	65	165	130	14	205
90	1/40	111	13	6	44	175	152	14	210

Unit:mm

型號 SIZE	速比 RATIO	A	C	E	F	G	G2	H	I	K	L	L1	M1	N1
30	1/10	54	81	97	4-M6*11	31.5	40	40	30	44	56	29	65	55
40	1/15	70	101	121.5	4-M6*8	39	50	50	40	60	71	36.5	75	60
50	1/20	80	121	144	4-M8*10	46	60	60	50	70	85	43.5	85	70
63	1/25	100	146	174	8-M8*14	56	72	72	63	85	103	53	95	80
75	1/30	120	174	205	8-M8*14	60	86	86	75	90	112	57	115	95
90	1/40	140	208	238	8-M10*18	70	103	103	90	100	130	67	130	110

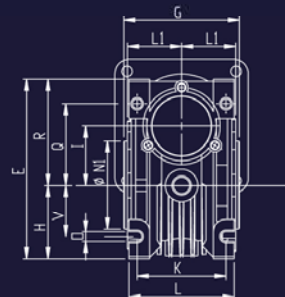
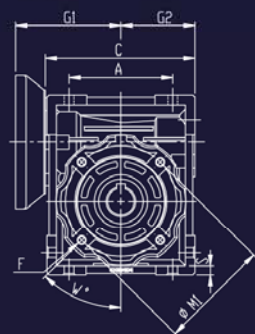
型號 SIZE	速比 RATIO	O	Q	R	S	V	W	出力軸 Output Shaft					入力軸 Input Shaft				
								B1	B	D2	B2	T2	NB	NL1	D1	B1	T1
30	1/10	6.5	44	57	5.5	27	90°	62.5	30	14	5	16	20	50	9	3	10.2
40	1/15	6.5	55	71.5	6	35	45°	80.2	40	18	6	20.5	22.5	60.5	11	4	12.5
50	1/20	8.5	64	84	7	40	45°	97.2	50	25	8	28	29.5	74.5	14	5	16
63	1/25	8.5	80	102	8	50	45°	107.2	50	25	8	28	40	90	19	6	21.5
75	1/30	11	93	119	8	60	45°	121.6	60	28	8	31	50	105	24	8	27
90	1/40	13	102	135	11	70	45°	151.6	80	35	10	38	50	125	24	8	27

型號 MODEL / HHF 外型尺寸

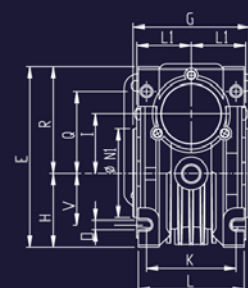
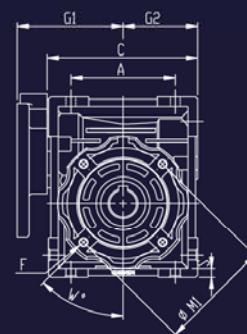
軸向圖
Shaft Direction



型號 MODEL / HHG 外型尺寸



出力軸孔
OUTPUT BORE VIEW



出力軸孔
OUTPUT BORE VIEW

型號 SIZE	速比 RATIO	A	C	E	F	G	G1	G2	H	I	K	L	L1
30	1/10 1/15 1/20 1/25 1/30 1/40 1/50 1/60 1/80	54	81	97	4-M6*11	63	55	40	40	30	44	56	29
40	1/10 1/15 1/20 1/25 1/30 1/40 1/50 1/60 1/80	70	101	121.5	4-M6*8	78	70	50	50	40	60	71	36.5

型號 SIZE	速比 RATIO	M1	N1	O	Q	R	S	V	W	出力軸孔 Output Bore		
										DH	BH	TH
30	1/10 1/15 1/20 1/25 1/30 1/40 1/50 1/60 1/80	65	55	6.5	44	57	5.5	27	90°	14	5	16.3
40	1/10 1/15 1/20 1/25 1/30 1/40 1/50 1/60 1/80	75	60	6.5	55	71.5	6	35	45°	18	6	20.8



型號 SIZE	速比 RATIO	A	C	E	F	G	G1	G2	H	I	K	L	L1
30	1/10 1/15 1/20 1/25 1/30 1/40 1/50 1/60 1/80	54	81	97	4-M6*11	63	55	40	40	30	44	56	29
40	1/10 1/15 1/20 1/25 1/30 1/40 1/50 1/60 1/80	70	101	121.5	4-M6*8	78	70	50	50	40	60	71	36.5

型號 SIZE	速比 RATIO	M1	N1	O	Q	R	S	V	W	出力軸孔 Output Bore		
										DH	BH	TH
30	1/10 1/15 1/20 1/25 1/30 1/40 1/50 1/60 1/80	65	55	6.5	44	57	5.5	27	90°	14	5	16.3
40	1/10 1/15 1/20 1/25 1/30 1/40 1/50 1/60 1/80	75	60	6.5	55	71.5	6	35	45°	18	6	20.8

註：1. 入力軸參考 p.15 / As for input bore dimension, please refer to p.15

2. 微型齒輪馬達減速比 / Ratio for Small Gear Motor : 3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36, 50, 60, 75, 90, 100, 120, 150, 180.

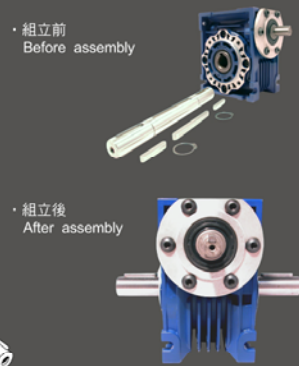
註：入力軸參考 p.15

As for input bore dimension, please refer to p.15

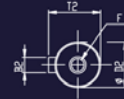
選用配件 Optional Accessories

安裝位置 Mounting Position

出力軸 Output Shaft



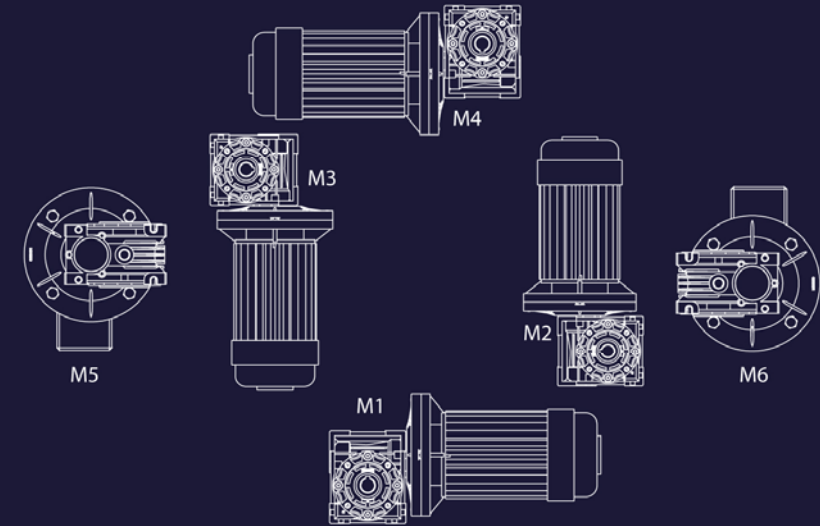
• 單出力軸 Single Output Shaft



• 雙出力軸 Double Output Shaft



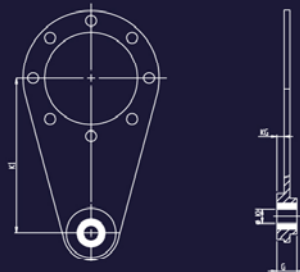
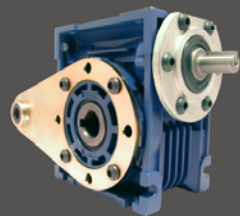
Size	D2	B2	T2	B	L1	L2	Unit:mm f
30	14	5	16	30	98	125	M6*10L
40	18	6	20.5	40	125	161	M6*10L
50	25	8	28	50	149	195	M10*15L
63	25	8	28	50	169	215	M10*15L
75	28	8	31	60	187	244	M10*15L
90	35	10	38	80	228	304	M12*17L



● 請注意：安裝位置M5及M6，軸承需要特殊的潤滑方式。請詢問本公司的服務人員

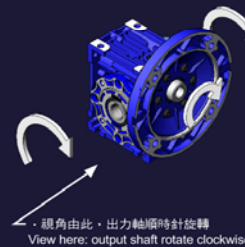
NOTE : Please specify if position M5 and M6 is required . (Special Lubrication design on bearings.)

扭力臂 Torque Arm



Size	K1	G	KG	Unit:mm KH
30	85	14	6	8
40	100	14	5	10
50	100	14	5	10
63	150	14	5	10
75	200	25	10	20
90	200	25	10	20

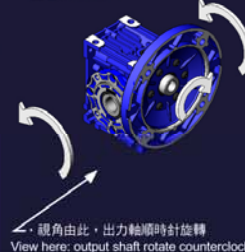
• 圖1/ Picture 1



旋轉方向：右旋牙-標準旋向
蝸桿旋向以順時針旋轉，出力軸做順時針旋轉(如圖1)

Right Thread - Standard Rotation
when input shaft rotate clockwise ;
output shaft rotate clockwise.(refer to Picture 1)

• 圖2/ Picture 1



旋轉方向：左旋牙-特殊旋向
蝸桿旋向以順時針旋轉，出力軸做逆時針旋轉(如圖2)
此旋向為特殊訂製品，請向服務人員洽詢

Left Thread - Special Rotation
when input shaft rotate clockwise;
output shaft rotate counterclockwise .(refer to Picture 2)
this is for special design, please specify if required.



鋁殼中空軸型 | 許可輸入馬力及輸出扭力矩一覽表

型號 Size	速 比 Ratio	輸出扭矩 Output Torque		輸入馬力 Input HP	O.H.L (OUTPUT) 超吊荷重 kg
		輸入轉速 Input RPM 1800 RPM	輸入轉速 Input RPM 1500 RPM		
30	1/10	1.65	1.93	0.46	64.5
	1/15	1.79	2.09	0.36	74
	1/20	1.71	2.01	0.27	81.3
	1/25	2.06	2.4	0.3	87.7
	1/30	1.77	2.05	0.23	93.2
	1/40	1.93	2.26	0.2	102.3
	1/50	1.86	2.17	0.17	110.5
	1/60	1.39	1.61	0.13	117.7
	1/80	1.36	1.6	0.1	129.1

型號 Size	速 比 Ratio	輸出扭矩 Output Torque		輸入馬力 Input HP	O.H.L (OUTPUT) 超吊荷重 kg
		輸入轉速 Input RPM 1800 RPM	輸入轉速 Input RPM 1500 RPM		
40	1/10	3.42	3.99	0.92	126.8
	1/15	3.71	4.34	0.71	145
	1/20	5.07	5.95	0.79	159.1
	1/25	4.85	5.66	0.63	171.8
	1/30	3.92	4.55	0.47	183.2
	1/40	4.73	5.55	0.42	200.4
	1/50	3.15	3.68	0.29	216.3
	1/60	4.2	4.87	0.29	230.5
	1/80	3.88	4.55	0.21	252.7

型號 Size	速 比 Ratio	輸出扭矩 Output Torque		輸入馬力 Input HP	O.H.L (OUTPUT) 超吊荷重 kg
		輸入轉速 Input RPM 1800 RPM	輸入轉速 Input RPM 1500 RPM		
50	1/10	7.18	8.38	1.89	184.5
	1/15	7.24	8.47	1.35	210.9
	1/20	7.19	8.44	1.08	231.8
	1/25	8.38	9.78	1.08	250.5
	1/30	7.07	8.2	0.81	266.4
	1/40	5.9	6.92	0.54	292.3
	1/50	7.26	8.47	0.54	315.5
	1/60	8.14	9.44	0.54	335.9
	1/80	3.91	4.59	0.27	368.2

HORSE POWER & TORQUE RATINGS

型號 Size	速 比 Ratio	輸出扭矩 Output Torque		輸入馬力 Input HP	O.H.L (OUTPUT) 超吊荷重 kg
		輸入轉速 Input RPM 1800 RPM	輸入轉速 Input RPM 1500 RPM		
63	1/10	29.64	34.58	7.54	315.5
	1/15	31.62	37	5.56	360.9
	1/20	37.03	43.45	4.96	396.8
	1/25	31.64	36.91	3.57	428.2
	1/30	41.75	48.43	4.17	455.9
	1/40	44.36	52.05	3.37	500
	1/50	37.74	44.03	2.58	539.5
	1/60	35.35	41.01	2.18	574.5

型號 Size	速 比 Ratio	輸出扭矩 Output Torque		輸入馬力 Input HP	O.H.L (OUTPUT) 超吊荷重 kg
		輸入轉速 Input RPM 1800 RPM	輸入轉速 Input RPM 1500 RPM		
75	1/10	14.43	16.84	3.7	213.8
	1/15	15.09	17.66	2.71	265
	1/20	13.81	16.2	1.97	291.3
	1/25	12.1	14.12	1.48	314.5
	1/30	12.07	14	1.73	334.5
	1/40	14.02	16.45	1.23	366.8
	1/50	12.7	14.82	0.99	395.9
	1/60	14.61	16.95	0.99	421.8
	1/80	14.74	17.29	0.74	462.2

型號 Size	速 比 Ratio	輸出扭矩 Output Torque		輸入馬力 Input HP	O.H.L (OUTPUT) 超吊荷重 kg
		輸入轉速 Input RPM 1800 RPM	輸入轉速 Input RPM 1500 RPM		
90	1/10	20.22	23.59	5.19	274.5
	1/15	20.81	24.35	3.73	314
	1/20	20.81	24.42	2.9	345
	1/25	19.78	23.08	2.28	372.7
	1/30	23.1	26.8	2.49	396.8
	1/40	26.45	31.03	2.07	435
	1/50	23.44	27.35	1.66	469.5
	1/60	21.24	24.64	1.24	499.5
	1/80	21.48	25.2	1.04	547.7



鋁殼中空軸減速機

使用說明書 | 感謝您選用本公司的產品。在使用之前，請詳細參閱以下說明，以確保正確使用。

壹、安裝

1. 蝸桿轉速不可大於1800rpm。
2. 安裝前請再次檢視其輸入馬力、減速比與銘牌相符，並檢查減速機輸出軸之旋轉方向與需求一致。
3. 減速機應安裝在穩固的基礎座，且須注意空氣流通，及換油時注油及洩油之方便性。
4. 減速機安裝後，用手轉動入力軸時需靈活，不可有卡死現象。
5. 減速機安裝好，使用前應先進行空負荷運轉，確定機器各部分都無異狀後，方可正式使用。

貳、潤滑

1. 本系列減速機，除30型加高效能油脂外，其餘型號均添加全合成機油。
2. 新減速機使用時，於運轉500小時後，需更換新油，其後每使用2500小時需換油；但在使用過程中仍應定期檢查油的質、量，若油有雜質、老化、變質情況，必須隨時更換。
3. 減速機應使用固定品牌、規格之齒輪油，不應將不同品牌，規格或不同類型的油相混合使用。
4. 在換油過程中，應先將減速機內部舊油清除乾淨，再注入新油。
5. 在使用期間，當發現油溫過高（超過80℃以上）時，以及有不正常的噪音等現象，應立即停止使用、檢查原因，等排除故障或更換潤滑油後，才可繼續使用。

三、維護

1. 不得重力敲擊減速機外殼，以免損壞。
2. 減速機應定期檢修，發現異狀或有顯著磨損，必須立即採取有效措施制止。備用或換修零件建議和本公司聯繫購買原廠零件。更新零件後，應先進行空負荷運轉，確定正常後再正式使用。
3. 使用單位應建立合理的維護制度，對減速機的使用狀況及檢修中發現的問題，做仔細紀錄。

CHENTA ALUMINUM HOLLOW SHAFT GEAR REDUCERS OPERATING INSTRUCTION

i · INSTALLATION

1. Input speed must not exceed 1800 RPM.
2. Before installation, please check if the input horsepower and ratio are identical with the name plate; also if the output rotation direction meets your requirement.
3. Reducer should be installed on a stable foundation and good air circulation and the convenience of oil filling / draining should be considered.
4. After installation, please check input shaft by hand first to see if turns smoothly.
5. Before operation, an unloading rotating test should be proceeded and any abnormal phenomenon occurred should be corrected immediately.

ii · LUBRICATION

1. The aluminum series reducers are all filled with synthetic oil except the Size 30 reducer that is filled with high efficient grease.
2. A new operation reducer needs to replace oil after 500 hours usages; after then, every 2500 hours should replace again. Moreover, a regular oil checking is required and replace if needed.
3. A certain brand and number of gear oil are required to a same reducer and be sure not to mix-using different brand, number or type of oil.
4. Before replacing oil, the inside of reducer should be cleaned by new oil and drain out, then fill in new oil.
5. During operation, if the heat is over than 80℃ or any abnormal noise is occurred, should shut down the machine and check immediately and continue using after the problem is resolved.

iii · MAINTENANCE

1. No heavy hit on reducer to avoid any damage.
2. A regular maintenance is required and if any worn out to the gear set found, an immediate and efficient action should be taken. The accurate of any spare parts replaced should be exactly the same as the original standard and unloading rotating test in advance is required.
3. Establish a reasonable maintenance system and record down carefully its operation and all problems met for reference.

蝸輪減速機可能發生之異常情況

及改善方法

以下所列為一般性故障，如有特殊異常情形發生時，請與本公司聯絡，我們將提供正確之服務。

異常情況	原因	改善方法
一. 機體發熱	1. 超過標準負荷運轉 2. 潤滑油加入過多或過少 3. 加入潤滑油不適當或不良 4. 油封唇部潤滑不足	1. 調整適正常負荷 2. 潤滑油應加至油鏡處 3. 更換式當之齒輪潤滑油 4. 塗抹少許油脂於油封唇處
二. 運轉時噪音	1. 有規律響音 { 齒面接觸不良 軸承損壞 } 2. 高的金屬聲音 { 軸承間隙太小 潤滑油不足 } 3. 不規則響音 { 異物掉入 軸承受損 }	1. 修整齒接觸面 更換軸承 2. 更換軸承 補足潤滑油 3. 除去異物 更新潤滑油更換軸承
三. 運轉時振動	1. 蝸齒輪磨損 2. 異物掉入 3. 軸承磨耗或受損 4. 螺絲鬆動	1. 更換蝸齒輪 2. 除去異物，更新潤滑油 3. 更換軸承 4. 鎖緊螺絲
四. 漏油	1. 油封損傷 2. 迫緊破損 3. 排油栓未鎖牢 4. 油鏡破損	1. 更換油封 2. 更換迫緊 3. 鎖緊排油栓塞 4. 更換油鏡
五. 入力軸及出力軸無法轉動	1. 齒輪啮合面因高熱而粘合 2. 軸承已損壞 3. 有固形物（硬物）嚙入齒輪接合面	1. 依程度而判斷可調整或更換齒輪 2. 更換軸承 3. 除去硬物，清洗內部後更新潤滑油
六. 入力軸空轉，而無法帶動出力軸轉動	1. 蝸齒輪已磨耗 2. 蝸齒輪與出力軸之配合鍵破損 3. 入力軸折斷 4. 出力軸折斷	1. 更換蝸齒輪 2. 更換鍵 3. 更換入力軸 4. 更換出力軸
七. 蝸齒輪磨耗較大	1. 超過正常負荷 2. 潤滑油不良或不適當 3. 潤滑油不足 4. 軸承已磨損 5. 運轉環境溫度過高	1. 調整適當負荷 2. 更換適當之潤滑油 3. 補充潤滑油 4. 更換軸承 5. 改善通風環境

Solutions & Reasons for the general faults of Speed Reducers

The following lists are general fault situations. In case other faults happen, please contact directly with us to get more information.

FAULT	REASON	IMPROVEMENT
1. Overheated	1. overload. 2. lubricant oil overfill or shortage 3. improper lubricant oil. 4. over friction on oil seal (lack lubricant)	1. adjust to proper loading. 2. level lubricant oil at oil gauge. 3. change to proper lubricant oil. 4. drop lubricant oil at oil seal.
2. Noise	1. regular noise { gears connection NG ; bearing damaged } 2. metal-like noise { bearing gap too small ; lubricant oil shortage } 3. irregular noise { some object insert ; bearing damaged }	1. { repair gear ; replace bearing } 2. { replace bearing ; fill in lubricant oil } 3. { remove inserted object & replace lubricant oil ; replace bearing. }
3. Vibration	1. gear over-fricative 2. some object insert 3. bearing worn-out or damaged 4. bolt loose	1. replace gear 2. remove inserted object & replace lubricant oil 3. replace bearing 4. tighten bolt
4. Oil Leakage	1. oil seal damaged 2. gasket worn-out 3. drain plug loose 4. oil gauge damaged	1. replace oil seal 2. replace gasket 3. tighten drain plug 4. replace oil gauge
5. Input Shaft and Output Shaft cannot drive	1. overheat cause gear-bound. 2. bearing damaged 3. some object insert between gears	1. adjust or replace gears 2. replace bearing 3. remove inserted object; clean inside then replace lubricant oil
6. Input shaft fail to drive output shaft	1. gear worn-out 2. input or output key damaged 3. input shaft broken 4. output shaft broken	1. replace gears 2. replace input or output key 3. replace input shaft 4. replace output shaft
7. Gear Worn-out	1. overload 2. improper lubricant oil 3. lubricant oil shortage 4. bearing worn-out 5. Environment temperature too high	1. adjust to proper loading 2. change to proper lubricant oil 3. refill lubricant oil 4. replace bearing 5. ventilation improvement