



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

ISO 9001 品質保證系統認證

Certificate TW98/14175QA

The management system of

JEN WU MACHINERY CO., LTD.
/ CHEN TA PRECISION
MACHINERY INDUSTRIAL INC.

No. 118, Hall Tran Lane,
Jen Wu, Kaohsiung County, Taiwan, R.O.C.

has been assessed and certified as meeting the requirements of

ISO 9001:2000

For the following activities

Design and manufacture of helical gear speed reducer, worm gear speed reducer, gear motor, gear box and water paddle-wheel aerator.
Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2000 requirements may be obtained by consulting the organization.

This certificate is valid from 18 September 2003 until 17 September 2006
Issue 3. Certified with SGS since September 1998

Authorized by

~~Altman~~

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SGSSGSGS



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> 高精準度
- 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，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

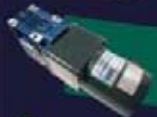
Numbering Configuration of Aluminum Hollow Shaft

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

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)



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 (ASSEMBLY WITH SMALL MOTOR UNDER 90W)

G: 配微型齒輪減速馬達 (ASSEMBLY 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 / HMM



MODEL / HHS



MODEL / HMM



MODEL / HSM



MODEL / HMS



MODEL / HSS



MODEL / HHF



MODEL / HHG

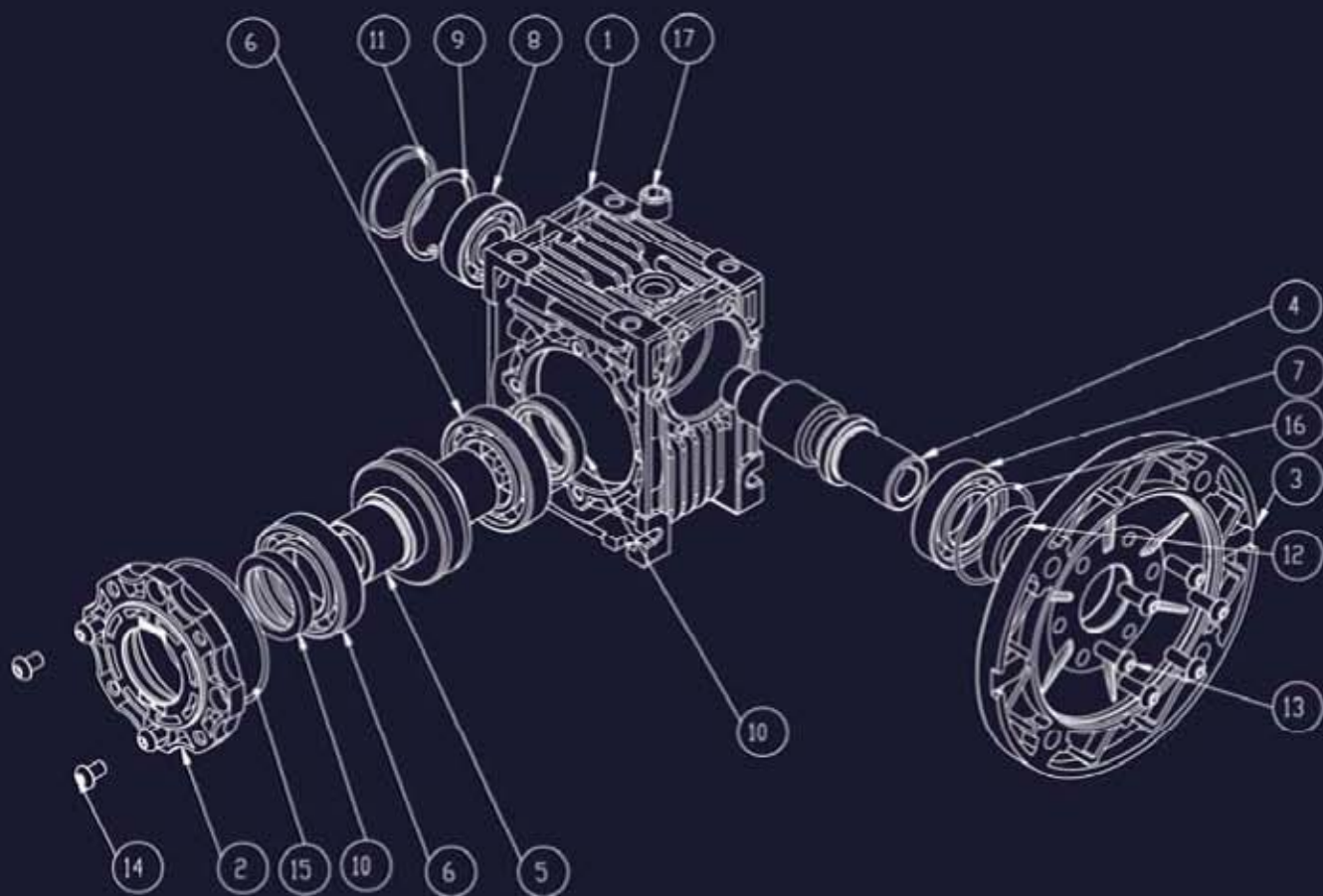
備註: 1. 本系列鋁殼中空軸齒輪減速機, 其外型安裝尺寸和義大利型式相容

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	1pc	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 Oil Seal	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 bronge
- 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



入力軸孔
INPUT-BORE VIEW



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	●	●	●	●	●					
	1HP	80B14	80	100	120	7	4	19	21.8	6										
63	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	●	●	●	●	●	●	●	●		
	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										
75	1/2HP	71B5	110	130	160	9	4	14	16.3	5							●	●	●	
	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	●	●	●	●	●	●				
	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										
90	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	●	●	●	●	●	●	●	●		
	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										

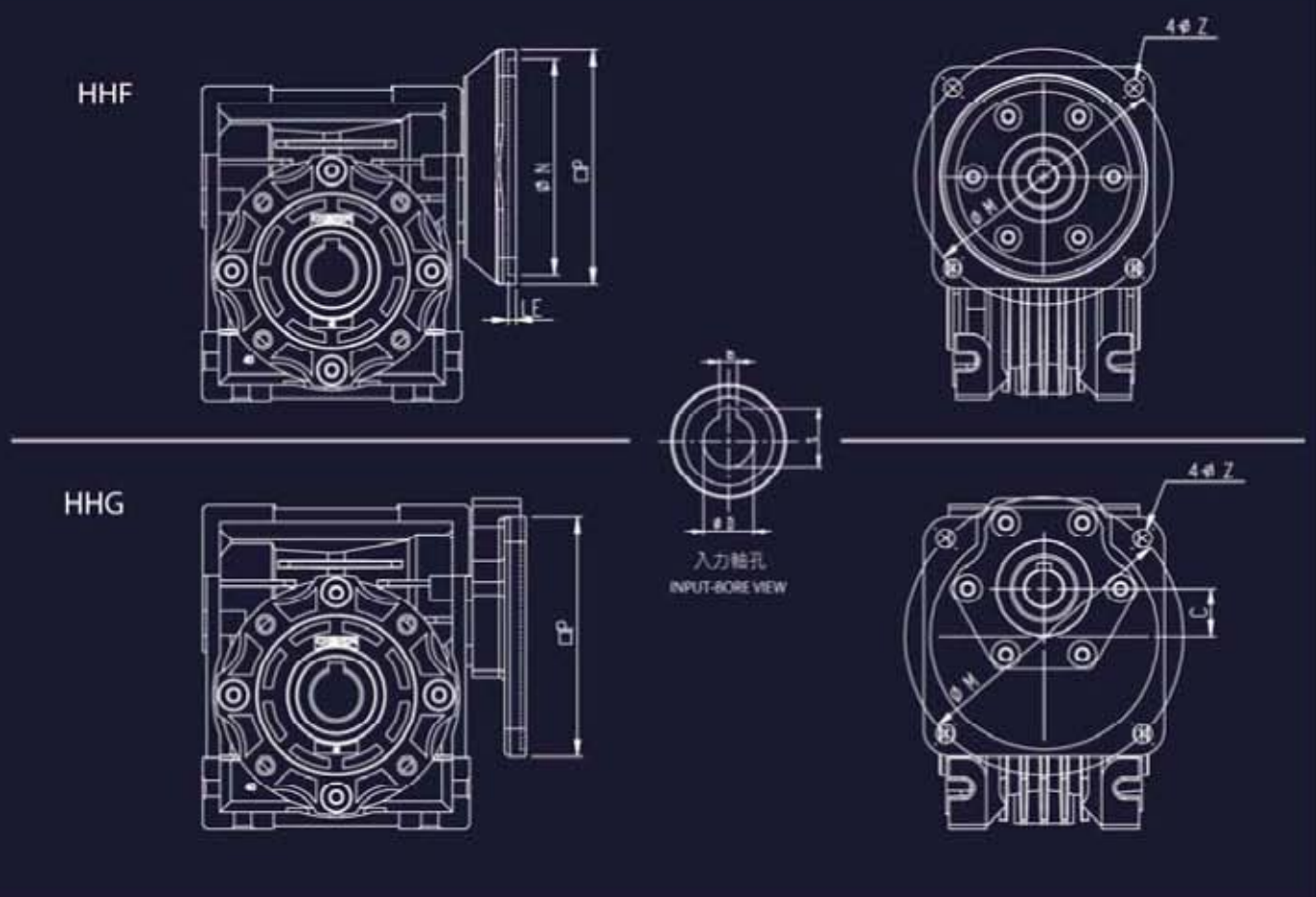
Unit:mm

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



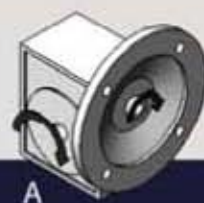
Unit:mm																				
型號 Size			馬達框號 MOTOR FRAME	入力法蘭 Flange					入力孔 Input Bore			速比 Ratio								
				N/C	M	P	Z	LE	D	t	b	10	15	20	25	30	40	50	60	80
30	HHF	25w 微型馬達 25w Small Motor	□80	73	94	□80	6	3	9x18L	10.5	3	●	●	●	●	●	●	●	●	●
	HHF	40~90w 微型馬達 40~90w Small Motor	□90	83	104	□90	7	3	11x20L	13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

註：● 表示可供應之速比 (Available ratios)



型號 MODEL / HHM 外型尺寸

軸向
Shaft Direction



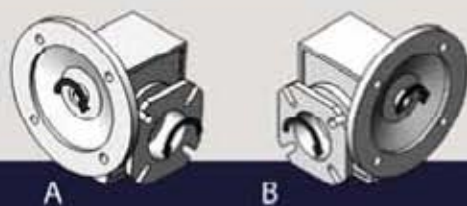
													Unit:mm
型號 SIZE	速比 RATIO	A	C	E	F	G	G1	G2	H	I	K	L	L1
30	1/10	54	81	97	4-M6*11	63	55	40	40	30	44	56	29
40	1/15 1/20	70	101	121.5	4-M6*8	78	70	50	50	40	60	71	36.5
50	1/25 1/30	80	121	144	4-M8*10	92	80	60	60	50	70	85	43.5
63	1/40	100	146	174	8-M8*14	112	101	72	72	63	85	103	53
75	1/50 1/60	120	174	205	8-M8*14	120	114.5	86	86	75	90	112	57
90	1/80	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		
										DH	BH	TH
30	1/10	65	55	6.5	44	57	5.5	27	90°	14	5	16.3
40	1/15 1/20	75	60	6.5	55	71.5	6	35	45°	18	6	20.8
50	1/25 1/30	85	70	8.5	64	84	7	40	45°	25	8	28.3
63	1/40	95	80	8.5	80	102	8	50	45°	25	8	28.3
75	1/50	115	95	11	93	119	8	60	45°	28	8	31.3
90	1/60 1/80	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 1/20	70	101	121.5	4-M6*8	39	70	50	50	40	60	71	36.5	75	60
50	1/25	80	121	144	4-M8*10	46	80	60	60	50	70	85	43.5	85	70
63	1/30 1/40	100	146	174	8-M8*14	56	101	72	72	63	85	103	53	95	80
75	1/50	120	174	205	8-M8*14	60	114.5	86	86	75	90	112	57	115	95
90	1/60 1/80	140	208	238	8-M10*18	70	131.5	103	103	90	100	130	67	130	110

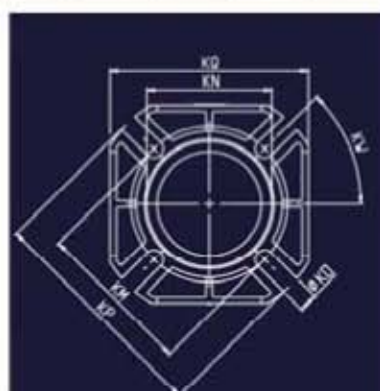
型號 SIZE	速比 RATIO	O	Q	R	S	V	W	出力軸孔 Output Bore		
								DH	BH	TH
30	1/10	6.5	44	57	5.5	27	90°	14	5	16.3
40	1/15 1/20	6.5	55	71.5	6	35	45°	18	6	20.8
50	1/25	8.5	64	84	7	40	45°	25	8	28.3
63	1/30 1/40	8.5	80	102	8	50	45°	25	8	28.3
75	1/50	11	93	119	8	60	45°	28	8	31.3
90	1/60 1/80	13	102	135	11	70	45°	35	10	38.3

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

Unit:mm

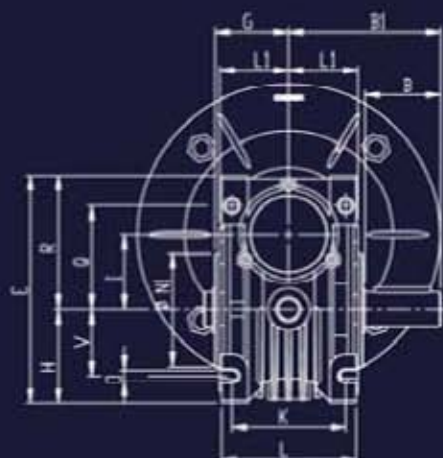
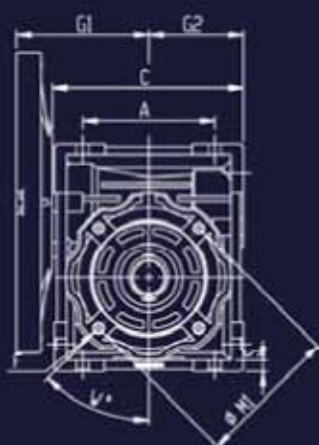


出力法蘭
OUTPUT-FLANGE

型號 MODEL / HSM 外型尺寸



軸向
Shaft Direction



出力軸
OUTPUT-BORE VIEW

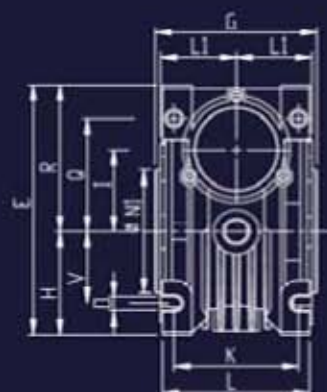
型號 SIZE	速比 RATIO	A	C	E	F	G	G1	G2	H	I	K	L	L1	M1
30	1/10	54	81	97	4-M6*11	31.5	55	40	40	30	44	56	29	65
40	1/15	70	101	121.5	4-M6*8	39	70	50	50	40	60	71	36.5	75
50	1/20	80	121	144	4-M8*10	46	80	60	60	50	70	85	43.5	85
63	1/25	100	146	174	8-M8*14	56	101	72	72	63	85	103	53	95
75	1/30	120	174	205	8-M8*14	60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

註：入力軸參考 p.14

As for input bore dimension, please refer to p.14

型號 MODEL / HHS 外型尺寸



入力軸
INPUT-SHAFT VIEW



出力軸孔
OUTPUT-SHAFT VIEW

Unit:mm

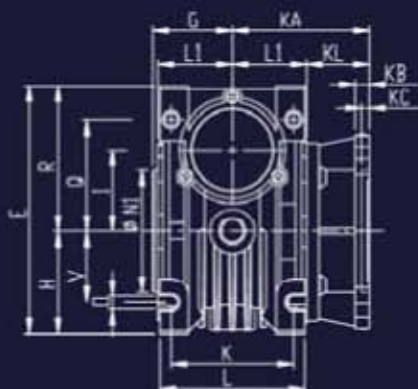
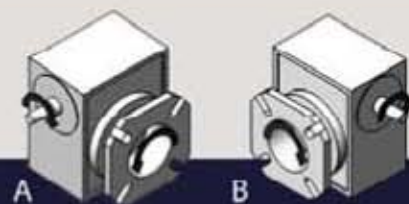
型號 SIZE	速比 RATIO	A	C	E	F	G	G2	H	I	K	L	L1	M1	N1	O
30	1/10	54	81	97	4-M6*11	63	40	40	30	44	56	29	65	55	6.5
40	1/15	70	101	121.5	4-M6*8	78	50	50	40	60	71	36.5	75	60	6.5
	1/20														
50	1/25	80	121	144	4-M8*10	92	60	60	50	70	85	43.5	85	70	8.5
63	1/30	100	146	174	8-M8*14	112	72	72	63	85	103	53	95	80	8.5
	1/40														
75	1/50	120	174	205	8-M8*14	120	86	86	75	90	112	57	115	95	11
	1/60														
90	1/80	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
	1/20													
50	1/25	64	84	7	40	45°	25	8	28.3	29.5	74.5	14	5	16
63	1/30	80	102	8	50	45°	25	8	28.3	40	90	19	6	21.5
	1/40													
75	1/50	93	119	8	60	45°	28	8	31.3	50	105	24	8	27
	1/60													
90	1/80	102	135	11	70	45°	35	10	38.3	50	125	24	8	27

型號 MODEL / HMS 外型尺寸



軸向
Shaft Direction

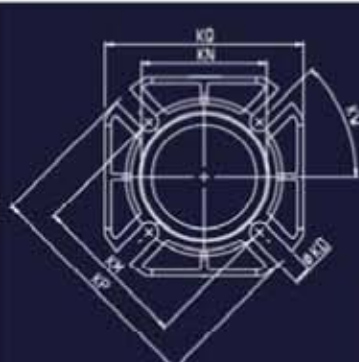


入力軸
INPUT-BORE VIEW



出力軸孔
OUTPUT-BORE VIEW

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



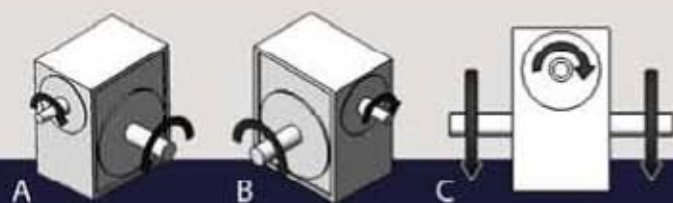
出力法蘭
OUTPUT-FLANGE

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 1/20	71.5	6	35	45°	18	6	20.8	22.5	60.5	11	4	12.5
50	1/25	84	7	40	45°	25	8	28.3	29.5	74.5	14	5	16
63	1/30 1/40	102	8	50	45°	25	8	28.3	40	90	19	6	21.5
75	1/50	119	8	60	45°	28	8	31.3	50	105	24	8	27
90	1/60 1/80	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	KP	KQ	KW
30	1/10	54.5	6	4	25.5	68	50	6.5	80	70	45°
40	1/15	67	7	4	30.5	75	60	9	110	95	45°
50	1/20	90	9	5	46.5	85	70	11	125	110	45°
63	1/25	98.5	10	6	45.5	150	115	11	180	142	45°
75	1/30	122	14	6	65	165	130	14	205	170	45°
90	1/40	111	13	6	44	175	152	14	210	200	45°

Unit:mm

型號 MODEL / HSS 外型尺寸



入力軸
Input shaft



單出力軸
Single-output shaft

Unit:mm

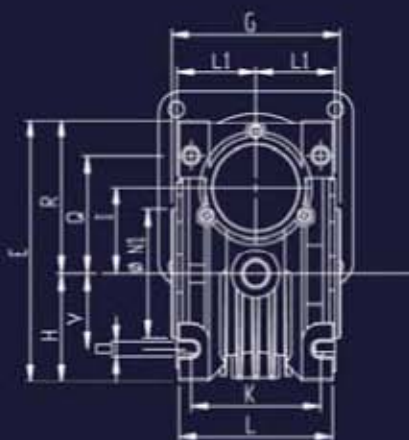
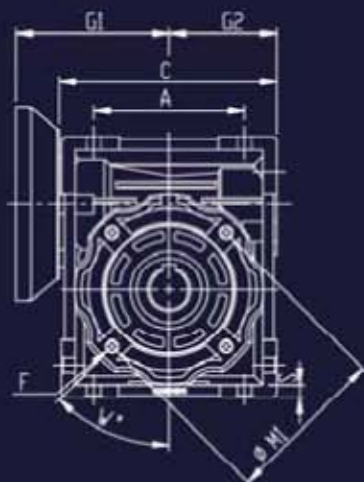
型號 SIZE	速比 RATIO	A	C	E	F	G	G2	H	I	K	L	L1	M1	N1
30	1/10	54	81	97	4-M6*11	31.5	40	40	30	44	56	29	65	55
40	1/15	70	101	121.5	4-M6*8	39	50	50	40	60	71	36.5	75	60
50	1/20	80	121	144	4-M8*10	46	60	60	50	70	85	43.5	85	70
63	1/25	100	146	174	8-M8*14	56	72	72	63	85	103	53	95	80
75	1/30	120	174	205	8-M8*14	60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

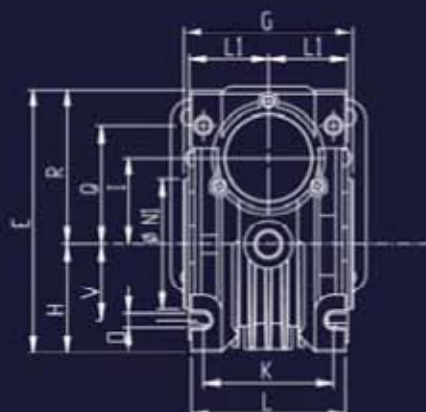


出力軸孔
OUTPUT BORE VIEW

Unit:mm													
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
	1/15												
	1/20												
	1/25												
	1/30												
40	1/40	70	101	121.5	4-M6*8	78	70	50	50	40	60	71	36.5
	1/50												
	1/60												
	1/80												
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	65	55	6.5	44	57	5.5	27	90°	14	5	16.3	
	1/15												
	1/20												
	1/25												
	1/30												
40	1/40	75	60	6.5	55	71.5	6	35	45°	18	6	20.8	
	1/50												
	1/60												
	1/80												

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

型號 MODEL / HHG 外型尺寸



													Unit:mm
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
	1/15												
	1/20												
	1/25												
40	1/30	70	101	121.5	4-M6*8	78	70	50	50	40	60	71	36.5
	1/40												
	1/50												
	1/60												
	1/80												
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	65	55	6.5	44	57	5.5	27	90°	14	5	16.3	
	1/15												
	1/20												
	1/25												
40	1/30	75	60	6.5	55	71.5	6	35	45°	18	6	20.8	
	1/40												
	1/50												
	1/60												
	1/80												

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.

選用配件 Optional Accessories

出力軸 Output Shaft

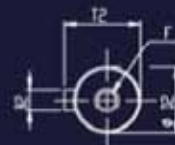
• 組立前
Before assembly



• 組立後
After assembly



• 單出力軸 Single Output Shaft



• 雙出力軸 Double Output Shaft



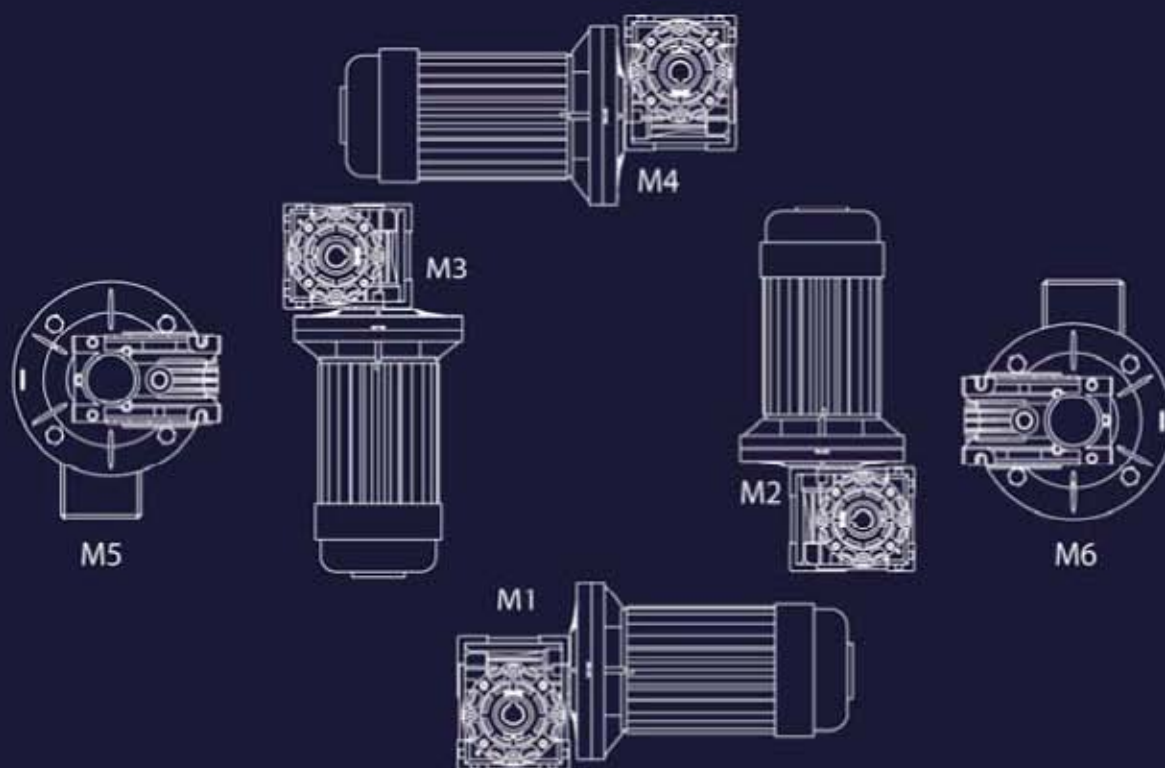
							Unit:mm
Size	D2	B2	T2	B	L1	L2	f
30	14	5	16	30	98	125	M6*10L
40	18	6	20.5	40	125	161	M6*10L
50	25	8	28	50	149	195	M10*15L
63	25	8	28	50	169	215	M10*15L
75	28	8	31	60	187	244	M10*15L
90	35	10	38	80	228	304	M12*17L

扭力臂 Torque Arm



					Unit:mm
Size	K1	G	KG	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	

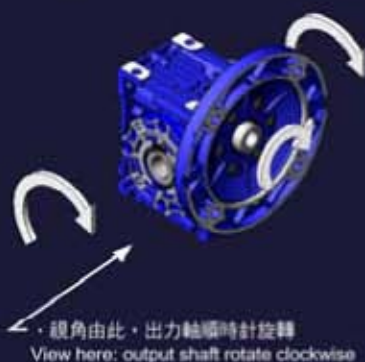
安裝位置 Mounting Position



●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.)

• 圖1/ Picture 1



旋轉方向：右旋牙-標準旋向

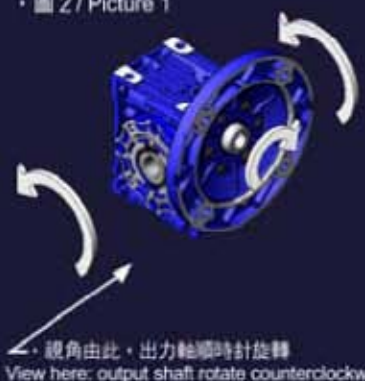
蝸桿旋向以順時針旋轉，出力軸做順時針旋轉(如圖1)

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 R a t i o	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 R a t i o	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 R a t i o	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 R a t i o	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 R a t i o	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 R a t i o	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

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.

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