

蝸輪減速機一般故障原因及改善方法

故障情形 FAULT DESCRIPTION	故障原因 REASONS	解決方法 SOLUTIONS
減速機過熱 OVERHEATING	<ul style="list-style-type: none"> * 超負荷運轉 * 潤滑油過少或過多 * 潤滑油不良或不適當 * 油封過度磨擦 * 出力軸與傳動裝置連接不當 * Overloading. * Insufficient or excess lubricant oil. * Inferior or improper lubricant oil. * Oil seal is over-rubbed. * Improper connection between output shaft and transmitting device. 	<ul style="list-style-type: none"> * 調整至適當負荷 * 依指示加入適量潤滑油 * 油排出後加入適當潤滑油 * 在油封處滴數滴潤滑油 * 調整至適當位置 * Adjust to proper loading. * Fill in adequate lubricant oil as indication. * Fill in proper lubricant oil after draining out oil. * Drop lubricant oil on oil seal. * Adjust to proper position.
減速機雜音 NOISE	<ul style="list-style-type: none"> * 蝸輪、蝸桿齒合不良 * 軸承損傷或間隙過大 * 潤滑油不足 * 異物侵入 * Poor fit between worm wheel and worm shaft. * Bearing damaged or clearance too large. * Insufficient lubricant oil. * Invaded by foreign objects. 	<ul style="list-style-type: none"> * 修整齒接觸面(請與本公司聯絡) * 更換軸承 * 依指示加入適量潤滑油 * 去除異物並更換潤滑油 * Finish contact surfaces of gears (please contact with us). * Replace bearing. * Fill in proper adequate lubricant oil as indication. * Remove foreign objects and replace lubricant oil.
不正常振動 ABNORMAL VIBRATION	<ul style="list-style-type: none"> * 傳動裝置固定不良 * 蝸輪磨耗或損傷 * 軸承磨耗或損傷 * 螺栓鬆脫 * 異物侵入 * Transmitting device is not fixed. * Worm wheel worn or damaged. * Bearing worn or damaged. * Bolt loosed. * Invaded by foreign objects. 	<ul style="list-style-type: none"> * 將傳動裝置固定 * 更換蝸輪(請與本公司聯絡) * 更換軸承 * 鎖緊螺栓 * 去除異物並更換潤滑油 * Fix transmitting device. * Replace worm wheel (please contact with us). * Replace bearing. * Tighten bolt. * Remove foreign objects and replace lubricant oil.
漏油 OIL LEAKAGE	<ul style="list-style-type: none"> * 油封損傷 * 迫緊閉(GASKET)破損 * 油量過多 * 洩油栓鬆脫 * 油鏡破損 * Oil seal damaged. * Gasket damaged. * Excess oil. * Oil drain plug loosed. * Oil gauge damaged. 	<ul style="list-style-type: none"> * 更換油封 * 更換迫緊 * 依指示加入適量潤滑油 * 鎖緊洩油栓 * 更換油鏡 * Replace oil seal. * Replace gasket. * Fill in adequate lubricant oil as indication. * Tighten oil drain plug. * Replace oil gauge.
入力或出力軸不轉 INPUT OR OUTPUT SHAFT DOESN'T WORK	<ul style="list-style-type: none"> * 蝸輪蝸桿過熱膨脹 * 軸承損壞 * 異物侵入 * 蝸輪、蝸桿過度磨損 * Worm wheel and worm shaft expanded by overheating. * Bearing damaged. * Invaded by foreign objects. * Excess wear of worm wheel and worm shaft. 	<ul style="list-style-type: none"> * 更換蝸輪或蝸桿(請與本公司聯絡) * 更換軸承 * 去除異物並更換潤滑油 * 更換蝸輪或蝸桿(請與本公司聯絡) * Replace worm wheel or worm shaft (please contact with us). * Replace bearing. * Remove foreign objects and replace lubricant oil. * Replace worm wheel or worm shaft (please contact with us).
蝸輪過度磨耗 WORM WHEEL OVER-WORN	<ul style="list-style-type: none"> * 超負荷 * 潤滑油不良或不適當 * 潤滑油不足 * 軸承磨損 * 運轉溫度過高 * Overloading. * Inferior or improper lubricant oil. * Insufficient lubricant oil. * Bearing damaged. * Operating temperature too high. 	<ul style="list-style-type: none"> * 調整至適當負荷 * 更換適當潤滑油 * 依指示加入適量潤滑油 * 更換軸承 * 改善通風環境 * Adjust to proper loading. * Replace proper lubricant oil. * Full in adequate lubricant oil as indication. * Replace bearing. * improve ventilation conditions.

※ 以上所列為一般故障原因，如有其它故障情形時，請與本公司連絡，我們將會提供最正確之服務。

The above items are general fault descriptions. In case of other kinds of faults, please contact with us to obtain most correct services.

單段蝸輪減速機

SINGLE REDUCTION WORM REDUCER GEAR RATIO : 1/10~1/60

W系列 W Series

標準型 Standard	附馬達盤 Motor Flange	出力軸中空 Output Bore	附馬達且出力軸中空 Output Bore
E11 HW 40#~175#	E14 HMW(MW) 50#~175#	E16 HOW 50#~175#	E15 HOM 50#~175#
E12 LW 50#~350#	E13 LMW 60#~155#	E16 LOW 50#~175#	
E18 VW 40#~350#	E20 VMW 50#~175#	E22 VOW 40#~175#	E23 VOM 50#~175#
E19 UW 40#~350#	E21 UMW 50#~175#	E24 VOWY 40#~135#	E24 VOMY 50#~135#

E系列 E Series

E29 E 40#~135#	E30 EM 50#~135#	E29 EO 40#~135#	E30 EOM 50#~135#
E31 EOV 50#~135#	E31 EOVM 50#~135#	E28 H-KITS 40#~135#	E28 L-KITS 50#~135#

T系列 T Series

E32 TW 50#~135#	E32 TMW(TM) 50#~135#	E33 TOW 60#~135#	E33 TOM 60#~135#
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VOF系列 VOF Series

E34 VOF 70#~135#	E35 VOFM 70#~135#
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WRC系列 WRC Series

E25 HWRC 50#~120#	E25 VWRC 50#~100#
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LD系列 LD Series

E36 LD 70#~135#	E36 LDM 70#~135#
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油壓系列

E26 VMP 100#~175#

(WORM-WORM)

雙段蝸輪減速機

DOUBLE REDUCTION WORM REDUCER GEAR RATIO : 1/100~1/3600

標準型 Standard	附馬達盤 Motor Flange	出力軸中空 Output Bore	附馬達且出力軸中空 Output Bore
E40 LH 60#~175#	E40 LHM 80#~175#	E41 LOH 60#~175#	E41 LOHM 80#~175#
E42 VH 60#~175#	E43 VHM 80#~175#	E45 VOH 60#~175#	E46 VOHM 80#~175#
E42 UH 60#~175#	E44 UHM 80#~175#		
E47 EH 60#~135#	E47 EHM 80#~135#	E48 EOH 60#~135#	E48 EOHM 80#~135#

(GEAR-WORM)

雙段蝸輪減速機

DOUBLE REDUCTION WORM REDUCER GEAR RATIO : 1/80~1/300

E61 LG 80#~155#	E52 LGM 80#~155#	E51 LOG 80#~155#	E52 LOGM 80#~155#
E66 VG 80#~155#	E57 VGM 80#~155#	E56 VOG 80#~155#	E57 VOGM 80#~155#
E53 EG 80#~135#	E54 EGM 80#~135#	E53 EOG 80#~135#	E54 EOGM 80#~135#
E55 UG 80#~155#	E55 UGM 80#~155#		
E58 VOFG 80#~135#	E58 VOFGM 80#~135#		

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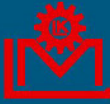
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機種、型式表示

DESCRIPTION OF TYPE & MODEL

LM	-	HW	-	100	-	60	-	L	-	3
公司代號 Company Name		機型 Type		型號 Model		速比 Ratio		軸向 Shaft Direction		馬力 Horse Power

機型：

依外型傳動方式不同而區分：

一般而言，機型代號內

有M者為馬達直結式機種

有O者為出力軸中空機種

有H者為二段式蝸輪減速機（蝸輪+蝸輪）

有G者為二段式蝸輪減速機（齒輪+蝸輪）

型號：

由入力軸中心至出力軸中心距離定出，型號愈大體積愈大。

減速比：

單段蝸輪減速機

一般速比： 1/10 1/15 1/20
1/30 1/40 1/50 1/60

特殊速比： 1/5 1/25 1/80

雙段式蝸輪減速機

蝸輪-蝸輪：1/100.....1/3600

齒輪-蝸輪：1/80.....1/300

軸向：

L：左軸（入力軸面對自己，出力軸在左方）

R：右軸（入力軸面對自己，出力軸在右方）

V：單入力軸雙出力軸

W：雙入力軸單出力軸

WV：雙入力軸和雙出力軸

S：特殊軸（訂貨時請註明或附圖面）

旋向：

設計上蝸桿使用右旋牙，故入力軸以順時針方向旋轉時，出力軸以逆時針方向旋轉，如需特殊旋向時請註明

馬力：

1/8HP~50HP

TYPE：

Category by method of transmission

For the general reference:

M; type of motor upright joint

O; type of hollow output shaft

H; type of two-stage worm gear reducer (worm+worm)

G; type of two-stage worm gear reducer (gear+worm)

MODEL：

The larger the model number (which is identified by the distance from the enter of input shaft to that of output shaft) is, the bigger the machine size is.

RATIO：

SINGLE REDUCTION WORM REDUCER:

GENERAL RATIO: 1/10 1/15 1/20
1/30 1/40 1/50 1/60

SPECIAL RATIO: 1/5 1/25 1/70 1/80

DOUBLE REDUCTION WORM REDUCER:

WORM-WORM: 1/100.....1/3600

GEAR-WORM: 1/80.....1/300

SHAFT DIRECTION：

L：Left Shaft (input shaft to the face; output shaft to the left)

R：Right Shaft(input shaft to the face; output shaft to the right)

V：Single Input Shaft & Double Output Shaft

W：Double Input Shaft & Single Output Shaft

WV：Double Input Shaft & Single Output Shaft

S：special shaft (for any order, please specify your need clearly or attach drawings)

Rotary direction:

upper worm for right-directed thread, so the input shaft is rotating clockwise and the output shaft counterclockwise; for any rotating direction required, be sure to specify it.

HORSE POWER：

1/8HP~50HP



HW (基本型) 主要零件分解圖

Explosive View of HW (Fundamental) Main Parts

1. 出力軸 OUTPUT SHAFT

中碳鋼 S45C, 以CNC車床精密加工及研磨
Medium carbon steel S45C, precision process and grinding with CNC lathe.

3. 蝸輪 WORM WHEEL

鋁青銅 ALBC3 & FC20, 使用成形專用刀具切削及電腦輔助設計, 摩擦係數小, 使用壽命長
Aluminum brass ALBC3 & FC20, shaping cutter and computer auxiliary design low friction coefficient, durability in use.

7. 出力軸蓋 OUTPUT SHAFT COVER

鑄鐵 FC20 或 鑄鋁 AL, NC 專用機加工
Cast iron FC20 or cast aluminum AL.

10. 蝸輪箱 OUTER SHELL

鑄鐵 FC20, 本體一體鑄造, 強度強, 外型美觀散熱效果佳
Cast iron FC20, one-line body, high intensity, elegant appearance, remarkable radiating effect.

13. 蝸桿 WORM SHAFT

中碳鋼 S45C 或 SCM21 精密滾齒機切削, 熱處理後經齒形研磨, 故齒形正確, 齒面平滑, 運轉時效率高, 無雜音。
Medium carbon steel S45C or SCM21, Cut by precision tooth-rolling machine; after being heated, grind the tooth so that the tooth is correct and smooth; high efficiency in operation; without noise.

16. 右入力軸蓋 INPUT SHAFT COVER

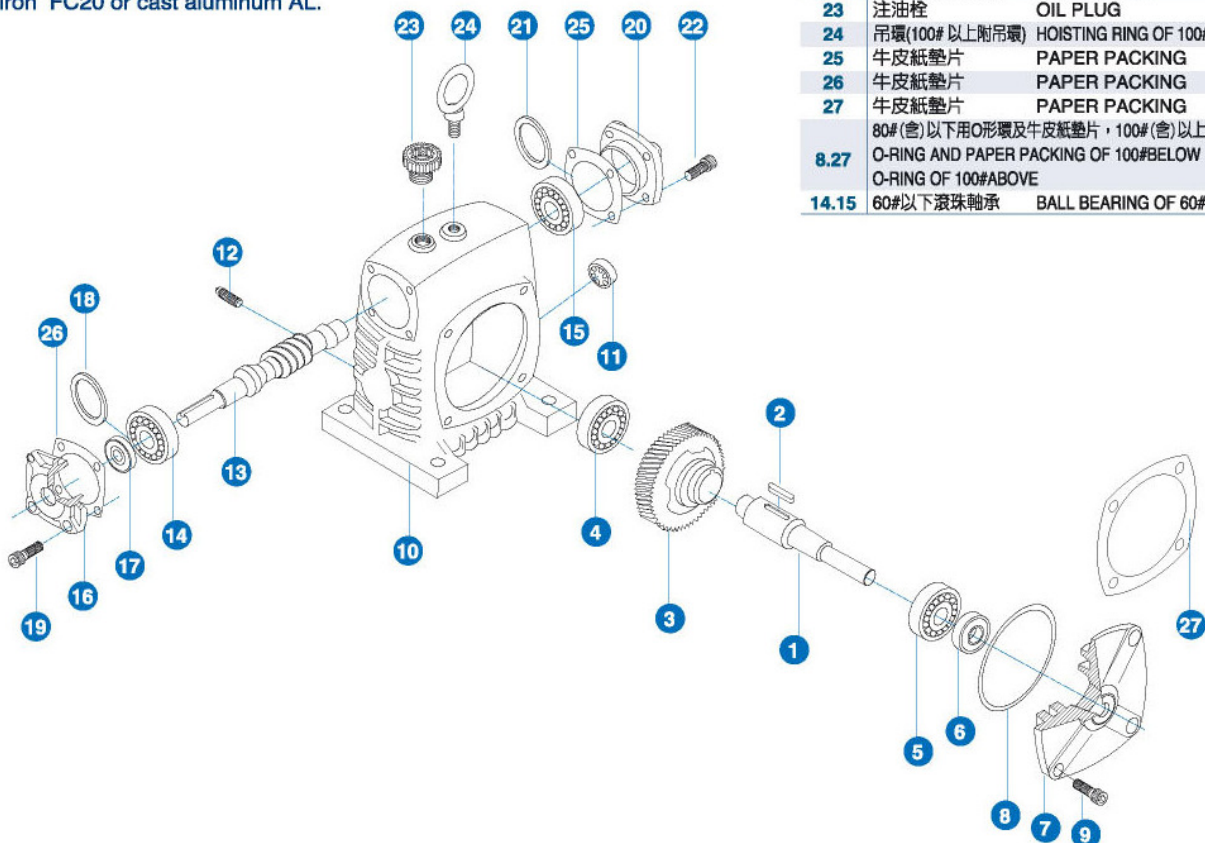
鑄鐵 FC20 或 鑄鋁 AL
Cast iron FC20 or cast aluminum AL.

20. 左入力軸蓋 INPUT SHAFT COVER

鑄鐵 FC20 或 鑄鋁 AL
Cast iron FC20 or cast aluminum AL.



編號	名稱	PARTS NAME
1	出力軸	OUTPUT SHAFT
2	雙圓鍵	KEY
3	蝸輪	WORM WHEEL
4	滾珠軸承	BALL BEARING
5	滾珠軸承	BALL BEARING
6	油封	OIL SEAL
7	出力軸蓋	OUTPUT SHAFT COVER
8	O形環	O-RING
9	六角承高頭螺絲	HEX. SCREW
10	蝸輪箱	OUTER SHELL
11	油鏡	OIL GAUGE
12	排油栓	OIL DRAIN PLUG
13	蝸桿	WORM SHAFT
14	滾錐軸承	TAPER ROLLER BEARING
15	滾錐軸承	TAPER ROLLER BEARING
16	入力軸蓋(右)	INPUT SHAFT COVER (R)
17	油封	OIL SEAL
18	襯墊	PACKING
19	六角承高頭螺絲	HEX. SCREW
20	入力軸蓋(左)	INPUT SHAFT COVER (L)
21	襯墊	PACKING
22	六角承高頭螺絲	HEX. SCREW
23	注油栓	OIL PLUG
24	吊環(100# 以上耐吊環)	HOISTING RING OF 100# ABOVE
25	牛皮紙墊片	PAPER PACKING
26	牛皮紙墊片	PAPER PACKING
27	牛皮紙墊片	PAPER PACKING
8.27	80#(含)以下用O形環及牛皮紙墊片, 100#(含)以上用O形環 O-RING AND PAPER PACKING OF 100# BELOW O-RING OF 100# ABOVE	
14.15	60#以下滾珠軸承	BALL BEARING OF 60# BELOW





減速機之選定

SELECTION OF WORM REDUCER

1. 入力軸回轉數 & 出力軸回轉數

以皮帶輪或聯軸器傳動時，最高入力轉速盡量不要超過2000RPM，一般使用約600~1800RPM，轉速太高時容易使軸承因高度的磨擦而縮短壽命；轉速過低時可能導致潤滑不足或效率降低，如須使用特別高或低轉速時請註明。

出力軸回轉數 = 入力軸回轉數 × 減速比

如特別低速回轉時，效率及扭力均會降低，並且使軸承給油較為困難。若須使用時須注意選擇機型及潤滑油。

減速比 = 出力軸回轉數 / 入力軸回轉數

2. 回轉方向 & 軸方向

蝸輪減速機之出力軸回轉方向取決於蝸桿旋牙方向，除特別情形外均使用右旋牙。當入力軸為順時針方向時出力軸為反時針方向，但二段式蝸輪減速機其入力軸與出力軸之回轉方向為同一方向。蝸輪減速機的軸向變化多，使用時請參考本目錄之“軸向選擇”。未註明時以右軸(R)為標準。

3. 效率

由於減速機內部磨擦的損失，部份能量將轉為熱能消失。依本目錄之附表所示

效率 = 出力軸馬力 ÷ 入力軸馬力 × 100%

蝸輪減速機之效率取決於蝸輪之前進角、週速度、潤滑油、軸承的磨擦及材質的磨擦係數等。右表為效率之大約值，請參考。

速比 RATIO	效率% EFFICIENT
1 / 10	82 ~ 85%
1 / 20	78 ~ 82%
1 / 30	73 ~ 76%
1 / 40	69 ~ 74%
1 / 50	67 ~ 72%
1 / 60	65 ~ 70%

SELECTION OF SPEED REDUCER

1. Revolutions of input shaft and output shaft :

With belt-pulley or coupled shaft transmission, the highest input speed should not exceed 2000RPM; the general range is 600-1800RPM. If the revolving speed is too high, the bearing will have less life due to over-friction; too low, the lubrication or efficiency will be reduced. Please specify either high or low speed.

output shaft revolution = input shaft revolution x reduction ratio
In case of any revolution of specially low speed, both the efficiency and torque will be lessened; further, it may be harder to provide oil on the bearing. Be careful to select the model number and lubricant oil.

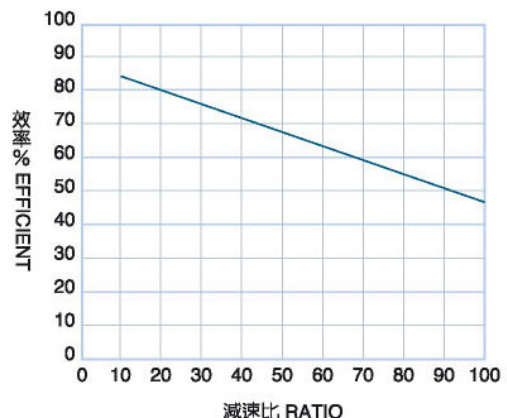
reduction ratio = output shaft revolution / input shaft revolution

2. Revolving direction and shaft direction :

The revolving direction of output shaft relies on worm thread's direction; right-directed thread is for common use except for special conditions. When input shaft is in clockwise, output shaft is in counterclockwise; pay attention to two-stage worm reducer, the revolving direction of input and output shaft is the same. As a worm reducer has various shaft directions, be sure to see the user's manual titled "choice of shaft directions". For any not specified, refer the right shaft as the standard.

3. Efficiency :

Due to the internal fabrication wear, partial energy will be transformed to be heat energy and fade away. As the appendix shown in this catalog, efficiency = output shaft HP ÷ input shaft HP x 100%. The efficiency of the worm reducer depends on worm's advancing angle, periodical speed, lubricant oil, bearing friction and materials friction factor. For the approximated value of efficiency, please see the right table.



4.馬力

馬力是一種動力的單位，由三個要素所組成。

- 1.距離（公尺M或公分Cm）.....S
- 2.重力（公斤Kg或公克）.....P
- 3.時間（秒Sec） $HP=(P \times S)/75$

所謂一馬力就是在一秒的時間將75Kg的重物移動一公尺的距離，所以1馬力=75Kg-M/Sec。1馬力之減速機可拖多大的力量？要知一已知馬力之馬達其所拖多大之力量時，必定要知道被拖動之機器的速度。一馬力之馬達在每秒1M的速度下可拖動75Kg的力量，因馬達須經過減速機及其他傳動機構故實際傳到機器之馬力已不足1HP，所以1HP之馬達在1m之速度下，所能拖動之力量，當在75Kg以下，其視機械效率而定。如為1HP之馬達在拖動每秒2M之速度的機器時，則可拖動 $75/2=37.5Kg$ 之力量，在每秒1/2M之速度時，則可拖動 $75 \div (1/2)=150kg$ 之力量（機械效率未計算在內）其他各種場合可依此推算出。

每一型號之減速機皆有適合之馬力，請參考下表

5.使用系數

一般減速機之傳達容量及強度計算係依照每日八小時連續運轉與均一負荷的理想下設計因實際使用的情況不同在瞭解現場使用情況如：是否有反覆起動，停止或正轉、逆轉，使用的時間、衝擊荷重等必須將使用係數計算在內，依適當的荷重係數來選擇適當的減速機型號，以免誤用過大或過小的減速機。

4. Horse power :

Horse power is the measuring unit of power, consisting of three elements:

1. distance (m or cm) S
2. gravity (kg or g) P
3. time (sec) $HP = (P \times S)/75$

1HP represents the distance where the load of 75kg in a second is moved,

so 1HP = 75Kg-M/Sec. How much power can a 1HP-reducer pull; which depends on the speed of the machine to be pulled. 1HP-motor is able to pull 75kg in a second 1M. As the motor should pass through the reducer and other transmission mechanism, 1HP is not enough.

So the power 1HP motor can pull should be under 75Kg per the speed of 1m, depending on the mechanical efficiency. When 1HP motor pulls the machine with the speed of 2M per second, the pulling power is $75/2=37.5Kg$; with the speed of 1/2M per second, the pulling power is $75 \div (1/2)=150Kg$ (the mechanical efficiency is not taken into account). For other events, this formula is applicable. Each reducer should adopt suitable HP, please see the table below.

5. Coefficient :

For general reducers, the transmitted capacity and intensity are calculated per a continual operation of 8 hour a day and per the ideal conditions of a unified load design. However, for on-site use, it should take such factors into account as: repetitive start-up, stop or obverse rotation, reverse rotation, use time, impact load and the like. Select an appropriate reducer model according to the load coefficient lest improper event should occur.

馬力－型號選擇表 SELECTION TABLE OF HP & MODEL

類別 TYPE	單段蝸輪減速機 SINGLE REDUCTION		雙段蝸輪減速機 DOUBLE REDUCTION (蝸輪-蝸輪Worm-Worm)		雙段蝸輪減速機 DOUBLE REDUCTION (齒輪-蝸輪Gear-Worm)
	RATIO 速比	10~30	40~60	100~ 900	1000~ 3600
40	1/8				
50	1/4	1/8			
60	1/2	1/4	1/16		
70	1	1/2	1/8	1/16	
80	2	1	1/4	1/8	1/2
100	3	2	1/2	1/4	1
120	5	3	1	1/2	2
135	7 1/2	5	2	1	2
155	10	7 1/2	3	2	3
175	15	10	5	3	5
200	20	15			
225	25	20			
250	30	25			
300	40	30			
350	50	40			

原動機 PRIME MOVER	傳動機負荷等級 DRIVEN MACHINE LOAD CLASSIFICATION	每日使用時間 DURATION OF SERVICE PER DAY			
		0.50 hrs	2 hrs	8-10 hrs	10-24 hrs
電動機 ELECTRIC MOTOR	均一負荷 UNIFORM	0.80	0.90	1.00	1.25
	中衝擊 MEDIUM SHOCK	0.90	1.00	1.25	1.50
	重衝擊 HEAVY SHOCK	1.00	1.25	1.50	1.75

★正轉、逆轉或起動、停止，一小時內達10次以上者請將右表的值乘以1.2
For any obverse rotation/reverse rotation or start-up/stop to happen more than 10 times in one hour, multiply the values (listed in the right table) by 1.2



減速機之選定

SELECTION OF WORM REDUCER

7. 懸掛荷重

懸掛荷重為減速機出力軸，軸端所承受的力量。容許懸掛荷重並非表示減速機不可拖動多大的力量，而只是減速機之使用情況之選擇的依據。

各型減速機在各種使用場合下，皆有一定之容許轉矩， $T = F \times R$ 即轉矩 = 力量 \times 力量施力線到旋轉中心之垂直距離。式中之 F 與容許懸掛荷重有直接之關係，出力軸裝置鏈輪時， F 之最大容許值，即為容許懸掛荷重，如在出力軸裝置齒輪，則 F 之最大容許值為容許懸掛荷重的 0.8 倍，或容許懸掛荷重除以 1.25 倍（此 1.25 之數值即為懸掛荷重係數）當一減速機出力軸所裝之鏈輪或齒輪所受的拉力已計算出（鏈輪之容許拉力值，即為容許懸掛荷重，而齒輪之最大容許拉力值，即為容許懸掛荷重的 80%）依 $T = F \times R \quad R \leq T/F \dots R$ 為鏈輪或齒輪之節圓半徑， T 為容許出力轉矩 F 為容許懸掛荷重。總之，當一減速機在使用時其出力之承受轉矩與懸掛荷重，一定在容許值以下，為其中之一大於容許值時，則須重新設計傳動機構或將減速機之型號改大。當承受轉矩超過容許轉矩時，減速機會發生過熱或蝸輪齒面過度磨損或軸扭斷之現象。當承受荷重超過懸掛荷重時，出力軸在使用過一段時間後會折斷。

懸掛荷重(O.H.L.)系數

OVER-HANGING LOAD (O.H.L.) COEFFICIENT

出力軸 OUTPUT SHAFT	系數 F COEFFICIENT
鍊輪傳動 CHAIN PULLEY TRANSMISSION	1.00
齒輪傳動 GEAR TRANSMISSION	1.25
V皮帶輪傳動 V-BELT TRANSMISSION	1.50
平皮帶輪傳動 FLAT BELT TRANSMISSION	2.50

(1). $d \leq L/2$ (When Load is at middle or inner side)

當負載在軸的中點或中點以內 $S=1$

位置系數(Position factor) $S=1$

(2). $d > L/2$ (When Load is at outer side)

當負載在軸的中點以外

位置系數(Position factor) $S=2$

(1). $d \leq L/2$ (When Load is at middle or inner side)
position factor $S=1$

(2). $d > L/2$ (When Load is at outer side)
position factor $S=2$

OVER-HANGING LOAD (O.H.L.)

O.H.L. stands for the force accepted from the output shaft end of the speed reducer. The allowed O.H.L. is not the dragging limit which the speed reducer can manage; it is only the optional reference which may be based for reducer use. Every type of reducers has a rotating allowed torque under different circumstances. $T = F \times R$ (i.e. torque = force \times the perpendicular distance from force application line to rotating center) In this formula, F is directly related to the allowed O.H.L.; if the output shaft connects with the chain pulley, the maximum allowed F -value is the allowed O.H.L.; if the output shaft connects with gear, the maximum allowed F -value = O.H.L. \times 0.8 (or O.H.L. \div "1.25; the coefficient of O.H.L. is 1.25). The pulling force accepted from the chain pulley or gear which is attached to the output shaft of the reducer is calculated (the allowed pulling force equals to 80% of the allowed O.H.L.) by $T = F \times R \quad R < T/F$ (R stands for pitch radius of the chain pulley or gear; T stands for the allowed output torque; F stands for the allowed O.H.L.). To sum up, when the reducer is in operation, its output load torque and O.H.L. have to be limited below the allowed value; when either output load torque or O.H.L. is above the allowed value, it needs to re-design the transmission mechanism or to change larger model number of the reducer. When the load torque exceeds the allowed value, either the reducer will be over-heated or the worm gear be over worn out or the shaft be broken.

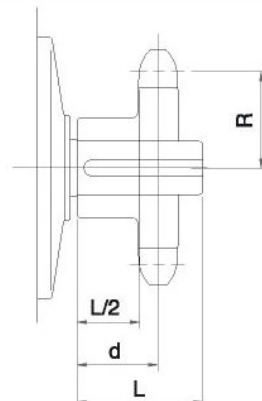
$$OHL = \frac{T' \times f \times l}{R}$$

T' = 補正後之扭力 (Corrective torque)

f = OHL系數 (O.H.L. Coefficient)

l = 位置系數 (Position factor)

R = 皮帶輪或鍊輪半徑 (Radius of belt-pulley or chain pulley)

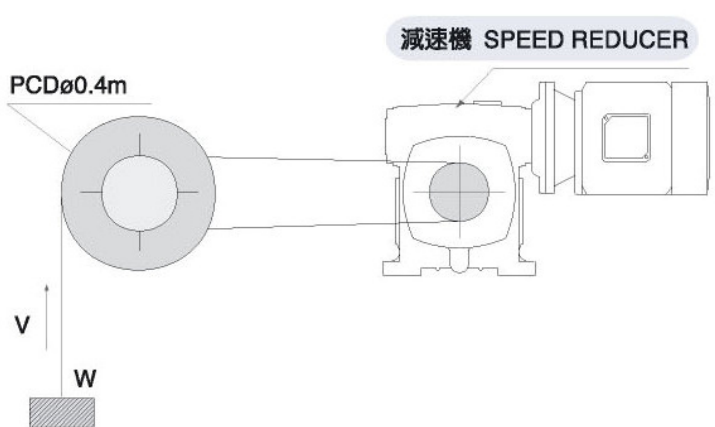


鏈輪應盡量小，並靠近軸內側

Chain pulley should be as small as possible and stand close to the shaft inner side.

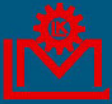
■ 減速機之選定計算範例

CRITERIA FOR REDUCER SELECTION



- ◆ 搬運物總重量
total weight of load : W=800kg
- ◆ 搬送速度
conveying speed : V=15m/min
- ◆ 鍊輪傳動效率
transmission efficiency (chain pulley) $\eta_1=0.97$
- ◆ 減速機傳動效率
transmission efficiency (reducer) $\eta_2=0.75$
- ◆ 運轉時間
operating time : 8 hours/day 8小時/日
- ◆ 起動次數
number of start-up : one time/ 1回/分, 中衝擊
minute, medium impact
- ◆ 使用電源
power: three phase 200v, 60Hz 三相200V, 60Hz

減速比 RATIO	選定之注意事項 NOTICES CALCULATION EXAMPLE	計算範例 LOAD CONDITION NOTICES CALCULATION EXAMPLE
	藉由必要的入力軸回轉數及出力軸回轉數來選定減速比 1. 先求出輸送帶滾輪回轉數(N1) $N1 = \text{搬送速度} / (\text{滾輪直徑} \times \pi)$ 2. 總減速比 = 滾輪回轉數 / 入力軸 (馬達) 回轉數 (R1) 3. 總減速比 = 減速機減速比 \times 鍊輪減速比 (R2) 選定鍊輪減速比 $R2=1/5$ / 減速機之減速比 $R1=1/30$ Reduction Ratio Notices Calculation Example The reduction ratio is based on input/output shaft revolutions. 1. Find the revolution of conveyer pulley (N1) first $N1 = \text{carrying speed} / (\text{pulley } D \times \pi)$ 2. Total reduction ratio = pulley revolutions/input shaft (motor) revolutions revolutions (R1) 3. Total reduction ratio = reduction ratio of reducer \times reduction ratio of chain pulley Reduction ratio of selected chain pulley: $R2=1/5$ Reduction ratio of reducer: $R1=1/30$	1. $N_1 = V / (D \times \pi)$ $= 15 / (0.4 \times 3.14) = 12 \text{r/min (RPM)}$ 2. $R = 12 / 1800 = 1 / 150$ <small>馬達轉數 Motor R.P.M.</small> 3. $R = R_1 \times R_2$ $1 / 20 \times 1 / 7.5$ $1 / 30 \times 1 / 5$ $1 / 40 \times 1 / 3.75$ $1 / 50 \times 1 / 3$ $1 / 60 \times 1 / 2.5$
扭力 TORQUE	選定之注意事項 NOTICES CALCULATION EXAMPLE	計算範例 LOAD CONDITION NOTICES CALCULATION EXAMPLE
	減速機所要的出力扭力 (搬運物重量 \times 滾輪半徑 \times 鍊輪減速比) / (鍊輪效率 \times 減速機效率) The output torque needed by reducer (load \times pulley radius \times reduction ratio of chain pulley) (chain pulley efficiency \times reducer efficiency)	$T_1 = W \times (D / 2) \times R2 / (\eta_1 \times \eta_2)$ $= [800 \times (0.4 / 2) \times (1 / 5)] / (0.97 \times 0.75)$ $= 43.98$
負荷條件 LOAD CONDITIONS	選定之注意事項 NOTICES CALCULATION EXAMPLE	計算範例 LOAD CONDITION NOTICES CALCULATION EXAMPLE
	根據運轉條件算出補正扭力8小時運轉、中衝擊、系數1.25(K) Load Condition Notices Calculation Example Find corrective torque according to operation condition 8 hrs operation, medium impact, coefficient 1.25(K)	$T_2 = (\text{補正扭力 Corrective torque}) T_1 \times \text{運轉條件 (系數K) Operation condition (coefficient K)} = 43.98 \times 1.25 = 54.98 \text{ kgf-m}$
馬力 HORSE POWER	選定之注意事項 NOTICES CALCULATION EXAMPLE	計算範例 LOAD CONDITION NOTICES CALCULATION EXAMPLE
	1. 最後換算成馬力(Hp) Find horsepower $Hp = (\text{補正扭力} \times \text{出力軸轉數}) / 716.2$ $Hp = (\text{Corrective torque} \times \text{Output R.P.M})$	$Hp = (T_2 \times N_1) / 716.2$ $= (54.98 \times 60) / 716.2 = 4.6 \text{Hp}$ 5HP 馬達適用 5HP motor is selected
型號選定 MODEL SELECTED	根據本目錄之馬力型號選擇表 5Hp、減速比1/30，型號120適用。 According to the selection table of HP & model, model 120, 5Hp, reduction ratio 1/30 are selected.	



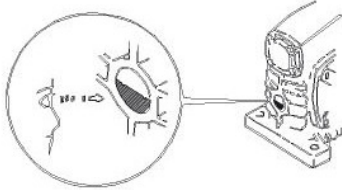
蝸輪減速機的使用及安裝

USAGE AND INSTALLATION OF WORM REDUCER

使用前檢查

- ◆ 檢查機種、型號、馬力、軸方向、減速比回轉方向及入力軸出力軸回轉數是否符合。
- ◆ 注意檢查注油情況，先確定是否有油，並保持油量在油面計一半以上。

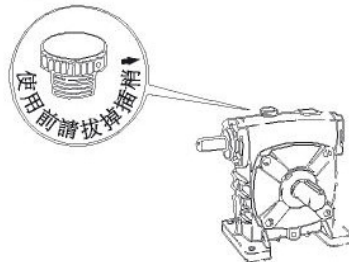
〈圖一〉



場所

- ◆ 須裝置於平且堅固的底部。
- ◆ 安裝之環境須乾燥且通風良好，周圍溫度 $0^{\circ}\text{C}\sim 40^{\circ}\text{C}$ 異常高溫或低溫時請註明。
- ◆ 使用前請拔掉加油蓋上的插銷。

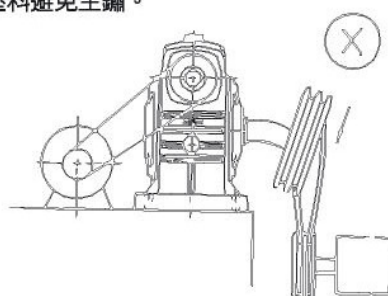
〈圖二〉



連結方式

- ◆ 當聯接器用以聯入力或出力軸時，須確實固定並務使兩軸平行，底座須以適當螺栓，確保固鎖緊密。
- ◆ 所有配備均應輕裝於軸上，勿使用鐵鎚，並避免裝配過緊而引起軸承損壞。
- ◆ 滑輪，鏈輪或齒輪在裝配時應盡量靠近軸承以減少彎曲應力。使用適當大小（在出力軸徑的6倍以內）與出力軸連接之鍊輪，皮帶輪等請配合H7公差使用，可避免發出異聲與軸面受損。
- ◆ 各型加馬達盤之入力孔可加添適當黃油，避免孔徑過度磨損及發出異聲。
- ◆ 軸面可塗上防鏽塗料避免生鏽。

〈圖三〉



CHECK BEFORE OPERATING

- ◆ Check if the model, model No., horse power, shaft direction, reduction ratio, revolution direction and input/output shaft revolutions are in accordance with the standard.
- ◆ Check carefully the oil level to make sure that the oil volume is sufficient and maintains above the middle of oil gauge.

PLACE

- ◆ A flat and solid base is one of the requirements for installation.
- ◆ The environment for installation shall be dry and well ventilated, with ambient temperature at 0°C to 40°C . Abnormal high or low temperature shall be dedicated.
- ◆ Please pull the pin out of the oil lid before use.

CONNECTING METHOD

- ◆ The coupler shall be firmly connected the input and output shafts and two shafts shall be paralleled. The base seat shall be anchored with proper bolts.
- ◆ All the components shall be properly assembled to the shaft. Hammering and over-tight assembly which could damage the bearing are not allowed.
- ◆ The pulley, chain pulley and gear shall be assembled as close as possible to the bearing so as to reduce curving stress to the minimum. The chain pulley and belt pulley used to connect the output shaft shall be properly chosen (within 6 times as large as the diameter of output shaft) and used in accordance with H7 tolerance in order to keep out of abnormal noise and harm to the shaft surface.
- ◆ Proper amount of grease can be applied to the input hole of the additional motor board to ensure the hole against over-wearing and making abnormal noise.
- ◆ The application of anti-rust paint can keep the shaft from rusting.

潤滑油選定

適當潤滑油的黏度，須使蝸輪與蝸桿磨擦容易，遇高負荷及衝擊負荷時，減速機才能充分發揮其機能。

下表即“利明牌”減速機潤滑油的選定：

SELECTION OF LUBRICANT OIL

Proper viscosity of lubricant is contributive to ease the friction of worm gears, so the speed reducer can fully apply its function in the case of high load or impactload.

The table below shows the selection of lubricants for LI-MING gear reducers:

Selection of LUBRICANT OIL

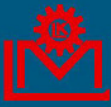
荷重 (LOAD)	周圍溫度 AMBIENT TEMPERATURE	中國石油 KUO-KUANG BRAND	SHELL OIL	MOBIL OIL	ISO VG
普通荷重 COMMON LOAD	- 15°C ~ 3°C	國光牌極壓機油 HD-150	OMALA OIL 150	MOBIL GEAR 629	ISO VG EP 150
	-3°C ~ 23°C	國光牌極壓機油 HD-220	OMALA OIL 220	MOBIL GEAR 630	ISO VG EP 220
	23°C ~ 40°C	國光牌極壓機油 HD-320	OMALA OIL 320	MOBIL GEAR 632	ISO VG EP 320
超荷重 HEAVY LOAD	- 15°C ~ 3°C	國光牌極壓機油 HD-220	OMALA OIL 220	MOBIL GEAR 630	ISO VG EP 220
	-3°C ~ 23°C	國光牌極壓機油 HD-320	OMALA OIL 320	MOBIL GEAR 632	ISO VG EP 320
	23°C ~ 40°C	國光牌極壓機油 HD-460	OMALA OIL 460	MOBIL GEAR 634	ISO VG EP 460

注意事項：

1. 本公司出廠減速機使用國光牌極壓機油 HD-150。
2. 最初使用100小時後，洗淨內部、換上新油以後每2500小時換油。
3. 在高速、高溫、低速、重荷重、強制潤滑等特殊情況下使用場合，請與本公司洽商。
4. 潤滑油不足可能導致蝸輪快速磨損和效率降低。
5. 潤滑油過多可能導致漏油。
6. 請加入適當潤滑油至油量計一半以上（請參考油量表）。

NOTICES：

1. LI - MING gear reducers use Kuo-Kuang Brand engine oil HD-150.
2. After Initial 100 hours of usage, the interior of the reducing gear should be cleaned up and refill new oil. And then, after every 2500 hours of usage replace new oil again.
3. Please contact with our company if the gear reducer will be used in special conditions, such as high speed, high temperature, low speed, heavy load, and forced lubrication and so on.
4. Insufficient lubricant oil may lead to the rapid wears of worm gear and low efficiency.
5. Excessive of lubricant oil may lead to oil leakage.
6. Please fill in adequate lubricant oil to above half of the oil gauge. (See oil gauge)



減速機的使用及安裝

USAGE AND INSTALL DIRECTION

● 油面計
Oil Indicator

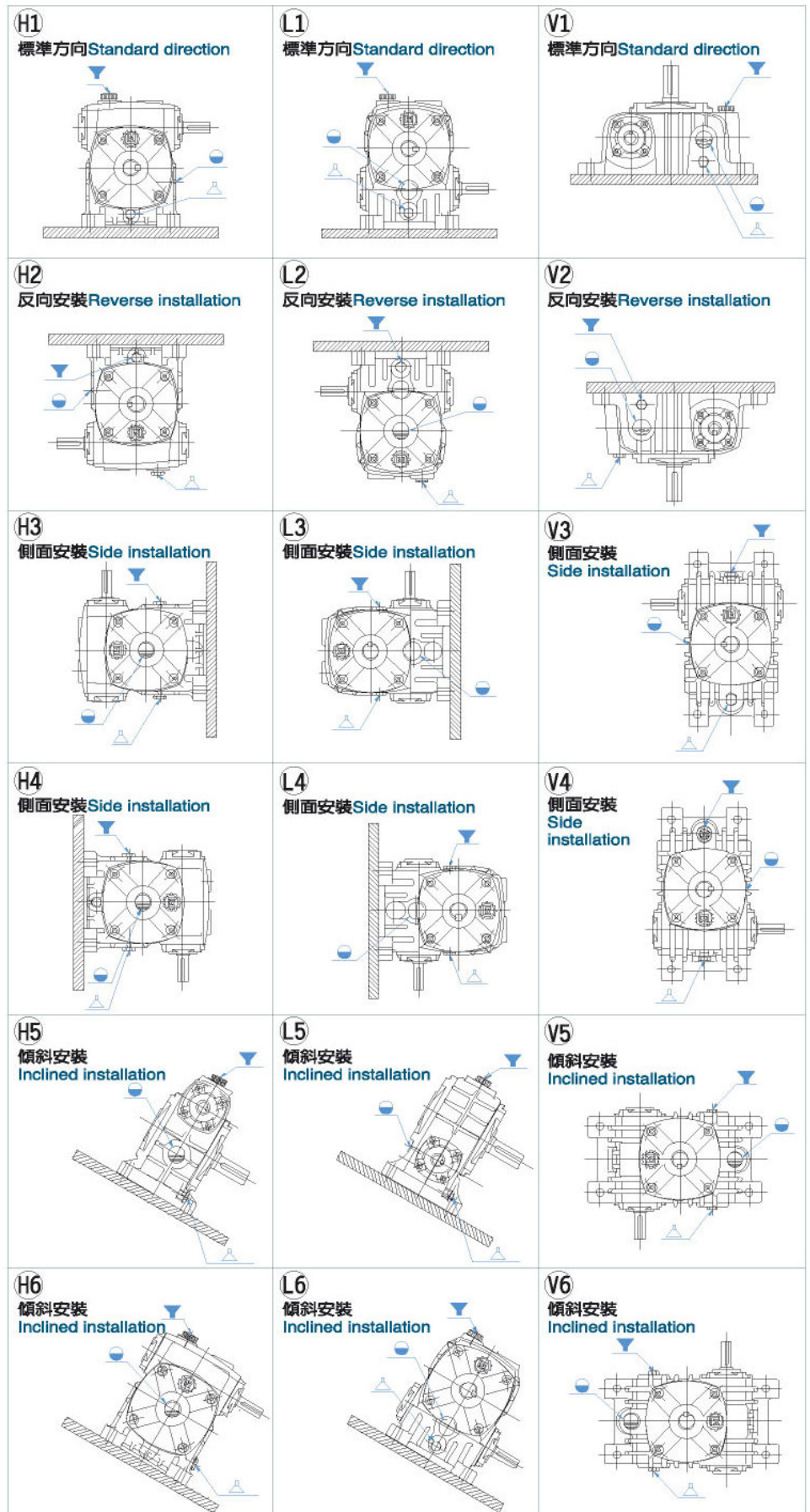
▼ 注油栓
Oil Plug

△ 排油栓
Oil Drain Plug

★ 正常的使用方向可以使減速機保持較高的壽命。
Use the reducer in proper direction can maintain its longer lifetime.

★ 安裝時請注意油面計、注油栓及排油栓的位置以便日後維護。
Please note the positions of oil gauge, oil filling plug and oil drain plug to facilitate the maintenance afterwards.

★ 155#以上減速機使用方向特殊時請與本公司技術課聯絡。
The using direction for reducer of 155# above is special, please contact with our Technology Section while using.



W系列 SERIES

HW :

入力軸在出力軸上方，可方便且容易地安裝鍊輪、皮帶輪等，但型號較大時，潤滑油供給較困難，型號從40#至175#。

The input shaft which is above the output shaft can provide convenient and easy installation of chain pulley and belt pulley, etc. For the larger model No., it is not easy to feed lubricant. Model No.:40# to 175#

HMW(MW) :

同HW，附加馬達盤及入力孔，可直接連接IEC尺寸之馬達，安裝快速、容易，型號從50#至175#。

Same as HW above. With additional motor flange and input bore, this model can be directly connected to IEC motor. The installation is fast and easy.

Model No.: 50# to 175#.

LW :

入力軸在出力軸下方，使入力軸浸在油中，潤滑效果最好，適合較高扭矩傳動，型號從50#至350#。

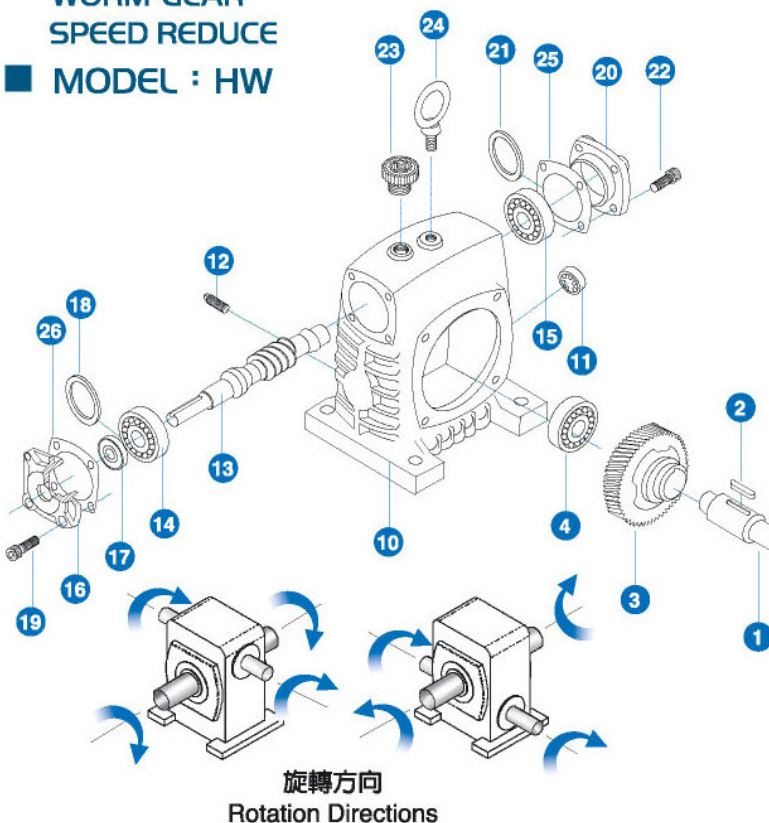
The input shaft which is below the output shaft is submerged in the oil so as to provide good lubrication effect. Suitable for higher torque transmission.

Model No.: 50# to 350#.

蝸輪減速機

WORM-GEAR SPEED REDUCE

MODEL : HW



油量表 (OIL CAPACITIES) :

單位：公升(UNIT: L)

機型 型號	HW	LW	MW	HOM	HOW	LOW	WRC
40	0.2						
50	0.4	0.2	0.4	0.4	0.4	0.2	0.4
60	0.5	0.3	0.5	0.5	0.5	0.3	0.5
70	0.8	0.5	0.8	0.8	0.8	0.5	0.8
80	1.2	0.6	1.2	1.2	1.2	0.6	1.2
100	2.6	1.2	2.6	2.6	2.6	1.2	2.6
120	4.5	2.1	4.5	4.5	4.5	2.1	4.5
135	7	3.4	7	7	7	3.4	
155	11	4.5	11	10	10	4	
175	12.5	6.4	12.5	11.5	11.5	6	
200		7					
225		6					
250		7.6					
300		9.2					
350		12.6					

單段蝸輪減速機W系列分解系統圖
Disassembly diagram of single-stage worm-gear reducer of W series

編號	名稱	PARTS NAME
1	出力軸	OUTPUT SHAFT
2	雙圓鍵	KEY
3	蝸輪	WORM WHEEL
4	滾珠軸承	BALL BEARING
5	滾珠軸承	BALL BEARING
6	油封	OIL SEAL
7	出力軸蓋	OUTPUT SHAFT COVER
8	O形環	O-RING
9	六角承窩頭螺絲	HEX. SCREW
10	蝸輪箱	OUTER SHELL
11	油鏡	OIL GAUGE
12	排油栓	OIL DRAIN PLUG
13	蝸桿	WORM SHAFT
14	滾錐軸承	TAPER ROLLER BEARING
15	滾錐軸承	TAPER ROLLER BEARING
16	入力軸蓋(右)	INPUT SHAFT COVER (R)
17	油封	OIL SEAL
18	襯墊	PACKING
19	六角承窩頭螺絲	HEX. SCREW
20	入力軸蓋(左)	INPUT SHAFT COVER (L)
21	襯墊	PACKING
22	六角承窩頭螺絲	HEX. SCREW
23	注油栓	OIL PLUG
24	吊環(100# 以上附吊環)	HOISTING RING OF 100#ABOVE
25	牛皮紙墊片	PAPER PACKING
26	牛皮紙墊片	PAPER PACKING
27	牛皮紙墊片	PAPER PACKING
8.27	80#(含)以下用O形環及牛皮紙墊片，100#(含)以上用O形環	O-RING AND PAPER PACKING OF 100#BELOW O-RING OF 100#ABOVE
14.15	60#以下滾珠軸承	BALL BEARING OF 60# BELOW



單段蝸輪減速機W系列

SINGLE REDUCTION WORM REDUCER W SERIES

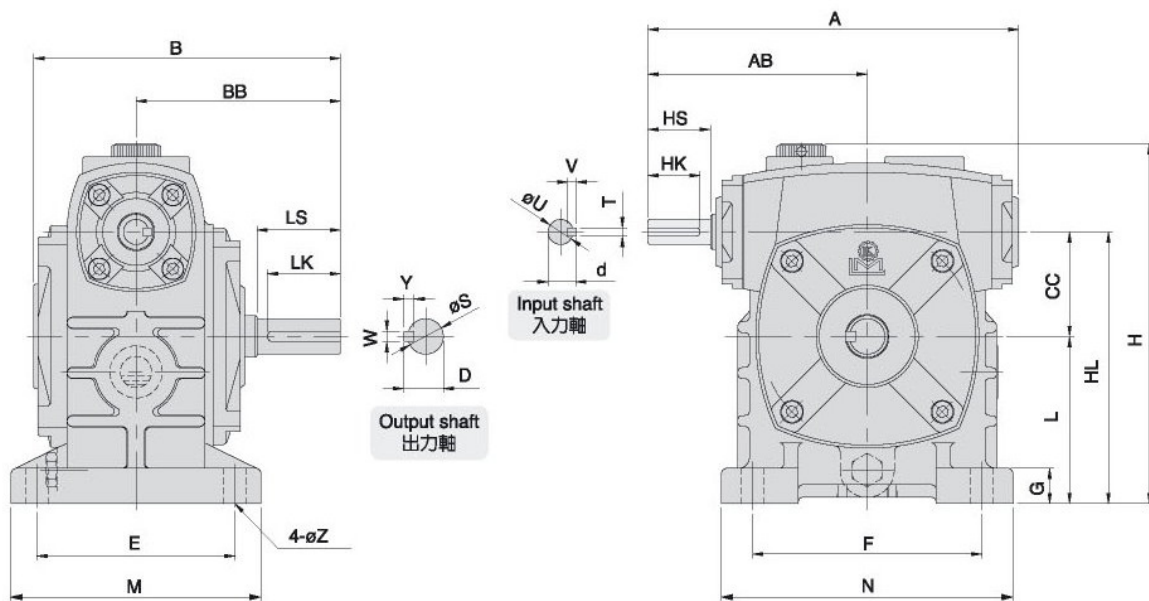
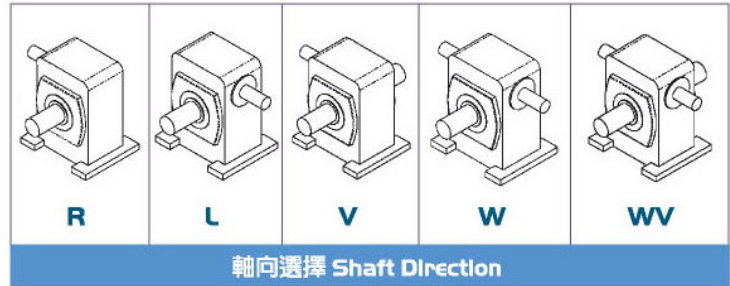
MODEL : HW



▲40#~135#



▲155#~175#



尺寸表 Dimension

單位 : m/m

減速比 RATIO	馬力 HP	腳座 FOOT STOCK														入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight (KG)	
		A	AB	B	BB	CC	L	H	HL	E	F	M	N	G	Z	HS	U	d	TxVxHK	LS	S	D	WxYxLK		
型號 MODEL	1/10- 1/30	1/40- 1/60																							
40	1/8		139.5	86	122	80	40	60	141	100	89	89	110	112	14	9	25	12	13.5	4x4x20	30	15	17	5x5x25	4
50	1/4	1/8	178	105	146	98	50	80	172	130	95	110	120	140	16	11	30	12	13.5	4x4x25	40	17	19	5x5x35	6.6
60	1/2	1/4	198	120	164	110	60	90	200	150	105	120	130	150	20	11	40	15	17	5x5x35	50	22	25	7x7x45	8.2
70	1	1/2	235	140	193	130	70	105	235	175	115	150	150	190	20	15	40	18	20	5x5x35	60	28	31	7x7x55	13.8
80	2	1	268	161	210	140	80	120	260	200	135	180	170	220	20	15	50	22	25	7x7x45	65	32	35	10x8x60	19
100	3	2	322	190	260	170	100	150	324	250	155	220	195	270	25	15	50	25	28	7x7x45	75	38	41	10x8x70	37
120	5	3	390	231	288	190	120	180	380	300	180	260	230	320	30	18	65	30	33	7x7x60	85	45	48	12x8x80	65.2
135	7 1/2	5	438	258	322	214	135	215	445	350	200	290	250	350	32	18	75	35	38	10x8x70	95	55	59	15x10x90	82.2
155	10	7 1/2	491	292	392	253	155	235	482	390	220	320	285	380	38	20	85	40	43	10x8x80	110	60	64	15x10x105	116.8
175	15	10	555	325	412	262	175	260	537	435	250	350	310	410	40	22	85	45	48	12x8x80	110	65	69	18x10x105	143.2

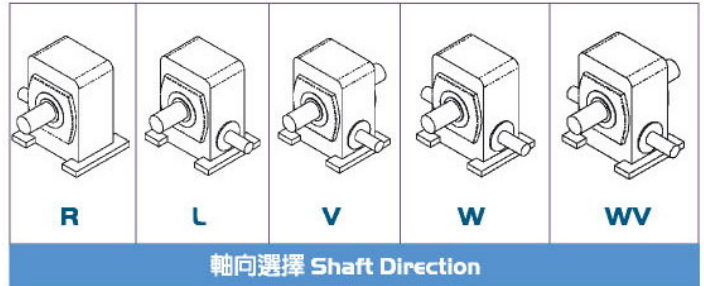
MODEL : LW



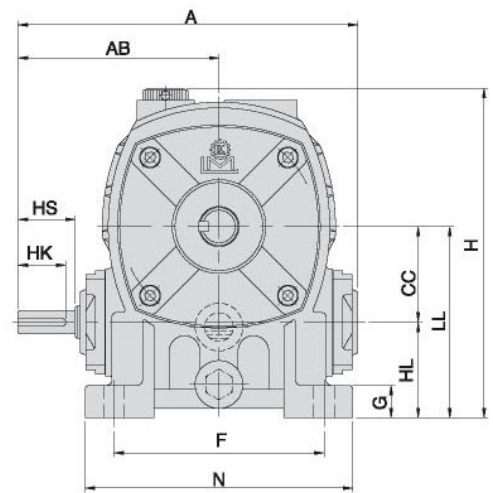
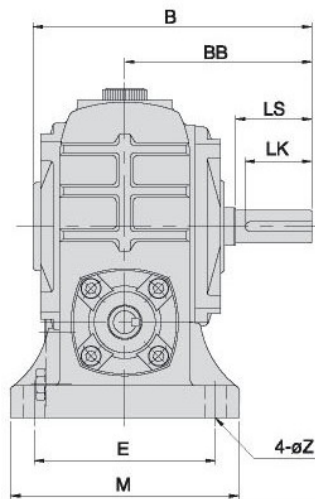
▲50#~135#



▲155#~250#



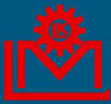
▲300#~350#



尺寸表 Dimension

單位 : m/m

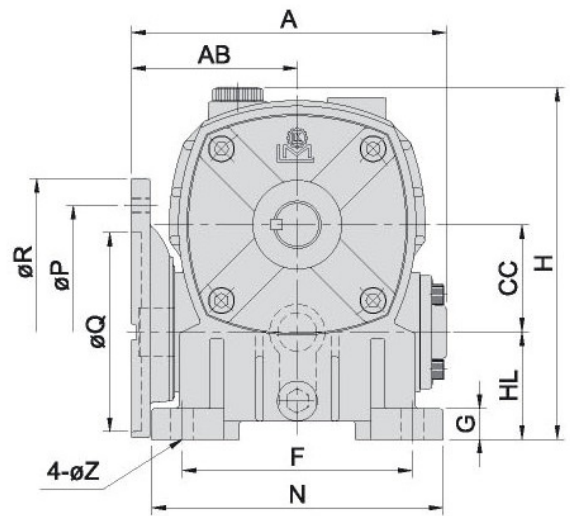
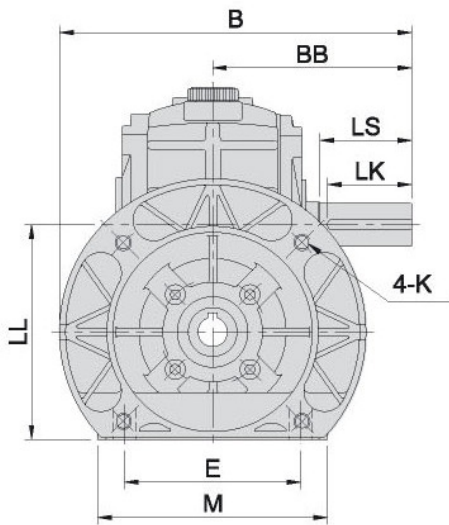
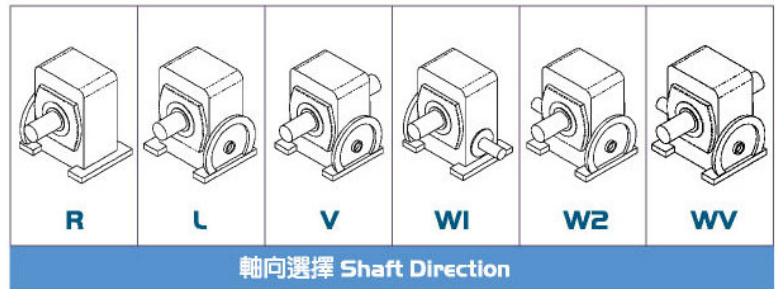
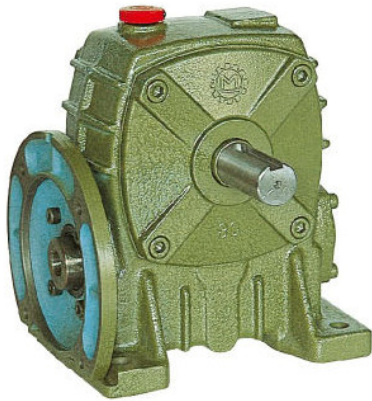
減速比 RATIO	馬力 HP		A	AB	B	BB	CC	H	HL	LL	腳座 FOOT STOCK					入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT			重量 Weight (KG)		
	型號 MODEL	1/10~ 1/30									1/40~ 1/60	E	F	M	N	G	Z	HS	U	d	TxVxHK	LS		S	D
50	1/4		178	105	149	98	50	171	50	100	95	110	120	140	16	11	30	12	13.5	4x4x25	40	17	19	5x5x35	6.6
60	1/2	1/4	198	120	164	110	60	200	60	120	105	120	130	150	20	11	40	15	17	5x5x35	50	22	25	7x7x45	9
70	1	1/2	235	140	193	130	70	240	70	140	115	150	150	190	20	15	40	18	20	5x5x35	60	28	31	7x7x55	13.4
80	2	1	268	161	210	140	80	266	80	160	135	180	170	220	20	15	50	22	25	7x7x45	65	32	35	10x8x60	19
100	3	2	322	190	260	170	100	337	100	200	155	220	195	270	25	15	50	25	28	7x7x45	75	38	41	10x8x70	36
120	5	3	390	231	288	190	120	398	120	240	180	260	230	320	30	18	65	30	33	7x7x60	85	45	48	12x8x80	59
135	7 1/2	5	438	258	322	214	135	440	135	270	200	290	250	350	32	18	75	35	38	10x8x70	95	55	59	15x10x90	80.6
155	10	7 1/2	491	292	392	253	155	496	135	290	220	320	280	390	38	20	85	40	43	10x8x80	110	60	64	15x10x105	110.4
175	15	10	555	325	412	262	175	565	160	335	250	350	315	415	40	22	85	45	48	12x8x80	110	65	69	18x10x105	151.2
200	20	15	604	352	483	311	200	620	175	375	290	350	360	420	42	22	95	50	53	12x8x90	125	70	75	20x12x120	203
225	25	20	650	375	523	335	225	693	190	415	330	390	410	470	45	27	95	55	59	15x10x90	140	80	85	20x12x135	277.2
250	30	25	728	422	555	359	250	781	200	450	380	440	460	520	50	27	110	60	64	15x10x105	155	90	96.5	24x16x150	325
300	40	30	864	498	601	387	300	840	190	490	368	520	450	620	55	36	125	70	73	18x10x120	170	95	101	24x16x160	480
350	50	40	945	570	735	480	350	981	215	565	432	597	520	700	55	43	145	80	85	20x12x135	190	115	124	32x20x185	800



單段蝸輪減速機W系列

SINGLE REDUCTION WORM REDUCER W SERIES

MODEL : LMW



尺寸表 Dimension

單位 : m/m

減速比 RATIO	馬力 HP		A	AB	B	BB	CC	HL	LL	H	馬達盤 MOTOR FLANGE				腳座 FOOT STOCK					入力孔 INPUT BORE			出力軸 OUTPUT SHAFT				重量 Weight (KG)	
	1/10-1/40- MODEL 1/30	1/80									P	Q	R	K	E	F	M	N	G	Z	V	T	U	LS	S	D		WxYxLK
60	1/2	1/4	167	87	190	110	60	60	120	202	130	110	160	M8	105	120	130	148	20	11	12.7 16.3	4 5	11 14	50	22	25	7x7x45	8.8
70	1	1/2	200	108	210 230	130	70	70	140	230	130 165	110 130	160 200	M8 M10	115	150	150	182	20	15	16.3 21.8	5 6	14 19	60	28	31	7x7x55	14.8
80	2	1	226	118	240	140	80	80	160	265	165	130	200	M10	135	180	170	220	20	15	21.8 27.3	6 8	19 24	65	32	35	10x8x60	20.2
100	3	2	278	144	270 295	170	100	100	200	337	165 215	130 180	200 250	M10 M12	155	220	195	270	25	15	27.3 31.3	8	24 28	75	38	41	10x8x70	37
120	5	3	334	173	315	190	120	120	240	398	215	180	250	M12	180	260	230	320	30	18	31.3	8	28	85	45	48	12x8x80	62.4
135	7 1/2	5	369	187	339 364	214	135	135	270	440	215 265	180 230	250 300	M12	200	290	250	350	30	18	31.3 41.3	8 10	28 38	95	55	59	15x10x90	81
155	10	7 1/2	412	212	403	253	155	135	290	490	265	230	300	M12	220	320	280	385	38	20	41.3	10	38	110	60	64	15x10x105	111.6



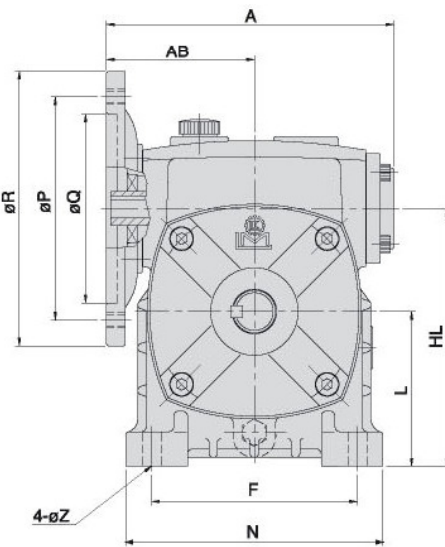
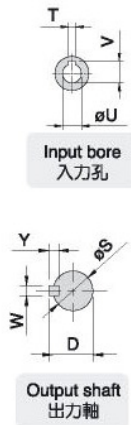
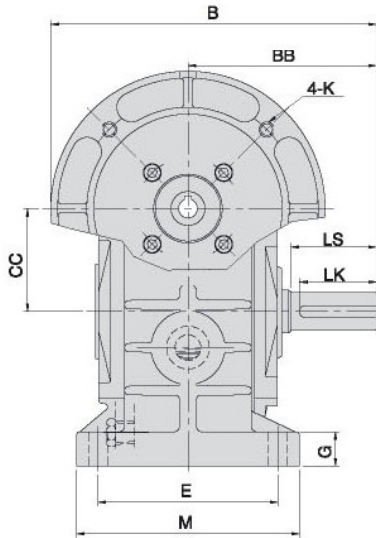
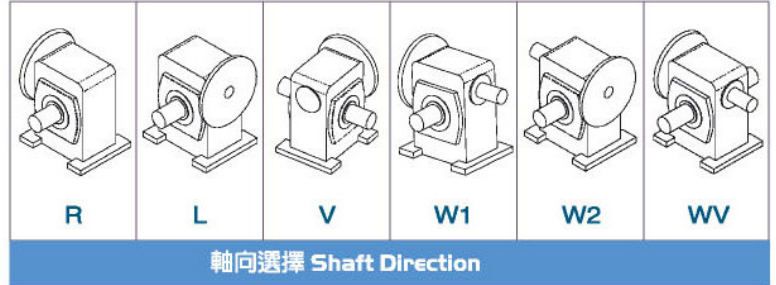
MODEL : HMW (MW)



▲50#~135#



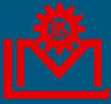
▲155#~175#



尺寸表 Dimension

單位 : m/m

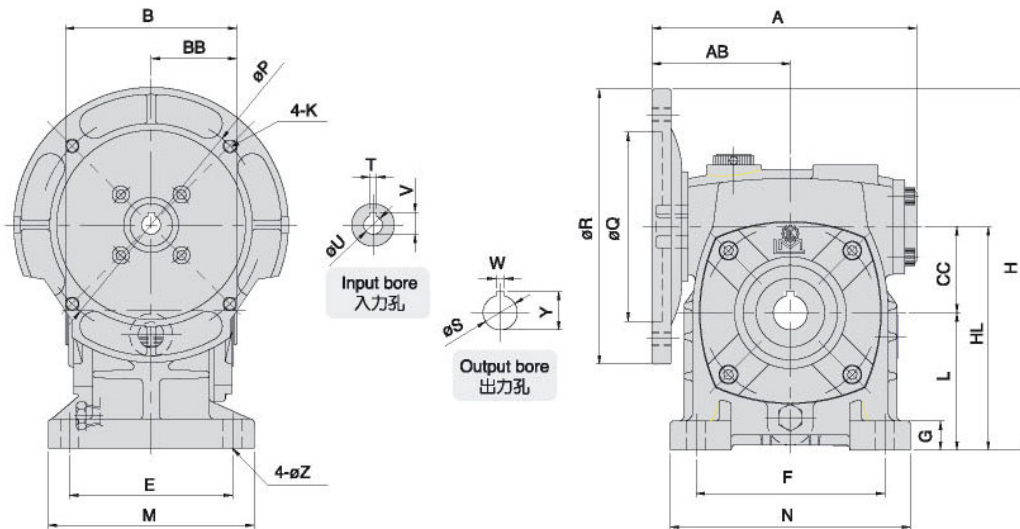
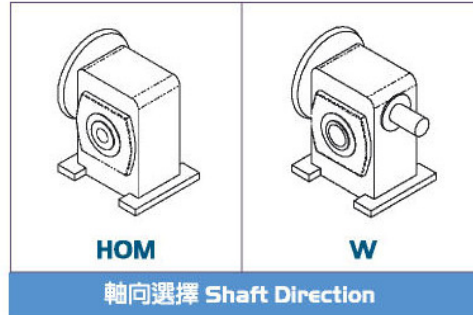
減速比 RATIO	馬力 HP		A	AB	B	BB	CC	HL	L	H	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK					入力孔 INPUT BORE			出力軸 OUTPUT SHAFT			重量 Weight (KG)		
	型號 MODEL	1/10~ 1/30									1/40~ 1/60	P	Q	R	K	E	F	M	N	G	Z	V	T	U	LS		S	D
50	1/4		154	81	178	98	50	130	80	210	130	110	160	M8	95	110	120	140	16	11	12.7	4	11	40	17	19	5x5x35	7.6
60	1/2	1/4	167	87	190	110	60	150	90	230	130	110	160	M8	105	120	130	150	20	11	12.7	4	11	50	22	25	7x7x45	9.4
																					16.3	5	14					
70	1	1/2	200	108	210 230	130	70	175	105	255 275	130	110	160	M8 M10	115	150	150	190	20	15	16.3	5	14	60	28	31	7x7x55	15.2
																					21.8	6	19					
80	2	1	226	118	240 295	140	80	200	120	300	165	130	200	M10	135	180	170	220	20	15	21.8	6	19	65	32	35	10x8x60	21.2
																					27.3	8	24					
100	3	2	278	144	270 295	170	100	250	150	350 375	165	130	200	M10 M12	155	220	195	270	25	15	27.3	8	24	75	38	41	10x8x70	40
																					31.3	8	28					
120	5	3	333	173	315 339 364	190	120	300	180	425 475 500	215	180	250	M12	180	260	230	320	30	18	31.3	8	28	85	45	48	12x8x80	66.2
																					41.3	10	38					
135	7 1/2	5	369	187	339 364	214	135	350	215	500 265	215	180	250	M12	200	290	250	350	32	18	31.3	8	28	95	55	59	15x10x90	82.6
																					41.3	10	38					
155	10	7 1/2	412	212	403 412	253	155	390	235	540 585	265	230	300	M12	220	320	280	390	38	20	41.3	10	38	110	60	64	15x10x105	118
																					45.3	12	42					
175	15	10	467	236	412 437	262	175	435	260	610 610	265	230	300	M12 M16	250	350	315	415	40	22	41.3	10	38	110	65	69	18x10x105	152.2
																					45.3	12	42					



單段蝸輪減速機W系列

SINGLE REDUCTION WORM REDUCER W SERIES

MODEL: HOM

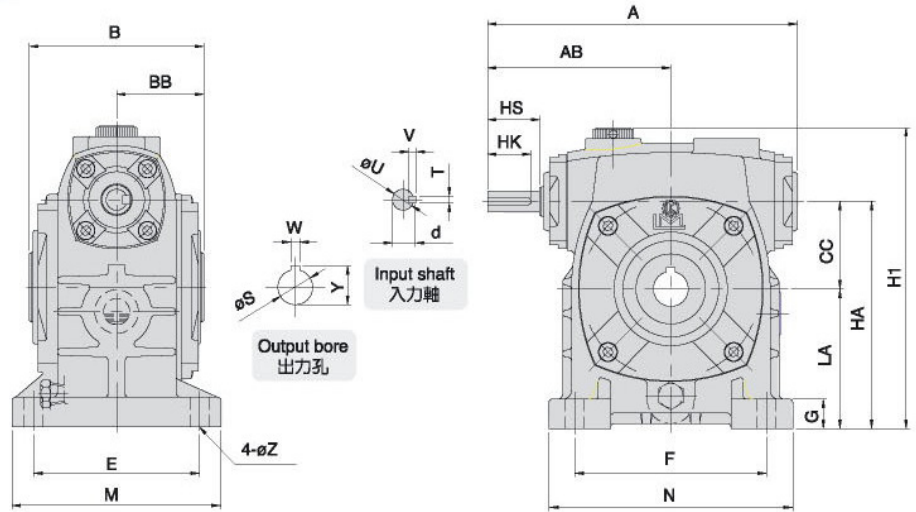
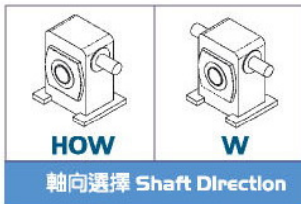


尺寸表 Dimension

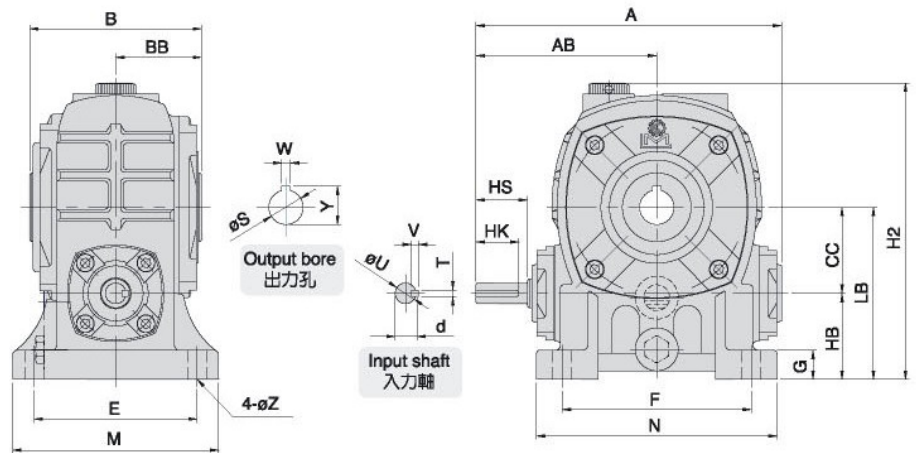
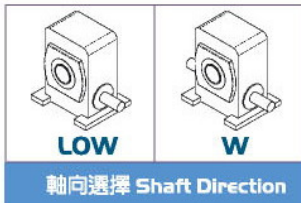
單位：m/m

減速比 RATIO	馬力 HP		A	AB	B	BB	CC	H	HL	L	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK					入力孔 INPUT BORE			出力孔 OUTPUT BORE			重量 Weight (KG)	
	型號 MODEL	1/10- 1/30									1/40- 1/60	P	Q	R	K	E	F	M	N	G	Z	V	T	U	W		Y
50	1/4		154	81	98	50	50	210	130	80	130	110	160	M8	95	110	120	140	16	11	12.7	4	11	6	22.8	20	8
60	1/2	1/4	167	87	108	55	60	230	150	90	130	110	160	M8	105	120	130	150	20	11	12.7 16.3	4 5	11 14	8	28.3	25	10.6
70	1	1/2	200	108	128	65	70	255 275	175	105	130 165	110 130	160 200	M8 M10	115	150	150	190	20	15	16.3 21.8	5 6	14 19	8	33.3	30	18
80	2	1	226	118	138	70	80	300	200	120	165	130	200	M10	135	180	170	220	20	15	21.8 27.3	6 8	19 24	10	38.3	35	23.2
100	3	2	278	144	178	90	100	350 375	250	150	165 215	130 180	200 250	M10 M12	155	220	195	270	25	15	27.3 31.3	8	24 28	10	43.3	40	40.8
120	5	3	332	173	198	100	120	425	300	180	215	180	250	M12	180	260	230	320	30	18	31.3	8	28	12	48.3	45	68.2
135	7 1/2	5	369	187	218	110	135	475 500	350	215	215 265	180 230	250 300	M12	200	290	250	350	32	18	31.3 41.3	8 10	28 38	15	59.3	55	80.2
155	10	7 1/2	412	212	247	123.5	155	540	390	235	265	230	300	M12	220	320	285	390	35	20	41.3	10	38	15	69.3	65	113.4
175	15	10	467	236	262	131	175	585 610	435	260	265 300	230 250	300 350	M12 M16	250	350	315	415	40	22	41.3 45.3	10 12	38 42	18	94.3	90	158.6

MODEL : HOW

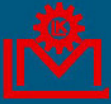


MODEL : LOW



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		A	AB	B	BB	CC	H1	H2	HA	HB	LA	LB	腳座 FOOT STOCK						入力軸 INPUT SHAFT				出力孔 OUTPUT BORE			重量 Weight (KG)	
	型號 MODEL	1/10- 1/30												1/40- 1/60	E	F	M	N	G	Z	HS	U	d	TxVxHK	W	Y	S	HOW
50	1/4		179	105	98	50	50	171	172	130	50	80	100	95	110	120	140	16	11	30	12	13.5	4x4x25	6	22.8	20	7.6	7.6
60	1/2	1/4	198	120	108	55	60	200	200	150	60	90	120	105	120	130	150	20	11	40	15	17	5x5x35	8	28.3	25	10.4	11.4
70	1	1/2	235	140	128	65	70	235	240	175	70	105	140	115	150	150	190	20	15	40	18	20	5x5x35	8	33.3	30	16.6	16.2
80	2	1	268	161	138	70	80	260	266	200	80	120	160	135	180	170	220	20	15	50	22	25	7x7x45	10	38.3	35	22	22.2
100	3	2	322	190	178	90	100	324	337	250	100	150	200	155	220	195	270	25	15	50	25	28	7x7x45	10	43.3	40	37.8	36.8
120	5	3	390	231	198	100	120	380	398	300	120	180	240	180	260	230	320	30	18	65	30	33	7x7x60	12	48.3	45	65.2	59
135	7 1/2	5	438	258	218	110	135	445	440	350	135	215	270	200	290	250	350	32	18	75	35	38	10x8x70	15	59.3	55	78	76.4
155	10	7/2	491	292	247	123.5	155	482	482	390	135	235	290	220	320	285	380	35	20	85	40	43	10x8x80	15	69.3	65	112.2	105.8
175	15	10	555	325	262	131	175	536	565	435	160	260	335	250	350	315	415	40	22	85	45	48	12x8x80	18	94.3	90	159.6	166.6



單段蝸輪減速機 VW 系列

SINGLE REDUCTION WORM REDUCER VW SERIES

VW系列 SERIES

VW & UW :

安裝所佔空間小，潤滑效果佳，適合較高扭矩傳動，型號從40#至350#。

Small space needed for installation; good lubrication effect; suitable for higher torque transmission.

Model No.: 40# to 350#.

編號	名稱	NAME OF PARTS
1	出力軸	OUTPUT SHAFT
2	雙圓鍵	KEY
3	蝸輪	WORM WHEEL
4	滾珠軸承	BALL BEARING
5	滾珠軸承	BALL BEARING
6	油封	OIL SEAL
7	出力軸蓋	OUTPUT SHAFT COVER
8	O形環	O-RING
9	六角承窩頭螺絲	HEX. SCREW
10	蝸輪箱	OUTER SHEEL
11	油鏡	OIL GAUGE
12	排油栓	DRAIN PLUG
13	蝸桿	WORM SHAFT
14	滾錐軸承	TAPER ROLLER BEARING
15	滾錐軸承	TAPER ROLLER BEARING
16	入力軸蓋 (左)	INPUT SHAFT COVER (L)
17	油封	OIL SEAL
18	牛皮紙墊片	PAPER PACKING
19	六角承窩頭螺絲	HEX. SCREW
20	入力軸蓋 (右)	INPUT SHAFT COVER (R)
21	牛皮紙墊片	PAPER PACKING
22	六角承窩頭螺絲	HEX. SCREW
23	注油栓	OIL PLUG
24	牛皮紙墊片	PAPER PACKING
14.15	60#以下滾珠軸承	BALL BEARING OF 60# BELOW

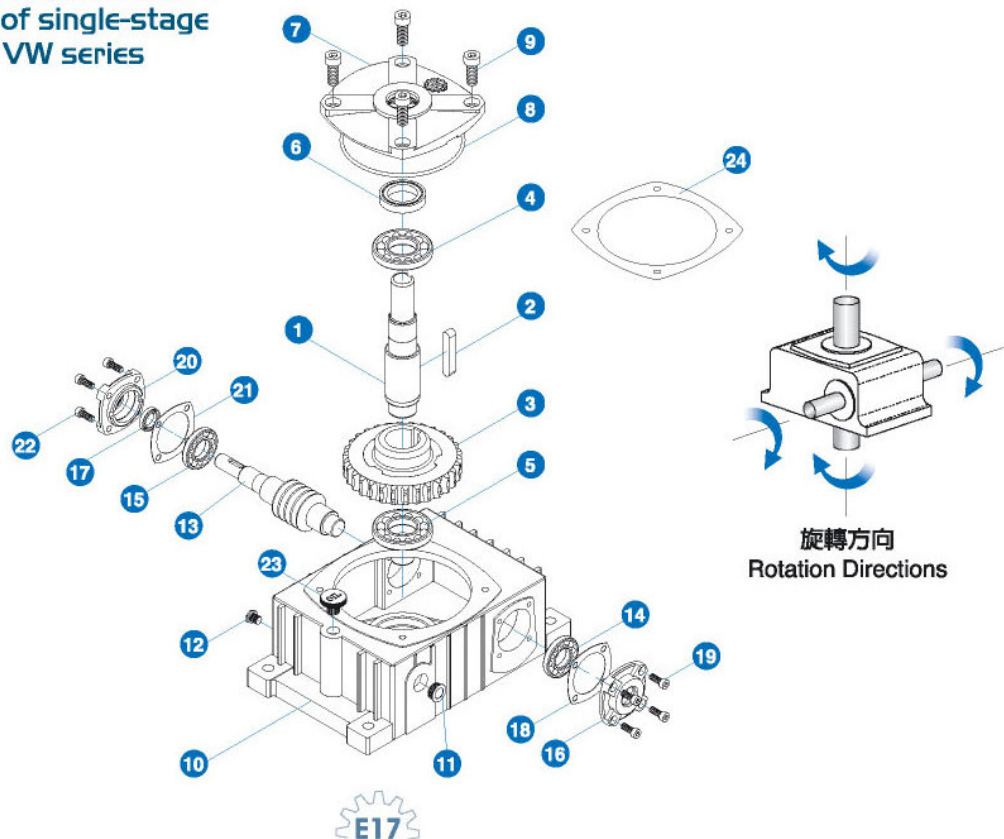
油量表 (OIL CAPACITIES) :

單位：公升(UNIT：L)

機型 型號	VW	UW	VOM	VOW	VWM	UWM	VOWY
40	0.2	0.2		0.2			0.2
50	0.3	0.3	0.3	0.3	0.3	0.3	0.3
60	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70	0.8	0.8	0.8	0.8	0.8	0.8	0.8
80	1.3	1.3	1.3	1.3	1.3	1.3	1.3
100	2.5	2.5	2.5	2.5	2.5	2.5	2.5
120	3.7	3.7	3.7	3.7	3.7	3.7	3.7
135	5.2	5.2	5.2	5.2	5.2	5.2	5.2
155	6.8	6.8	6.7	6.7	6.8	6.8	
175	8.1	8.1	8.0	8.0	8.1	8.1	
200	10.8	10.8					
225	12.2	12.2					
250	15.2	15.2					
300	18.2	18.2					
350	21.3	21.3					

單段蝸輪減速機VW系列分解系統圖

Disassembly diagram of single-stage worm-gear reducer of VW series



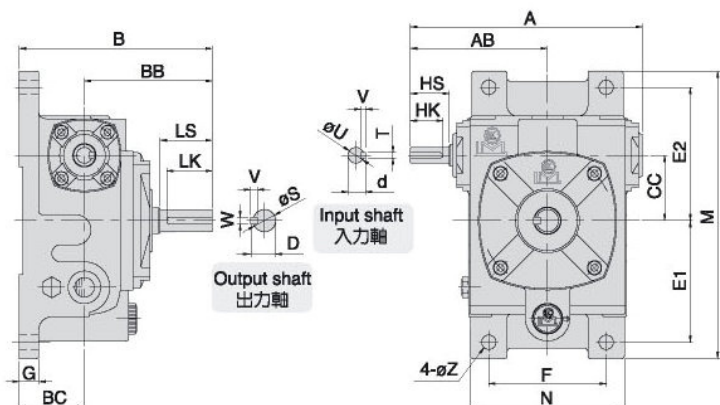
MODEL : VW



▲40#~135#



▲155#~175#



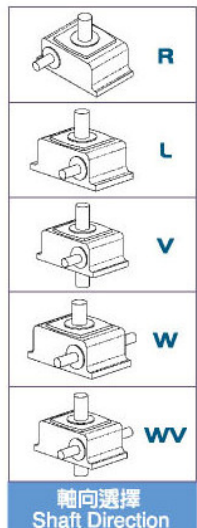
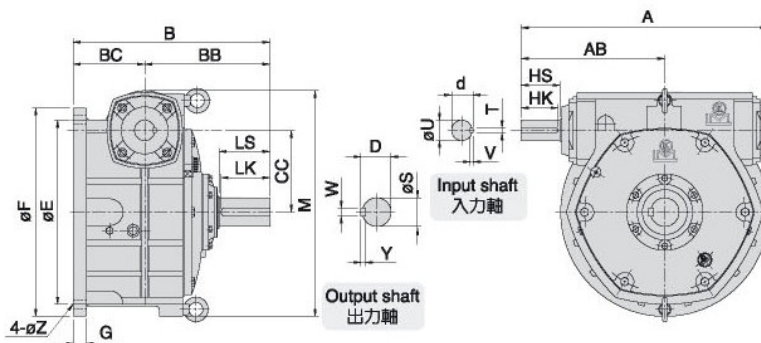
尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		A	AB	B	BB	BC	CC	腳座 FOOT STOCK					入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight (KG)		
	型號 MODEL	1/10~ 1/30							1/40~ 1/60	E1	E2	F	M	N	G	Z	HS	U	d	TxVxHK	LS		S	D
40	1/8		139.5	86	125	80	45	40	75	85	70	182	94	14	9	25	12	13.5	4x4x20	30	15	17	5x5x25	4.5
50	1/4	1/8	178	105	148	98	50	50	93	102	90	220	118	16	11	30	12	13.5	4x4x25	40	17	19	5x5x35	6.8
60	1/2	1/4	198	120	165	110	55	60	105	120	100	252	128	18	11	40	15	17	5x5x35	50	22	25	7x7x45	9.2
70	1	1/2	235	140	195	130	65	70	120	135	120	288	160	20	15	40	18	20	5x5x35	60	28	31	7x7x55	14.4
80	2	1	268	161	210	140	70	80	130	150	140	310	183	20	15	50	22	25	7x7x45	65	32	35	10x8x60	19.4
100	3	2	322	190	260	170	90	100	155	180	190	380	230	26	15	50	25	28	7x7x45	75	38	41	10x8x70	38.6
120	5	3	390	231	290	190	100	120	185	215	220	450	266	30	18	65	30	33	7x7x60	85	45	48	12x8x80	62
135	7 1/2	5	438	258	324	214	110	135	210	235	260	495	305	35	18	75	35	38	10x8x70	95	55	59	15x10x90	83
155	10	7 1/2	491	292	393	253	140	155	145	265	290	460	340	45	20	85	40	43	10x8x80	110	60	64	15x10x105	106.8
175	15	10	555	325	412	262	150	175	167	293	320	516	385	45	22	85	45	48	12x8x80	110	65	69	18x10x105	141

MODEL : VW

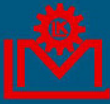


▲200#~350#



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		A	AB	B	BB	BC	CC	腳座 FOOT STOCK					入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight KG
	型號 MODEL	1/10~ 1/30							1/40~ 1/80	E	F	M	G	Z	HS	U	d	TxVxHK	LS	S	D	
200	20	15	604	352	486	311	175	200	450	510	558	32	22	95	50	53	12x8x90	125	70	75	20x12x120	185.2
225	25	20	650	375	525	335	190	225	510	580	622	35	27	95	55	59	15x10x90	140	80	85	20x12x135	255.2
250	30	25	728	422	559	359	200	250	570	640	675	35	27	110	60	64	15x10x105	155	90	96.5	24x16x150	298
300	40	30	864	498	622	387	235	300	660	750	800	38	36	125	70	73	18x10x120	170	95	101	24x16x160	465
350	50	40	945	570	770	480	290	350	780	880	945	38	43	145	80	85	20x12x135	190	115	124	32x20x185	785



單段蝸輪減速機 VW 系列

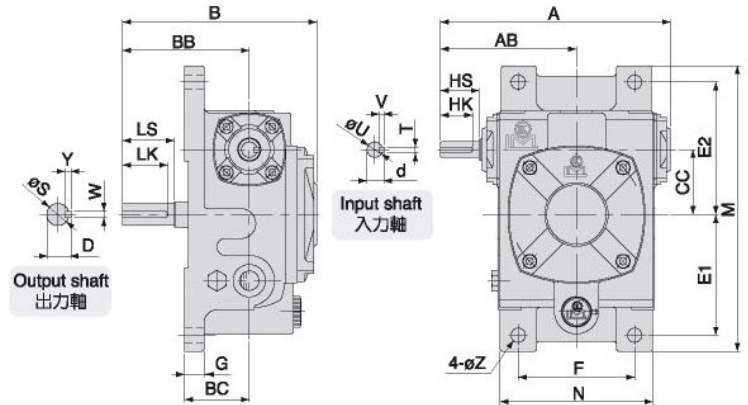
SINGLE REDUCTION WORM REDUCER VW SERIES

MODEL : UW



▲40#~135#

▲155#~175#



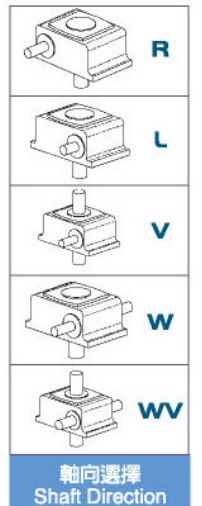
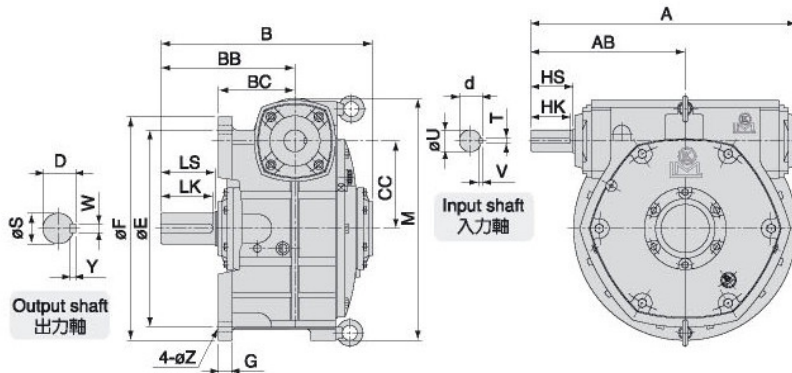
尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	B	BB	BC	CC	腳座 FOOT STOCK					入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight (KG)			
								E1	E2	F	M	N	G	Z	HS	U	d	TxVxHK	LS	S		D	WxYxLK	
40	1/8	139.5	86	124	80	45	40	75	85	70	182	94	14	9	25	12	13.5	4x4x20	30	15	17	5x5x25	4.5	
50	1/4	178	105	148	98	50	50	93	102	90	220	118	16	11	30	12	13.5	4x4x25	40	17	19	5x5x35	6.8	
60	1/2	198	120	165	110	55	60	105	120	100	252	128	18	11	40	15	17	5x5x35	50	22	25	7x7x45	9.2	
70	1	235	140	195	130	65	70	120	135	120	288	160	20	15	40	18	20	5x5x35	60	28	31	7x7x55	14.4	
80	2	268	161	210	140	70	80	130	150	140	315	183	20	15	50	22	25	7x7x45	65	32	35	10x8x60	19.4	
100	3	322	190	260	170	90	100	155	180	190	380	230	26	15	50	25	28	7x7x45	75	38	41	10x8x70	38.6	
120	5	390	231	290	190	100	120	185	215	220	450	266	30	18	65	30	33	7x7x60	85	45	48	12x8x80	62	
135	7 1/2	5	438	258	324	214	110	135	210	235	260	495	305	35	18	75	35	38	10x8x70	95	55	59	15x10x90	83
155	10	7 1/2	491	292	393	253	140	155	145	265	290	460	340	45	20	85	40	43	10x8x80	110	60	64	15x10x105	106.8
175	15	10	555	325	412	262	150	175	167	293	320	516	385	45	22	85	45	48	12x8x80	110	65	69	18x10x105	141

MODEL : UW



▲200#~350#



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	B	BB	BC	CC	腳座 FOOT STOCK					入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight (KG)	
								E	F	M	G	Z	HS	U	d	TxVxHK	LS	S	D	WxYxLK		
200	20	15	604	352	486	311	175	200	450	510	558	32	22	95	50	53	12x8x90	125	70	75	20x12x120	185.2
225	25	20	650	375	525	335	190	225	510	580	622	35	27	95	55	59	15x10x90	140	80	85	20x12x135	255.2
250	30	25	728	422	559	359	200	250	570	640	675	35	27	110	60	64	15x10x105	155	90	96.5	24x16x150	298
300	40	30	864	498	622	387	235	300	660	750	880	38	36	125	70	73	18x10x120	170	95	101	24x16x160	465
350	50	40	945	570	770	480	290	350	780	880	945	38	43	145	80	85	20x12x135	190	115	124	32x20x185	785

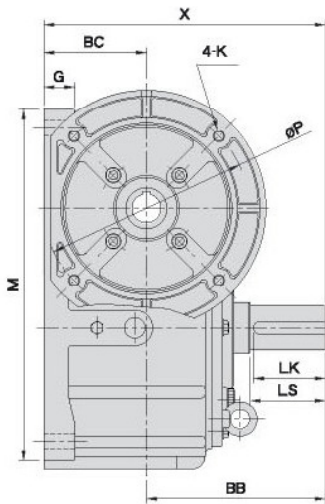
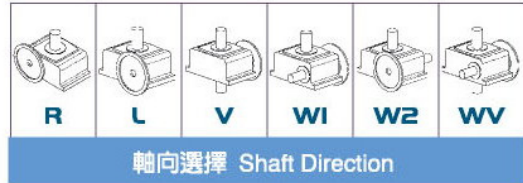
MODEL : VMW



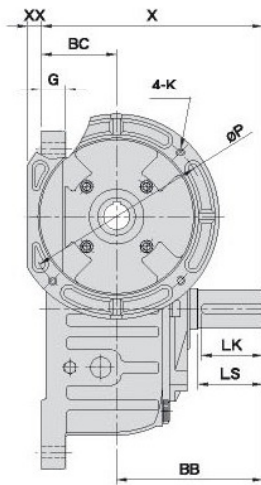
▲50#~135#



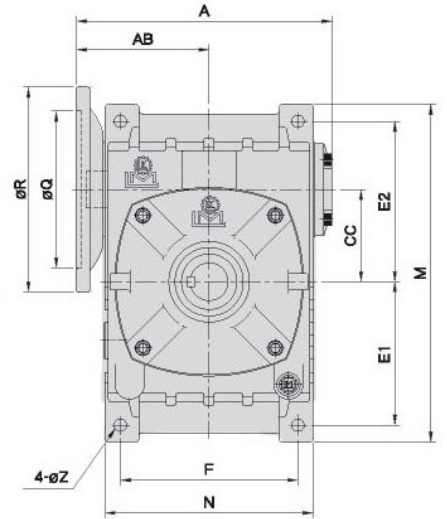
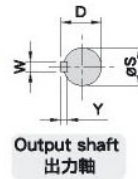
▲155#~175#



VMW155~175



VMW50~135



尺寸表 Dimension

單位 : m/m

減速比 RATIO	馬力 HP	A	AB	X	XX	BB	BC	CC	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK						入力孔 INPUT BORE			出力軸 OUTPUT SHAFT				重量 Weight (KG)		
									P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	LS	S	D		WxYxLK	
型號 MODEL	1/10~ 1/30	1/40~ 1/60																										
50	1/4	154	81	148	9	98	50	50	130	110	160	M8	93	102	90	220	118	16	11	12.7	4	11	40	17	19	5x5x35	7.2	
60	1/2	1/4	167	87	165	4	110	55	60	130	110	160	M8	105	120	100	252	128	18	11	12.7	4	11	50	22	25	7x7x45	10.2
										16.3	5	14																
70	1	1/2	200	108	195	35	130	65	70	130	110	160	M8	120	135	120	288	160	20	15	16.3	5	14	60	28	31	7x7x55	14.4
										165	130	200	M10															
80	2	1	226	118	210	30	140	70	80	165	130	200	M10	130	150	140	315	183	20	15	21.8	6	19	65	32	35	10x8x60	21.2
										27.3	8	24																
100	3	2	278	144	260	35	170	90	100	165	130	200	M10	155	180	190	380	230	26	15	27.3	8	24	75	38	41	10x8x70	43
										215	180	250	M12															
120	5	3	335	174	290	25	190	100	120	215	180	250	M12	185	215	220	450	266	30	18	31.3	8	28	85	45	48	12x8x80	65
										215	180	250	M12															
135	7 1/2	5	369	187	324	40	214	110	135	215	180	250	M12	210	235	260	495	305	35	18	31.3	8	28	95	55	59	15x10x90	85.2
										265	230	300																
155	10	7 1/2	412	212	393		253	140	155	265	230	300	M12	145	265	290	460	340	45	20	41.3	10	38	110	60	64	15x10x105	108
										265	230	300																
175	15	10	467	236	412		262	150	175	265	230	300	M16	167	293	320	516	385	45	22	41.3	10	38	110	65	69	18x10x105	150
										300	250	350																



單段蝸輪減速機 VW 系列

SINGLE REDUCTION WORM REDUCER VW SERIES

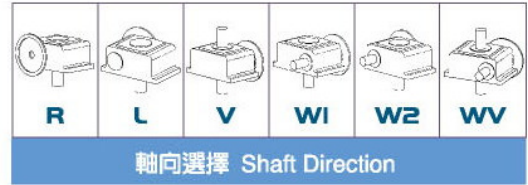
MODEL : UMW



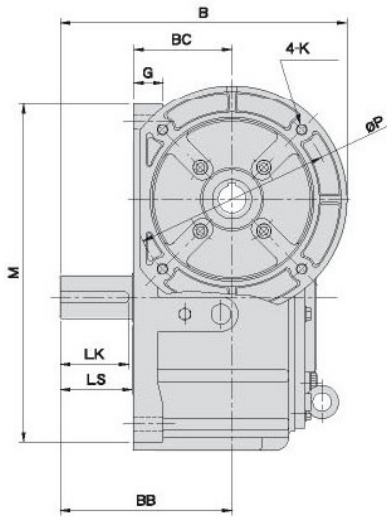
▲50#~135#



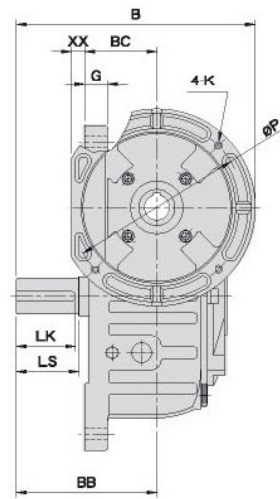
▲155#~175#



軸向選擇 Shaft Direction



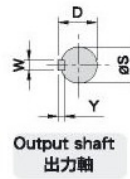
UMW155~175



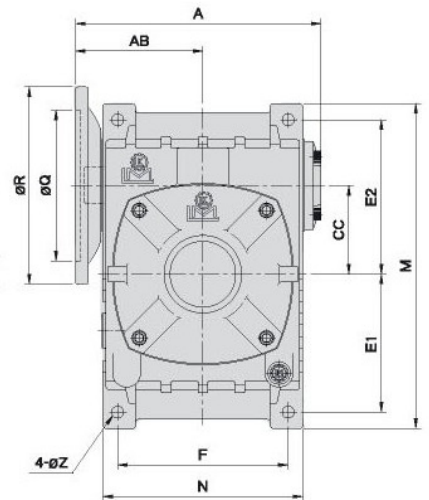
UMW50~135



Input Bore 入力孔



Output shaft 出力軸



尺寸表 Dimension

單位 : m/m

減速比 RATIO	馬力 HP	A	AB	B	XX	BB	BC	CC	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK						入力孔 INPUT BORE			出力軸 OUTPUT SHAFT				重量 Weight (KG)												
									P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	LS	S	D		WxYxLxK											
型號 MODEL	1/10~ 1/30	1/40~ 1/60																																				
50	1/4		154	81	178	9	98	50	50	130	110	160	M8	93	102	90	220	118	16	11	12.7	4	11	40	17	19	5x5x35	7.2										
60	1/2	1/4	167	87	190	4	110	55	60	130	110	160	M8	105	120	100	252	128	18	11	12.7	4	11	50	22	25	7x7x45	10.2										
										16.3	5	14																										
70	1	1/2	200	108	210 230	35	130	65	70	130	110	160	M8	120	135	120	288	160	20	15	16.3	5	14	60	28	31	7x7x55	14.4										
										165	130	200	M10	21.8	6	19																						
80	2	1	226	118	240	30	140	70	80	165	130	200	M10	130	150	140	315	183	20	15	21.8	6	19	65	32	35	10x8x60	20.6										
										165	130	200	M10	27.3	8	24																						
100	3	2	278	144	270 295	35	170	90	100	165	130	200	M10	155	180	190	380	230	26	15	27.3	8	24	75	38	41	10x8x70	43										
										215	180	250	M12	31.3	8	28																						
120	5	3	335	174	315	25	190	100	120	215	180	250	M12	185	215	220	450	266	30	18	31.3	8	28	85	45	48	12x8x80	65										
										265	230	300	M12	41.3	10	38																						
135	7 1/2	5	369	187	339 364	40	214	110	135	215	180	250	M12	210	235	260	495	305	35	18	31.3	8	28	95	55	59	15x10x90	85.2										
										265	230	300	M12	41.3	10	38																						
155	10	7 1/2	412	212	403		253	140	155	265	230	300	M12	145	265	290	460	340	45	20	41.3	10	38	110	60	64	15x10x105	108										
										265	230	300	M12	41.3	10	38																						
175	15	10	467	236	412 437		262	150	175	265	230	300	M16	167	293	320	516	385	45	22	41.3	10	38	110	65	69	18x10x105	150										
										300	250	350	M16	45.3	12	42																						

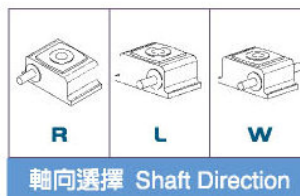
MODEL : VOW



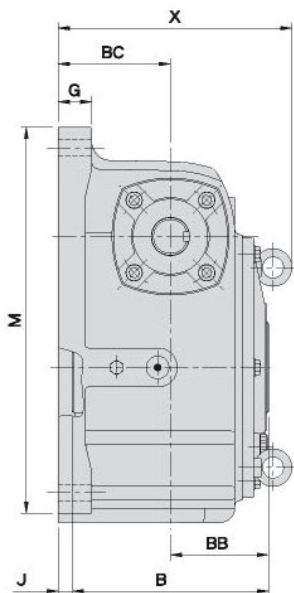
▲40#~135#



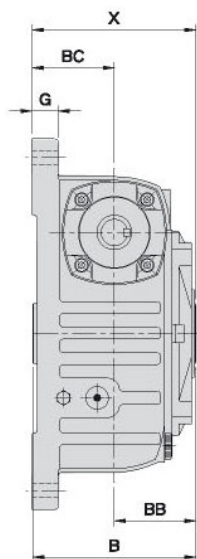
▲155#~175#



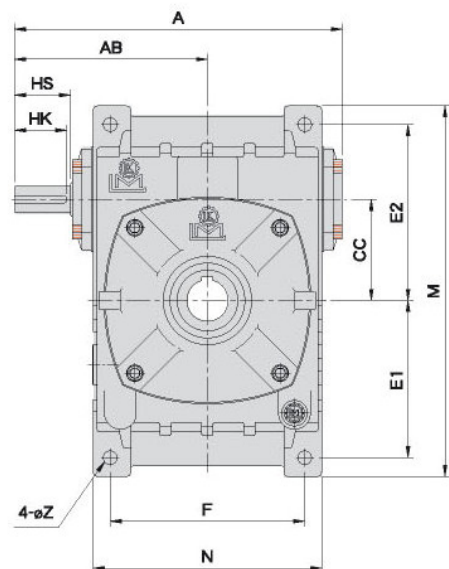
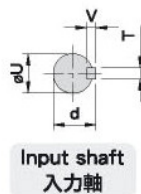
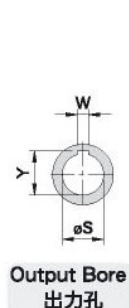
軸向選擇 Shaft Direction



VOW155~175



VOW40~135



減速比 RATIO		馬力 HP		腳座 FOOT STOCK										入力軸 INPUT SHAFT				出力孔 OUTPUT BORE			重量 Weight (KG)					
型號 MODEL	1/10-1/40-1/30 1/60	1/10-1/40-1/30	1/60	A	AB	J	B	X	BB	BC	CC	E1	E2	F	M	N	G	Z	HS	U	d	TxVxHK	W	Y	S	
40	1/8			139.5	86		88	89	44	45	40	75	85	70	183	94	11	9	25	12	13.5	4x4x20	6	22.8	20	5
50	1/4			178	105		98	99	49	50	50	93	102	90	220	118	16	11	30	12	13.5	4x4x25	6	22.8	20	7.8
60	1/2	1/4		198	120		108	109	54	55	60	105	120	100	252	128	18	11	40	15	17	5x5x35	8	28.3	25	12
70	1	1/2		235	140		128	129	64	65	70	120	135	120	288	160	20	15	40	18	20	5x5x35	8	33.3	30	15.4
80	2	1		268	161		138	139	69	70	80	130	150	140	315	183	20	15	50	22	25	7x7x45	10	38.3	35	21.2
100	3	2		322	190		178	179	89	90	100	155	180	190	380	230	26	15	50	25	28	7x7x45	10	43.3	40	39.4
120	5	3		390	231		198	199	99	100	120	185	215	220	450	266	30	18	65	30	33	7x7x60	12	48.3	45	62
135	7 1/2	5		438	258		218	219	109	110	135	210	235	260	495	305	35	18	75	35	38	10x8x70	15	59.3	55	78.8
155	10	7 1/2		491	292	16.5	247	288	123.5	140	155	145	265	290	460	340	45	20	85	40	43	10x8x80	15	69.3	65	104
175	15	10		555	325	19	262	305	131	150	175	167	293	320	516	390	45	22	85	45	48	12x8x80	18	94.3	90	149



單段蝸輪減速機 VW 系列

SINGLE REDUCTION WORM REDUCER VW SERIES

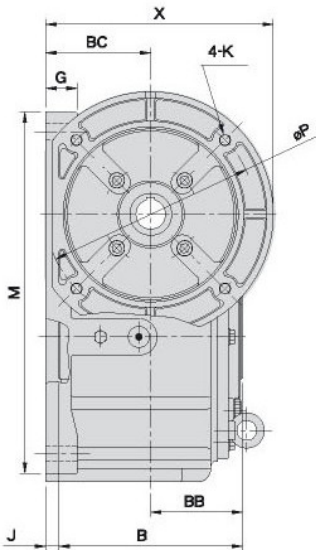
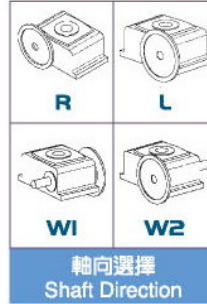
MODEL : VOM



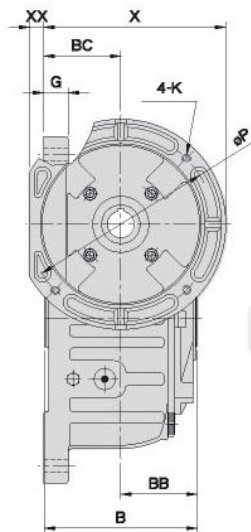
▲50#~135#



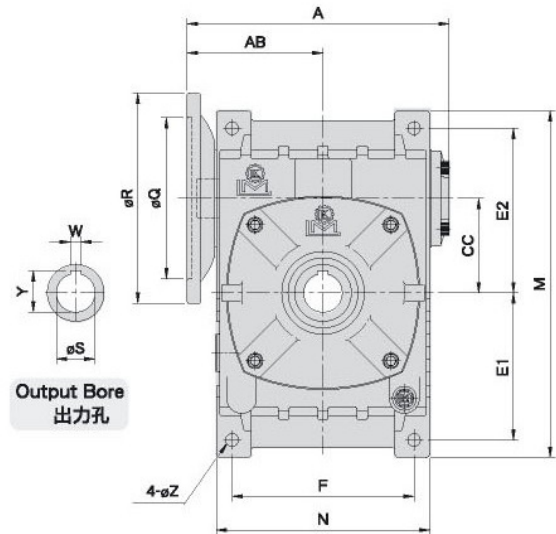
▲155#~175#



VOM155~175



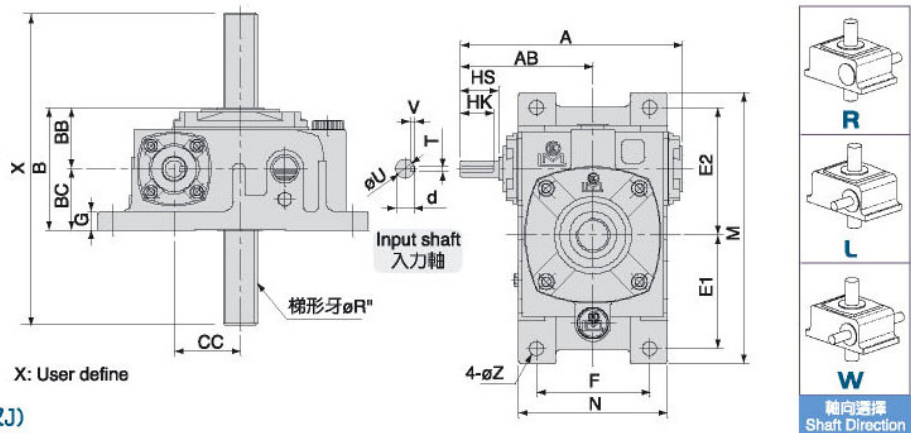
VOM50~135



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		A	AB	J	B	X	XX	BB	BC	CC	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK						入力孔 INPUT BORE			出力孔 OUTPUT BORE			重量 Weight (KG)		
	型號 MODEL	1/10-1/40- 1/30										1/60	P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	W		Y	S
50	1/4		154	81		98	130	9	49	50	50	130	110	160	M8	93	102	90	220	118	16	11	12.7	4	11	6	22.8	20	8.2	
60	1/2	1/4	167	87		108	135	4	54	55	60	130	110	160	M8	105	120	100	252	128	18	11	12.7	4	11	8	28.3	25	11	
												163	130	200	M10	120	135	120	288	160	20	15	16.3	5	14	8	33.3	30	15.4	
70	1	1/2	200	108		128	165	35	64	65	70	130	110	160	M8	120	135	120	288	160	20	15	16.3	5	14	8	33.3	30	15.4	
80	2	1	226	118		138	170	30	69	70	80	165	130	200	M10	130	150	140	315	183	20	15	21.8	6	19	10	38.3	35	22.6	
												180	250	M12	155	180	190	380	230	26	15	27.3	8	24	10	43.3	40	40.4		
100	3	2	278	144		178	215	35	89	90	100	165	130	200	M10	155	180	190	380	230	26	15	27.3	8	24	10	43.3	40	40.4	
120	5	3	333	173		198	225	25	99	100	120	215	180	250	M12	185	215	220	450	266	30	18	31.3	8	28	12	48.3	45	65	
												215	230	300	M16	210	235	260	495	305	35	18	31.3	8	28	15	59.3	55	81	
135	7 1/2	5	369	187		218	260	40	109	110	135	215	180	250	M12	210	235	260	495	305	35	18	31.3	8	28	15	59.3	55	81	
155	10	7 1/2	412	212	16.5	247	290		123.5	140	155	265	230	300	M12	145	265	290	460	340	45	20	41.3	10	38	15	69.3	65	105.2	
												265	230	300	M12	167	293	320	520	390	45	22	41.3	10	38	18	94.3	90	158	
175	15	10	467	236	19	262	300		131	150	175	265	230	300	M16	167	293	320	520	390	45	22	41.3	10	38	18	94.3	90	158	
												265	230	300	M16	167	293	320	520	390	45	22	45.3	12	42					

MODEL : VOWY

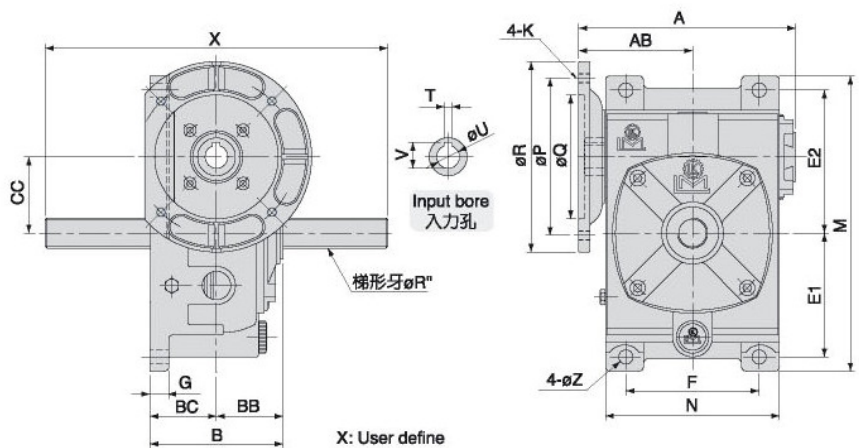


(本公司另有升降器機種，請參考頁次J)
Please Reference pageJ for ScrewJack

尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	B	BB	BC	CC	腳座 FOOT STOCK						入力軸 INPUT SHAFT				角牙 R"	重量 Weight (KG)		
								E1	E2	F	M	N	G	Z	HS	U	d			TxVxHK	
型號 MODEL	1/10~1/40~ 1/30 1/60																				
40	1/8	139.5	86	88	45	45	40	75	85	70	183	94	11	9	25	12	13.5	4×4×20	1"	4.6	
50	1/4	178	105	98	50	50	50	93	102	90	220	118	16	11	30	12	13.5	4×4×25	1"	7.2	
60	1/2	198	120	108	55	55	60	105	120	100	252	128	18	11	40	15	17	5×5×35	1"	11.8	
70	1	235	140	128	65	65	70	120	135	120	288	160	20	15	40	18	20	5×5×35	1 1/8"	15.8	
80	2	268	161	138	70	70	80	130	150	140	315	183	20	15	50	22	25	7×7×45	1 1/4"	21.8	
100	3	322	190	178	90	90	100	155	180	190	380	230	30	15	50	25	28	7×7×45	1 1/2"	40.4	
120	5	390	231	198	100	100	120	185	215	220	450	266	30	18	65	30	33	7×7×60	2"	62	
135	7 1/2	438	258	218	110	110	135	210	235	260	495	305	35	18	75	35	38	10×8×70	2"	78.8	

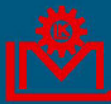
MODEL : VOMY



(本公司另有升降器機種，請參考頁次J)
Please Reference pageJ for ScrewJack

尺寸表 Dimension(m/m)

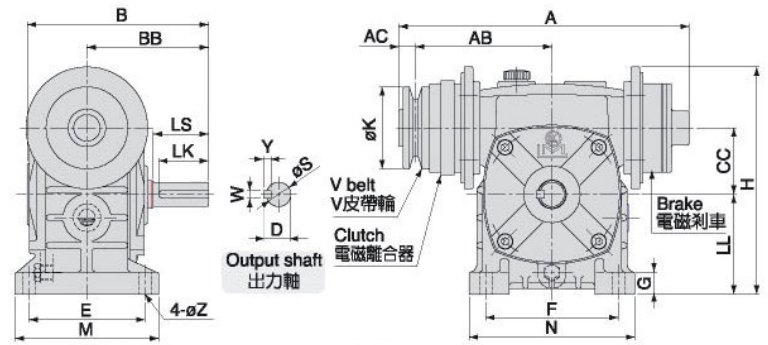
減速比 RATIO	馬力 HP	A	AB	B	BB	BC	CC	馬達盤 MOTOR FLANGE				腳座 FOOT STOCK						入力孔 INPUT BORE			角牙 R"	重量 Weight (KG)	
								P	Q	R	K	E1	E2	F	M	N	G	Z	V	T			U
型號 MODEL	1/10~1/40~ 1/30 1/60																						
50	1/4	154	81	98	50	50	50	130	110	160	M8	93	102	90	220	118	16	11	12.7	4	11	1"	7.6
60	1/2	167	87	108	55	55	60	130	110	160	M8	105	120	100	252	128	18	11	12.7	4	11	1"	11.4
								165	130	200	M10	120	135	120	288	160	20	15	16.3	5	14	1 1/8"	17.6
80	2	226	118	138	70	70	80	165	130	200	M10	130	150	140	315	183	20	15	21.8	6	19	1 1/8"	17.6
								180	250	M12	155	180	190	380	230	30	15	21.8	8	24	1 1/4"	23.2	
100	3	278	144	178	90	90	100	165	130	200	M10	155	180	190	380	230	30	15	27.3	8	24	1 1/2"	41.4
								215	180	250	M12	185	215	220	450	266	30	18	27.3	8	28	2"	65
120	5	333	173	198	100	100	120	215	180	250	M12	185	215	220	450	266	30	18	31.3	8	28	2"	65
								265	230	300	M12	210	235	260	495	305	35	18	31.3	8	28	2"	81
135	7 1/2	369	187	218	110	110	135	215	180	250	M12	210	235	260	495	305	35	18	41.3	10	38	2"	81
								265	230	300	M12	210	235	260	495	305	35	18	41.3	10	38	2"	81



單段蝸輪減速機 WRC 系列

SINGLE REDUCTION WORM REDUCER WRC SERIES

MODEL : HWRC(WRC)

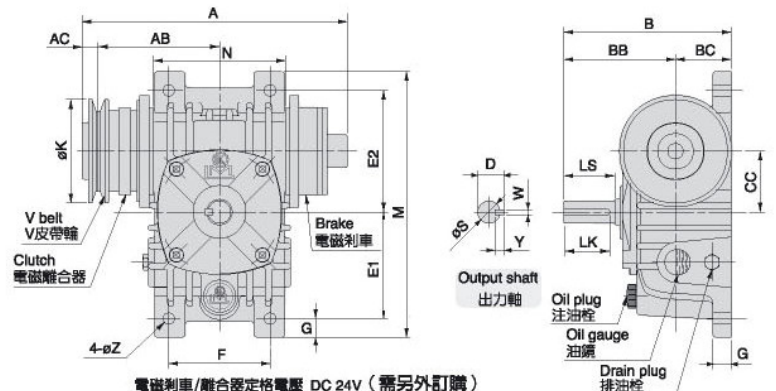


電磁剎車/離合器定格電壓 DC 24V (需另外訂購)
Electric-magnetic brake/rated voltage of clutch

尺寸表 Dimension(m/m)

型號 MODEL	容量 KG	馬力 HP	減速比 RATIO	A	AB	AC	B	BB	CC	K	LL	H	腳座 FOOT STOCK						出力軸 OUTPUT SHAFT				重量 Weight (KG)
													E	F	M	N	G	Z	LS	S	D	WxYxLK	
50	0.6	1/4	10~30	326	108	20	149	98	50	76	80	180	95	110	120	140	15	11	40	17	19	5x5x35	7.8
60	0.6	1/4	40~60	250	116	20	164	110	60	76	90	190	105	120	130	150	20	11	50	22	25	7x7x45	9.8
60	1.1	1/2	10~30	254	119	20	164	110	60	102	90	205	105	120	130	150	20	11	50	22	25	7x7x45	9.8
70	1.1	1/2	40~60	287	132	20	193	130	70	102	105	230	115	150	150	190	20	15	60	28	31	7x7x55	15.4
70	2.2	1	10~30	322	145	23	193	130	70	127	105	238	115	150	150	190	20	15	60	28	31	7x7x55	15.4
80	2.2	1	40~60	338	152	23	210	140	80	127	120	270	135	180	170	217	20	15	65	32	35	10x8x60	21.2
80	2.2	2	10~30	338	152	23	210	140	80	127	120	270	135	180	170	217	20	15	65	32	35	10x8x60	21.2
100	4.4	2	40~60	419	214	23	260	170	100	127	150	332	155	220	195	270	25	15	75	38	41	10x8x70	41.2
100	4.4	3	10~30	419	214	23	260	170	100	127	150	332	155	220	195	270	25	15	75	38	41	10x8x70	41.2
120	8	3/5	40~60 10~30	504	227	32	315	190	120	210	180	405	180	260	230	320	30	18	85	45	48	12x8x80	70

MODEL : VWRC



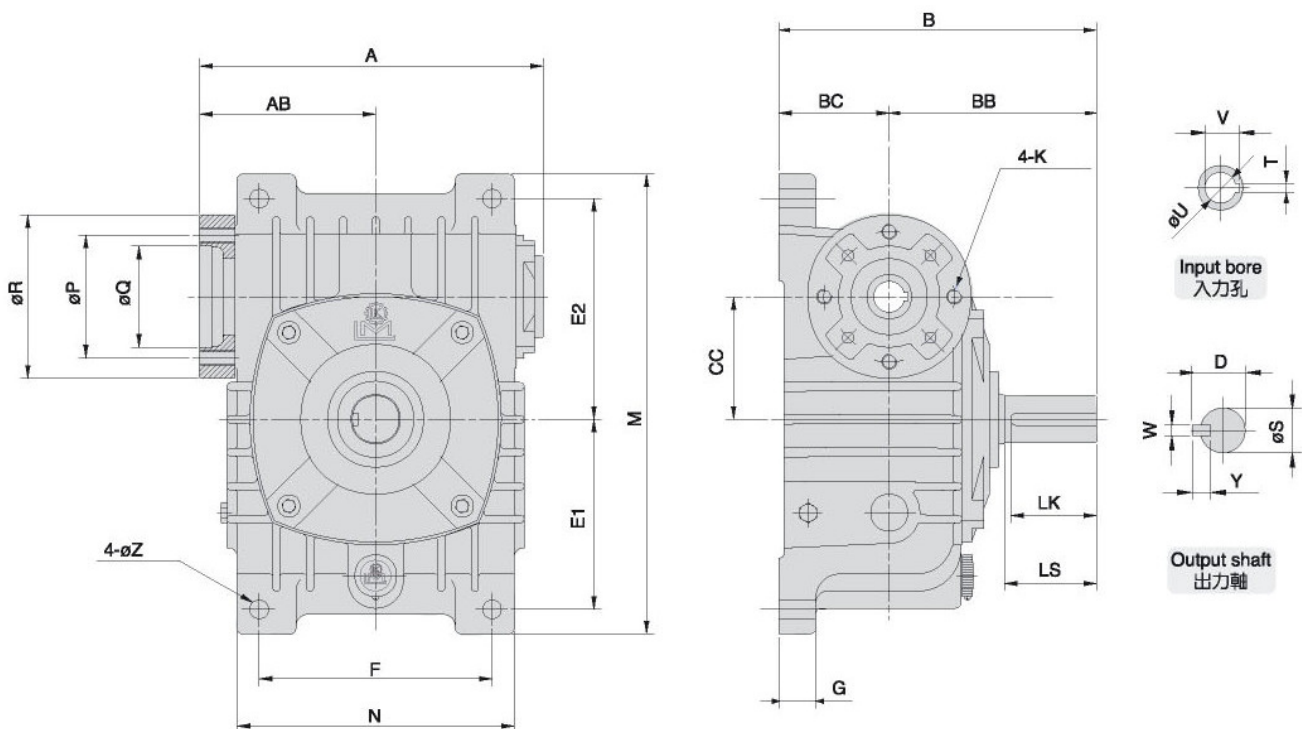
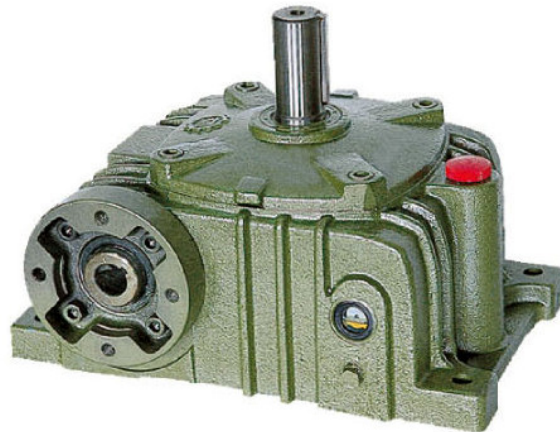
電磁剎車/離合器定格電壓 DC 24V (需另外訂購)
Electric-magnetic brake/rated voltage of clutch

尺寸表 Dimension(m/m)

型號 MODEL	容量 KG	馬力 HP	減速比 RATIO	A	AB	AC	B	BB	CC	K	BC	腳座 FOOT STOCK						出力軸 OUTPUT SHAFT				重量 Weight (KG)	
												E2	E1	F	M	N	G	Z	LS	S	D		WxYxLK
50	0.6	1/4	10~30	236	108	20	148	98	50	76	50	102	93	90	220	118	15	11	40	17	19	5x5x35	8
60	0.6	1/4	40~60	250	116	20	165	110	60	76	55	120	105	100	252	128	18	11	50	22	25	7x7x45	10.8
60	1.1	1/2	10~30	254	119	20	165	110	60	102	55	120	105	100	252	128	18	11	50	22	25	7x7x45	10.8
70	1.1	1/2	40~60	287	132	20	195	130	70	102	65	135	120	120	288	160	20	15	60	28	31	7x7x55	16
70	2.2	1	10~30	322	145	23	195	130	70	127	65	135	120	120	288	160	20	15	60	28	31	7x7x55	16
80	2.2	1	40~60	338	152	23	210	140	80	127	70	150	130	140	315	180	20	15	65	32	35	10x8x60	21.6
80	2.2	2	10~30	338	152	23	210	140	80	127	70	150	130	140	315	180	20	15	65	32	35	10x8x60	21.6
100	4.4	2	40~60	419	214	23	260	170	100	127	90	180	155	190	380	230	30	15	75	38	41	10x8x70	42.8
100	4.4	3	10~30	419	214	23	260	170	100	127	90	180	155	190	380	230	30	15	75	38	41	10x8x70	42.8

MODEL : VMP

(裝配油壓馬達用) For assembling hydraulic motor



尺寸表 Dimension

單位 : m/m

型號 MODEL	A	AB	B	BB	BC	CC	油壓盤 MOTOR FLANGE			腳座 FOOT STOCK					入力孔 INPUT BORE			出力軸 OUTPUT SHAFT				重量 Weight (KG)			
							P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	LS		S	D	WxYxLK
100	278	143.5	260	170	90	100	107	82.55	133	M12	155	180	190	380	230	30	15	28.38	6.35	25.4	75	38	41	10x8x70	41
120	314	155	290	190	100	120	107	82.55	145	M12	185	215	220	452	266	30	18	28.38	6.35	25.4	85	45	48	12x8x80	63.6
135	358	178	324	214	110	135	107	82.55	153	M12	210	235	260	497	306	35	18	28.38	6.35	25.4	95	55	59	15x10x90	84
155	396	197	393	253	140	155	107	82.55	153	M12	145	265	290	464	345	45	20	28.38	6.35	25.4	110	60	64	15x10x105	116.8
175	457	227.5	412	262	150	175	107	82.55	174	M12	167	293	320	520	385	45	20	28.38	6.35	25.4	110	65	69	18x10x105	148.4



蝸輪減速機ε系列 WORM REDUCER ε SERIES

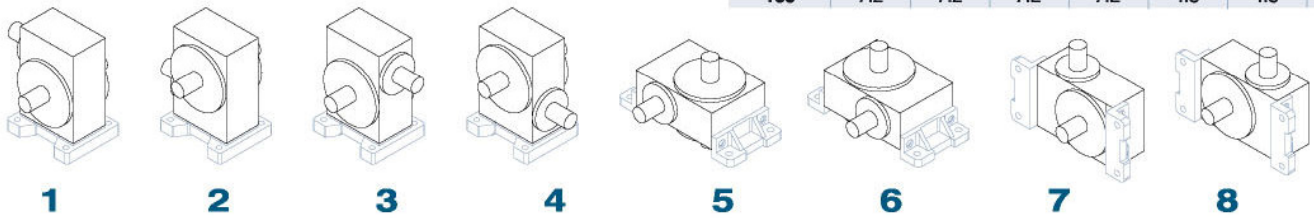
ε系列 Series

■特點：

體積小、重量輕，任意安裝方向，可附加腳座，安裝方式多變化，型號從40#至135#。

FEATURES：

Small size, light weight, free installation direction, with base kits, various installation methods, Model No.: 40# to 135#



■油量表 (OIL CAPACITIES)：

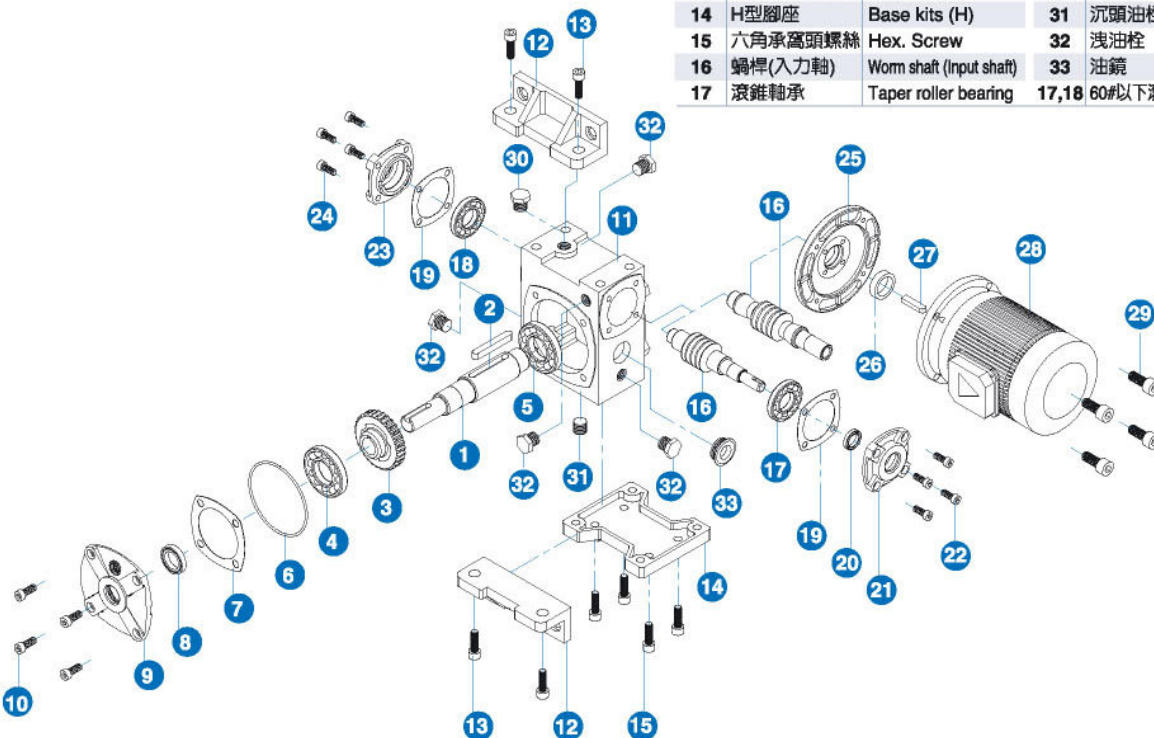
單位：公升(UNIT：L)

機型 型號	E, EM	EO, EOM	EOV	EOVM	TW	TM	VOF VOFM
40	0.2	0.2					
50	0.4	0.4	0.4	0.4	0.3	0.3	
60	0.5	0.5	0.5	0.5	0.4	0.4	
70	0.8	0.8	0.8	0.8	0.9	0.9	0.6
80	1.2	1.2	1.2	1.2	1.2	1.2	1.0
100	2.6	2.6	2.6	2.6	2.6	2.6	1.6
120	4.5	4.5	4.5	4.5	3.9	3.9	2.4
135	7.2	7.2	7.2	7.2	4.8	4.8	3.5

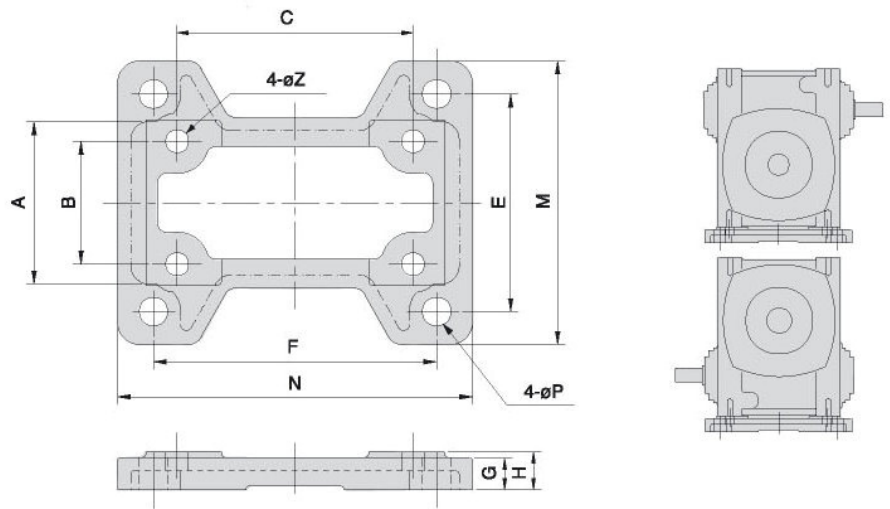
■單段蝸輪減速機ε系列分解系統圖

Disassembly diagram of single-stage worm-gear reducer ε series

NO.	名稱	PARTS NAME	NO.	名稱	PARTS NAME
1	出力軸	Output shaft	18	滾錐軸承	Taper roller bearing
2	雙圓鍵	Key	19	非石棉墊片	
3	蝸輪	Worm wheel	20	油封	Oil seal
4	滾珠軸承	Ball bearing	21	入力軸蓋(左)	Input shaft cover (L)
5	滾珠軸承	Ball bearing	22	六角承高頭螺絲	Hex. Screw
6	O形環	O-ring	23	入力軸蓋(右)	Input shaft cover (R)
7	非石棉墊片		24	六角承高頭螺絲	Hex. Screw
8	油封	Oil seal	25	馬達盤	Motor flange
9	出力軸蓋	Output shaft cover	26	油封	Oil seal
10	六角承高頭螺絲	Hex. Screw	27	單圓鍵	Key
11	蝸輪箱	Worm wheel	28	馬達	Motor
12	L型腳座	Base kits (L)	29	六角承高頭螺絲	Hex. Screw
13	六角承高頭螺絲	Hex. Screw	30	注油栓	Oil plug
14	H型腳座	Base kits (H)	31	沉頭油栓	Plug
15	六角承高頭螺絲	Hex. Screw	32	洩油栓	Drain plug
16	蝸桿(入力軸)	Worm shaft (Input shaft)	33	油鏡	Oil gauge
17	滾錐軸承	Taper roller bearing	17,18	60#以下滾珠軸承	Ball bearing of 60# below



H 型腳座
H TYPE BASE KITS

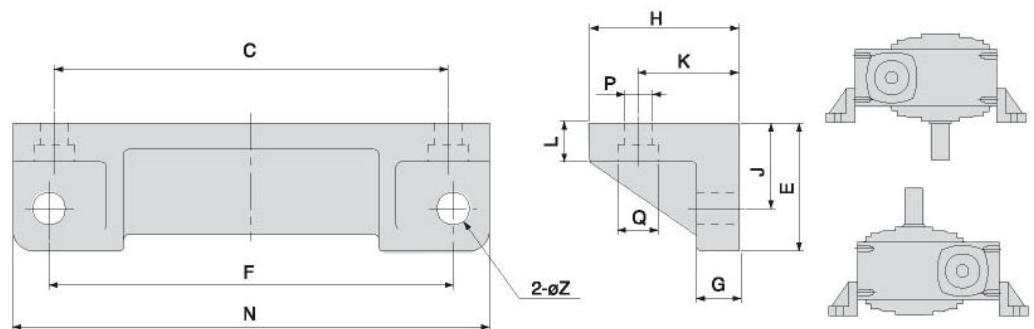


尺寸表 Dimension

單位：m/m

型號 MODEL	A	B	C	E	F	G	H	M	N	P	Z	重量 Weight (KG)
40	55	35	76	71	80	12	12	97	104	14x9	7	0.2
50	70	50	90	95	110	13	15	120	140	11	9	0.5
60	80	55	100	105	120	15	18	130	150	11	11	1
70	88	65	125	115	150	17	20	150	188	15	12	1
80	100	75	145	135	180	17	20	168	218	15	12	1.5
100	118	85	185	155	220	21	25	188	268	15	12	2.5
120	132	100	220	180	260	21	25	230	320	18	15	4.6
135	145	110	260	200	290	25	30	250	350	18	17	5.8

L 型腳座
L TYPE BASE KITS



尺寸表 Dimension

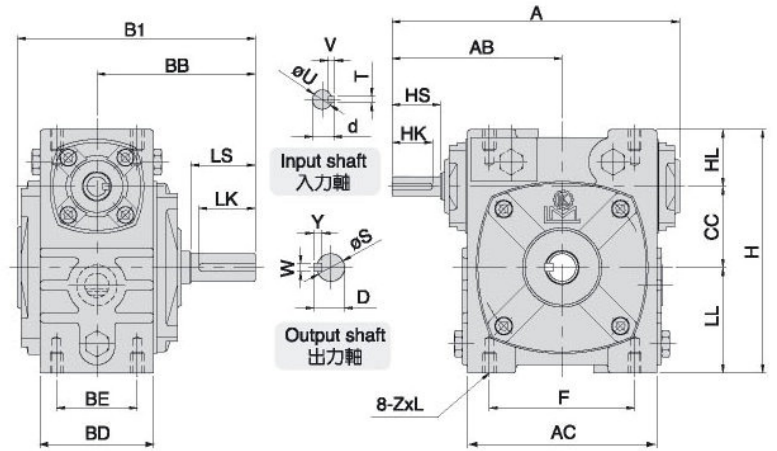
單位：m/m

型號 MODEL	C	E	F	G	H	J	K	L	N	P	Q	Z	重量 Weight (KG)
50	90	40	90	14	40	25	25	9	115	9	14	11	1
60	100	45	100	15	45	30	27.5	12	126	11	17	11	2
70	125	50	120	18	50	35	32.5	14	155	11	17	15	2.5
80	145	60	140	20	52	40	32.5	18	174	11	17	15	4
100	185	60	190	20	70	40	47.5	18	224	13	19	15	4
120	220	62.5	220	24	80	40	50	18	264	15	21	18	6
135	260	67.5	260	28	77	45	55	24	304	17	26	18	5.1



蝸輪減速機ε系列 WORM REDUCER ε SERIES

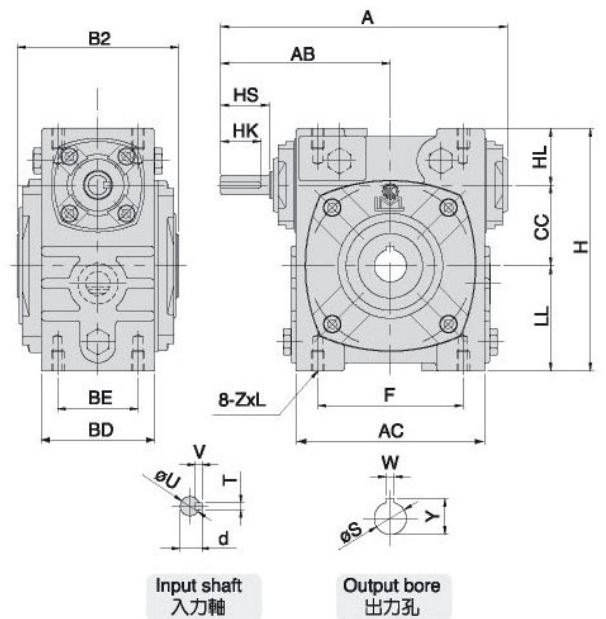
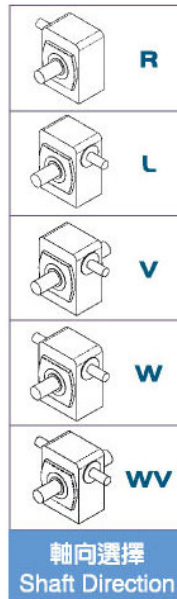
MODEL : ε



MODEL : εO



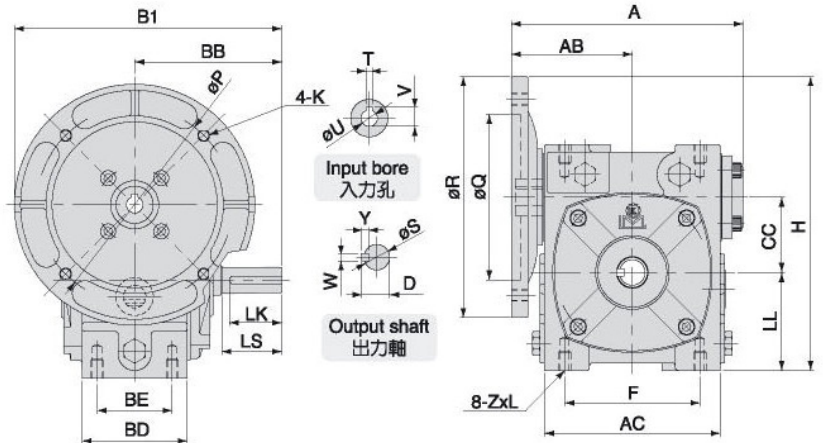
型號 MODEL	出力孔 OUTPUT BORE		
	W	S	Y
40	6	20	22.8
50	6	20	22.8
60	8	25	28.3
70	8	30	33.3
80	10	35	38.3
100	10	40	43.3
120	12	45	48.3
135	15	55	59.3



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		A	AB	B1	B2	BB	CC	HL	LL	H	腳座 FOOT STOCK					入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight (KG)		
	MODEL 型號	1/10- 1/30										1/40- 1/60	AC	F	BD	BE	ZxL	HS	U	d	TxVxHK	LS	S	D	WxYxLK	E	EO
	40	1/8											139.5	86	122	88	80	40	28	48	116	92	76	55	35	M6x12	25
50	1/4		178	105	149	98	98	50	35	65	150	115	90	70	50	M8x16	30	12	13.5	4x4x25	40	17	19	5x5x35	6.2	7.2	
60	1/2	1/4	198	120	164	108	110	60	42	75	177	125	100	77	55	M10x20	40	15	17	5x5x35	50	22	25	7x7x45	9.2	10.4	
70	1	1/2	235	140	193	128	130	70	50	85	205	158	125	87	65	M10x20	40	18	20	5x5x35	60	28	31	7x7x55	14	14.2	
80	2	1	268	161	210	138	140	80	60	92	232	175	145	98	75	M10x20	50	22	25	7x7x45	65	32	35	10x8x60	18.4	20.4	
100	3	2	322	190	260	178	170	100	75	115	290	226	185	117	85	M12x24	50	25	28	7x7x45	75	38	41	10x8x70	34.6	35.4	
120	5	3	390	231	288	198	190	120	95	155	370	264	220	132	100	M14x28	65	30	33	7x7x60	85	45	48	12x8x80	56.8	58.2	
135	7 1/2	5	438	258	322	218	214	135	105	185	425	306	260	150	110	M16x30	75	35	38	10x8x70	95	55	59	15x10x90	81.2	78.8	

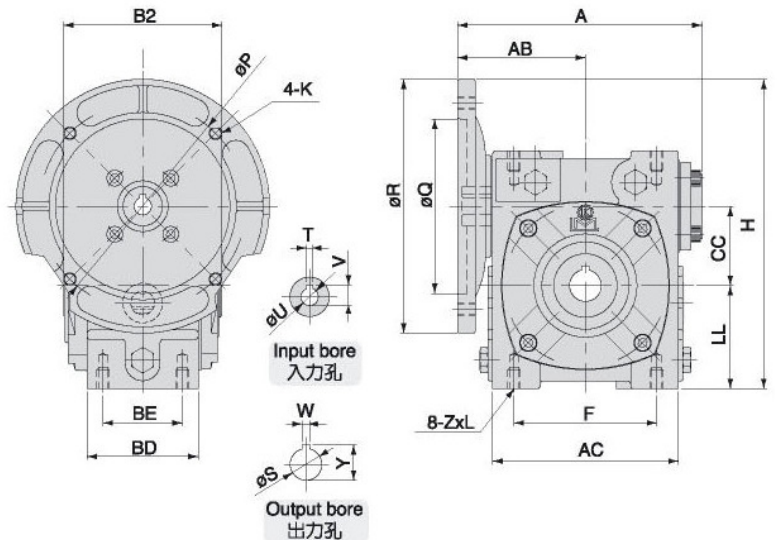
MODEL : EM



MODEL : EOM



型號 MODEL	出力孔 OUTPUT BORE		
	S	W	Y
50	20	6	22.8
60	25	8	28.3
70	30	8	33.3
80	35	10	38.3
100	40	10	43.3
120	45	12	48.3
135	55	15	59.3



尺寸表 Dimension

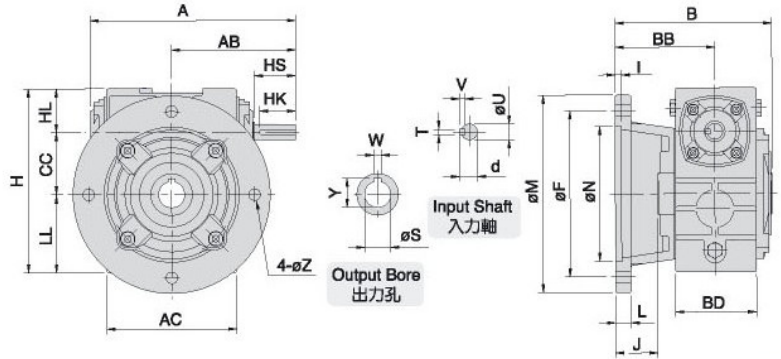
單位: m/m

減速比 RATIO	馬力 HP	腳座 FOOT STOCK										馬達盤 IEC 及入力孔 MOTOR FLANGE & INPUT BORE								出力軸 OUTPUT SHAFT				重量 Weight (KG)				
		A	AB	B1	B2	BB	CC	LL	H	AC	F	BD	BE	ZxL	P	Q	R	K	V	T	U	LS	S	D	WxYxLK	EM	EOM	
		MODEL 型號	1/10- 1/30	1/40- 1/60																								
50	1/4	154	81	178	98	98	50	65	195	115	90	70	50	M8x16	130	110	160	M8	12.7	4	11	40	17	19	5x5x35	6.6	8.2	
60	1/2	1/4	167	87	190	108	110	60	75	215	125	100	77	55	M10x20	130	110	160	M8	12.7	4	11	50	22	25	7x7x45	9.4	10.6
70	1	1/2	200	108	210	128	130	70	85	235	158	125	87	65	M10x20	130	110	160	M8	16.3	5	14	60	28	31	7x7x55	15.6	15.4
80	2	1	226	118	240	138	140	80	92	255	175	145	98	75	M10x20	165	130	200	M10	16.3	5	14	65	32	35	10x8x60	20	22
100	3	2	278	144	270	178	170	100	115	315	226	185	117	85	M12x24	165	130	200	M10	21.8	6	19	75	38	41	10x8x70	37.8	38.4
120	5	3	333	173	295	198	190	120	155	340	264	220	132	100	M14x28	215	180	250	M12	27.3	8	28	85	45	48	12x8x80	60.2	61.6
135	7 1/2	5	369	187	339	218	214	135	185	425	306	260	150	110	M16x30	215	180	250	M12	31.3	8	28	95	55	59	15x10x90	81.6	84



蝸輪減速機E系列 WORM REDUCER E SERIES

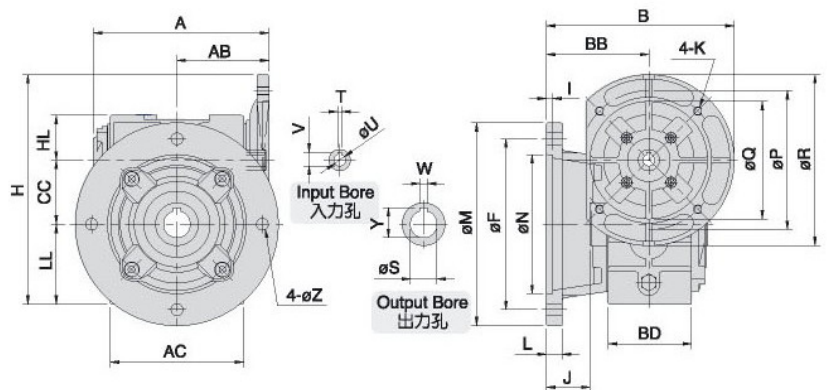
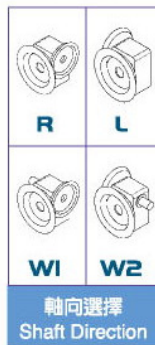
MODEL : EOVM



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		A	AB	AC	B	BB	BD	CC	HL	LL	H	M	F	L	I	J	N	Z	入力軸 INPUT SHAFT				出力孔 OUTPUT BORE			重量 Weight (KG)
	MODEL 型號	1/10- 1/30																		1/40- 1/60	HS	U	d	TxVxHK	W	Y	
50	1/4		178	105	115	146	96	70	50	35	65	150	180	150	13	6	46	130	11	30	12	13.5	4x4x25	6	22.8	20	9.2
60	1/2	1/4	198	120	125	151	96	77	60	42	75	177	190	160	15	6	41	130	11	40	15	17	5x5x35	8	28.3	25	12.2
70	1	1/2	235	140	158	180	115	87	70	50	85	205	250	215	15	6	50	180	15	40	18	20	5x5x35	8	33.3	30	18.4
80	2	1	268	161	175	185	115	98	80	60	92	232	250	215	16	6	45	180	15	50	22	25	7x7x45	10	38.3	35	24.4
100	3	2	322	190	226	235	145	117	100	75	115	290	300	265	16	5	55	230	15	50	25	28	7x7x45	10	43.3	40	41.6
120	5	3	390	231	264	245	145	137	120	95	155	370	350	300	20	7	45	260	17	65	30	33	7x7x60	12	48.3	45	63
135	7 1/2	5	438	258	306	280	175	150	135	105	185	425	400	350	24	7	65	320	18	75	35	38	10x8x70	15	59.3	55	83

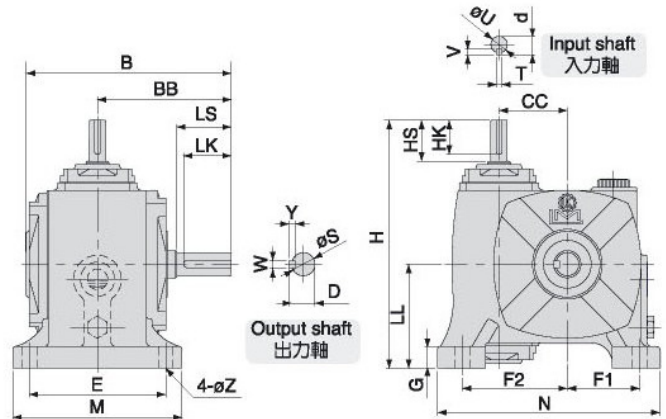
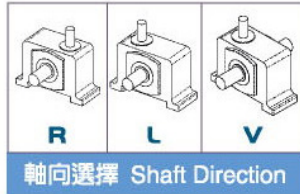
MODEL : EOVM



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		A	AB	AC	B	BB	BD	CC	HL	LL	H	M	F	L	I	J	N	Z	馬達盤 MOTOR FLANGE				入力孔 INPUT BORE			出力孔 OUTPUT BORE			重量 Weight (KG)
	MODEL 型號	1/10- 1/30																		1/40- 1/60	P	Q	R	K	V	T	U	W	Y	
50	1/4		154	81	115	176	96	70	50	35	65	195	180	150	13	6	46	130	11	130	110	160	M8	12.7	4	11	6	22.8	20	9.6
60	1/2	1/4	167	87	125	176	96	77	60	42	75	215	190	160	15	6	41	130	11	130	110	160	M8	12.7	4	11	8	28.3	25	12.4
70	1	1/2	200	108	158	195 215	115	87	70	50	85	235 255	250	215	15	6	50	180	15	130	110	160	M8	16.3	5	14	8	33.3	30	20
80	2	1	223	118	175	215	115	98	80	60	92	272	250	215	16	6	45	180	15	165	130	200	M10	21.8	6	19	10	38.3	35	26
100	3	2	278	144	226	245 270	145	117	100	75	115	315 340	300	265	16	5	55	230	15	165	130	200	M10	27.3	8	24	10	43.3	40	44.6
120	5	3	323	164	264	270	145	137	120	95	155	400	350	300	20	7	45	260	17	215	180	250	M12	31.3	8	28	12	48.3	45	66.6
135	7 1/2	5	369	187	306	300 325	175	150	135	105	185	445 470	400	350	24	7	65	320	18	215	180	250	M12	31.3	8	28	15	59.3	55	89

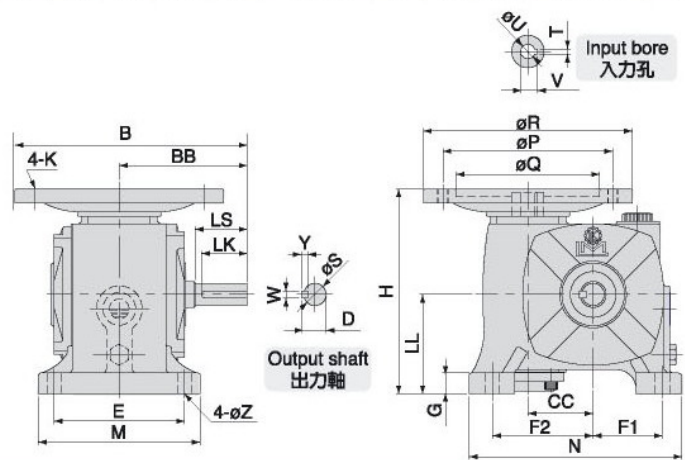
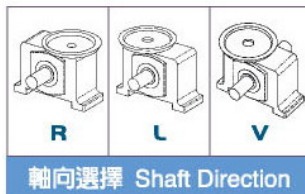
MODEL : TW



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		H	LL	CC	B	BB	腳座 FOOT STOCK					入力軸 INPUT SHAFT					出力軸 OUTPUT SHAFT				重量 Weight KG	
	MODEL 型號	1/10- 1/30						1/40- 1/60	F1	F2	E	M	N	G	Z	HS	U	d	TxVxHK	LS	S		D
50	1/4		181	76	50	149	98	53	77	100	125	161	15	11	30	12	13.5	4x4x25	40	17	19	5x5x35	7
60	1/2	1/4	210	90	60	164	110	67	98	105	130	205	20	11	40	15	17	5x5x35	50	22	25	7x7x45	9.8
70	1	1/2	235	95	70	193	130	75	115	120	150	230	20	15	40	18	20	5x5x35	60	28	31	7x7x55	13.4
80	2	1	266	105	80	210	140	90	125	125	160	264	20	15	50	22	25	7x7x45	65	32	35	10x8x60	18.4
100	3	2	325	135	100	260	170	100	150	155	195	310	25	15	50	25	28	7x7x45	75	38	41	10x8x70	40.4
120	5	3	391	160	120	288	190	120	180	180	230	360	28	18	65	30	33	7x7x60	85	45	48	12x8x80	57.8
135	7 1/2	5	428	170	135	322	214	130	200	200	250	390	30	18	75	35	38	10x8x70	95	55	59	15x10x90	80

MODEL : TMW(TM)



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		H	LL	CC	B	BB	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK					入力孔 INPUT BORE			出力軸 OUTPUT SHAFT				重量 Weight KG		
	MODEL 型號	1/10- 1/30						1/40- 1/60	P	Q	R	K	F1	F2	E	M	N	G	Z	V	T	U	LS		S	D
50	1/4		163	76	50	178	98	130	110	160	M8	53	77	100	125	161	15	11	12.7	4	11	40	17	19	5x5x35	7.8
60	1/2	1/4	177	90	60	190	110	130	110	160	M8	67	98	105	130	205	20	11	12.7	4	11	50	22	25	7x7x45	10.2
70	1	1/2	199	95	70	210 230	130	130 165	110 130	160 200	M8 M10	75	115	120	150	230	20	15	16.3	5	14	60	28	31	7x7x55	15
80	2	1	225	105	80	240	140	165	130	200	M10	90	125	125	160	264	20	15	21.8	6	19	65	32	35	10x8x60	20
100	3	2	280	135	100	270 295	170	165 215	130 180	200 250	M10 M12	100	150	155	195	310	25	15	27.3	8	24	75	38	41	10x8x70	43.4
120	5	3	326	160	120	315	190	215	180	250	M12	120	180	180	230	360	28	18	31.3	8	28	85	45	48	12x8x80	60
135	7 1/2	5	354	170	135	339 364	214	215 265	180 230	250 300	M12	130	200	200	250	390	30	18	31.3	8	28	95	55	59	15x10x90	80.4

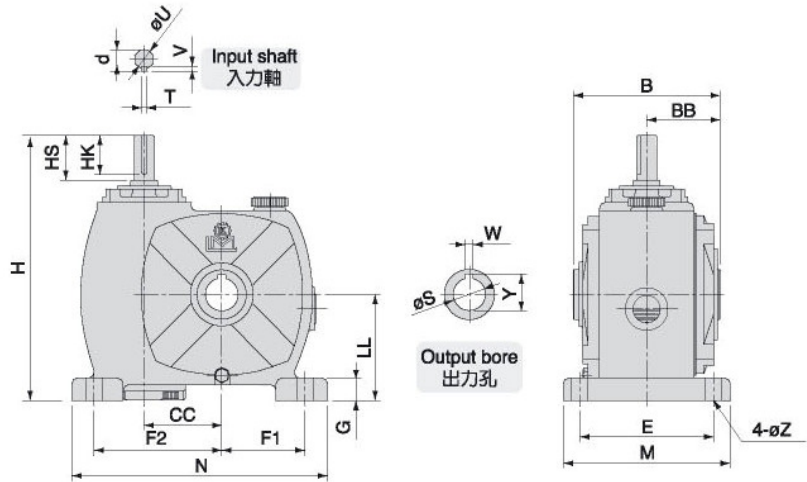


蝸輪減速機T系列 WORM REDUCER T SERIES

MODEL : TOW



▲70#~135#



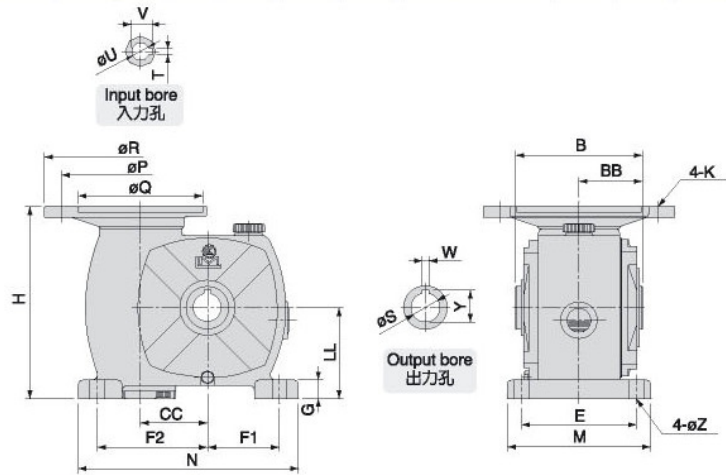
尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		H	LL	CC	BB	B	腳座 FOOT STOCK						入力軸 INPUT SHAFT				出力孔 OUTPUT BORE			重量 Weight (KG)	
	型號 MODEL	1/10~ 1/30						1/40~ 1/60	F1	F2	E	M	N	G	Z	HS	U	d	TxVxHK	W		Y
60	1/2	1/4	170	90	60	56	108	67	98	105	130	207	21	11	40	15	17	5x5x35	7	28.3	25	
70	1	1/2	235	95	70	65	128	75	115	120	150	230	20	15	40	18	20	5x5x35	8	33.3	30	13.6
80	2	1	266	105	80	70	138	90	125	125	160	264	20	15	50	22	25	7x7x45	10	38.3	35	20
100	3	2	325	135	100	90	178	100	150	155	195	310	25	15	50	25	28	7x7x45	10	43.3	40	41.2
120	5	3	391	160	120	100	198	120	180	180	230	360	28	18	65	30	33	7x7x60	12	48.3	45	57.8
135	7 1/2	5	428	170	135	110	218	130	200	200	250	390	30	18	75	35	38	10x8x70	15	59.3	55	77.8

MODEL : TOM



▲70#~135#



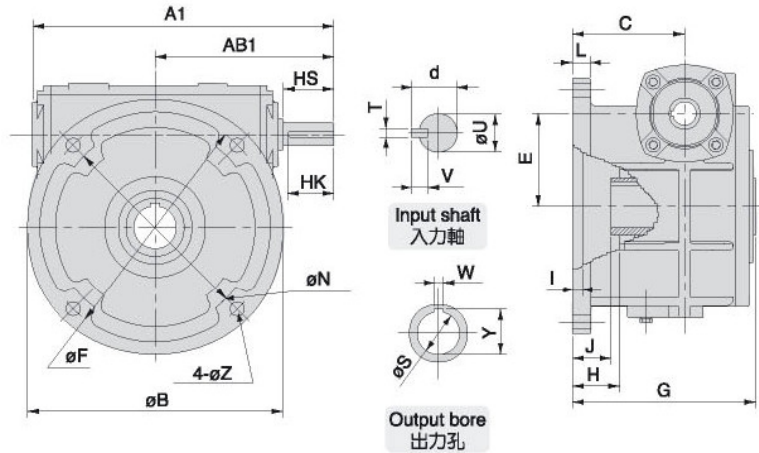
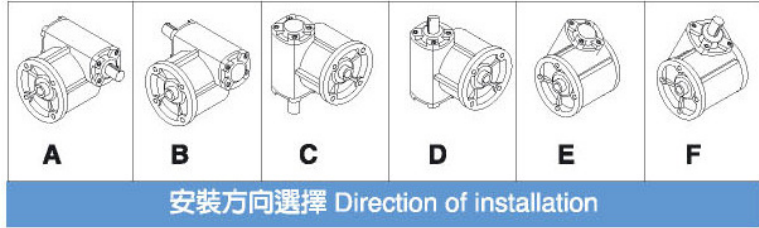
尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		H	LL	CC	BB	B	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK						入力孔 INPUT BORE			出力孔 OUTPUT BORE			重量 Weight (KG)	
	型號 MODEL	1/10~ 1/30						1/40~ 1/60	P	Q	R	K	F1	F2	E	M	N	G	Z	V	T	U	W		Y
60	1/2	1/4	177	90	60	56	108	130	110	160	M8	67	98	105	130	207	21	11	4	12.8	11	7	28.3	25	
70	1	1/2	199	95	70	65	128	130	110	160	M8	75	115	120	150	230	20	15	16.3	5	14	8	33.3	30	15.2
								165	130	200	M10	6	19	8	19	10	38.3	35	22.4						
80	2	1	225	105	80	70	138	165	130	200	M10	90	125	125	160	264	20	15	21.8	6	19	10	38.3	35	22.4
								27.3	8	24	10	43.3	40	43.2											
100	3	2	280	135	100	90	178	165	130	200	M10	100	150	155	195	310	25	15	27.3	8	24	10	43.3	40	43.2
								215	180	250	M12	8	28	10	43.3	40	43.2								
120	5	3	326	160	120	100	198	215	180	250	M12	120	180	180	230	360	28	18	31.3	8	28	12	48.3	45	60
								265	230	M12	130	200	200	250	390	30	18	31.3	8	28	15	59.3	55	78.4	
135	7 1/2	5	354	170	135	110	218	215	180	250	M12	130	200	200	250	390	30	18	31.3	8	28	15	59.3	55	78.4
								265	230	M12	130	200	200	250	390	30	18	41.3	10	38	15	59.3	55	78.4	

MODEL : VOF



▲70#~100#



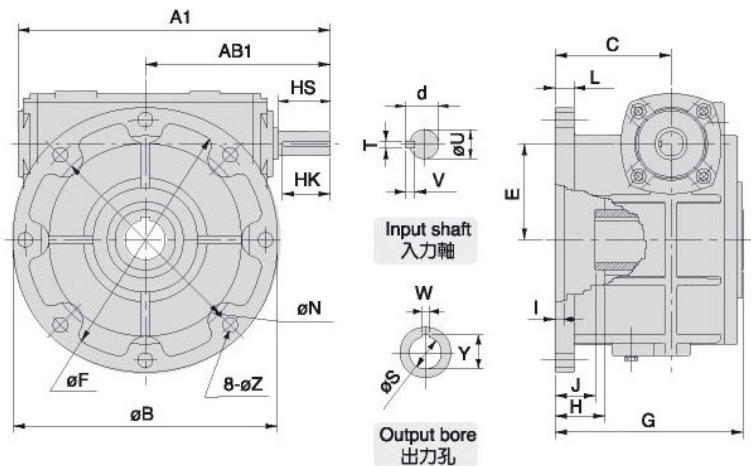
尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A1	AB1	B	C	N	E	F	G	H	I	J	L	Z	輸入軸 INPUT SHAFT				輸出孔 OUTPUT BORE			重量 Weight (KG)	
															HS	U	d	TxVxHK	W	Y	S		
70	1	1/2	235	140	182	106	115	70	150	168	45	8	40	17	15	40	18	20	5x5x35	7	28.3	25	14
80	2	1	268	161	200	107	130	80	170	181	34	8	33	20	15	50	22	25	7x7x45	10	38.3	35	19.4
100	3	2	322	190	248	132	180	100	215	214	55	8	52	22	15	50	25	28	7x7x45	10	43.3	40	35

MODEL : VOF

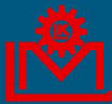


▲120#~135#



尺寸表 Dimension(m/m)

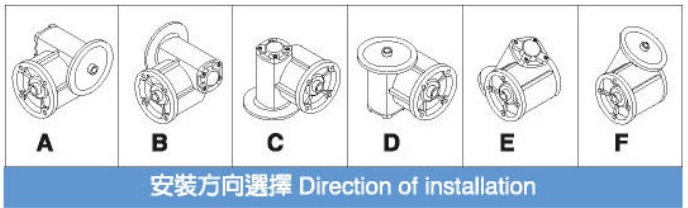
減速比 RATIO	馬力 HP	A1	AB1	B	C	N	E	F	G	H	I	J	L	Z	輸入軸 INPUT SHAFT				輸出孔 OUTPUT BORE			重量 Weight (KG)	
															HS	U	d	TxVxHK	W	Y	S		
120	5	3	390	231	330	145	260	120	300	229	60	6	56	24	18	65	30	33	7x7x60	12	53.3	50	54.2
135	7 1/2	5	438	258	360	155	290	135	330	247	65	7	63	25	18	75	35	38	10x8x70	15	59.3	55	84.6



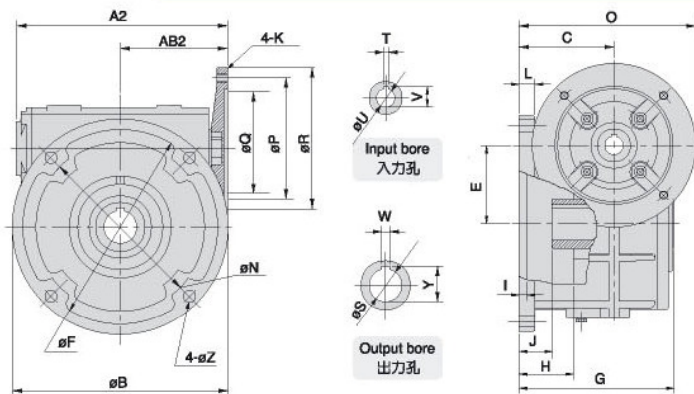
蝸輪減速機 VOF 系列

WORM REDUCER VOF SERIES

MODEL : VOFM



▲70#~100#



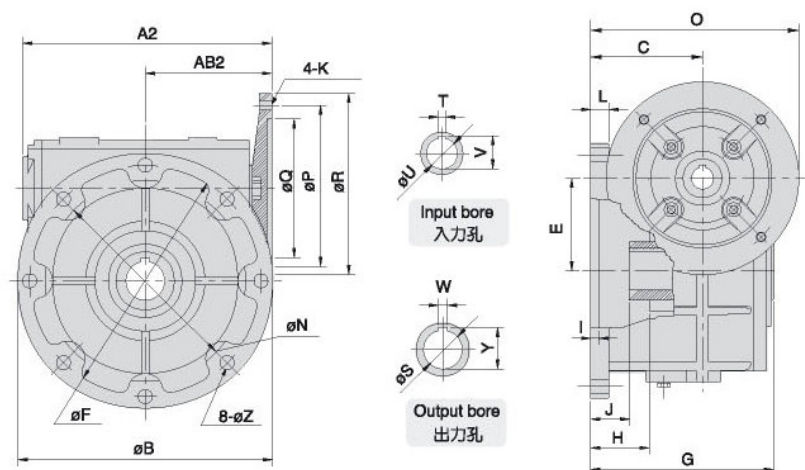
尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A2	AB2	B	C	N	E	F	G	H	I	J	L	O	Z	馬達盤 MOTOR FLANGE				入力孔 INPUT BORE			出力孔 OUTPUT BORE			重量 Weight (KG)	
																P	Q	R	K	V	T	U	W	Y	S		
70	1	1/2	200	108	182	106	115	70	150	168	45	8	40	17	186 206	15	130	110	160	M8	16.3	5	14	7	28.3	25	15.4
																	165	130	200	M10	21.8	6	19	10	38.3	35	
80	2	1	223	118	200	107	130	80	170	181	34	8	33	20	207	15	165	130	200	M10	21.8 27.3	6 8	19 24	10	38.3	35	21
																	165	130	200	M10	27.3	8	24	10	43.3	40	
100	3	2	278	144	248	132	180	100	215	215	55	8	52	22	232 257	15	165	130	200	M10	27.3	8	24	10	43.3	40	38
																	215	180	250	M12	31.3	8	28	10	43.3	40	

MODEL : VOFM



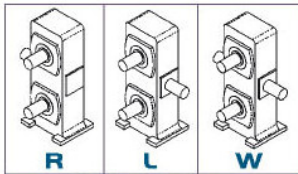
▲120#~135#



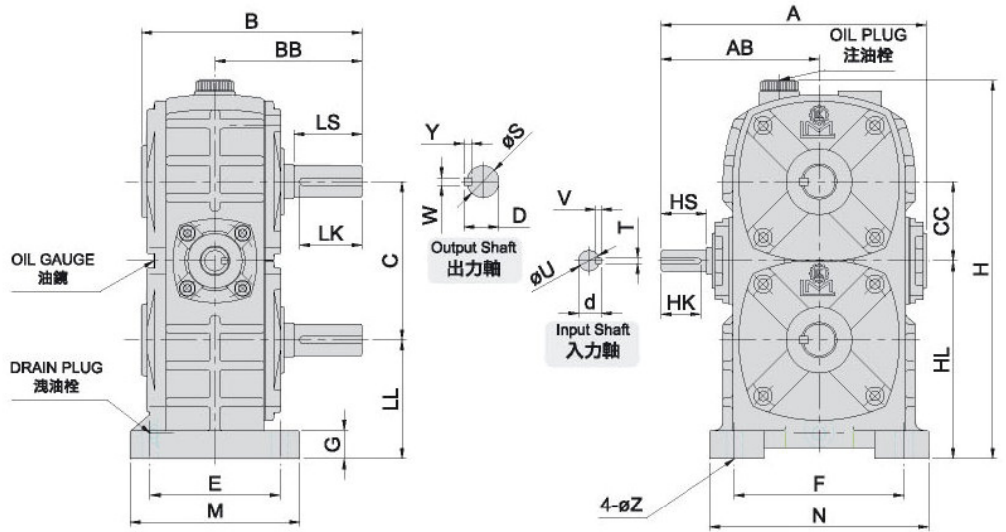
尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A2	AB2	B	C	N	E	F	G	H	I	J	L	O	Z	馬達盤 MOTOR FLANGE				入力孔 INPUT BORE			出力孔 OUTPUT BORE			重量 Weight (KG)	
																P	Q	R	K	V	T	U	W	Y	S		
120	5	3	323	164	330	145	260	120	300	229	60	6	56	24	270	18	215	180	250	M12	31.3	8	28	12	53.3	50	56.4
135	7 1/2	5	369	187	360	155	290	135	330	247	65	7	63	25	280 305	18	215	180	250	M12	31.3	8	28	15	59.3	55	85
																	265	230	300	M12	41.3	10	38	15	59.3	55	

MODEL : LD



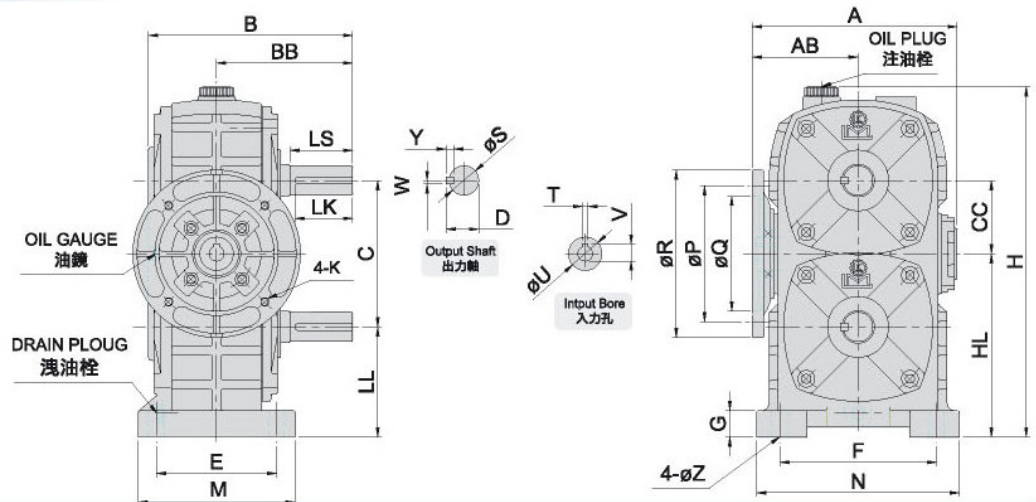
軸向選擇 Shaft Direction



尺寸表 Dimension(m/m)

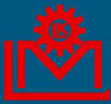
減速比 RATIO	馬力 HP		腳座 FOOT STOCK										入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight (KG)					
	型號 MODEL	1/10- 1/30	1/40- 1/60	A	AB	B	BB	C	CC	H	HL	LL	E	F	M	N	G	Z	HS	U		d	TxVxHK	LS	S	D
70	1	1/2	235	140	194	130	140	70	348	175	105	115	150	150	194	25	15	40	18	20	5x5x35	60	28	31	7x7x55	23
80	2	1	268	161	208	140	160	80	378	192	112	135	180	170	220	25	15	50	22	25	7x7x45	65	32	35	10x8x60	30.6
100	3	2	322	190	258	170	200	100	472	250	150	155	220	197	270	27	15	50	25	28	7x7x45	75	38	41	10x8x70	59.4
135	7 1/2	5	435	258	327	214	270	135	636	350	215	200	290	250	350	35	18	75	35	38	10x8x70	95	55	59	15x10x90	135

MODEL : LDM



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP		腳座 FOOT STOCK										入力孔 INPUT BORE		馬達殼 IEC MOTOR FLANGE				出力軸 OUTPUT SHAFT				重量 Weight (KG)						
	型號 MODEL	1/10- 1/30	1/40- 1/60	A	AB	B	BB	C	CC	H	HL	LL	E	F	M	N	G	Z	V	T	U	P		Q	R	K	LS	S	D
70	1	1/2	200	102	108	130	140	70	348	175	105	115	150	150	194	25	15	16.3 21.8 27.3	5 6 8	14 19 24	130 165 165	110 130 200	160 200 200	M8 M10 M10	60	28	31	7x7x55	24.6
80	2	1	223	118	208	140	160	80	378	192	112	135	180	170	220	25	15	21.8 27.3	6 8	19 24	165 130	200 200	200 200	M10 M10	65	32	35	10x8x60	32
100	3	2	278	144	258	170	200	100	472	250	150	155	220	197	270	27	15	27.3 31.3	8	24 28	165 215	130 200	250 250	M10 M12	75	38	41	10x8x70	62.4
135	7 1/2	5	370 371	193 194	327	214	270	135	636	350	215	220	290	250	350	35	18	31.3 41.3	8 10	28 38	215 265	180 230	250 300	M12 M12	95	55	59	15x10x90	142



雙段蝸輪減速機 (蝸輪+蝸輪) 系列

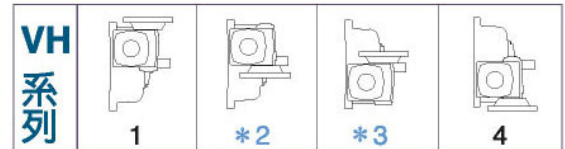
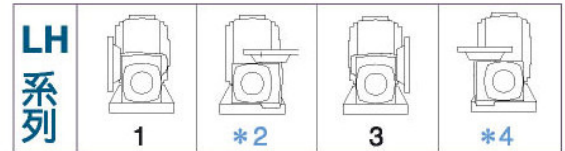
DOUBLE REDUCTION WORM REDUCER (WORM+WORM) SERIES

特點：

- 減速比多變化
- 適合低速高扭力矩之轉動
- 可選擇組合角度

FEATURES:

- Various reduction ratios.
- Suitable for low-speed and high-torque transmission.
- Various assembling angles for choice.



組合角度選擇 (有 * 記者為特殊品)
Assembling angles for choice (* means special product)

減速比(RATIO)：

1/100, 1/150, 1/200, 1/300, 1/400, 1/500, 1/600, 1/800, 1/900,
1/1000, 1/1200, 1/1500, 1/1600, 1/1800, 1/2000, 1/2400,
1/2500, 1/3000, 1/3600

MODEL：60#~ 175#

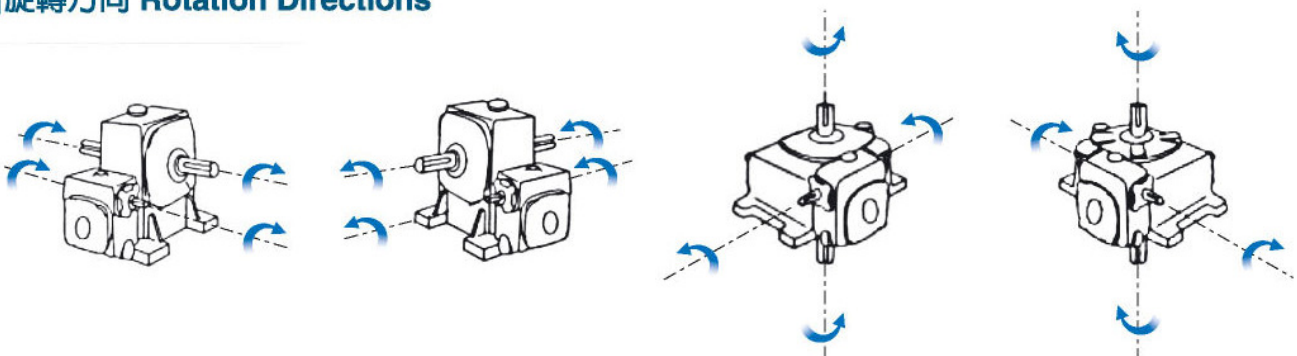
馬力(HP)：1/16HP~5HP

油量表 (OIL CAPACITIES)：單位：公升 (UNIT：L)

機型 型號	LH	LHM	LOH	LOHM	VH (UH)	VHM (UHM)	VOH	VOHM	EH	EHM	EOH	EOHM
60	0.5		0.5		0.6		0.6		0.5		0.5	
70	0.8		0.8		1		1		0.8		0.8	
80	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1	1	1	1
100	1.8	1.8	1.8	1.8	2.9	2.9	2.9	2.9	1.8	1.8	1.8	1.8
120	2.8	2.8	2.8	2.8	4.6	4.6	4.6	4.6	2.8	2.8	2.8	2.8
135	4.6	4.6	4.6	4.6	7.1	7.1	7.1	7.1	4.6	4.6	4.6	4.6
155	7	7	7	7	8.6	8.6	8.6	8.6				
175	9	9	9	9	12	12	12	12				

出力段蝸輪箱中心距離(mm) Distance to the center of output-stage outer shell. C1	60	70	80	100	120	135	155	175
入力段蝸輪箱中心距離(mm) Distance to the center of input-stage outer shell. C2	32	40	50	60	70	80	100	120

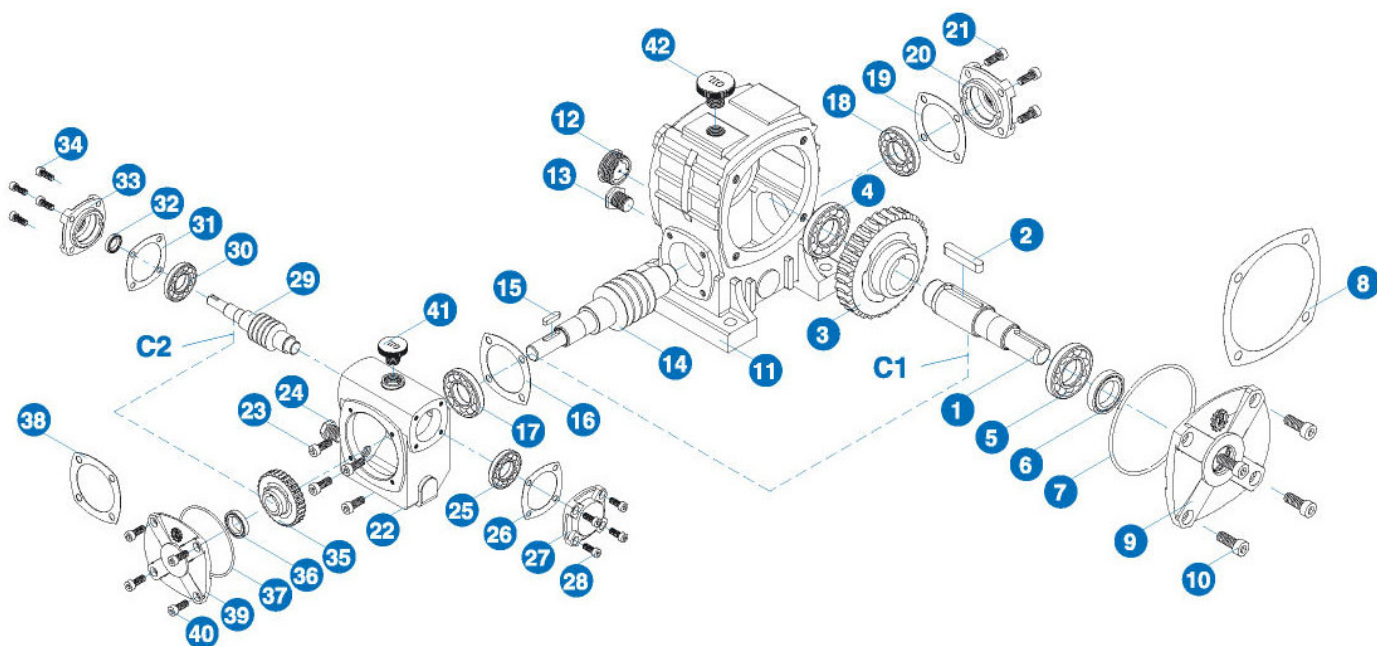
旋轉方向 Rotation Directions



雙段蝸輪減速機(蝸輪+蝸輪)LH系列

分解系統圖

Disassembly diagram of double-stage worm-gear reducer of worm-worm LH series



NO.	名稱	NAME OF PARTS
1	出力軸	Output shaft
2	雙圓鍵	Key
3	蝸輪	Worm wheel
4	滾珠軸承	Ball bearing
5	滾珠軸承	Ball bearing
6	油封	Oil seal
7	O型環	O ring
8	牛皮紙墊片	Paper packing
9	出力軸蓋	Output shaft cover
10	六角承窩頭螺絲	Hex. Screw
11	蝸輪箱	Outer shell
12	油鏡	Oil gauge
13	排油栓	Drain plug
14	蝸桿(入力軸)	Worm shaft (Input shaft)
15	雙圓鍵	Key
16	牛皮紙墊片	Paper packing
17	止推軸承	Taper roller bearing
18	止推軸承	Taper roller bearing
19	牛皮紙墊片	Paper packing
20	入力軸蓋(左)	Input shaft cover (L)
21	六角承窩頭螺絲	Hex. Screw
22	蝸輪箱(H)	Outer shell (H)

NO.	名稱	NAME OF PARTS
23	六角承窩頭螺絲	Hex. Screw
24	排油栓	Drain plug
25	止推軸承	Taper roller bearing
26	牛皮紙墊片	Paper packing
27	入力軸蓋(左)	Input shaft cover (L)
28	六角承窩頭螺絲	Hex. Screw
29	蝸桿(入力軸)	Worm shaft (Input shaft)
30	止推軸承	Taper roller bearing
31	牛皮紙墊片	Paper packing
32	油封	Oil seal
33	入力軸蓋(右)	Input shaft cover (R)
34	六角承窩頭螺絲	Hex. Screw
35	蝸輪	Worm wheel
36	滾珠軸承	Ball bearing (snap ring)
37	O型環	O ring
38	牛皮紙墊片	Paper packing
39	出力軸蓋	Output shaft cover
40	六角承窩頭螺絲	Hex. Screw
41	注油栓	Oil plug
42	注油栓	Oil plug
17,18	60#以下滾珠軸承	Ball bearing of 60# bellow
8,38	100#(含)以上不使用牛皮紙墊片	Model 100# and above are not with out paper packing
36	80#以下不用滾珠軸承	Model 80# bellow are not with out ball bearing



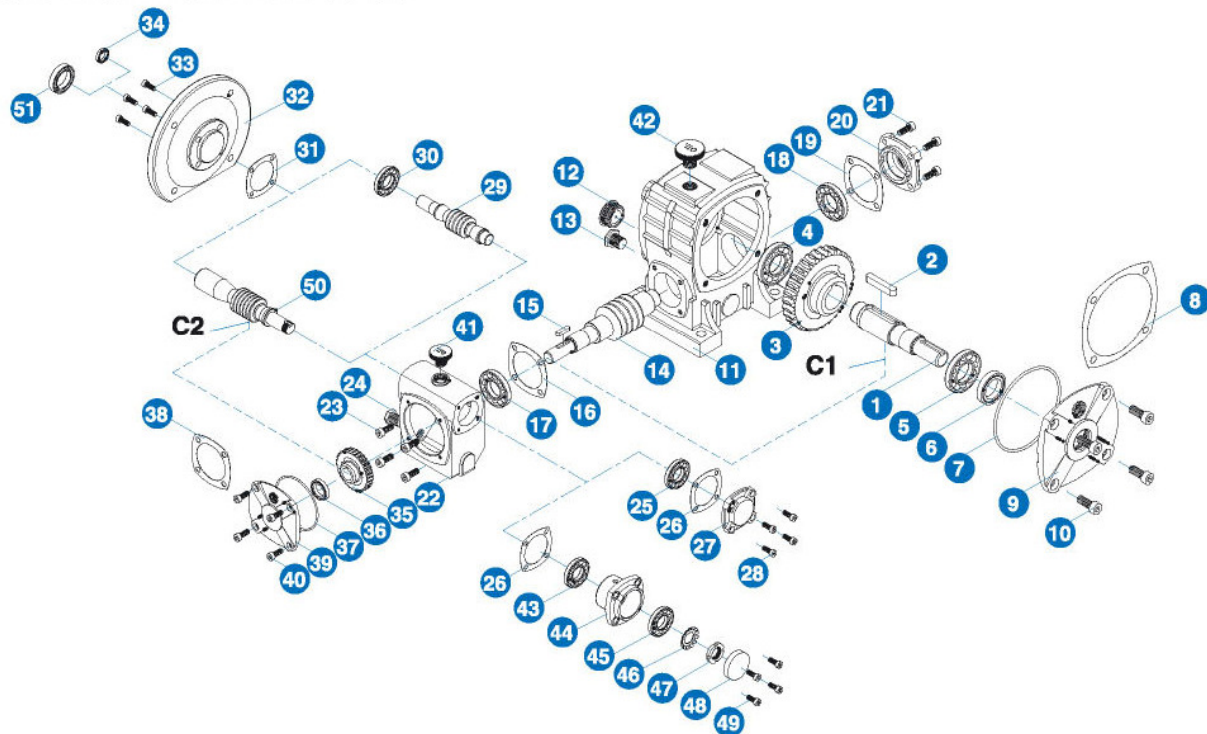
雙段蝸輪減速機(蝸輪+蝸輪)系列

DOUBLE REDUCTION WORM REDUCER (WORM+WORM) SERIES

雙段蝸輪減速機(蝸輪+蝸輪)LHM系列

分解系統圖

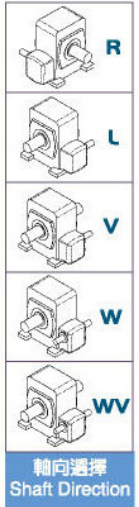
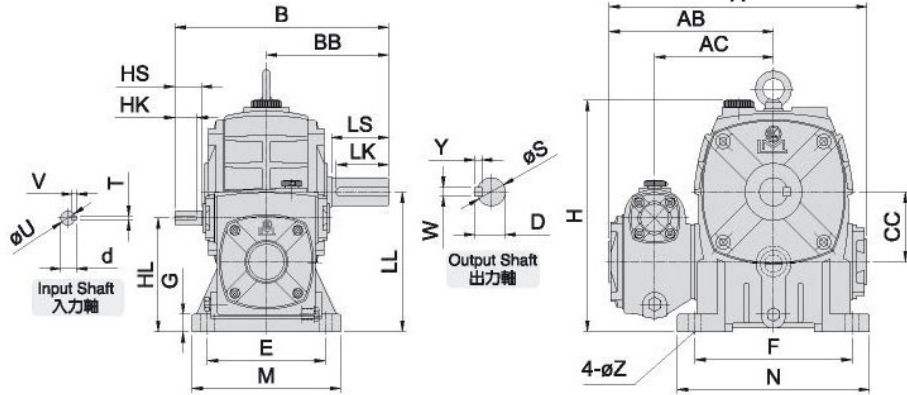
Disassembly diagram of double-stage worm-gear reducer of worm-worm LHM series



NO.	名稱	NAME OF PARTS
1	出力軸	Output shaft
2	雙圓鍵	Key
3	蝸輪	Worm wheel
4	滾珠軸承	Ball bearing
5	滾珠軸承	Ball bearing
6	油封	Oil seal
7	O型環	O ring
8	牛皮紙墊片	Paper packing
9	出力軸蓋	Output shaft cover
10	六角承窩頭螺絲	Hex. Screw
11	蝸輪箱	Outer shell
12	油鏡	Oil gauge
13	排油栓	Drain plug
14	蝸桿(入力軸)	Worm shaft (Input shaft)
15	雙圓鍵	Key
16	牛皮紙墊片	paper packing
17	止推軸承	Taper roller bearing
18	止推軸承	Taper roller bearing
19	牛皮紙墊片	Paper packing
20	入力軸蓋(左)	Input shaft cover (L)
21	六角承窩頭螺絲	Hex. Screw
22	蝸輪箱(H)	Outer shell (H)
23	六角承窩頭螺絲	Hex. Screw
24	排油栓	Drain plug
25	止推軸承	Taper roller bearing
26	牛皮紙墊片	Paper packing
27	入力軸蓋(左)	Input shaft cover (L)

NO.	名稱	NAME OF PARTS
28	六角承窩頭螺絲	Hex. Screw
29	蝸桿(入力軸)	Worm shaft (input shaft)
30	止推軸承	Taper roller bearing
31	牛皮紙墊片	Paper packing
32	馬達盤	Motor cover
33	六角承窩頭螺絲	Hex. Screw
34	油封	Oil seal
35	蝸輪	Worm whell
36	滾珠軸承	Ball bearing (snap ring)
37	O型環	O ring
38	牛皮紙墊片	Paper packing
39	出力軸蓋	Output shaft cover
40	六角承窩頭螺絲	Hex. Screw
41	注油栓	Oil plug
42	注油栓	Oil plug
43	止推軸承	Ball bearing
44	入力軸承蓋	Input shaft bearing cover
45	止推軸承	Ball bearing
46	太陽墊圈	Lock washers AW
47	滾承用螺帽	Lock nuts AN
48	密油封	Oil seal
49	六角承窩頭螺絲	Hex. Screw
50	蝸桿	Worm shaft
51	油封	Oil seal
4,5	60#以下滾珠軸承	Ball bearing of 60# bellow
8, 38	100#(含)以上不使用牛皮紙墊片	Model 100# and above are not with out paper packing
36	80#以下不用滾珠軸承	Model 80# bellow are not with out ball bearing

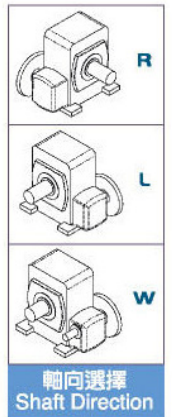
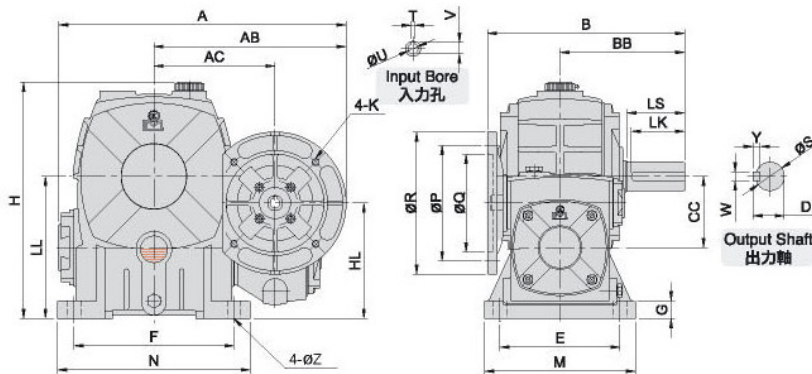
MODEL : LH



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	AC	B	BB	CC	H	HL	LL	腳座 FOOT STOCK						入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight (KG)
											E	F	M	N	G	Z	HS	U	d	TxVxHK	LS	S	D	WxYxLK	
60	1/16	222	144	100	198	110	60	200	92	120	105	120	130	150	20	11	25	12	13.5	4x4x25	50	22	25	7x7x45	11.8
70	1/8	260	165	121	216	130	70	240	110	140	115	150	150	190	20	15	25	12	13.5	4x4x20	60	28	31	7x7x55	16.4
80	1/4	295	188	136	245	140	80	266	130	160	135	180	170	217	20	15	30	12	13.5	4x4x25	65	32	35	10x8x60	24
100	1/2	346	214	158	290	170	100	331	160	200	155	220	195	270	25	15	40	15	17	5x5x35	75	38	41	10x8x70	42.6
120	1	407	248	185	330	190	120	398	190	240	180	260	230	320	30	18	40	18	20	5x5x35	85	45	48	12x8x80	70.6
135	2	471	290	219	375	214	135	440	215	270	200	290	250	350	32	18	50	22	25	7x7x45	95	55	59	15x10x90	96.6
155	3	547	348	258	443	253	155	490	235	290	220	320	280	390	38	20	50	25	28	7x7x45	110	60	64	15x10x105	118
175	5	623	393	290	493	262	175	565	280	335	250	350	315	415	40	22	65	30	33	7x7x60	110	65	69	18x10x105	196.2

MODEL : LHM



尺寸表 Dimension(m/m)

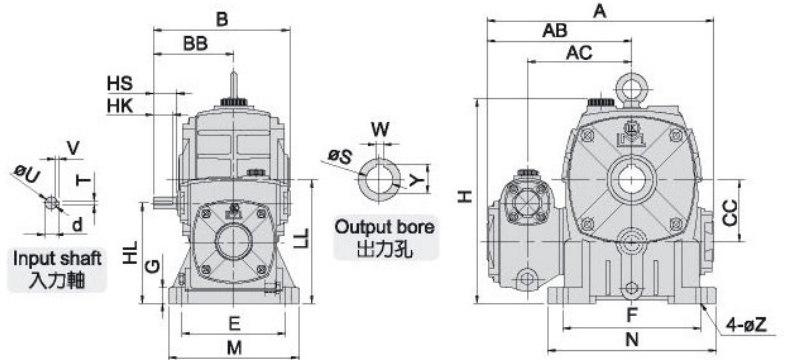
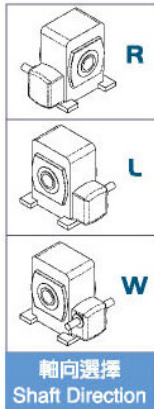
減速比 RATIO	馬力 HP	A	AB	AC	B	BB	CC	H	HL	LL	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK						入力孔 INPUT BORE				出力軸 OUTPUT SHAFT				重量 Weight (KG)
											P	Q	R	K	E	F	M	N	G	Z	V	T	U	LS	S	D	WxYxLK		
80	1/4	324	216	136	221	140	80	266	130	160	130	110	160	M8	135	180	170	217	20	15	12.7	4	11	65	32	35	10x8x60	25.6	
100	1/2	371	238	158	256	170	100	337	160	200	130	110	160	M8	155	220	195	270	25	15	12.7	4	11	75	38	41	10x8x70	45.6	
120	1	424	265	185	291	190	120	398	190	240	130	110	160	M8	180	260	230	320	30	18	16.3	5	14	85	45	48	12x8x80	72	
135	2	500	319	219	330	214	135	440	215	270	165	130	200	M10	200	290	250	350	32	18	16.3	5	14	95	55	59	15x10x90	97.8	
155	3	557	358	258	397	253	155	490	235	290	165	130	200	M10	220	320	280	390	38	20	21.8	6	19	110	60	64	15x10x105	122	
175	5	645	415	290	426	262	175	565	280	335	215	180	250	M12	250	350	312	415	40	22	27.3	8	24	110	65	69	18x10x105	199.6	



雙段蝸輪減速機 (蝸輪+蝸輪) 系列

DOUBLE REDUCTION WORM REDUCER (WORM+WORM) SERIES

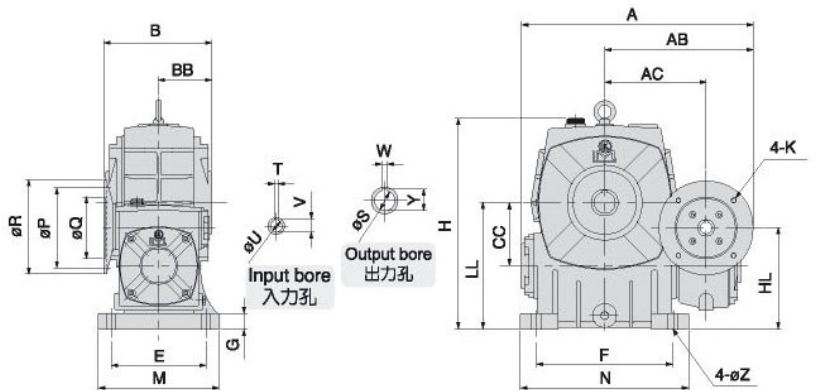
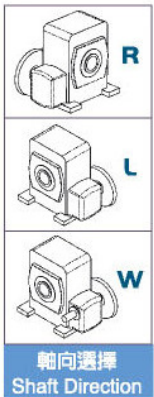
MODEL : LOH



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	AC	B	BB	CC	H	HL	LL	腳座 BOOT STOCK					入力軸 INPUT SHAFT				出力孔 OUTPUT BORE			重量 Weight (KG)		
											E	F	M	N	G	Z	HS	U	d	TxVxHK	W	Y		S	
型號 MODEL	1/100- 1/900	1/1000- 1/3600																							
60	1/16		222	144	100	144	88	60	200	92	120	105	120	130	150	20	11	25	12	13.5	4x4x25	8	28.3	25	13
70	1/8		260	165	121	151	86	70	240	110	140	115	150	150	190	20	15	25	12	13.5	4x4x20	8	33.3	30	19.2
80	1/4		295	188	136	175	105	80	266	130	160	135	180	170	217	20	15	30	12	13.5	4x4x25	10	38.3	35	26
100	1/2	1/4	346	214	158	210	120	100	337	160	200	155	220	195	270	25	15	40	15	17	5x5x35	10	43.3	40	43.4
120	1	1/2	407	248	185	240	140	120	398	190	240	180	260	230	320	30	18	40	18	20	5x5x35	12	48.3	45	72.6
135	2	1	471	290	219	271	161	135	440	215	270	200	290	250	350	32	18	50	22	25	7x7x45	15	59.3	55	90.6
155	3	2	547	348	258	313.5	190	155	490	235	290	220	320	280	390	38	20	50	25	28	7x7x45	15	69.3	65	113.2
175	5	3	623	393	290	362	231	175	556	280	335	250	350	315	415	40	22	65	30	33	7x7x60	18	94.3	90	200

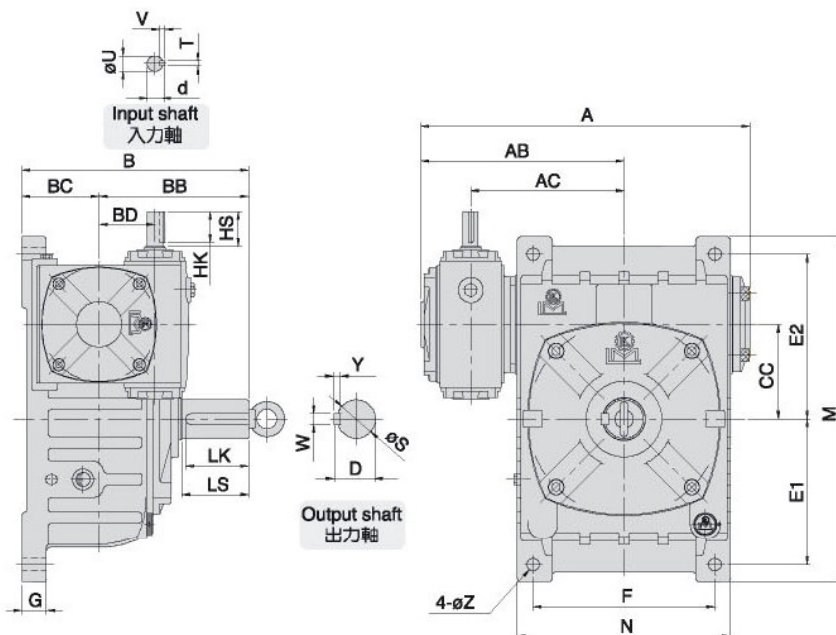
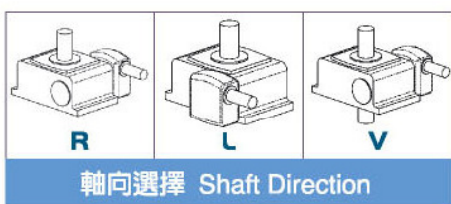
MODEL : LOHM



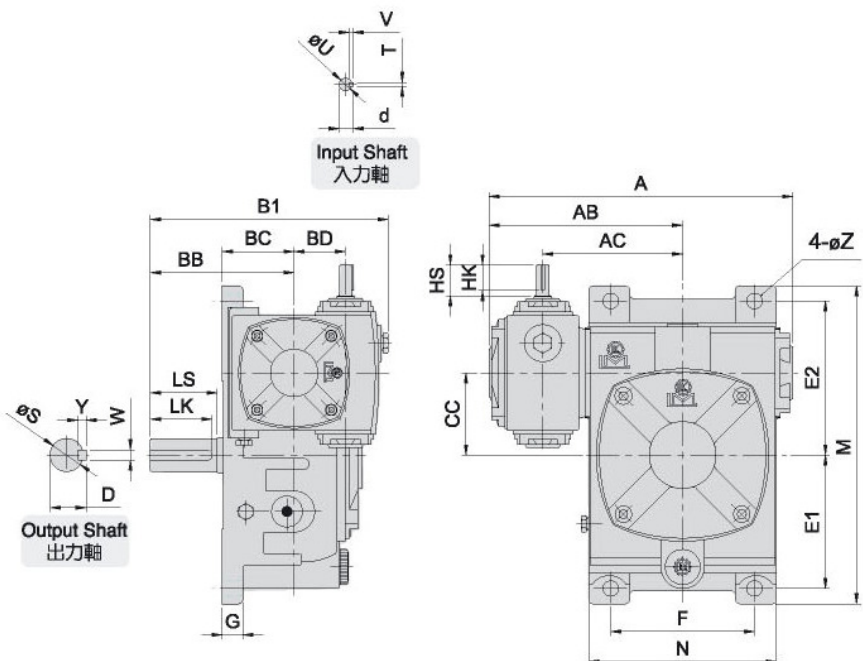
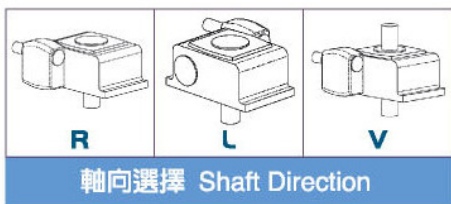
尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	AC	B	BB	CC	H	HL	LL	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK				入力孔 INPUT BORE			出力孔 OUTPUT BORE			重量 Weight (KG)			
											P	Q	R	K	E	F	M	N	G	Z	V	T	U	W		Y	S	
型號 MODEL	1/100- 1/900	1/1000- 1/3600																										
80	1/4		324	216	136	151	70	80	266	130	160	130	110	160	M8	135	180	170	217	20	15	12.7	4	11	10	38.3	35	27.4
100	1/2	1/4	371	238	158	176	90	100	337	160	200	130	110	160	M8	155	220	195	270	25	15	12.7	4	11	10	43.3	40	46.4
120	1	1/2	424	265	185	202	100	120	398	190	240	130	110	160	M8	180	260	230	320	30	18	16.3	5	14	12	48.3	45	73
135	2	1	500	319	219	226	110	135	440	215	270	165	130	200	M10	200	290	250	350	32	18	21.8	6	19	15	59.3	55	91.8
155	3	2	557	358	258	267.5	123.5	155	490	235	290	165	130	200	M10	220	320	280	390	38	20	27.3	8	24	15	69.3	65	117.2
175	5	3	645	415	290	295	131	175	556	215	335	215	180	250	M12	250	350	315	415	40	22	31.3	8	28	18	94.3	90	203.4

MODEL : VH

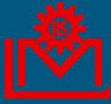


MODEL : UH



尺寸表 Dimension(m/m)

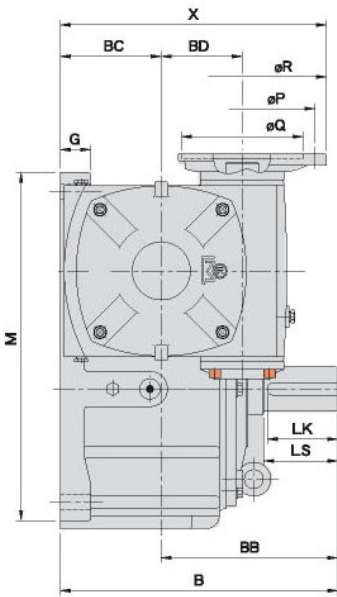
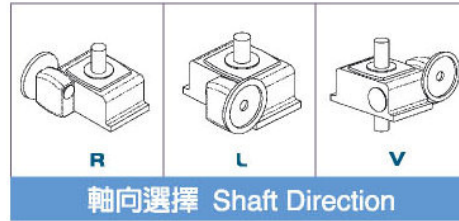
減速比 RATIO	馬力 HP	腳座 FOOT STOCK										輸入軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight (KG)							
		A	AB	AC	B	B1	BB	BC	BD	CC	E1	E2	F	M	N	G	Z	HS	U		d	TxVxHK	LS	S	D	WxYxLK	
型號 MODEL	1/100- 1/500	1/1000- 1/3600																									
60	1/16		218	140	100	165	175	110	55	32	60	105	120	100	252	128	18	11	25	12	13.5	4x4x25	50	22	25	7x7x45	12
70	1/8		260	165	121	195	207	130	65	40	70	120	135	120	288	160	20	15	25	12	13.5	4x4x20	60	28	31	7x7x55	17.4
80	1/4		295	188	136	210	231	140	70	50	80	130	150	140	315	183	20	15	30	12	13.5	4x4x25	65	32	35	10x8x60	24.4
100	1/2	1/4	346	214	158	260	280	170	90	60	100	155	180	190	380	230	30	15	40	15	17	5x5x35	75	38	41	10x8x70	38.2
120	1	1/2	407	248	185	290	315	190	100	70	120	185	215	220	450	266	30	18	40	18	20	5x5x35	85	45	48	12x8x80	73.6
135	2	1	472	292	219	324	352	214	110	80	135	210	235	260	495	305	35	18	50	22	25	7x7x45	95	55	59	15x10x90	97.4
155	3	2	547	348	258	393	419	253	140	100	155	145	265	290	460	340	45	20	50	25	28	7x7x45	110	60	64	15x10x105	120.4
175	5	3	623	393	290	412	451	262	150	120	175	167	293	320	516	385	45	22	65	30	33	7x7x60	110	65	69	18x10x105	187



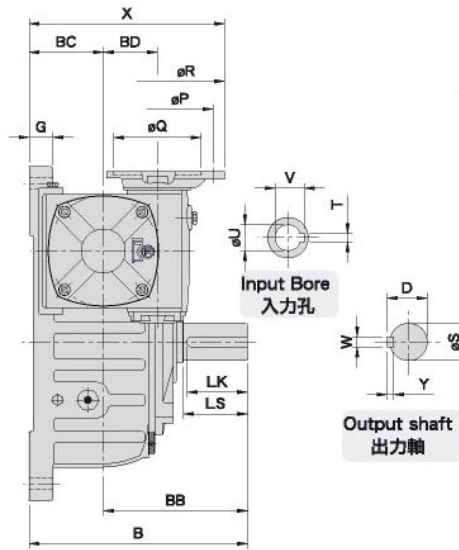
雙段蝸輪減速機 (蝸輪+蝸輪) 系列

DOUBLE REDUCTION WORM REDUCER (WORM+WORM) SERIES

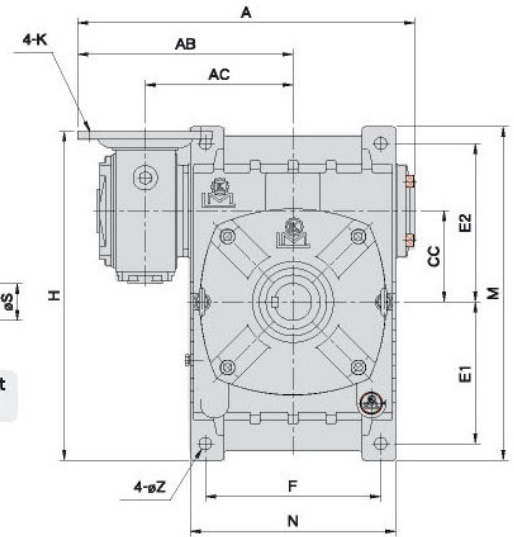
MODEL : VHM



VHM155-175



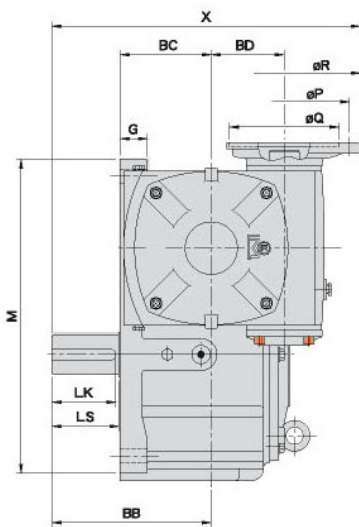
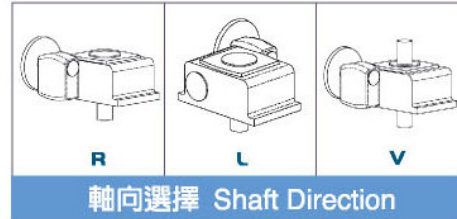
VHM80-135



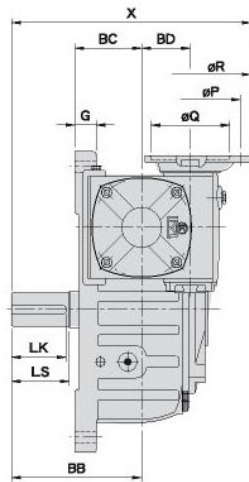
尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	馬達盤 IEC MOTOR FLANGE										腳座 FOOT STOCK							入力孔 INPUT BORE				出力軸 OUTPUT SHAFT				重量 Weight (KG)				
		A	AB	AC	B	X	BB	BC	BD	CC	H	P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	LS		S	D	WxYxLK	
		1/100- 1/900	1/1000- 1/9000																												
80	1/4	323	216	136	210	200	140	70	50	80	310	130	110	160	M8	130	150	140	315	183	20	15	12.7	4	11	65	32	35	10x8x60	25.4	
100	1/2	1/4	370	238	158	260	230	170	90	60	100	365	130	110	160	M8	155	180	190	380	230	30	15	12.7	4	11	75	38	41	10x8x70	41.2
			424	265	185	290	250	190	100	70	120	432	130	110	160	M8	185	215	220	450	266	30	18	16.3	5	14	85	45	48	12x8x80	74.8
120	1	1/2	444	285		270						165	130	200	M10									21.8	6	19					
			499	319	219	324	290	214	110	80	135	490	165	130	200	M10	210	235	260	495	305	35	18	21.8	6	19	95	55	59	15x10x90	98.6
135	2	1	557	358		365						165	130	200	M10									27.3	8	24					
			582	383	258	393	340	253	140	100	155	470	165	130	200	M10	145	265	290	460	340	45	20	27.3	8	24	110	60	64	15x10x105	124.4
175	5	3	645	415	290	412	395	262	150	120	175	530	215	180	250	M12	167	293	320	516	385	45	20	31.3	8	28	110	65	69	18x10x105	190.4

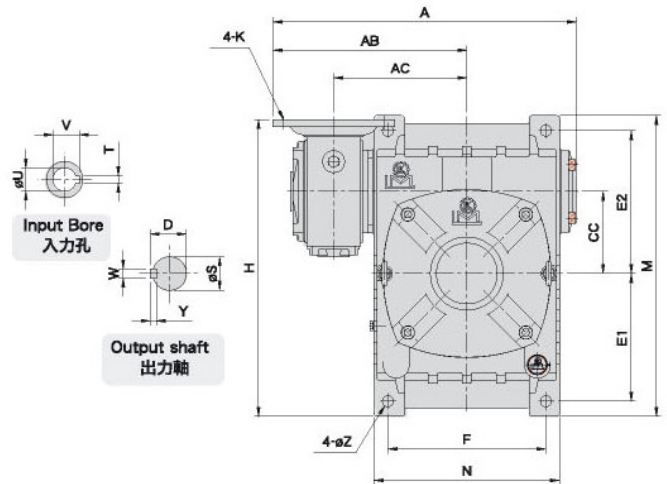
MODEL : UHM



UHM155-175

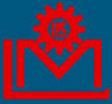


UHM80-135



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	AC	X	BB	BC	BD	CC	H	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK					入力孔 INPUT BORE				出力軸 OUTPUT SHAFT				重量 Weight (KG)	
											P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	LS	S	D		WxYxLK
型號 MODEL	1/100- 1/900	1/1000- 1/3600																											
80	1/4	323	216	136	270	140	70	50	80	310	130	110	160	M8	130	150	140	315	183	20	15	12.7	4	11	65	32	35	10x8x60	25.4
100	1/2	370	238	158	310	170	90	60	100	365	130	110	160	M8	155	180	190	380	230	30	15	12.7	4	11	75	38	41	10x8x70	41.2
120	1	424	265	185	340	190	100	70	120	432	130	110	160	M8	185	215	220	450	266	30	18	16.3	5	14	85	45	48	12x8x80	74.8
135	2	499	319	219	394	214	110	80	135	490	165	130	200	M10	210	235	260	495	305	35	18	21.8	6	19	95	55	59	15x10x90	98.6
155	3	557	358	258	453	253	140	100	155	470	165	130	200	M10	145	265	290	460	340	45	20	27.3	8	24	110	60	64	15x10x105	124.4
175	5	645	415	290	507	262	150	120	175	530	215	180	250	M12	167	293	320	516	385	45	20	31.3	8	28	110	65	69	18x10x105	190.4



雙段蝸輪減速機 (蝸輪+蝸輪) 系列

DOUBLE REDUCTION WORM REDUCER (WORM+WORM) SERIES

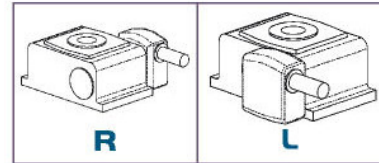
MODEL : VOH



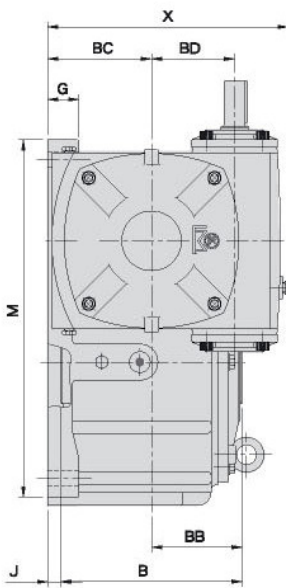
▲60#~135#



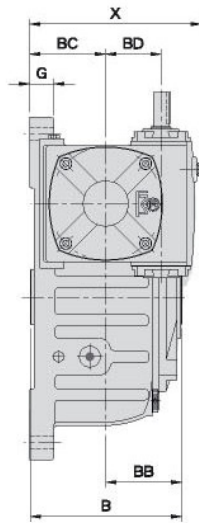
▲155#~175#



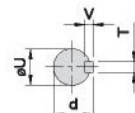
軸向選擇 Shaft Direction



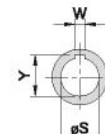
VOH155-175



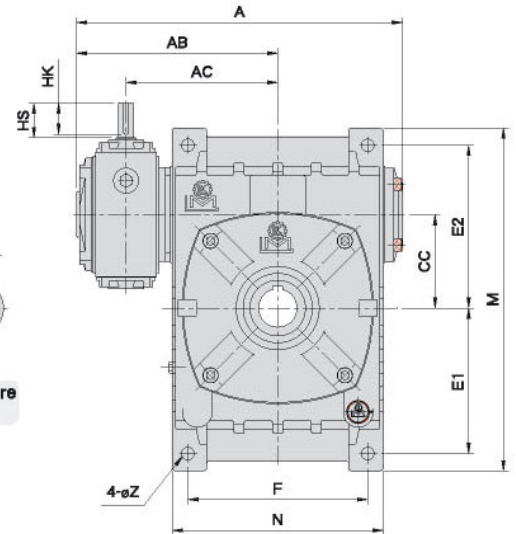
VOH60-135



Input shaft
入力軸



Output Bore
出力孔



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	AC	J	B	X	BB	BC	BD	CC	腳座 FOOT STOCK						入力軸 INPUT SHAFT				出力孔 OUTPUT BORE			重量 Weight (KG)	
												E1	E2	F	M	N	G	Z	HS	U	d	TxVxHK	W	Y		S
60	1/16	218	140	100	108	120	54	55	32	60	105	120	100	252	128	18	11	25	12	13.5	4x4x25	8	28.3	25	14.8	
70	1/8	260	165	121	128	142	64	65	40	70	120	135	120	288	160	20	15	25	12	13.5	4x4x20	8	33.3	30	18.4	
80	1/4	295	188	136	138	161	69	70	50	80	130	150	140	315	183	20	15	30	12	13.5	4x4x25	10	38.3	35	27.2	
100	1/2	346	214	158	178	200	89	90	60	100	155	180	190	380	230	30	15	40	15	17	5x5x35	10	43.3	40	39	
120	1	407	248	185	198	225	99	100	70	120	185	215	220	450	266	30	18	40	18	20	5x5x35	12	48.3	45	69.8	
135	2	472	292	219	218	248	109	110	80	135	210	235	260	495	305	35	18	50	22	25	7x7x45	15	59.3	55	92.6	
155	3	547	348	258	16.5	247	310	123.5	140	100	155	145	265	290	460	340	45	20	50	25	28	7x7x45	15	69.3	65	117.4
175	5	623	393	290	19	262	343	131	150	120	175	167	293	320	516	385	45	22	65	30	33	7x7x60	18	94.3	90	190.8

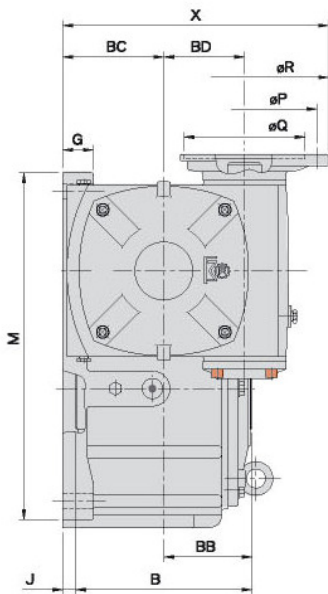
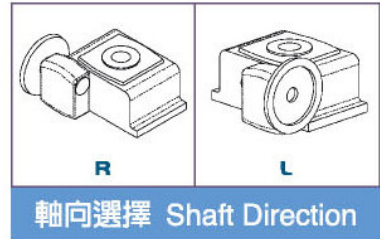
MODEL : VOHM



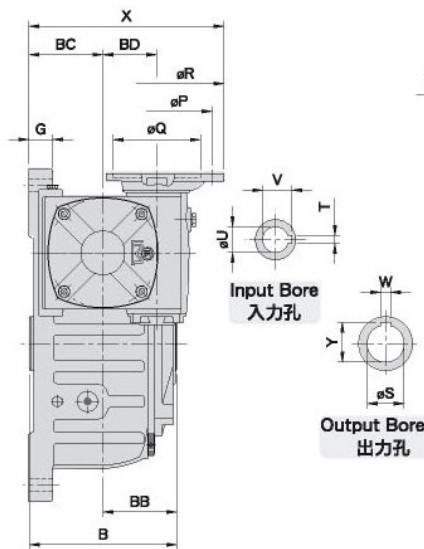
▲80#~135#



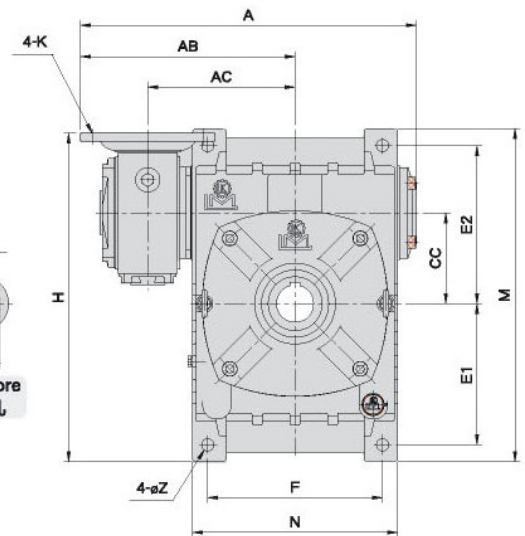
▲155#~175#



VOHM155-175



VOHM80-135



尺寸表 Dimension(m/m)

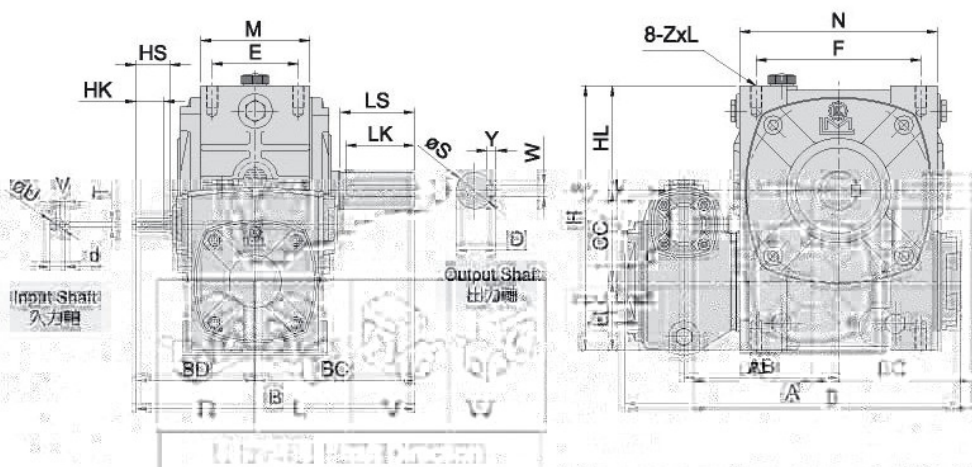
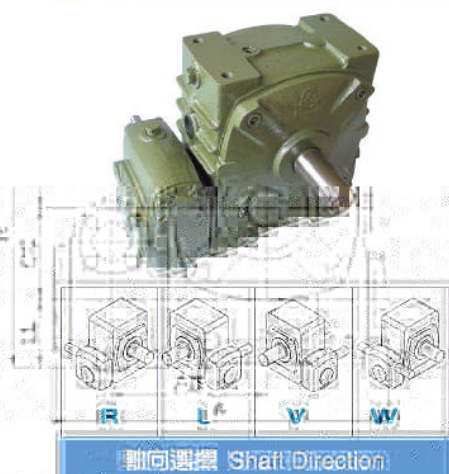
減速比 RATIO	馬力 HP	馬達盤 IEC MOTOR FLANGE											腳座 FOOT STOCK						入力孔 INPUT BORE			出力孔 OUTPUT BORE			重量 Weight (KG)					
		A	AB	AC	J	B	X	BB	BC	BD	CC	H	P	Q	R	K	E1	E2	F	M	N	G	Z	V		T	U	W	Y	S
		1/100- MODEL 1/500	1/1000- MODEL 1/3000																											
80	1/4	323	216	136		138	200	69	70	50	80	310	130	110	160	M8	130	150	140	315	183	20	15	12.7	4	11	10	38.3	35	28.2
100	1/2	370	238	158		178	230	89	90	60	100	365	130	110	160	M8	155	180	190	380	230	30	15	12.7	4	11	10	43.3	40	42
							250																	16.3	5	14				
120	1	424	265	185		198	270	99	100	70	120	432	130	110	160	M8	185	215	220	450	266	30	18	16.3	5	14	12	48.3	45	71
																								21.8	6	19				
135	2	499	319	219		218	290	109	110	80	135	490	165	130	200	M10	210	235	260	495	305	35	18	21.8	6	19	15	59.3	55	93.8
																								27.3	8	24				
155	3	557	358	258	16.5	247	340	123.5	140	100	155	470	165	130	200	M10	145	265	290	460	340	45	20	27.3	8	24	15	69.3	65	121.4
							365																	31.3	8	28				
175	5	645	415	290	19	262	395	131	150	120	175	530	215	180	250	M12	167	293	320	516	385	45	22	31.3	8	28	18	94.3	90	194.2



雙段蝸輪減速機 (蝸輪+蝸輪) 系列

DOUBLE REDUCTION WORM REDUCER (WORM+WORM) SERIES

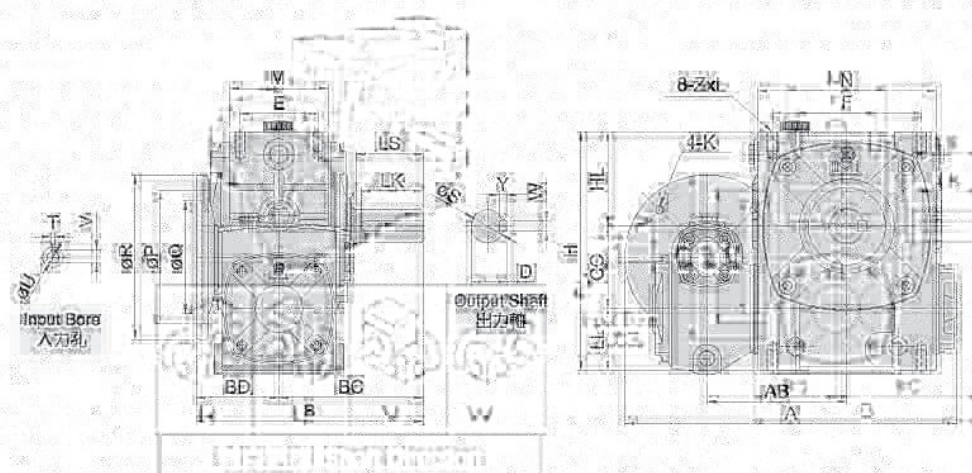
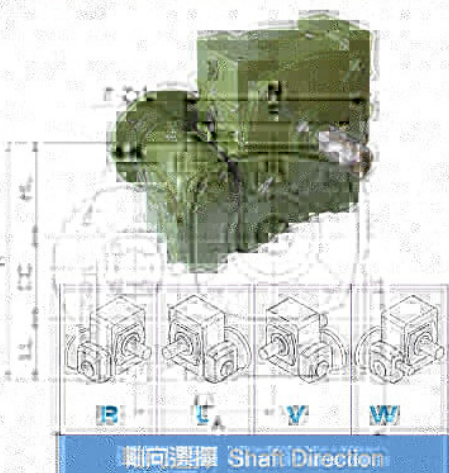
MODEL : EH



減速比 RATIO	馬力 HP	A	AB	B	BC	BD	GC	LL	HL	腳座 FOOT STOCK				入力軸 INPUT-SHAFT				出力軸 OUTPUT-SHAFT				重量 Weight (KG)					
										IP	D	F	M	IN	ZxL	HS	U	d	ØXØXHK	LS	S		B	WxYxZ	ØK		
50	1/16	218	100	106	110	88	60	42	75	177	55	100	77	125	M10x20	125	12	13.5	4x4x25	50	22	25	7x7x45	112	70	25	1.1
70	1/8	230	121	216	130	86	70	50	85	205	65	125	87	153	M10x20	125	12	13.5	4x4x20	60	28	31	7x7x55	117	70	25	1.1
90	1/4	295	135	245	140	105	80	60	92	232	75	145	98	175	M10x20	130	10	13.5	4x4x20	65	28	33	10.8x30	113	70	30	1.1
100	1/2	348	155	290	170	120	100	75	115	290	85	165	117	202	M12x24	130	15	17	5x5x35	75	38	40	10.8x30	113	70	40	1.1
120	1	407	185	330	190	140	120	95	155	370	100	220	132	234	M16x28	140	14	20	5x5x35	85	45	48	12.8x30	116	70	40	1.1
135	2	471	219	375	210	160	135	105	185	424	110	260	160	303	M16x35	150	12	25	7x7x35	95	55	59	15x10x30	112	70	50	2.2

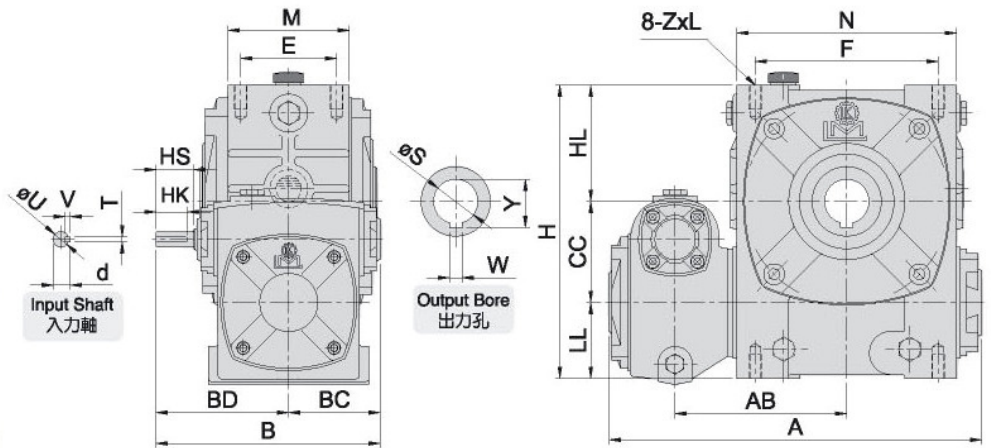
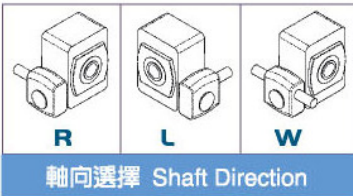
MODEL : EHM

MODEL : EHM



減速比 RATIO	馬力 HP	A	AB	B	BC	BD	GC	LL	HL	H	馬達殼 MOTOR FLANGE				腳座 FOOT STOCK				入力軸 INPUT BORE				出力軸 OUTPUT-SHAFT				重量 Weight (KG)		
											IP	D	F	M	IN	ZxL	W	T	Ø	FUS	ØS	ØD	WxYxZ	ØK					
12.7	1/4	323	36	22	140	81	80	60	92	232	130	110	100	M8	75	114	98	125	M10x20	127	4	11	35	32	35	10.8x30	124	115	110
12.7	1/2	370	58	25	170	96	100	75	115	290	130	110	160	M8	85	118	107	122	M12x24	127	4	11	75	38	41	10.8x30	117	115	110
14.3	1/4	424	35	29	190	101	120	95	155	370	130	160	M8	75	190	122	264	M14x28	16.3	5	13	85	45	48	12.8x30	131	115	110	
16.3	1/2	444	55	29	190	101	120	95	155	370	130	160	M8	75	190	122	264	M14x28	16.3	5	13	85	45	48	12.8x30	131	115	110	
21.4	1	499	79	38	214	116	135	105	185	425	160	180	200	M10	110	260	350	303	M16x35	21.8	6	19	95	55	59	15x10x30	114	115	110
27.3	2	547	109	47	244	131	165	135	215	475	180	200	200	M10	110	260	350	303	M16x35	27.3	8	24	95	55	59	15x10x30	114	115	110

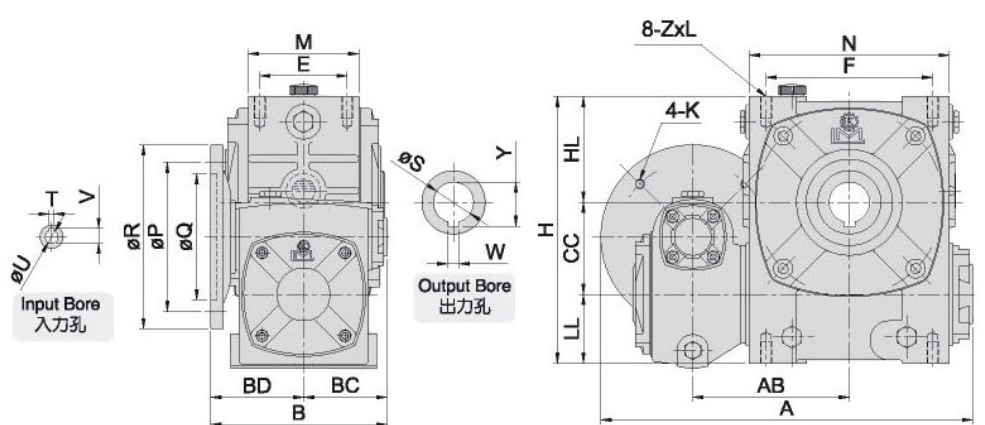
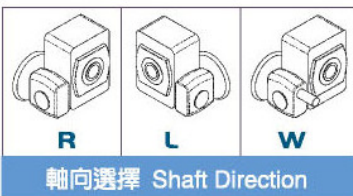
MODEL : EOH



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	B	BC	BD	CC	LL	HL	H	腳座 FOOT STOCK				輸入軸 INPUT SHAFT				出力孔 OUTPUT BORE			重量 Weight (KG)	
											E	F	M	N	ZxL	HS	U	d	TxVxHK	W	Y		S
											型號 MODEL	1/100- 1/800	1/1000- 1/3600										
60	1/16	218	100	144	55	88	60	42	75	177	55	100	77	125	M10x20	25	12	13.5	4x4x25	8	28.3	25	13.2
70	1/8	260	121	151	65	86	70	50	85	205	65	125	87	158	M10x20	25	12	13.5	4x4x20	8	33.3	30	17.2
80	1/4	295	136	175	70	105	80	60	92	232	75	145	98	175	M10x20	30	12	13.5	4x4x25	10	38.3	35	25.4
100	1/2	346	158	210	90	120	100	75	115	290	85	185	117	226	M12x24	40	15	17	5x5x35	10	43.3	40	42.6
120	1	407	185	240	100	140	120	95	155	370	100	220	132	264	M14x28	40	18	20	5x5x35	12	48.3	45	68
135	2	471	219	271	110	161	135	105	185	425	110	260	150	306	M16x35	50	22	25	7x7x45	15	59.3	55	91.2

MODEL : EOHM



尺寸表 Dimension(m/m)

減速比 RATIO	馬力 HP	A	AB	B	BD	BC	CC	LL	HL	H	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK				輸入孔 INPUT BORE			出力孔 OUTPUT BORE			重量 Weight (KG)	
											P	Q	R	K	E	F	M	N	ZxL	V	T	U	W	Y		S
											型號 MODEL	1/100- 1/800	1/1000- 1/3600													
80	1/4	323	136	151	81	70	80	60	92	232	130	110	160	M8	75	145	98	175	M10x20	12.7	4	11	10	38.3	35	26
100	1/2	370	158	176	86	90	100	75	115	290	130	110	160	M8	85	185	117	226	M12x24	12.7	4	11	10	43.3	40	45.6
120	1	424	185	202	102	100	120	95	155	370	130	110	160	M8	100	220	132	264	M14x28	16.3	5	14	12	48.3	45	69.4
135	2	499	219	226	116	110	135	105	185	425	165	130	200	M10	110	260	150	306	M16x35	21.8	6	19	15	59.3	55	92.4



雙段蝸輪減速機 (齒輪+蝸輪) 系列

DOUBLE REDUCTION WORM REDUCER (GEAR+WORM) SERIES

特點：

- 入力段螺旋齒輪減速 (減速比1/3~1/5)
- 出力段蝸輪減速 (減速比1/10~1/60)
- 效率高，螺旋齒輪經研磨
- 速比變化多(1/80~1/300)
- 適合低速高扭力之傳動
- 可選擇組合角度

Features：

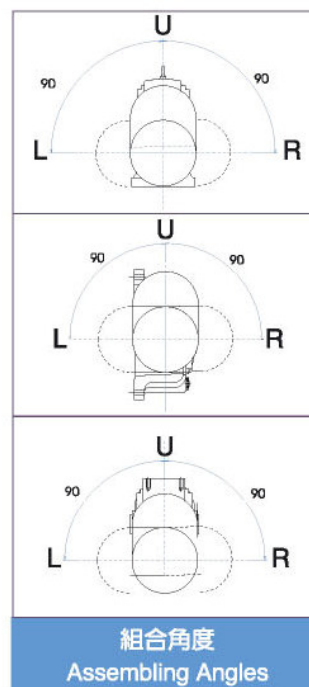
- Input-stage spiral gear reduction (reduction ratio 1/3 ~1/5)
- Output-stage worm reduction (reduction ratio 1/10~1/60)
- High efficiency, grinding spiral gear.
- Various reduction ratios (1/80~1/300)
- Suitable for low-speed and high-torque transmission.
- Various assembling angles for choice.

MODEL：80#~155#

馬力(HP)：1/2HP~5HP

減速比 (RATIO)：

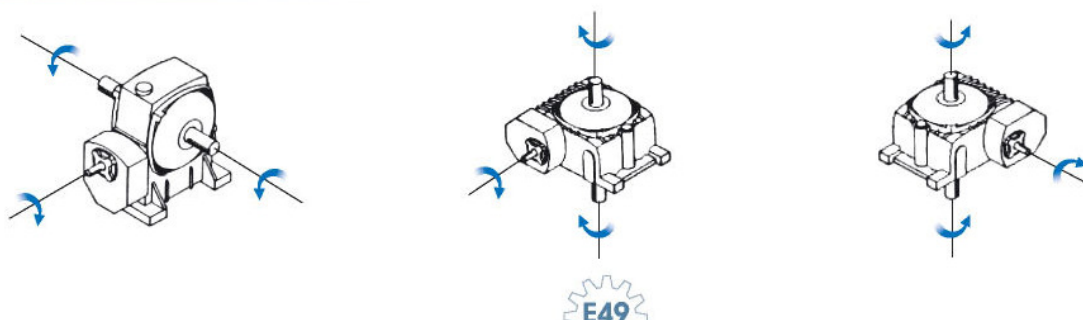
馬力 HP	型號 MODEL	可組立之減速比 RATIO
1/2	80	80.90.100.120.150.160.180.200.240.250.300
	100	80.90.100.120.150.160.180.200.240.250.300
1	80	80.90.100.120.150.160
	100	80.90.100.120.150.160.180.200.240.250.300
	120	80.90.100.120.150.160.180.200.240.250.300
2	100	80.90.100.120.150.160
	120	80.90.100.120.150.160.180.200
	135	80.90.100.120.150.160.180.200.240.250.300
3	135	80.90.100.120.150.160.180.200
	155	80.90.100.120.150.160.180.200.240.250.300
5	155	80.90.100.120.150.160



油量表 (OIL CAPACITIES)：單位：公升 (UNIT：l)

機型 型號	LG LGM	LOG LOGM	VG VGM	VOG VOGM	EG EGM	EOG EOGM	VOFG VOFGM
80	1	1	1.6	1.6	1	1	1.4
100	1.8	1.8	2.9	2.9	1.8	1.8	2
120	2.8	2.8	4.6	4.6	2.8	2.8	2.8
135	4.6	4.6	7.1	7.1	4.6	4.6	4.2
155	7	7					

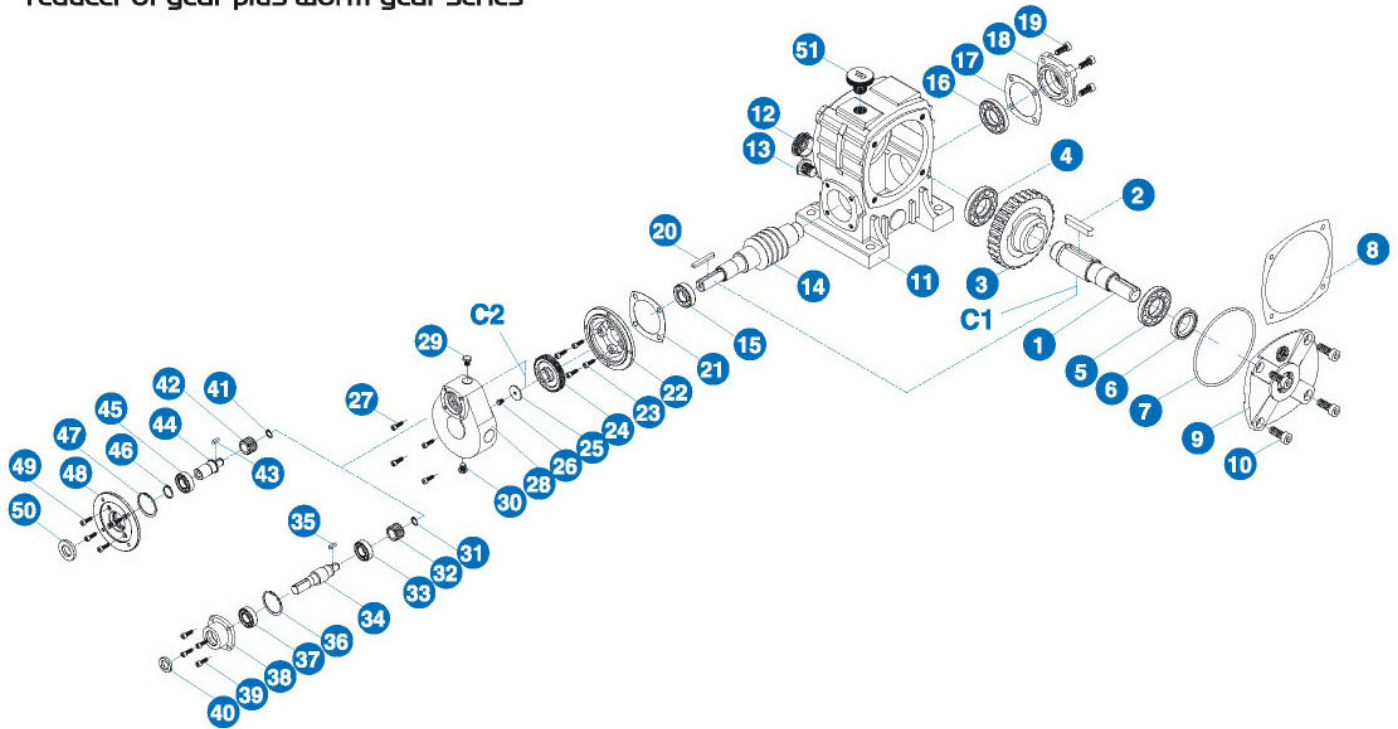
旋轉方向 Rotation Directions



雙段蝸輪減速機(齒輪+蝸輪)系列

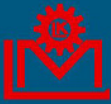
分解系統圖

Disassembly diagram of two-stage worm-gear reducer of gear plus worm-gear series



NO.	名稱	NAME OF PARTS
1	出力軸	Output shaft
2	雙圓鍵	Key
3	蝸輪	Worm wheel
4	滾珠軸承	Ball bearing
5	滾珠軸承	Ball bearing
6	油封	Oil seal
7	O型環	O ring
8	牛皮紙墊片	Paper packing
9	出力軸蓋	Output shaft cover
10	六角承窩頭螺絲	Hex. Screw
11	蝸輪箱	Outer shell
12	油鏡	Oil gauge
13	排油栓	Drain plug
14	蝸桿(入力軸)	Worm shaft (Input shaft)
15	止推軸承	Taper roller bearing
16	止推軸承	Taper roller bearing
17	牛皮紙墊片	Paper packing
18	入力軸蓋(左)	Input shaft cover (L)
19	六角承窩頭螺絲	Hex. Screw
20	雙圓鍵	Key
21	牛皮紙墊片	Paper packing
22	入力軸蓋(右)	Input shaft cover (R)
23	六角承窩頭螺絲	Hex. Screw
24	B齒輪	B Gear
25	墊片	Shim washer
26	六角螺絲	Hex. Head bolt
27	六角承窩頭螺絲	Hex. Screw

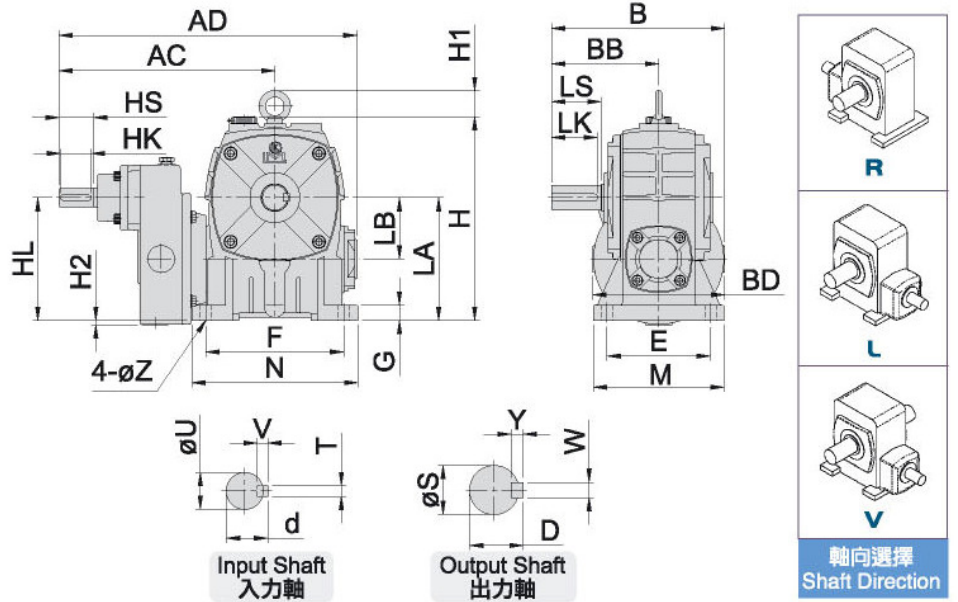
NO.	名稱	NAME OF PARTS
28	偏心齒輪箱	Gear box
29	注油栓	Drain plug
30	排油栓	Drain plug
31	扣環(S)	Snap ring (S)
32	A齒輪	A Gear
33	滾珠軸承	Ball bearing
34	入力軸	Input shaft
35	雙圓鍵	Key
36	扣環(R)	Snap ring (R)
37	滾珠軸承	Ball bearing
38	入力軸蓋	Input shaft cover
39	六角承窩頭螺絲	Hex. Screw
40	油封	Oil seal
41	扣環(S)	Snap ring (S)
42	A齒輪	A Gear
43	單圓鍵	Key
44	入力軸	Input shaft
45	滾珠軸承	Ball bearing
46	扣環(S)	Snap ring (S)
47	扣環(R)	Snap ring (R)
48	馬達盤	Motor cover
49	六角承窩頭螺絲	Hex. Screw
50	油封	Oil seal
51	注油栓	Oil plug
4,5	60#以下滾珠軸承	Ball bearing of 60# bellow
8	100#(含)以上不使用牛皮紙墊片	Model 100# and above are not without paper packing



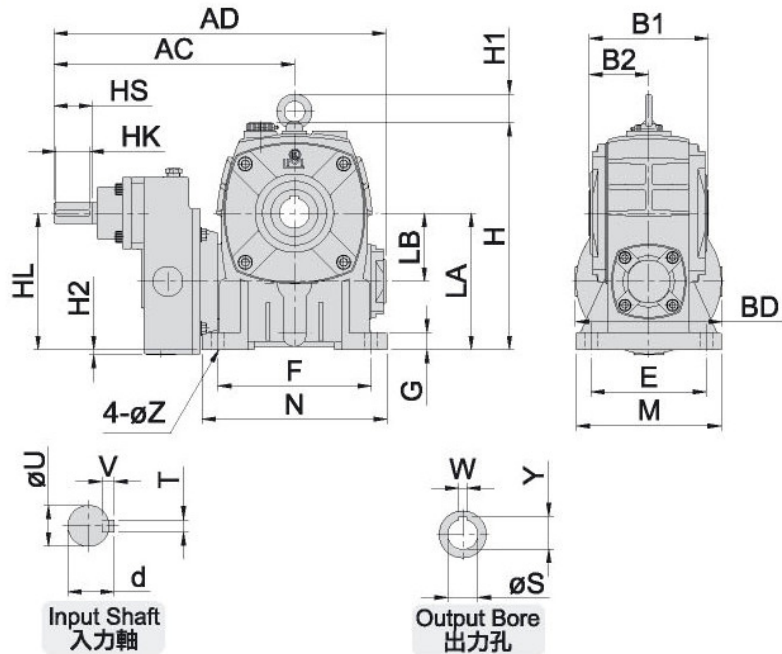
雙段蝸輪減速機 (齒輪+蝸輪) 系列

DOUBLE REDUCTION WORM REDUCER (GEAR+WORM) SERIES

MODEL : LG



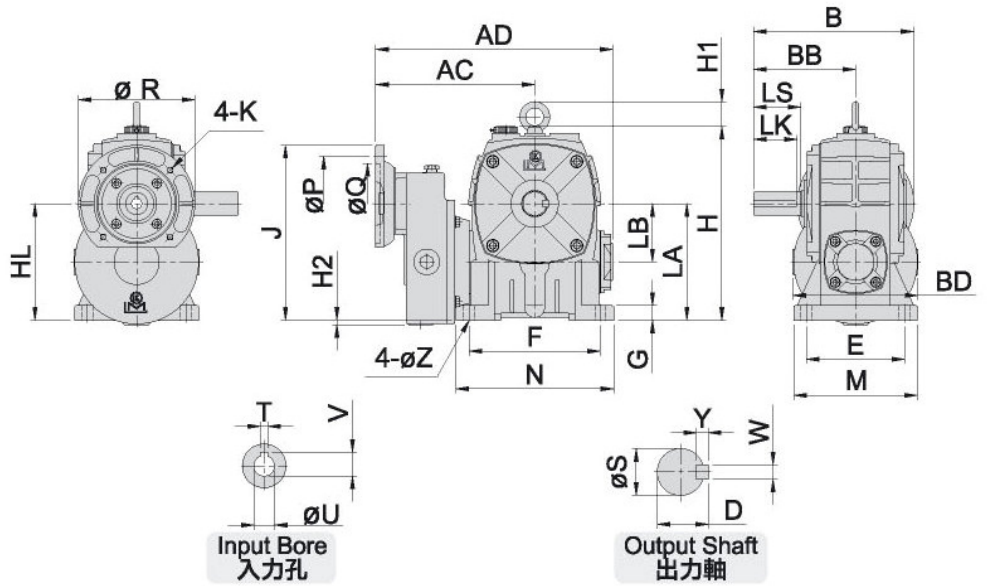
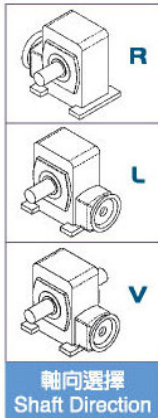
MODEL : LOG



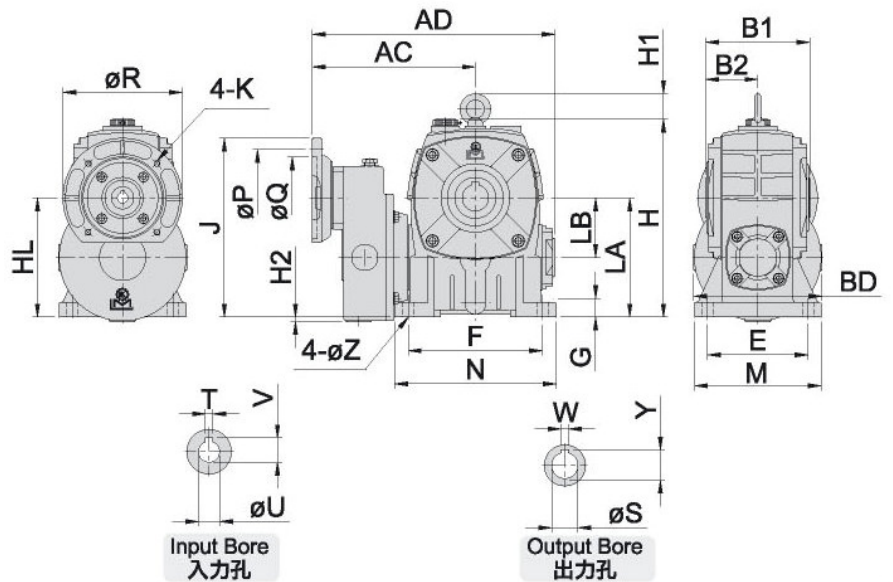
尺寸表 Dimension(m/m)

型號 MODEL	馬力 HP (4P)	減速比 RATIO	AC	AD	B	BB	B1	B2	H1	LB	H	HL	LA	腳座 FOOT STOCK					入力軸 INPUT SHAFT				出力孔 OUTPUT BORE			出力軸 OUTPUT SHAFT				重量 Weight (KG)																									
														E	F	M	N	G	Z	HS	U	d	TxVxHK	W	Y	S	LS	S	D	WxYxLK	LG	LOG																							
80	1/2	80-300 80-160	282	389	235	140	138	70	80	266	160	160	135	180	170	217	20	15	45	24	27	7x7x40	10	38.3	35	65	32	35	10x8x60	32.2	30.6																								
	1	80-300 80-160	306	439	267.5	170	178	90																								100	335	180	200	155	220	195	270	25	15	45	24	27	7x7x40	10	43.3	40	75	38	41	10x8x70	48.8	49.6	
100	1	80-300 80-160	344	504	305	190	198	100	34	120	398	200	240	180	260	230	320	30	18	45	24	27	7x7x40	12	48.3	45	85	45	48	12x8x80	73	74.8																							
	2	80-300 80-200	401	582	322	214	218	110																									135	440	227	270	200	290	250	350	32	18	55	28	31	7x7x50	15	59.3	55	95	55	59	15x10x90	103.4	106.8
155	3	80-300 80-160	420	620	392	253	247	123.5	37	155	486	227	290	220	320	280	390	38	20	55	28	31	7x7x50	15	69.3	65	110	60	64	15x10x105	133.6	128.8																							
	4																																																						
	5																																																						

MODEL : LGM

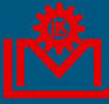


MODEL : LOGM



尺寸表 Dimension(m/m)

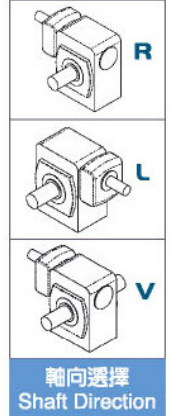
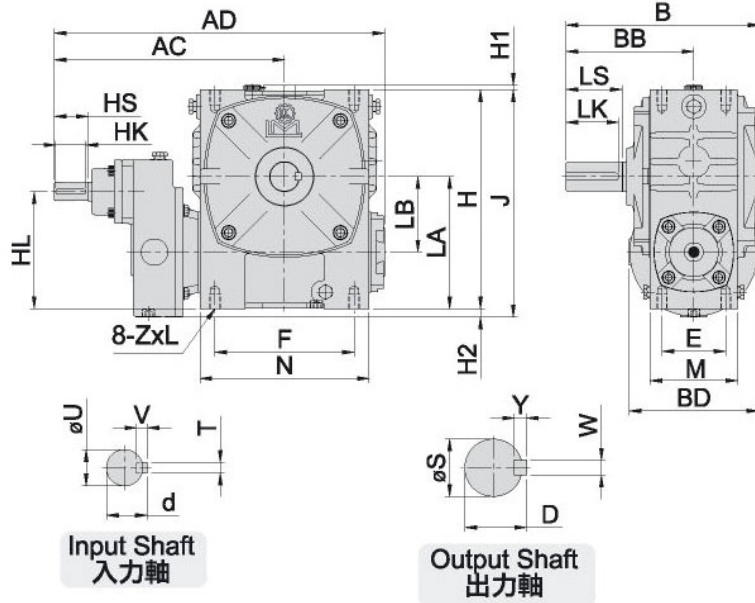
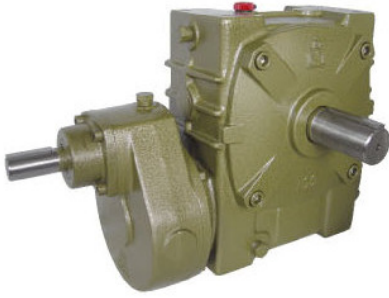
型號 MODEL	馬力 HP (4P)	減速比 RATIO	馬達盤 IEC MOTOR FLANGE													腳座 FOOT STOCK					入力孔 INPUT BORE			出力孔 OUTPUT BORE			出力軸 OUTPUT SHAFT			重量 Weight (KG)							
			AC	AD	B	BB	B1	B2	BD	H1	LB	H	HL	LA	J	P	Q	R	K	E	F	M	N	G	Z	V	T	U	W	Y	S	LS	S	D	WxYxLK	LGM	LOGM
			219	326	235	140	138	70	172	80	266	160	160	248	130	110	180	M8	135	180	170	217	20	15	16.3	5	14	10	38.3	35	65	32	35	10x8x60	31.6	30	
80	1/2	80-300	219	326	235	140	138	70	172	80	266	160	160	248	130	110	180	M8	135	180	170	217	20	15	16.3	5	14	10	38.3	35	65	32	35	10x8x60	31.6	30	
	1	80-180	220	327	240							266	165	130	130	200	M10	155	200	195	270	25	15	21.7	6	19	10	43.3	40	75	38	41	10x8x70	48	48.6		
100	1	80-300	244	377	270	170	178	90	172	100	335	180	200	280	165	130	200	M10	155	200	195	270	25	15	21.7	6	19	10	43.3	40	75	38	41	10x8x70	48	48.6	
	2	80-180																																			
120	1	80-300	282	442	305	190	198	100	172	120	398	200	240	300	165	130	200	M10	180	260	230	320	30	18	21.7	6	19	12	48.3	45	85	45	48	12x8x80	72.2	74	
	2	80-200																																			
135	2	80-300	306	487	322	214	218	110	240	135	440	227	270	353	165	130	200	M10	200	290	250	350	32	18	27.3	8	24	15	59.3	55	95	55	59	15x10x90	101.2	104.6	
	3	80-200													215	180	250	M12	200	290	250	350	32	18	31.3	8	28	15	59.3	55	95	55	59	15x10x90	101.2	104.6	
155	3	80-300	325	525	392	253	247	123.5	240	155	486	227	290	353	215	180	252	M12	220	320	280	390	38	20	31.3	8	28	15	69.3	65	110	60	64	15x10x105	131.6	126.8	
	5	80-180																																			



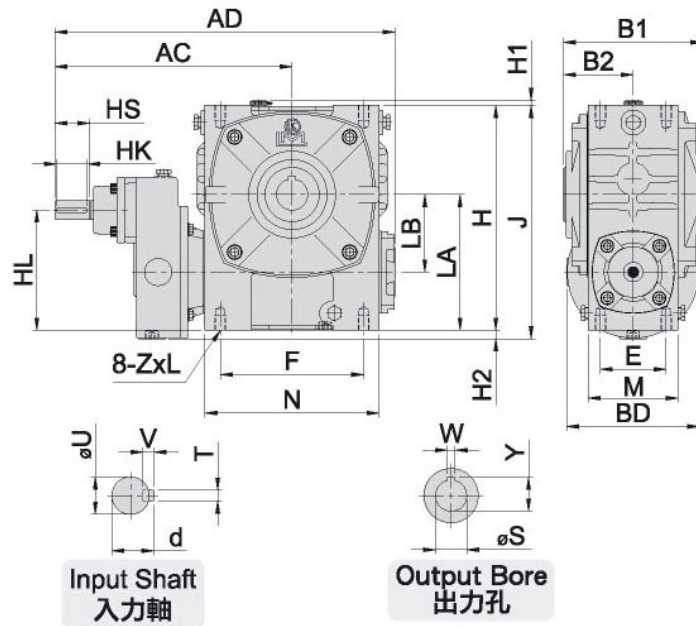
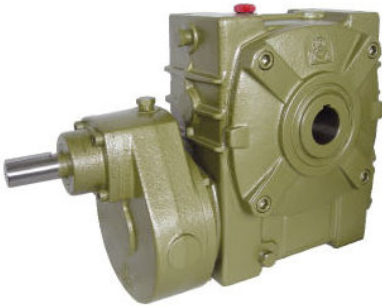
雙段蝸輪減速機 (齒輪+蝸輪) 系列

DOUBLE REDUCTION WORM REDUCER (GEAR+WORM) SERIES

MODEL : EG



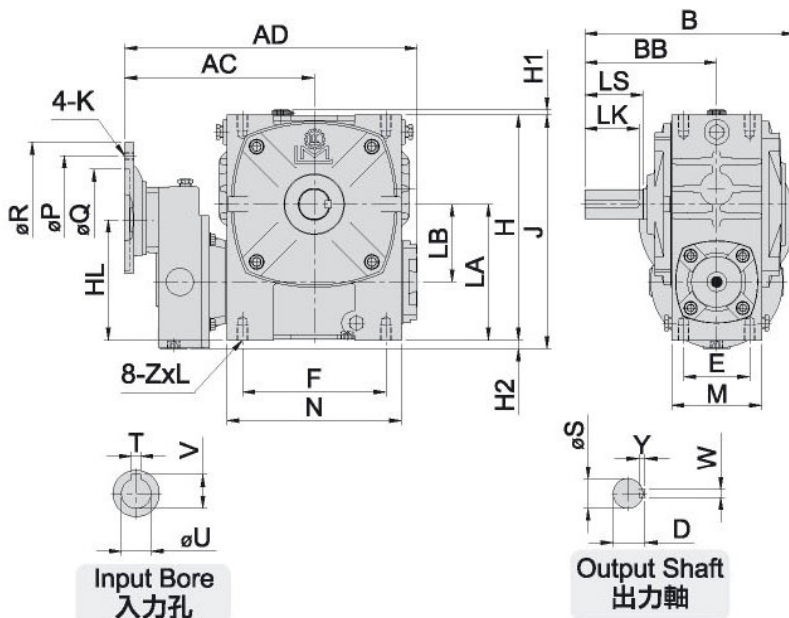
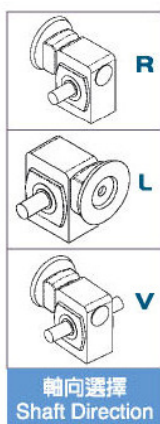
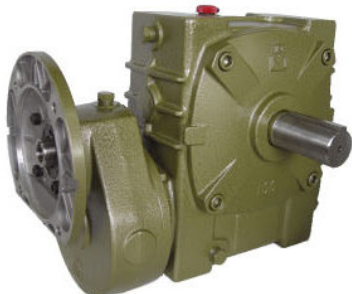
MODEL : EOG



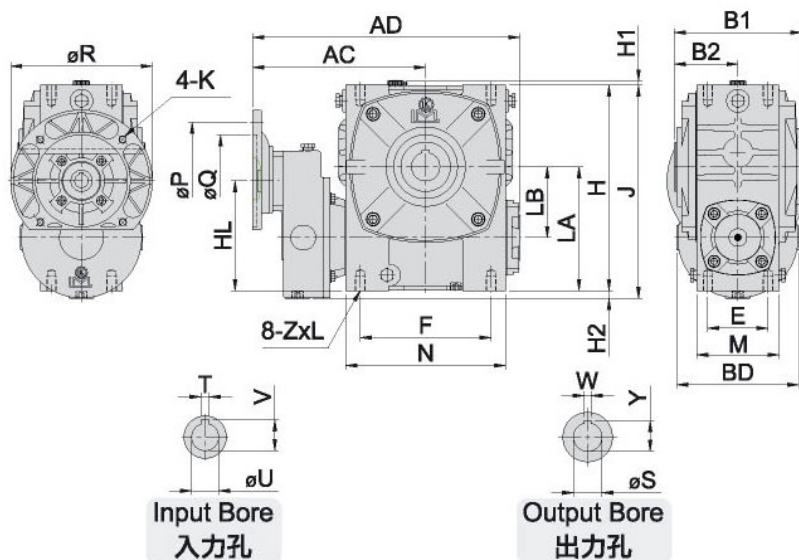
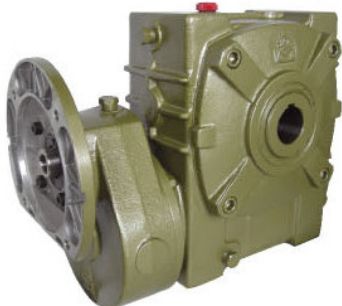
尺寸表 Dimension(m/m)

型號 MODEL	馬力 HP (4P)	減速比 RATIO	AC	AD	B	BB	B1	B2	BD	H1	H2	H	HL	LA	LB	J	腳座 FOOT STOCK					入力軸 INPUT SHAFT				出力孔 OUTPUT BORE			出力軸 OUTPUT SHAFT				重量 Weight (KG)	
																	E	F	M	N	ZxL	HS	U	d	TxVxHK	W	Y	S	LS	S	D	WxYxLK	EG	EOG
80	1/2	80-300 80-180	282	289	235	140	138	70	172		26	232	92	92	80	267	75	145	97	176	M10x18	45	24	27	7x7x40	10	38.3	35	65	32	35	10x8x60	30.4	32
100	1	80-300 80-180	306	439	256	170	178	90	172	6	11	301	135	115	100	301	85	185	116	225	M12x20	45	24	27	7x7x40	10	43.3	40	75	38	41	10x8x70	46.4	47.8
120	1	80-300 80-200	335	495	288	190	198	100	172	6		370	195	155	120	370	100	220	132	264	M14x28	45	24	27	7x7x40	12	48.3	45	85	45	48	12x8x80	68.8	70.2
135	2	80-300 80-200	402	583	319	214	218	110	240	6		425	228	185	135	425	110	260	150	306	M16x30	55	28	31	7x7x50	15	59.3	55	95	55	59	15x10x90	103	97

MODEL : EGM

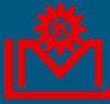


MODEL : EOGM



尺寸表 Dimension(m/m)

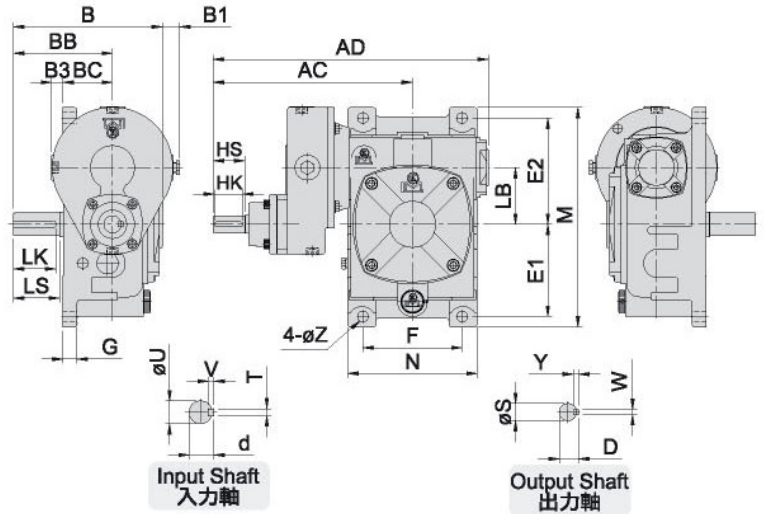
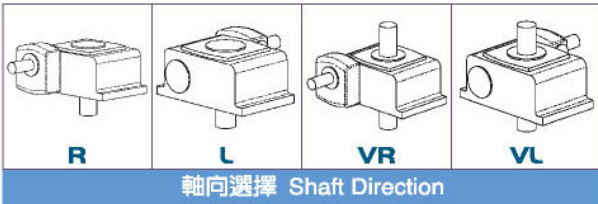
型號 MODEL	馬力 HP (4P)	減速比 RATIO	馬達盤 IEC														腳座			入力孔			出力孔			出力軸			重量									
			AC	AD	B	BB	B1	B2	BD	H1	H2	H	HL	LA	LB	J	MOTOR FLANGE				FOOT STOCK			INPUT BORE			OUTPUT BORE			OUTPUT SHAFT			EGM	EOGM				
			P	Q	R	K	E	F	M	N	ZxL	V	T	U	W	Y	S	LS	S	D	WxYxD	LxL	EGM	EOGM														
80	1/2	80-300 80-180	219	326	226	140	138	70	172	6	26	232	140	140	80	267	130	110	160	M8	75	145	97	175	M10x18	16.3	5	14	10	38.3	35	65	32	35	10x6x60	30.6	31.8	
			220	327	240													165	130	200	M10						21.8	6	19									
100	1	80-300 80-180	245	377	270	170	178	90	172	6	11	290	155	175	100	301	165	130	200	M10	85	185	116	225	M12x20	21.8	6	19	10	43.3	40	75	38	41	10x6x70	45.6	47.4	
																											27.3	8	24									
120	2	80-300 80-200	273	433	290	190	198	100	172	6		370	175	215	120	370	165	130	200	M10	100	220	132	264	M14x28	21.8	6	19	12	48.3	45	85	45	48	12x6x80	68	69.4	
																											27.3	8	24									
135	3	80-300 80-200	306	487	319	214	218	110	240	6		425	228	185	135	425	165	130	200	M10	110	260	150	306	M16x30	27.3	8	24	15	59.3	55	95	55	59	15x10x90	103	97	
																		215	180	250	M12						31.3	8	28									



雙段蝸輪減速機 (齒輪+蝸輪) 系列

DOUBLE REDUCTION WORM REDUCER (GEAR+WORM) SERIES

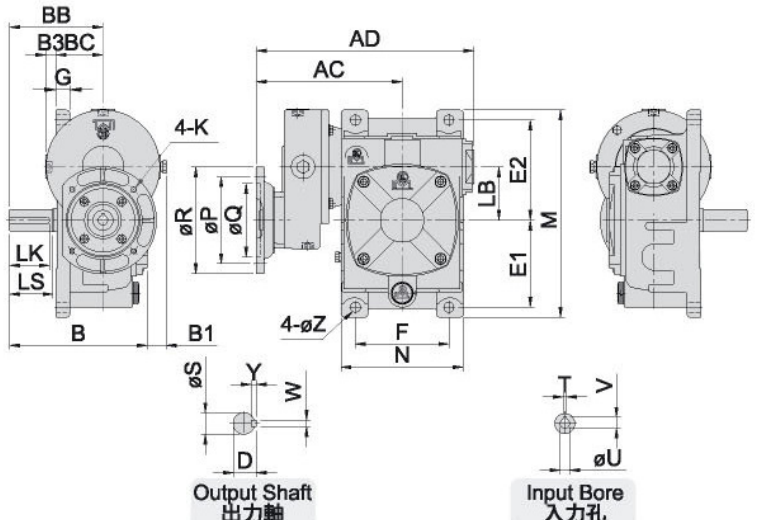
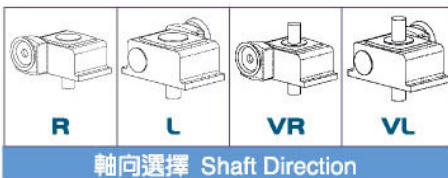
MODEL : UG



尺寸表 Dimension(m/m)

型號 MODEL	馬力 HP (4P)	減速比 RATIO	AC	AD	B	BB	BC	BI	B3	LB	腳座 FOOT STOCK					入力軸 INPUT SHAFT				出力軸 OUTPUT SHAFT				重量 Weight (KG)		
											E1	E2	M	F	N	G	Z	HS	U	d	TxVxHK	LS	S		D	WxYxLK
80	1/2	80-300 80-160	282	289	211	140	70	24.5	16	80	130	80	310	140	183	20	15	45	24	27	7x7x40	65	32	35	10x8x60	31.4
100	1	80-300 80-160	306	439	260	170	90	6	0	100	155	100	380	190	230	26	15	45	24	27	7x7x40	75	38	41	10x8x70	50.8
120	1	80-300 80-200	344	504	292	190	100			120	185	120	450	220	266	30	18	45	24	27	7x7x40	85	45	48	12x8x80	72.6
135	2	80-300 80-200	401	582	324	214	110	16		135	210	235	495	260	305	35	18	55	28	31	7x7x50	95	55	59	15x10x90	102.8
155	3	80-300 80-160	420	620	393	253	140			155	145	265	460	290	340	45	20	55	28	31	7x7x50	110	60	64	15x10x105	136

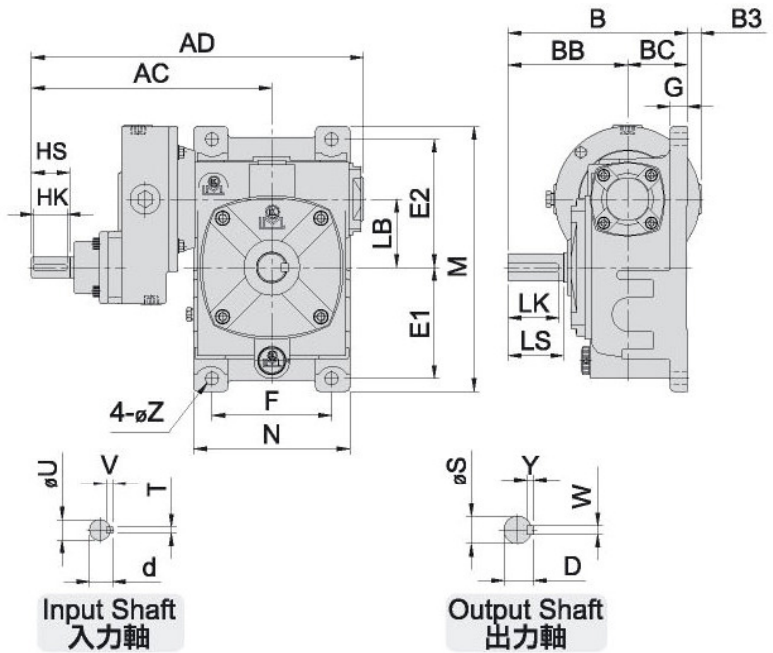
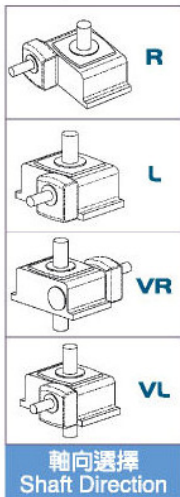
MODEL : UGM



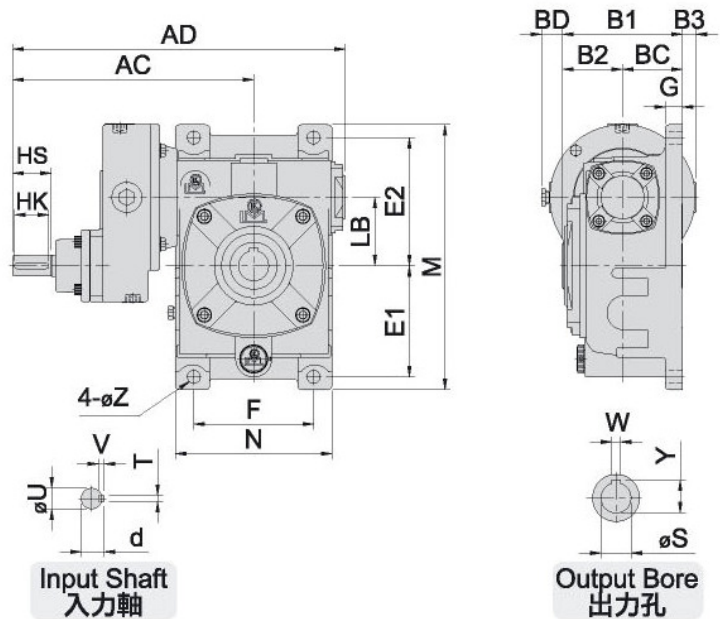
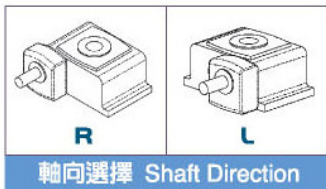
尺寸表 Dimension(m/m)

型號 MODEL	馬力 HP (4P)	減速比 RATIO	AC	AD	B	BB	BC	B1	B3	LB	馬達盤 IEC MOTOR FLANGE				腳座 FOOT STOCK					入力孔 INPUT BORE			出力軸 OUTPUT SHAFT				重量 Weight (KG)		
											P	Q	R	K	E1	E2	M	F	N	G	Z	V	T	U	LS	S		D	WxYxLK
80	1/2	80-300 80-160	219	326	235	140	70	29	16	80	130	110	160	M8	130	150	310	140	183	20	15	16.3	5	14	65	32	35	10x8x60	31.6
			220	327	240						M10	21.7	6	19															
100	1	80-300 80-160	244	377	270	170	90	11	0	100	165	130	200	M10	155	180	380	190	230	26	15	21.7	6	19	75	38	41	10x8x70	50
			27.3	8	24																								
120	1	80-300 80-200	282	442	292	190	100			120	165	130	200	M10	185	215	450	220	266	30	18	21.7	6	19	85	45	48	12x8x80	71.8
			27.3	8	24																								
135	2	80-300 80-200	306	487	487	214	110	15	16	135	165	130	200	M10	210	235	495	260	305	35	18	27.3	8	24	95	55	59	15x10x90	100.6
			215	180	250						M12	31.3	8	28															
155	3	80-300 80-160	325	525	525	253	140			155	215	180	250	M12	145	265	460	290	340	45	20	31.3	8	28	110	60	64	15x10x105	134

MODEL : VG

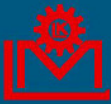


MODEL : VOG



尺寸表 Dimension(m/m)

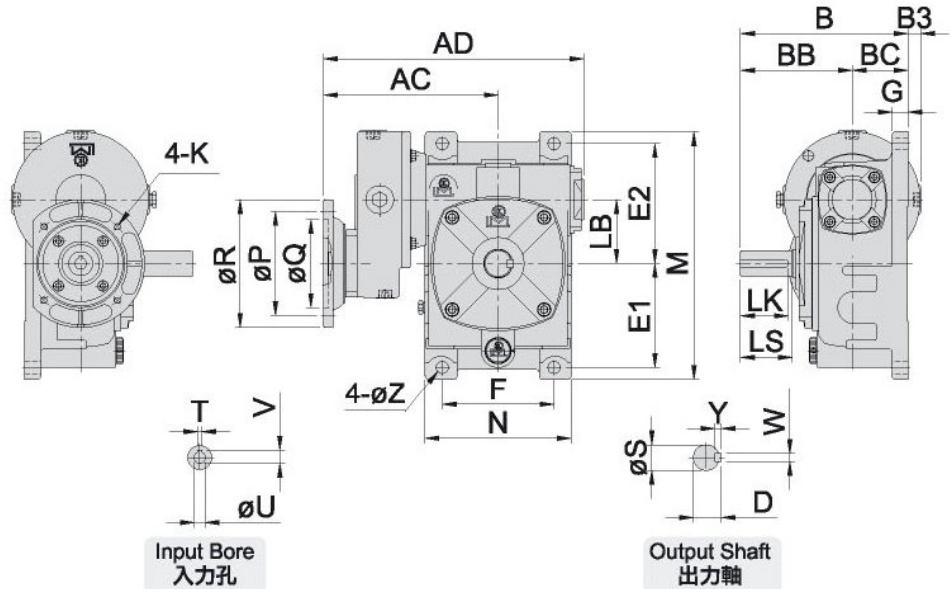
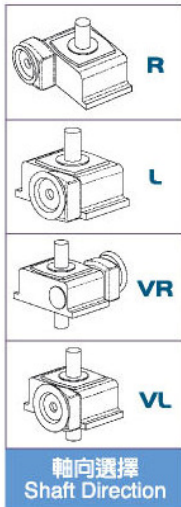
型號 MODEL	馬力 HP (4P)	減速比 RATIO	AC	AD	B	BB	BC	BD	B1	B3	LB	腳座 FOOT STOCK				入力軸 INPUT SHAFT				出力孔 OUTPUT BORE			出力軸 OUTPUT SHAFT				重量 Weight (KG)				
												E1	E2	M	F	N	G	Z	HS	U	d	TxVxHK	W	Y	S	LS	S	D	WxYxLK	VG	VOG
80	1/2	80-300	282	389	210	140	70	25	138	16	80	130	150	310	140	183	20	15	45	24	27	7x7x40	10	38.3	35	65	32	35	10x8x60	31.4	32.8
		80-160																													
100	1	80-300	306	439	260	170	90	5	178	0	100	155	180	380	190	230	26	15	45	24	27	7x7x40	10	43.3	40	75	38	41	10x8x70	50.8	50.8
		80-160																													
120	1	80-300	344	504	290	190	100	0	198	0	120	185	215	450	220	266	30	18	45	24	27	7x7x40	12	48.3	45	85	45	48	12x8x80	72.8	72.8
		80-200																													
135	2	80-300	401	582	324	214	110	16	218	16	135	210	235	495	260	305	35	18	55	28	31	7x7x50	15	59.3	55	95	55	59	15x10x90	102.8	102.2
		80-200																													
155	3	80-300	420	620	393	253	140	2.5	263.5	0	155	145	265	460	290	340	45	20	55	28	31	7x7x50	15	69.3	65	110	60	64	15x10x105	136	133
		80-160																													



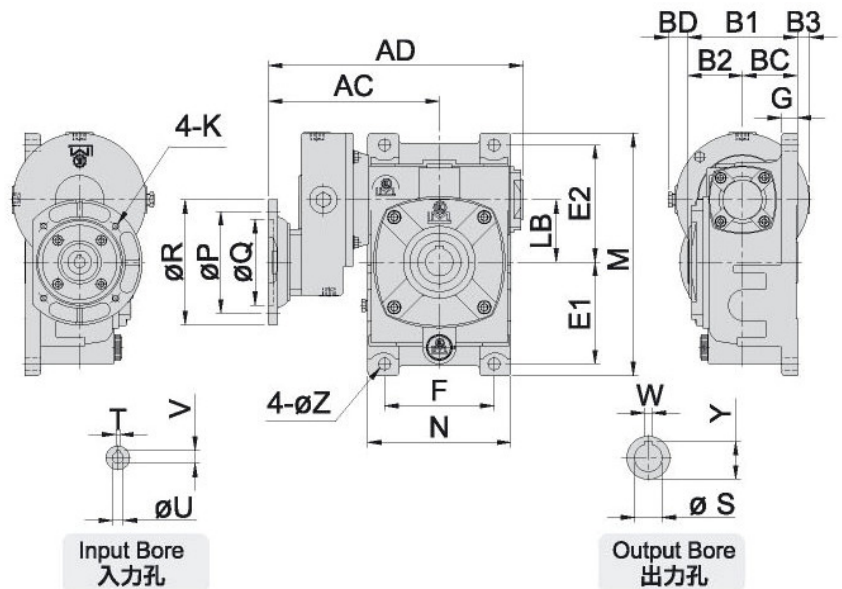
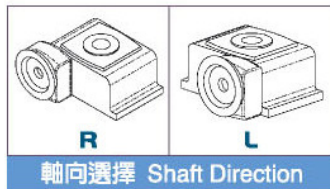
雙段蝸輪減速機 (齒輪+蝸輪) 系列

DOUBLE REDUCTION WORM REDUCER (GEAR+WORM) SERIES

MODEL : VGM



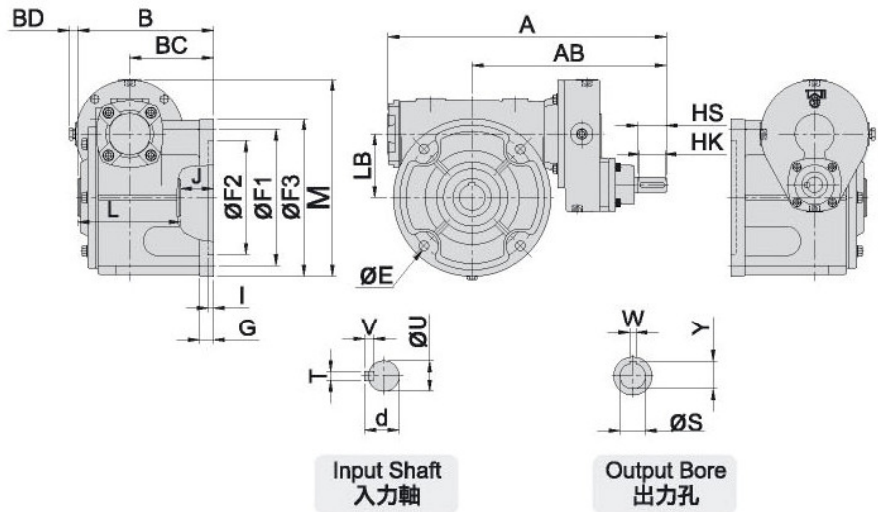
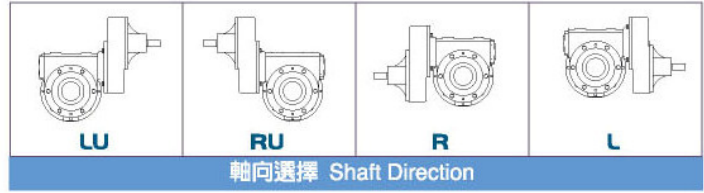
MODEL : VOGM



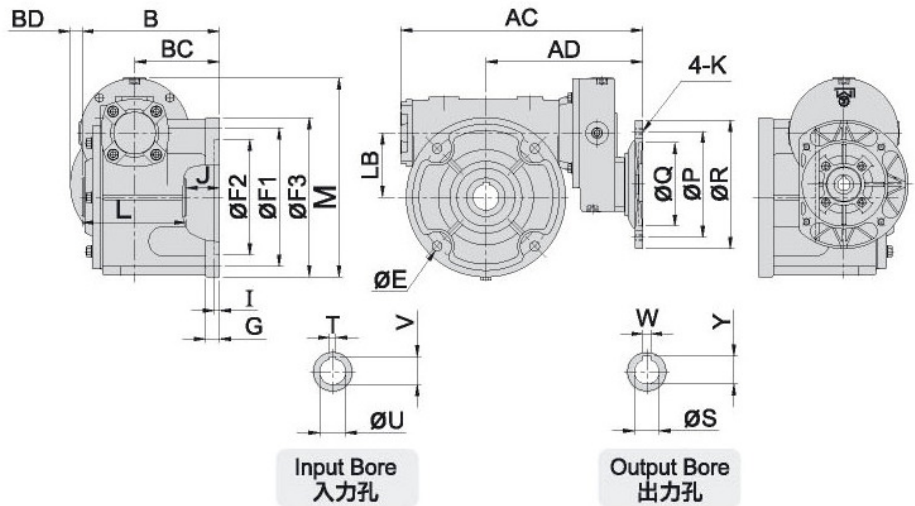
尺寸表 Dimension(m/m)

型號 MODEL	馬力 HP (4P)	減速比 RATIO	馬達盤 IEC										腳座							入力孔			出力孔			出力軸			重量 Weight (KG)						
			AC	AD	B	BB	BC	BD	B1	B2	B3	LB	MOTOR FLANGE				FOOT STOCK							INPUT BORE			OUTPUT BORE			OUTPUT SHAFT			VGM	VOGM	
			P	Q	R	K	E1	E2	M	F	N	G	Z	V	T	U	W	Y	S	LS	S	D	WxYxL	K	VGM	VOGM									
80	1/2	80-300	219	326	210	140	70	25	138	70	16	80	130	110	160	M8	130	150	310	140	183	20	15	16.3	5	14	10	38.3	35	65	32	35	10x8x60	31.6	32.4
	1	80-160	220	327				30					165	130	200	M10	155	180	380	190	230	26	15	21.7	6	19	10	43.3	40	75	38	41	10x8x70	51	49.2
100	1	80-300	244	377	260	170	90	10	178	90	0	100	165	130	200	M10	155	180	380	190	230	26	15	21.7	6	19	10	43.3	40	75	38	41	10x8x70	51	49.2
	2	80-160																						27.3	8	24									
120	1	80-300	282	442	290	190	100		198	100	0	120	165	130	200	M10	185	215	450	220	266	30	18	21.7	6	19	12	48.3	45	85	45	48	12x8x80	72	72
	2	80-200																						27.3	8	24									
135	2	80-300	306	487	324	214	110	15	218	110	15	135	165	130	200	M10	210	235	495	260	305	35	18	27.3	8	24	15	59.3	55	95	55	59	15x10x90	100.8	100.2
	3	80-200						16			16		215	180	250	M12								31.3	8	28									
155	3	80-300	325	525	392	253	140	2.5	263.5	123.5	0	155	215	180	250	M12	145	265	460	290	340	45	20	31.3	8	28	15	69.3	65	110	60	64	15x10x105	134	131
	5	80-160																																	

MODEL : VOFG

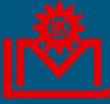


MODEL : VOFGM



尺寸表 Dimension(m/m)

型號 MODEL	馬力 HP (4P)	減速比 RATIO	A	AB	AC	AD	B	BC	BD	LB	M	馬達盤 IEC MOTOR FLANGE				法蘭面 FLANGE				入力孔 INPUT BORE		出力孔 OUTPUT BORE		入力軸 INPUT SHAFT		重量 Weight (KG)							
												P	Q	R	K	E	F1	F2	F3	J	G	V	T	U	W	Y	S	HS	U	d	TxVxHK	VOFG	VOFGM
80	1/2	80-300	389	282	326	219	180	107	22	80	266	130	110	160	M8	15	170	130	200	30	20	16.3	5	14	10	38.3	35	45	24	27	7x7x40	31.4	30.8
	1	80-160	327	220	327	220	180	107	27	80	266	165	130	200	M10	15	170	130	200	30	20	21.7	6	19	10	38.3	35	45	24	27	7x7x40	31.4	30.8
100	1	80-300	439	306	377	244	214	132	18	100	310	165	130	200	M10	15	215	180	248	52	22	21.7	6	19	10	43.3	40	45	24	27	7x7x40	46.6	47
	2	80-160	327	220	327	220	180	107	27	80	266	165	130	200	M10	15	170	130	200	30	20	27.3	8	24	10	43.3	40	45	24	27	7x7x40	46.6	47
120	1	80-300	509	344	447	282	234.3	145	11	120	371	165	130	200	M10	18	300	260	330	56	24	21.7	6	19	12	53.3	50	45	24	27	7x7x40	67.8	67
	2	80-200	327	220	327	220	180	107	27	80	266	165	130	200	M10	15	170	130	200	30	20	27.3	8	24	12	53.3	50	45	24	27	7x7x40	67.8	67
135	2	80-300	582	401	487	306	247	155	33	135	415	165	130	200	M10	18	330	290	360	63	25	27.3	8	24	15	59.3	55	55	28	31	7x7x50	92.4	90.4
	3	80-200	327	220	327	220	180	107	27	80	266	215	180	250	M12	18	330	290	360	63	25	31.3	8	28	15	59.3	55	55	28	31	7x7x50	92.4	90.4



蝸輪減速機零件對照表

COMPARISON TABLE OF PARTS FOR WORM REDUCER

軸承規格 BALL BEARING

型號 MODEL	入力軸 INPUT SHAFT		出力軸 OUTPUT SHAFT			
	標準 STANDARD	標準 STANDARD	VOW	VOF	VOW 角牙	
40#	6202N x 2	6203N x 2	6007U x 2			30206U x 2
50#	6203N x 2	6204U x 2	6008U x 2			32008U x 2
60#	6204N x 2	6205U x 2	6208U x 2			30208U x 2
70#	30205N x 2	6206U x 2	6210U x 2		6210U x 2	30210N x 2
80#	30206N x 2	6207U x 2	6211U x 2		6010U x 2	30211N x 2
100#	30207N x 2	6208U x 2	6214U x 2		6212U x 2	30214U x 2
120#	30308N x 2	6210U x 2	6214U x 2		6215U x 2	30214U x 2
135#	30309N x 2	6212U x 2	6216U x 2		6216U x 2	30216U x 2
155#	30309N x 2	6214U x 3	6218U x 2			
175#	30310N x 2	6215U x 3	6224U x 2			
200#	30311N x 2	6216U x 4	6224U x 2			
225#	30312N x 2	6217U x 4				
250#	30314N x 2	NJ219 x 2				
300#	30316N x 2	NJ220 x 2				
350#	30318N x 2	NJ224 x 2				

型號 MODEL	入力軸 INPUT SHAFT						
	1/4 HP	1/2 HP	1HP	2HP	3HP,5HP,	7½,10HP	15HP
50#	6203N x2	6202N x2					
60#	6005N x1 6204N x1	6005N x1 6204N x1					
70#		30205N x2	30203N x2				
80#		30206N x2	30206N x2	30205N x2			
100#			30207N x2	30207N x2	30206N x2		
120#				30210N x2	30210N x2		
135#					30211N x1 30309N x1	30211N x1 30309N x1	
155#					30211N x1 30309N x1	30211N x1 30309N x1	30211N x1 30309N x1
175#						30212N x1 30310N x1	30212N x1 30310N x1

油封規格 OIL SEAL

型號 MODEL	出力軸蓋 OUTPUT SHAFT COVER	入力軸蓋 INPUT SHAFT COVER	出力軸蓋(VOW) OUTPUT SHAFT COVER	出力軸蓋(VOF) OUTPUT SHAFT COVER	剎車盤 BRAKE DISC	無段盤	油壓盤 OIL PRESSURE COVER
	TC	SC	TC	TC	SC	SC	SC
40#	17x30x7	15x25x6	30x50x7				
50#	20x35x7	17x30x7	40x55x7		17x30x7	17x30x7	
60#	25x40x7	20x35x7	40x62x10		20x35x7	20x35x7	
70#	30x46x7	25x40x7	50x70x10	50x70x10	25x40x7	25x40x7	
80#	35x50x7	30x46x8	55x75x10	50x62x7	30x46x8	30x46x8	30x46x8
100#	40x62x10	35x50x7	70x90x12	60x90x10	35x50x7	35x50x7	45x62x8
120#	50x70x10	40x62x10	70x90x12	75x100x13	40x62x10	40x62x10	50x70x10
135#	60x80x12	45x62x8	80x100x12	80x100x12			45x62x6
155#	70x90x12	45x62x8	90x125x12				45x62x6
175#	75x100x13	50x70x10	120x150x14				50x70x10
200#	80x100x12	55x75x10	120x150x14				55x75x10
225#	85x110x13	60x80x10					60x80x10
250#	95x120x13	70x90x10					70x90x10
300#	100x130x13	80x100x13					
350#	120x150x14	90x110x13					

型號 MODEL	馬達盤 MOTOR FLANGE (SC)						
	1/4HP	1/2HP	1HP	2HP	3HP,5HP	7½,10HP	15HP
50#	17x35x5	25x35x7					
60#	25x40x7	25x40x7	28x40x7				
70#		25x46x7	TC32x46x8				
80#		30x55x7	30x55x7	40x55x7			
100#			35x62x10	35x62x10	45x62x8		
120#				50x70x10	50x70x10		
135#					55x80x10	55x80x10	55x80x10
155#					55x80x10	55x80x10	55x80x10
175#						60x90x10	60x90x10

※以上數值僅供參考，如有變動恕不另行通知。

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