

# WORM GEAR REDUCERS

蝸輪減速機



# Worm Reducer Series

## Features of Worm Reducer Series

### 蝸輪減速機系列產品特性

**出力軸**

中碳鋼 S45C，以 CNC 車床精密加工及研磨。

**蝸輪**

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。

**出力軸蓋**

鑄鐵 FC20 或 鑄鋁 AL，以 CNC 車床精密加工。

**蝸輪箱**

鑄鐵 FC20，本體一體鑄造，強度強，外型美觀散熱效果佳。

**蝸桿**

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。

**右入力軸蓋**

鑄鐵 FC20 或 鑄鋁 AL。

**左入力軸蓋**

鑄鐵 FC20 或 鑄鋁 AL。

**Output Shaft**

Medium carbon steel S45C, precision process and grinding with CNC lathe.

**Worm Wheel**

Aluminum brass ALBC3 & FC20, shaping cutter and computer auxiliary design low friction coefficient, durability in use.

**Output Shaft Cover**

Cast iron FC20 or cast aluminum AL, precision process with CNC.

**Outer Shell**

Cast iron FC20, one-line body, high intensity, elegant appearance, remarkable radiating effect.

**Worm Shaft**

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.

**Input Shaft Cover**

Cast iron FC20 or cast aluminum AL.

**Input Shaft Cover**

Cast iron FC20 or cast aluminum AL.



## Indication of Model Numbers

### 機種型號表示

HW	100	60	1	R
機型 Type	型號 Model	減速比 Ratio	馬力 Horse Power	軸向 Shaft Direction



### 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

#### 雙段蝸輪減速機

蝸輪 + 蝸輪：1/100.....1/3600

齒輪 + 蝸輪：1/80.....1/300

蝸輪減速機一般速比大部分為正減速比，但有部份機型非正減速比右表僅供參考，如需正確減速比請與我們連絡。

Most of the general ratio for worm gear reducer is same as actual ratio, but some models are different. The table on the right is for reference. Please contact us if you need actual ratio.

### 馬力

1/8HP~50HP 根據本目錄之馬力、型號選擇表。

### 軸向

R：右軸 ( 腳座貼地面，輸入端面向自己，此時輸出端位於右側 )

L：左軸 ( 腳座貼地面，輸入端面向自己，此時輸出端位於左側 )

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，如需特殊旋向時請註明。

※TW、TMW 系列除外。

### 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

#### 1-Stage 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 1/80

#### 2-Stage Reduction Worm Reducer

Worm-Worm：1/100.....1/3600

Gear-Worm：1/80.....1/300

型號 Model	速比 Ratio	實際減速比 Actual Ratio	型號 Model	速比 Ratio	實際減速比 Actual Ratio
30	15	1/14.5	250	40	1/41
	30	1/29		50	1/52
70	80	1/78		60	1/61
	100	1/94	300	10	1/10.25
175	50	1/51		15	1/14.33
	200	10		1/10.33	30
30		1/31	40	1/41	
225	15	1/14.5	60	1/63	
			350	10	1/11
20	1/22				
40	1/44				
			50	1/49	

以上型號包含所有機種。

### Horse Power

1/8HP ~ 50HP

### Shaft Direction

R: Right Shaft (when facing input shaft and foot on the ground, output shaft is on the right)

L: Left Shaft (when facing input shaft and foot on the ground, output shaft is on the left)

V: Single Input Shaft & Double Output Shaft

W: Double Input Shaft & Single Output Shaft

WV: Double Input Shaft & Single Output Shaft

S: Special shaft (Please specify your need clearly or attach drawing)

Rotary Direction: The worm shaft is right-hand thread. Please specify if you have special request.

※ Excluding TW and TMW series.

## 減速機之選定 Selection of Worm Reducer

### 入力軸回轉數 & 出力軸回轉數

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及蝸輪、蝸桿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。

$$\text{減速比} = \frac{\text{出力軸回轉數}}{\text{入力軸回轉數}} = \frac{60}{1800} = \frac{1}{30}$$

### 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 earing will have less life due to over-friction; too low, the lubrication or efficiency will be reducer. 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.

$$\text{reduction ratio} = \frac{\text{output shaft revolution}}{\text{input shaft revolution}} = \frac{60}{1800} = \frac{1}{30}$$

### 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。

### 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.

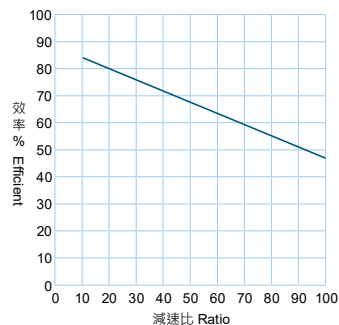
### 效率

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 X 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系數等。右表為效率之大約值，請參考。



### 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.

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%

## 蝸輪減速機一般故障原因及改善方法

## Solutions and Reasons for Worm Reducer General Faults

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

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。

The above items are general fault descriptions. In case of other kinds of faults, please contact with us.







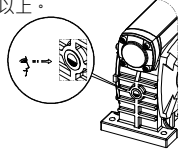
# WORM REDUCER SERIES

## 蝸輪減速機系列

### 減速機安裝 Usage and Installation

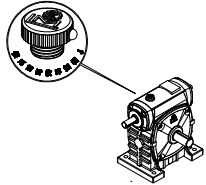
#### 使用前請檢查

- ◆ 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。



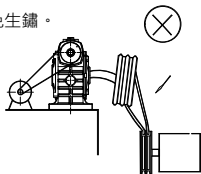
#### 場所

- ◆ 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°C ~ 40°C 異常高溫或低溫時請註明。
- ◆ 使用前請拔掉加油蓋上的插梢。



#### 連結方式

- ◆ 當聯接器用以聯接入力或出力軸時，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，勿使用鐵錘，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。



#### Check Before Operating

- ◆ Check if the type, model No., horsepower, 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 maintain 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 plug lid before use.

#### Connecting Method

- ◆ If coupler is used to connect input or output shaft, make sure they are firmly fixed and paralleled. The base seat shall be anchored with proper bolts.
- ◆ All of the components shall be properly assembled to the shaft. Avoid hammering and over-tight assembly which could damage the bearing.
- ◆ The pulley, chain pulley and gear shall be assembled as close to the bearing as possible to minimize the curving stress. 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 so as 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.

### 蝸輪減速機零件對照表 Comparison Table of Parts

#### 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#	6202 x 2	6203 x 2	6007 x 2		30206 x 2
50#	6203 x 2	6204 x 2	6008 x 2		32008 x 2
60#	6204 x 2	6205 x 2	6008x 2		30208 x 2
70#	6205 x 2	6206 x 2	6010 x 2	6210 x 2	30210 x 2
80#	6206 x 2	6207 x 2	6011 x 2	6010 x 2	30211 x 2
100#	30207 x 2	6208 x 2	6214 x 2	6212 x 2	30214 x 2
120#	30308 x 2	6210 x 2	6214 x 2	6215 x 2	30214 x 2
135#	30309 x 2	6212 x 2	6216 x 2	6216 x 2	30216 x 2
155#	30309 x 2	6214 x 3	6218 x 2		
175#	30310 x 2	6215 x 3	6224 x 2		
200#	30311 x 2	6216 x 4	6224 x 2		
225#	30312 x 2	6217 x 4			
250#	30314 x 2	NJ219 x 2			
300#	30316 x 2	NJ220 x 2			
350#	30318 x 2	NJ224 x 2			

型號 Model	入力軸 Input Shaft						
	1/4 HP	1/2HP	1HP	2HP	3HP - 5HP	7 1/2 - 10HP	15HP
50#	6203 x 2	6202 x 2					
60#	6005 x1 6204 x1	6005 x1 6204 x1					
70#		6205 x 2	320/28 x1 30205 x1				
80#		6206 x 2	6206 x 2	6206 x1 6007 x1			
100#			30207 x 2	30207 x 2	6008 x1 30206 x2		
120#				30210 x 2	30210 x 2		
135#					30211 x1 30309 x1	30211 x1 30309 x1	
155#					30211 x1 30309 x1	30211 x1 30309 x1	30211 x1 30309 x1
175#						30212 x1 30310 x1	30212 x1 30310 x1

以上數值僅供參考，如有變更恕不另行通知。The above information is for reference only. No notices will be made for any changes.



# WORM REDUCER SERIES

## 蝸輪減速機系列

### 蝸輪減速機零件對照表 Comparison Table of Parts

#### 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	入力軸 Input Shaft						
	1/4 HP	1/2HP	1HP	2HP	3HP - 5HP	7 1/2 - 10HP	15HP
50#	17x35x5	25x35x7					
60#	25x40x7	25x40x7					
70#		25x46x7	28x46x7				
80#		30x55x7	30x55x7	35x55x8			
100#			35x62x10	35x62x10	40x62x10		
120#				50x70x10	50x70x10		
135#					55x80x10	55x80x10	55x80x10
155#					55x80x10	55x80x10	55x80x10
175#						60x90x10	60x90x10

以上數值僅供參考，如有變更恕不另行通知。The above information is for reference only. No notices will be made for any changes.



### 潤滑油之選定 Selection of Lubricant Oil

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：

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 impact load. The table below shows the selection of lubricants for LIMING speed reducers:

荷重 (Load)	中國石油國光牌極壓機油 CPC E.P. LUBRICANT					SHELL OIL	MOBIL OIL	ISO VG
	Grade No.	黏度 (Cst) Viscosity		流動點 Pour Point	閃火點 Flash Point			
		40°C	100°C					
普通荷重 Common Load	HD-150	143.6	14.38	-18°C	264°C	OMALA OIL 150	MOBIL GEAR 629	ISO VG EP 150
	HD-220	212.2	18.59	-18°C	278°C	OMALA OIL 220	MOBIL GEAR 630	ISO VG EP 220
	HD-320	310.5	23.7	-18°C	290°C	OMALA OIL 320	MOBIL GEAR 632	ISO VG EP 320
超荷重 Heavy Load	HD-220	212.2	18.59	-18°C	278°C	OMALA OIL 220	MOBIL GEAR 630	ISO VG EP 220
	HD-320	310.5	23.7	-18°C	290°C	OMALA OIL 320	MOBIL GEAR 632	ISO VG EP 320
	HD-460	440.4	29.8	-18°C	310°C	OMALA OIL 460	MOBIL GEAR 634	ISO VG EP 460

#### 注意事項

- ◆ 本公司出廠減速機，使用 ISO VG 150 的極壓機油。
- ◆ 最初使用 300 小時後，洗淨內部，換上新油以後每 2500 小時換油。
- ◆ 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。
- ◆ 潤滑油不足可能導致蝸輪快速磨損和效率降低。
- ◆ 潤滑油過多可能導致漏油。
- ◆ 請加入適當潤滑油至油量計一半以上（請參考油量表）。

#### Notice

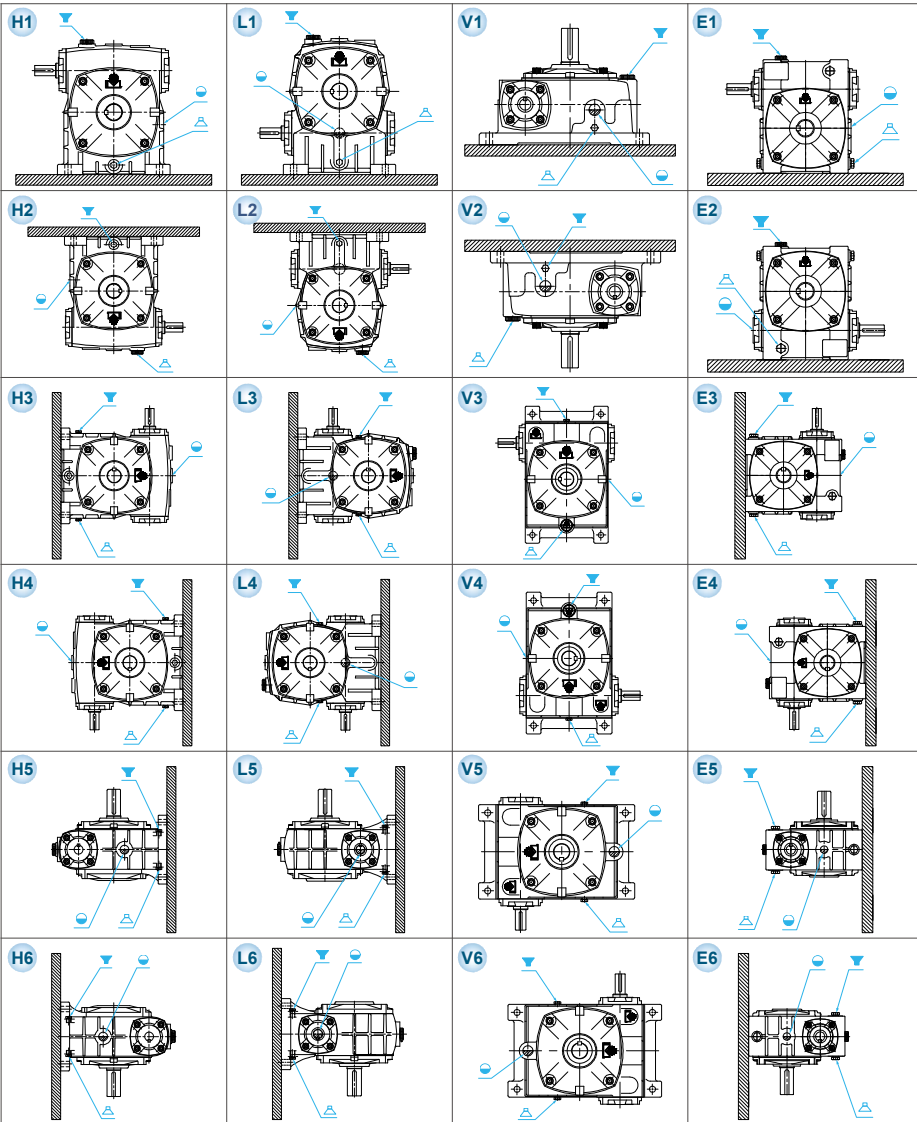
- ◆ LI MING speed reducers use ISO VG 150 lubricant oil.
- ◆ After initial 300 hours of use, clean the internal part and replace with new lubricant; then, do it every 2500 hours.
- ◆ If use in the special conditions of high speed, high temperature, low speed, heavy load, and forced lubrication, please contact the company.
- ◆ Insufficient lubricant oil may lead to the rapid wears of worm gear and low efficiency.
- ◆ Excessive lubricant could result in leakage.
- ◆ Please feed proper lubricant above half of the oil meter (see oil gauge).

# WORM REDUCER SERIES

## 蝸輪減速機系列

### 安裝方向 Installation Direction

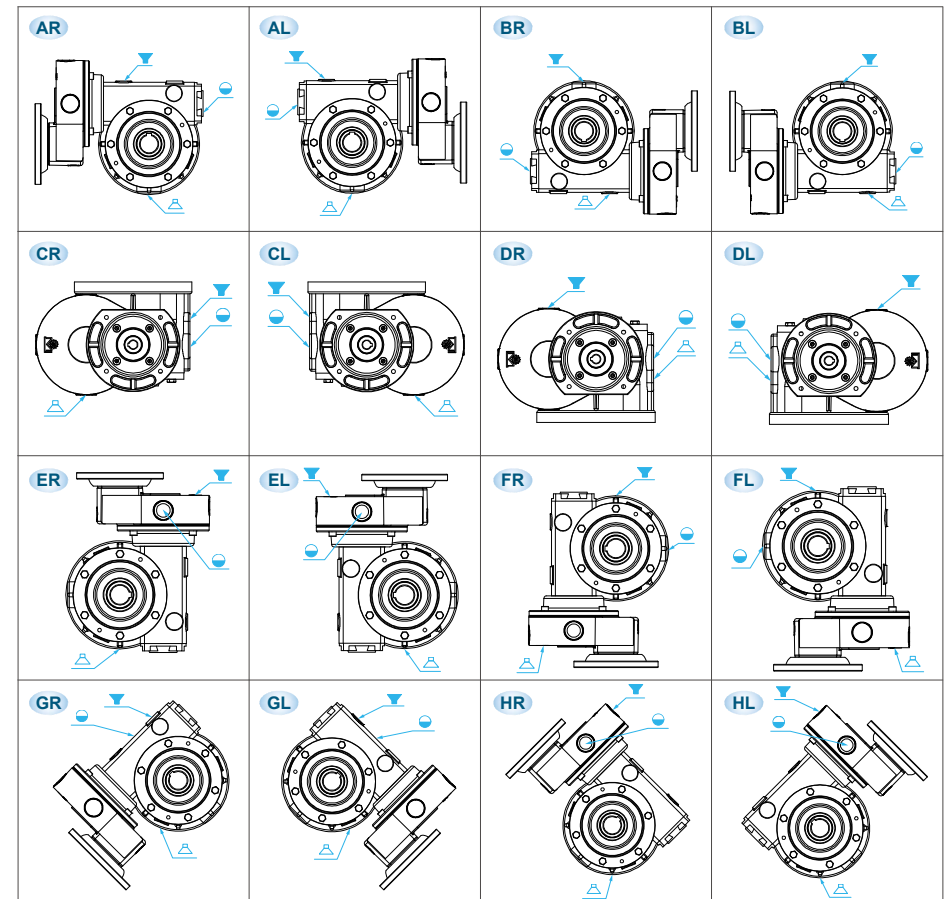
● 油面計 Oil Indicator  
 ▼ 注油栓 Oil Plug  
 ▲ 排油栓 Oil Drain Plug



### 安裝方向 Installation Direction (VOFGM)

● 油面計 Oil Indicator  
 ▼ 注油栓 Oil Plug  
 ▲ 排油栓 Oil Drain Plug

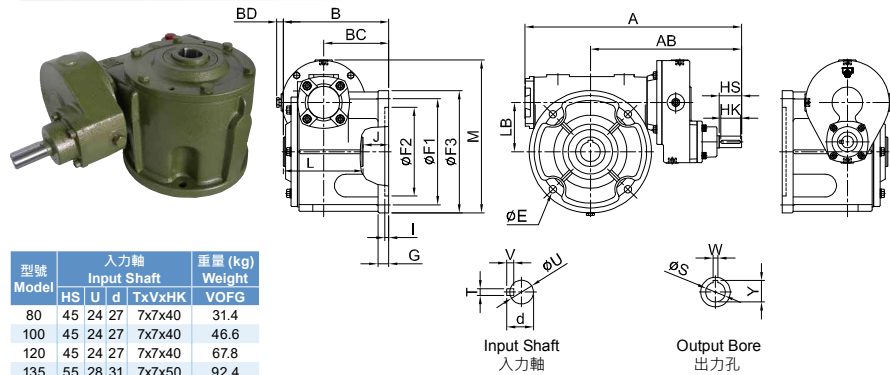
- ◆ 入力軸段可提供反向安裝。
- ◆ 正常的使用方向可以使減速機保持較高的壽命。  
The life time of gear reducer can be prolonged in proper direction.
- ◆ 安裝時請注意油面計、注油栓及排油栓的位置以便日後維護。  
Please note the positions of oil gauge, oil filling plug and oil drain plug to facilitate the maintenance afterwards.
- ◆ 減速機使用方向特殊時，請與我們連繫。  
For special installation direction, please contact us.



## 2-STAGE WORM REDUCER (GEAR+WORM) SERIES

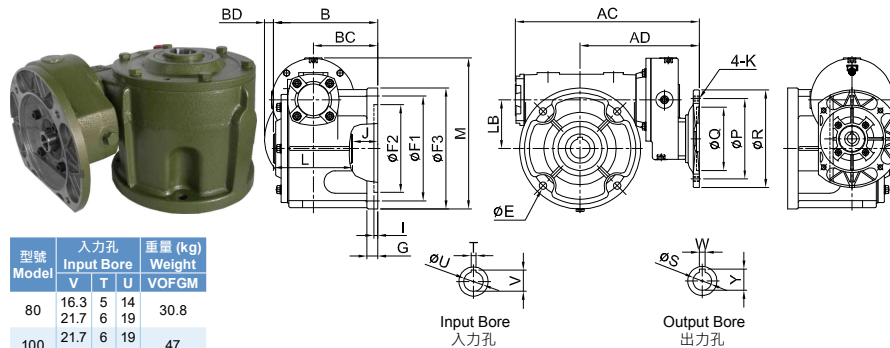
### 雙段蝸輪減速機 (齒輪 + 蝸輪) 系列

#### MODEL : VOFG



型號 Model	入力軸 Input Shaft				重量 (kg) Weight
	HS	U	d	TxVxHK	
80	45	24	27	7x7x40	31.4
100	45	24	27	7x7x40	46.6
120	45	24	27	7x7x40	67.8
135	55	28	31	7x7x50	92.4

#### MODEL : VOFGM



型號 Model	入力孔 Input Bore				重量 (kg) Weight
	V	T	U	VOFGM	
80	16.3	5	14		30.8
	21.7	6	19		
100	21.7	6	19		47
	27.3	8	24		
120	21.7	6	19		67
	27.3	8	24		
135	27.3	8	24		90.4
	31.3	8	28		

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					出力孔 Output Bore					
												P	Q	R	K	E	F1	F2	F3	J	G	I	W	Y	S	L
80	1/2	80~300	389	282	326	219	180	107	22	80	266	130	110	160	M8	4-15	170	130	200	30	20	8	10	38.3	35	150
												165	130	200	M10											
100	1	80~300	439	306	377	244	214	132	18	100	310	165	130	200	M10	4-15	215	180	248	52	22	8	10	43.3	40	162
120	1	80~300	509	344	447	282	234	145	11	120	371	165	130	200	M10	8-18	300	260	330	56	24	6	12	48.3	50	178
135	2	80~300	582	401	487	306	247	155	33	135	415	165	130	200	M10	8-18	330	290	360	63	25	7	15	59.3	55	184
												215	180	250	M12											

unit: mm

#### 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#.

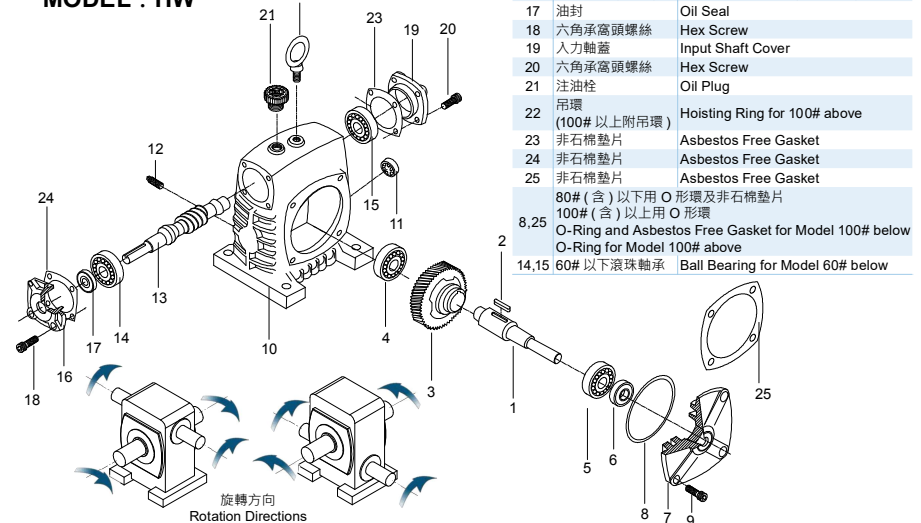
##### LV :

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#.

#### 分解系統圖 System Drawing

##### MODEL : HW



#### 油量表 Oil Capacities (unit: ℓ)

Model	Type	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	-	-	-	-	-	-

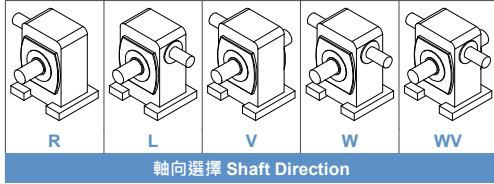
NO.	零件名稱	Name of Parts
1	出力軸	Output Shaft
2	雙圈鍵	Key
3	蝸輪	Worm Wheel
4	滾珠軸承	Ball Bearing
5	滾珠軸承	Ball Bearing
6	油封	Oil Seal
7	出力軸蓋	Output Shaft Cover
8	O 形環	O-Ring
9	六角承窩頭螺絲	Hex Screw
10	蝸輪箱	Outer Shell
11	油鏡	Oil Gauge
12	排油栓	Oil Drain Plug
13	蝸桿	Worm Shaft
14	滾錐軸承	Taper Roller Bearing
15	滾錐軸承	Taper Roller Bearing
16	入力軸蓋 (有孔)	Input Shaft Cover (with bore)
17	油封	Oil Seal
18	六角承窩頭螺絲	Hex Screw
19	入力軸蓋	Input Shaft Cover
20	六角承窩頭螺絲	Hex Screw
21	注油栓	Oil Plug
22	吊環	Hoisting Ring for 100# above
23	(100# 以上附吊環)	Asbestos Free Gasket
24	非石棉墊片	Asbestos Free Gasket
25	非石棉墊片	Asbestos Free Gasket

80# (含) 以下用 O 形環及非石棉墊片  
100# (含) 以上用 O 形環  
O-Ring and Asbestos Free Gasket for Model 100# below  
O-Ring for Model 100# above  
14,15 60# 以下滾珠軸承 Ball Bearing for Model 60# below

# 1-STAGE WORM REDUCER W SERIES

## 單段蝸輪減速機 W 系列

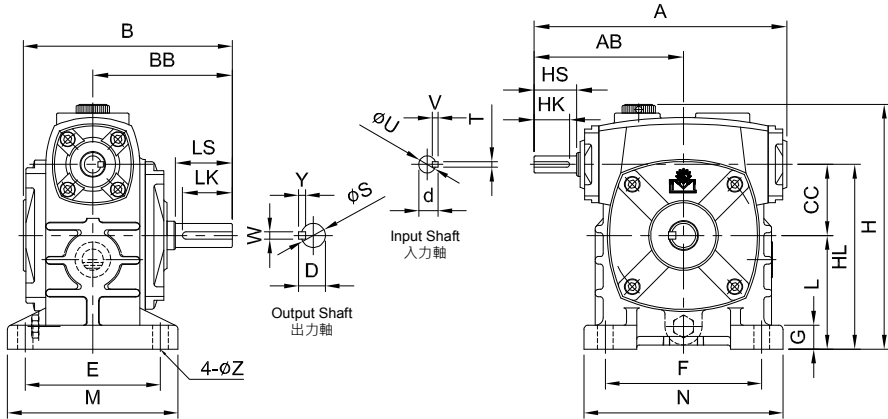
### MODEL : HW



軸向選擇 Shaft Direction

▲ 40#~135#

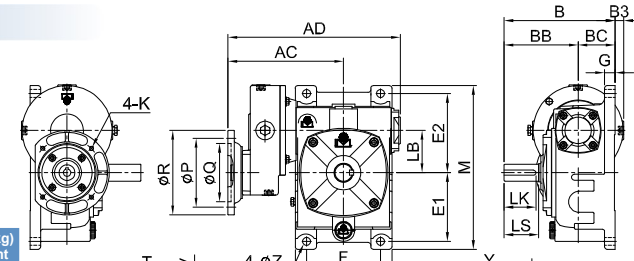
▲ 155#~175#



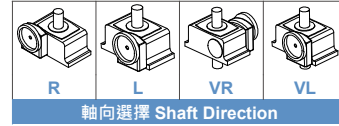
unit: mm

型號 Model	Ratio \ HP		腳座 Foot Stock										輸入軸 Input Shaft			輸出軸 Output Shaft			重量 Weight (kg)						
	1/10	1/40	A	AB	B	BB	CC	L	H	HL	E	F	M	N	G	Z	HS	U		d	TxVxHK	LS	S	D	WxYxLK
	1/30	1/60																							
40	1/8	-	139.5	86	122	80	40	60	139.5	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	174.5	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	18	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	217	20	15	50	22	25	7x7x45	65	32	35	10x8x60	19
100	3	2	323	190	257	170	100	150	324	250	155	220	195	270	25	15	50	25	28	7x7x45	75	38	41	10x8x70	37
120	5	3	391	231	288	190	120	180	383	300	180	260	230	310	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	340	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	385	38	20	85	40	43	10x8x80	110	60	64	15x10x105	116.8
175	15	10	554	324	411	262	175	260	537	435	250	350	310	410	40	22	85	45	48	12x8x80	110	65	69	18x10x105	143.2

### MODEL : VGM

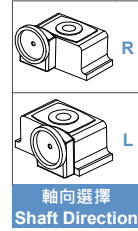
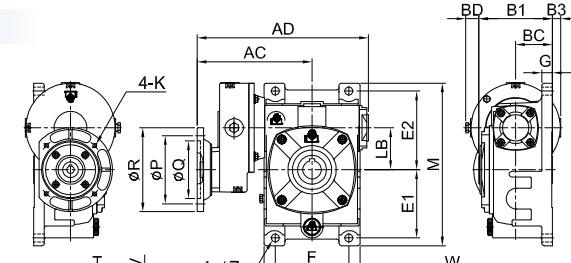


型號 Model	出力軸 Output Shaft				重量 (kg) Weight
	LS	S	D	WxYxLK	
80	65	32	35	10x8x60	31.6
100	75	38	41	10x8x70	51
120	85	45	48	12x8x80	72
135	95	55	59	15x10x90	100.8
155	110	60	64	15x10x105	134



軸向選擇 Shaft Direction

### MODEL : VOGM



軸向選擇  
Shaft Direction

型號 Model	出力孔 Output Bore			重量 (kg) Weight
	W	Y	S	
80	10	38.3	35	32.4
100	10	43.3	40	49.2
120	12	48.3	45	72
135	15	59.3	55	100.2
155	15	69.3	65	131

unit: mm

型號 Model	馬力 HP (4P)	減速比 Ratio	AC	AD	B	BB	BC	BD	B1	B3	LB	馬達殼 IEC Motor Flange				腳座 Foot Stock						輸入孔 Input Bore			
												P	Q	R	K	E1	E2	M	F	N	G	Z	V	T	U
80	1/2	80~300	219	326	210	140	70	25	139	16	80	130	110	160	M8	130	150	315	140	183	20	15	16.3	5	14
			220	327	210	140	70	25	139	16	80	130	110	160	M10	130	150	315	140	183	20	15	21.7	6	19
100	1	80~300	244	377	260	170	90	5	179	-	100	165	130	200	M10	155	180	380	190	230	26	15	21.7	6	19
			244	377	260	170	90	5	179	-	100	165	130	200	M10	155	180	380	190	230	26	15	27.3	8	24
120	2	80~300	282	442	290	190	100	-	199	-	120	165	130	200	M10	185	215	450	220	266	30	18	21.7	6	19
			282	442	290	190	100	-	199	-	120	165	130	200	M10	185	215	450	220	266	30	18	27.3	8	24
135	3	80~300	306	487	324	214	110	16	219	16	135	165	130	200	M10	210	235	495	260	305	35	18	27.3	8	24
			306	487	324	214	110	16	219	16	135	165	130	200	M12	210	235	495	260	305	35	18	31.3	8	28
155	5	80~160	325	525	392	253	140	2.5	263.5	-	155	215	180	250	M12	145	265	460	290	340	45	20	31.3	8	28
			325	525	392	253	140	2.5	263.5	-	155	215	180	250	M12	145	265	460	290	340	45	20	31.3	8	28

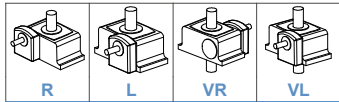
## 2-STAGE WORM REDUCER (GEAR+WORM) SERIES

### 雙段蝸輪減速機 (齒輪 + 蝸輪) 系列

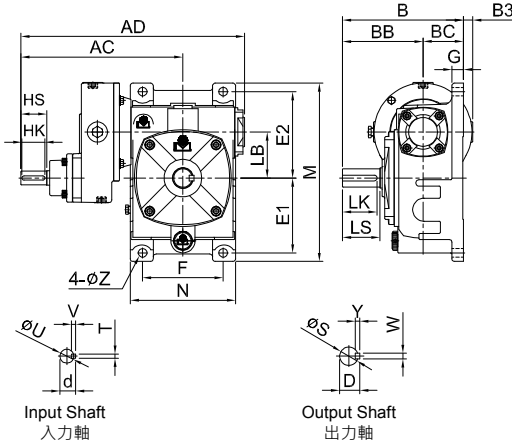
#### MODEL : VG



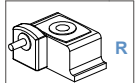
型號 Model	出力軸 Output Shaft					重量 (kg) Weight
	LS	S	D	WxYxLK	VG	
80	65	32	35	10x8x60	31.4	
100	75	38	41	10x8x70	50.8	
120	85	45	48	12x8x80	72.8	
135	95	55	59	15x10x90	102.8	
155	110	60	64	15x10x105	136	



軸向選擇 Shaft Direction

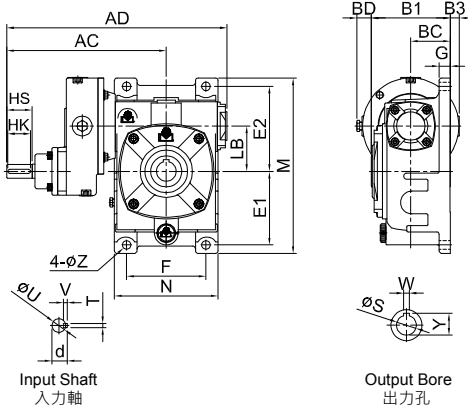


#### MODEL : VOG



型號 Model	出力孔 Output Bore			重量 (kg) Weight
	W	Y	S	
80	10	38.3	35	32.8
100	10	43.3	40	50.8
120	12	48.3	45	72.8
135	15	59.3	55	102.2
155	15	69.3	65	133

軸向選擇 Shaft Direction



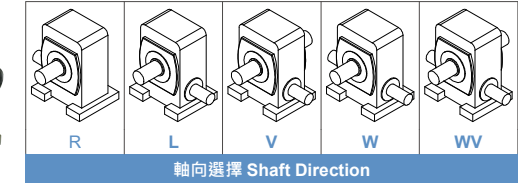
型號 Model	馬力 HP (4P)	減速比 Ratio	腳座 Foot Stock														入力軸 Input Shaft				重量 Weight (kg)		
			AC	AD	B	BB	BC	BD	B1	B3	LB	E1	E2	F	N	G	Z	HS	U	d		TxVxHK	
			unit: mm																				
80	1/2	80-300	282	389	210	140	70	25	139	16	80	130	150	315	140	183	20	15	45	24	27	7x7x40	6.6
		80-160	306	439	260	170	90	5	179	0	100	155	180	380	190	230	26	15	45	24	27	7x7x40	
100	1	80-300	344	504	290	190	100	0	199	0	120	185	215	450	220	266	30	18	45	24	27	7x7x40	13.4
		80-160	401	582	324	214	110	16	219	16	135	210	235	495	260	305	35	18	55	28	31	7x7x50	19
120	1	80-300	420	620	393	253	140	2.5	263.5	0	155	145	265	460	290	340	45	20	55	28	31	7x7x50	36
		80-200	420	620	393	253	140	2.5	263.5	0	155	145	265	460	290	340	45	20	55	28	31	7x7x50	59
135	2	80-300	420	620	393	253	140	2.5	263.5	0	155	145	265	460	290	340	45	20	55	28	31	7x7x50	80.6
		80-200	420	620	393	253	140	2.5	263.5	0	155	145	265	460	290	340	45	20	55	28	31	7x7x50	110.4
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	151.2
		80-160	420	620	393	253	140	2.5	263.5	0	155	145	265	460	290	340	45	20	55	28	31	7x7x50	203

#### MODEL : LW

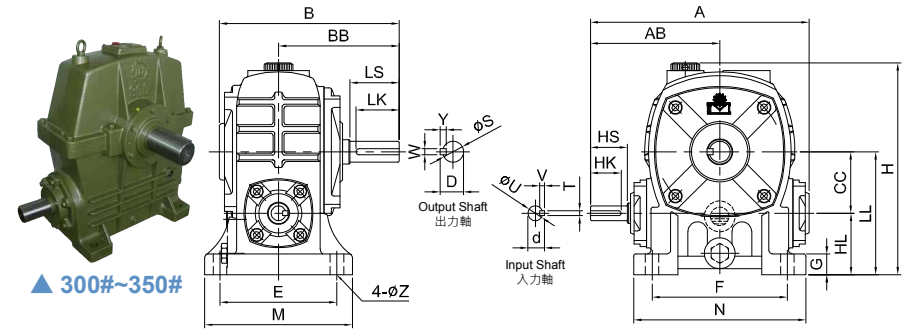


▲ 50#~135#

▲ 155#~250#



軸向選擇 Shaft Direction



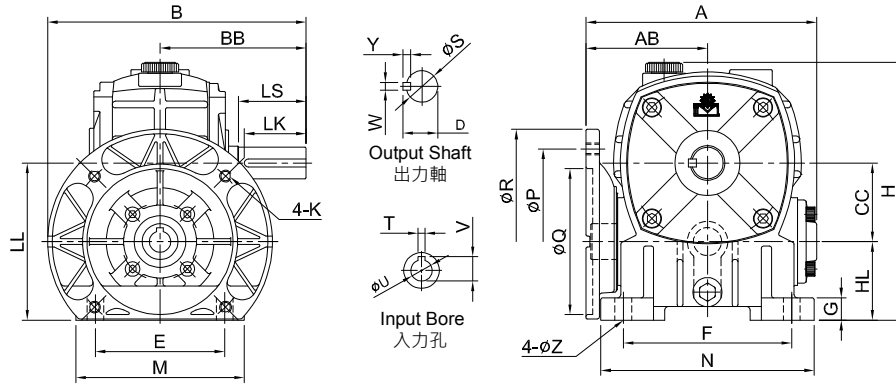
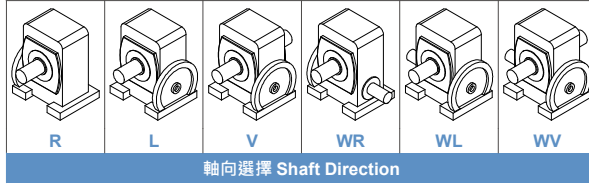
▲ 300#~350#

型號 Model	Ratio \ HP			腳座 Foot Stock								入力軸 Input Shaft				出力軸 Output Shaft			重量 Weight (kg)						
	1/10	1/40	1/60	A	AB	B	BB	CC	H	LL	E	F	M	N	G	Z	HS	U		d	TxVxHK	LS	S	D	WxYxLK
	unit: mm																								
50	1/4	-	178	105	149	98	50	173	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	201	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	230	70	140	115	150	150	186	18	15	40	18	20	5x5x35	60	28	31	7x7x55	13.4
80	2	1	268	161	210	140	80	260	80	160	135	180	170	214	20	15	50	22	25	7x7x45	65	32	35	10x8x60	19
100	3	2	323	190	259	170	100	335	100	200	155	220	195	270	25	15	50	25	28	7x7x45	75	38	41	10x8x70	36
120	5	3	391	231	288	190	120	398	120	240	180	260	230	310	30	18	65	30	33	7x7x60	85	45	48	12x8x80	59
135	7	1/2	438	258	322	214	135	440	135	270	200	290	250	340	32	18	75	35	38	10x8x70	95	55	59	15x10x90	80.6
155	10	7	491	292	392	253	155	490	135	290	220	320	285	380	38	20	85	40	43	10x8x80	110	60	64	15x10x105	110.4
175	15	10	554	324	411	262	175	560	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	74.5	20x12x120	203
225	25	20	650	375	525	335	225	693	190	415	330	390	410	470	45	27	95	55	59	15x10x90	140	80	85	20x12x135	277.2
250	30	25	724	422	555	359	250	784	200	450	380	440	460	520	50	27	110	60	64	15x10x105	155	90	96.5	24x16x150	325
300	40	30	863	498	596	387	300	843	190	490	368	520	450	620	55	36	125	70	73	18x10x120	170	95	101	24x16x160	480
350	50	40	968	570	740	480	350	958	215	565	432	597	520	700	55	43	145	80	85	20x12x135	190	115	124	32x20x185	800

# 1-STAGE WORM REDUCER W SERIES

## 單段蝸輪減速機 W 系列

### MODEL : LMW

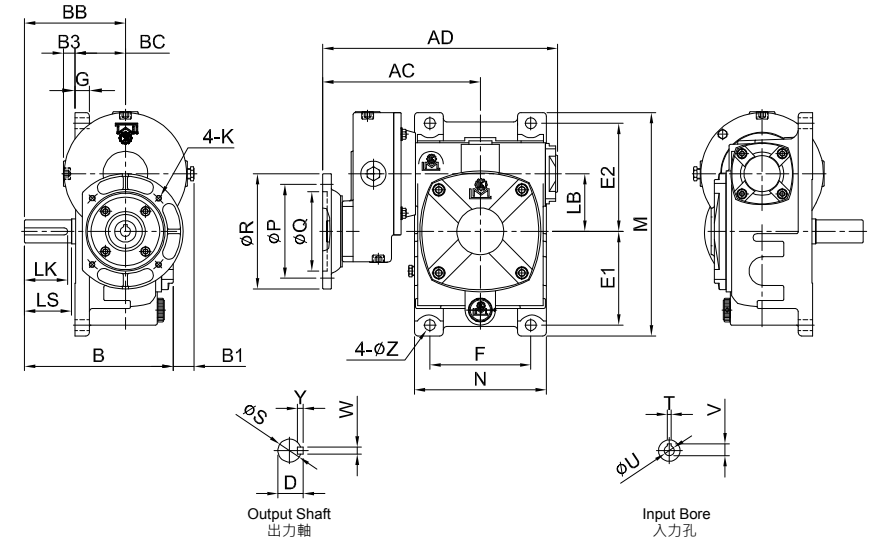
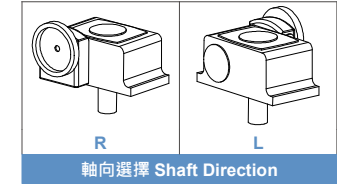
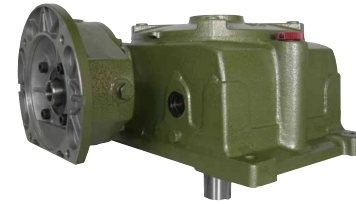


unit: mm

型號 Model	Ratio \ HP		A	AB	B	BB	CC	HL	LL	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)				
	1/10 ~ 1/30	1/40 ~ 1/60									P	Q	R	K	E	F	M	N	G	Z	V	T	U	LS	S	D		WxYxLK			
60	1/2	1/4	165	87	190	110	60	60	120	201	130	110	160	M8	105	120	130	150	20	11	12.7	4	11	16.3	5	14	50	22	25	7x7x45	8.8
70	1	1/2	200	105	210	130	70	70	140	230	130	110	160	M8	115	150	150	186	18	15	16.3	5	14	21.8	6	19	60	28	31	7x7x55	14.8
80	2	1	229	121	240	140	80	80	160	260	165	130	200	M10	135	180	170	214	20	15	21.8	6	19	27.3	8	24	65	32	35	10x8x60	20.2
100	3	2	279	146	270	170	100	100	200	335	165	130	200	M10	155	220	195	270	25	15	27.3	8	24	31.3	8	28	75	38	41	10x8x70	37
120	5	3	334	173	315	190	120	120	240	398	215	180	248	M12	180	260	230	310	30	18	31.3	8	28	41.3	8	36	85	45	48	12x8x80	62.4
135	7 1/2	5	375	194	339	214	135	135	270	440	215	180	248	M12	200	290	250	340	30	18	31.3	8	28	41.3	10	36	95	55	59	15x10x90	81
155	10	7 1/2	413	213	403	253	155	135	290	490	265	230	300	M12	220	320	285	380	38	20	41.3	10	38	110	60	64	110	60	64	15x10x105	111.6

# 雙段蝸輪減速機 (齒輪 + 蝸輪) 系列 2-STAGE WORM REDUCER (GEAR+WORM) SERIES

### MODEL : UGM



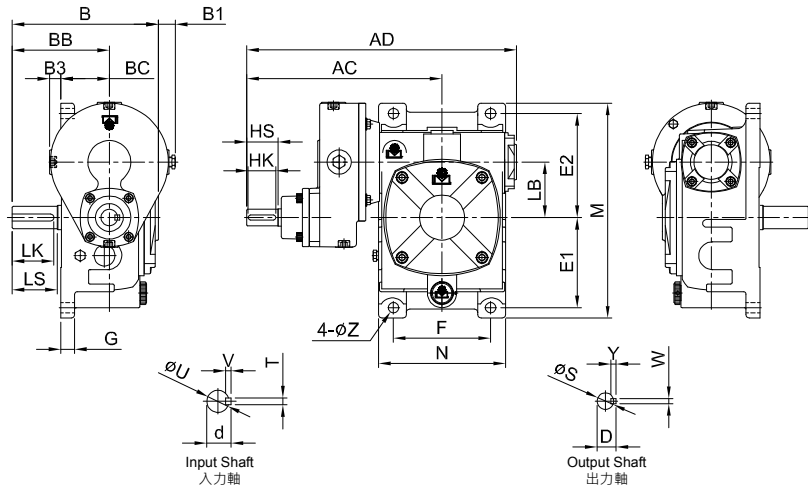
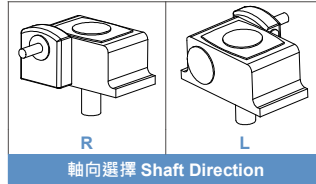
unit: mm

型號 Model	馬力 HP (4P)	減速比 Ratio	AC	AD	B	BB	BC	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	Z	V	T	U	LS	S	D		WxYxLK					
80	1/2	80-300	219	326	235	140	70	29	16	80	130	110	160	M8	130	150	315	140	183	20	15	16.3	5	14	21.7	6	19	65	32	35	10x8x60	31.6
100	1	80-300	244	377	270	170	90	11	0	100	165	130	200	M10	155	180	380	190	230	26	15	21.7	6	19	27.3	8	24	75	38	41	10x8x70	50
120	1	80-300	282	442	292	190	100	-	-	120	165	130	200	M10	185	215	450	220	266	30	18	21.7	6	19	27.3	8	24	85	45	48	12x8x80	71.8
135	2	80-300	306	487	487	214	110	15	16	135	165	130	200	M10	210	235	495	260	305	35	18	27.3	8	24	31.3	8	28	95	55	59	15x10x90	100.6
155	3	80-300	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			

## 2-STAGE WORM REDUCER (GEAR+WORM) SERIES

### 雙段蝸輪減速機 (齒輪 + 蝸輪) 系列

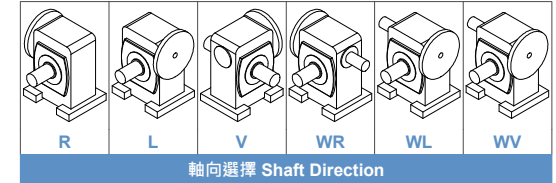
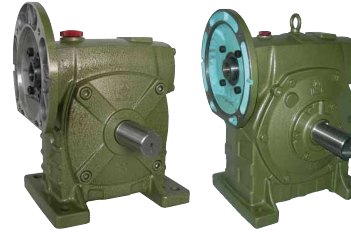
#### MODEL : UG



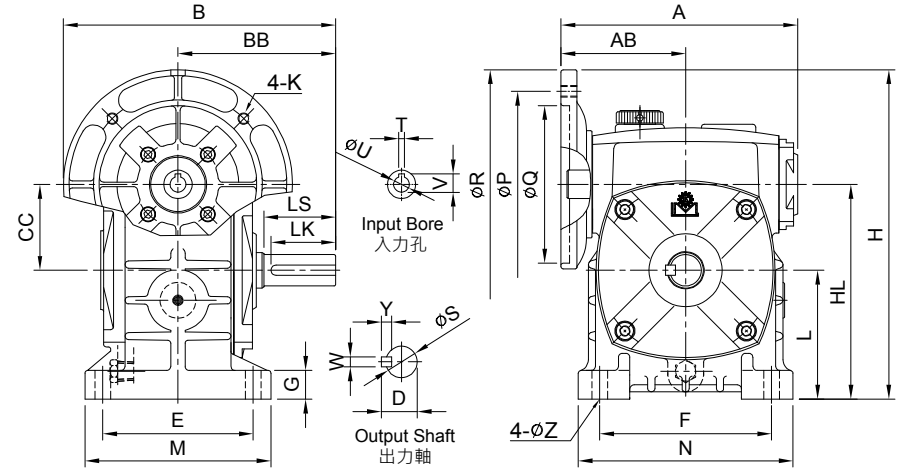
型號 Model	馬力 HP (4P)	減速比 Ratio	腳座																輸入軸 Input Shaft			輸出軸 Output Shaft			重量 Weight (kg)				
			Foot Stock																U d T x V x HK			S D W x Y x LK							
			AC	AD	B	BB	BC	B1	B3	LB	E1	E2	M	F	N	G	Z	HS	U	d	T	x	V	x		HK	S	D	W
80	1/2	80-300	282	389	211	140	70	24.5	16	80	130	80	315	140	183	20	15	45	24	27	7x7x40	65	32	35	10x8x60	31.4			
100	1	80-300	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	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	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	420	620	393	253	140	-	-	155	145	265	460	290	340	45	20	55	28	31	7x7x50	110	60	64	15x10x105	136			

unit: mm

#### MODEL : HMW



▲ 50#~135# ▲ 155#~175#



unit: mm

型號 Model	Ratio \ 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)		
	1/10 ~ 1/30	1/40 ~ 1/60	P	Q	R	K	E	F	M	N	G	Z	V	T	U	LS	S	D	W	x	Y	x	LK					
	A	AB	B	BB	CC	HL	L	H																				
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	165	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
70	1	1/2	200	105	210	130	70	175	105	255	130	110	160	M8	115	150	150	190	18	15	16.3	5	14	60	28	31	7x7x55	15.2
80	2	1	229	121	240	140	80	200	120	300	165	130	200	M10	135	180	170	217	20	15	21.8	6	19	65	32	35	10x8x60	21.2
100	3	2	279	146	270	170	100	250	150	350	165	130	200	M10	155	220	195	270	25	15	27.3	8	24	75	38	41	10x8x70	40
120	5	3	333	173	315	190	120	300	180	425	215	180	248	M12	180	260	230	310	30	18	31.3	8	28	85	45	48	12x8x80	66.2
135	7 1/2	5	375	194	339	214	135	350	215	475	215	180	248	M12	200	290	250	340	32	18	31.8	8	28	95	55	59	15x10x90	82.6
155	10	7 1/2	413	213	403	253	155	390	235	540	265	230	300	M12	220	320	285	385	38	20	41.3	10	38	110	60	64	15x10x105	118
175	15	10	466	237	437	262	175	435	260	585	265	230	300	M12	250	350	310	410	40	22	45.3	12	42	110	65	69	18x10x105	152.2

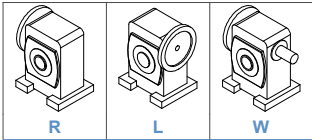
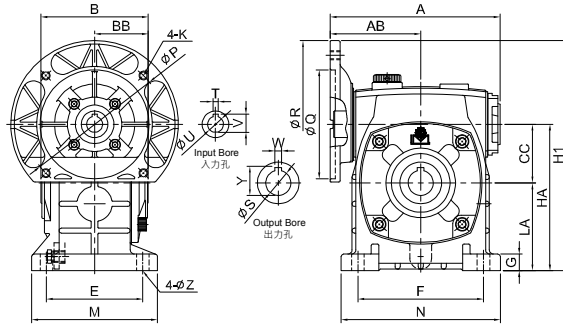
# 1-STAGE WORM REDUCER W SERIES

## 單段蝸輪減速機 W 系列

### MODEL : HOM



Model	N
50	140
60	150
70	190
80	217
100	270
120	310
135	340
155	380
175	415

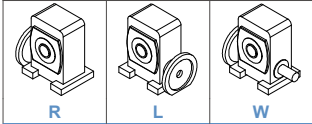
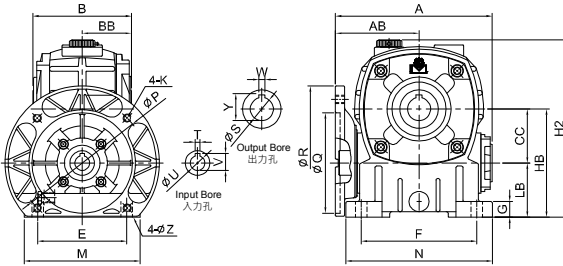


軸向選擇 Shaft Direction

### MODEL : LOM



Model	N
50	140
60	150
70	190
80	214
100	270
120	310
135	340
155	380
175	415

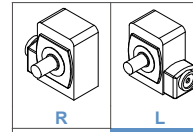
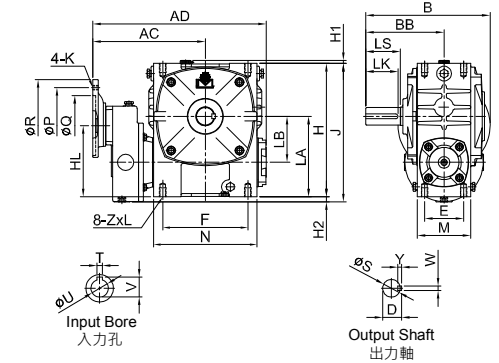


軸向選擇 Shaft Direction

型號 Model	Ratio \ HP		A	AB	B	BB	CC	H1	H2	HA	HB	LA	LB	馬達盤 IEC Motor Flange				腳座 Foot Stock				入力孔 Input Bore		出力孔 Output Bore		重量 Weight (kg)			
	1/10 - 1/30	1/40 - 1/60												P	Q	R	K	E	F	M	G	Z	V	T	U		W	Y	S
50	1/4	-	154	81	98	49	50	210	172	130	100	80	50	130	110	160	M8	95	110	120	16	11	12.7	4	11	6	22.8	20	8
60	1/2	1/4	165	87	108	54	60	230	200	150	120	90	60	130	110	160	M8	105	120	130	20	11	12.7	4	11	8	28.3	25	10.6
70	1	1/2	200	105	128	64	70	255	235	175	140	105	70	130	110	160	M8	115	150	150	18	15	16.3	5	14	8	33.3	30	18
80	2	1	229	121	138	69	80	300	260	200	160	120	80	165	130	200	M10	135	180	170	20	15	21.8	6	19	10	38.3	35	23.2
100	3	2	279	146	178	89	100	350	337	250	200	150	100	165	130	200	M10	155	220	195	25	15	27.3	8	24	10	43.3	40	40.8
120	5	3	333	173	198	99	120	425	398	300	240	180	120	215	180	248	M12	180	260	230	30	18	31.3	8	28	12	48.3	45	68.2
135	7 1/2	5	369	187	218	110	135	475	440	350	270	215	135	215	180	248	M12	200	290	250	32	18	41.3	10	38	15	59.3	55	80.2
155	10	7 1/2	412	212	247	123.5	155	540	482	390	290	235	135	265	230	300	M12	220	320	285	35	20	41.3	10	38	15	69.3	65	113.4
175	15	10	467	236	262	131	175	585	565	435	335	260	160	265	230	300	M12	250	350	315	40	22	45.3	12	42	18	94.3	90	158.6

unit: mm

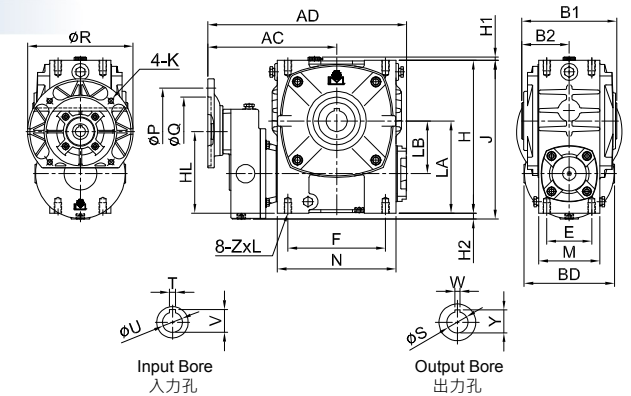
### MODEL : EGM



軸向選擇  
Shaft  
Direction

型號 Model	出力軸 Output Shaft				重量 (kg) Weight EGM
	LS	S	D	WxYxLK	
80	65	32	35	10x8x60	30.6
100	75	38	41	10x8x70	45.6
120	85	45	48	12x8x80	68
135	95	55	59	15x10x90	103

### MODEL : EOGM



型號 Model	出力孔 Output Bore			重量 (kg) Weight EOGM
	W	Y	S	
80	10	38.3	35	31.8
100	10	43.3	40	47.4
120	12	48.3	45	69.4
135	15	59.3	55	97

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	馬達盤 IEC Motor Flange				腳座 Foot Stock				入力孔 Input Bore			
																	P	Q	R	K	E	F	M	N	ZxL	V	T	U
80	1/2	80-300	219	326	226	140	138	70	172	6	26	232	140	140	80	267	130	110	160	M8	75	145	96	174	M10x18	16.3	5	14
	1	80-160	220	327	240	140	138	70	172	6	26	232	140	140	80	267	165	130	200	M10	85	185	116	225	M12x20	21.8	6	19
100	1	80-300	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
	2	80-160	245	377	270	170	178	90	172	6	11	290	155	175	100	301	165	130	200	M10	85	185	116	225	M12x20	27.3	8	24
120	1	80-300	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
	2	80-200	273	433	290	190	198	100	172	6	-	370	175	215	120	370	165	130	200	M10	100	220	132	264	M14x28	27.3	8	24
135	2	80-300	306	487	319	214	218	110	240	6	-	425	228	240	135	425	165	130	200	M10	110	260	150	306	M16x30	27.3	8	24
	3	80-200	306	487	319	214	218	110	240	6	-	425	228	240	135	425	215	180	250	M12	110	260	150	306	M16x30	31.3	8	28

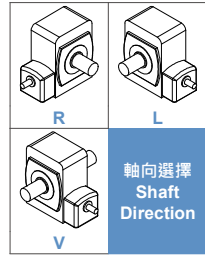
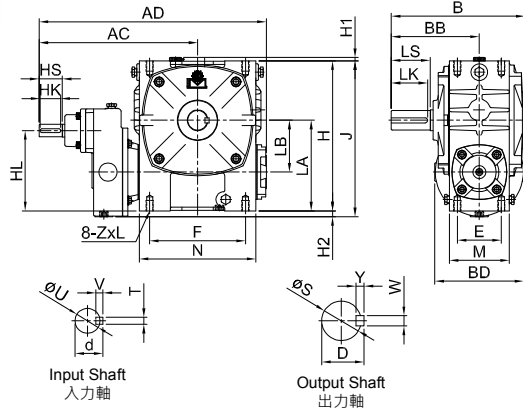
unit: mm



## 2-STAGE WORM REDUCER (GEAR+WORM) SERIES

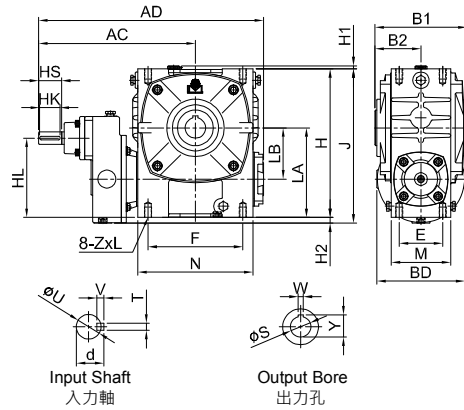
### 雙段蝸輪減速機 (齒輪 + 蝸輪) 系列

#### MODEL : EG



Model	Output Shaft				Weight (kg)
	LS	S	D	WxYxLK	
80	65	32	35	10x8x60	30.4
100	75	38	41	10x8x70	46.4
120	85	45	48	12x8x80	68.8
135	95	55	59	15x10x90	103

#### MODEL : EOG



Model	Output Bore			Weight (kg)
	W	Y	S	
80	10	38.3	35	32
100	10	43.3	40	47.8
120	12	48.3	45	70.2
135	15	59.3	55	97

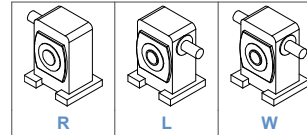
unit: mm

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				重量 Weight						
																	E	F	M	N	ZxL	HS	U	d	TxVxHK	W	Y	S	HOW	LOW					
																	1/10	1/40	1/30	1/60															
80	1/2	80-300	282	289	235	140	138	70	172	-	26	232	140	140	80	267	75	145	96	174	M10x18	45	24	27	7x7x40	6	22.8	20	7.6	7.6					
	1	80-160																																	
100	1	80-300	306	439	256	170	178	90	172	6	11	301	155	175	100	301	85	185	116	225	M12x20	45	24	27	7x7x40	8	28.3	25	10.4	11.4					
	2	80-160																																	
120	1	80-300	335	495	288	198	198	100	172	6	-	370	175	215	120	370	100	220	132	264	M14x28	45	24	27	7x7x40	10	38.3	35	22	22.2					
	2	80-200																																	
135	2	80-300	402	583	319	214	218	110	240	6	-	425	228	240	135	425	110	260	150	306	M16x30	55	28	31	7x7x50	12	48.3	45	65.2	59					
	3	80-200																																	

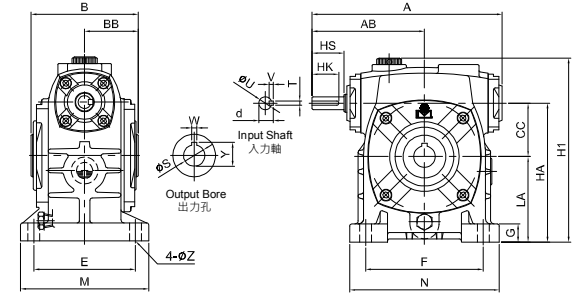
#### MODEL : HOW



Model	N
50	140
60	150
70	190
80	217
100	270
120	310
135	340
155	380
175	415



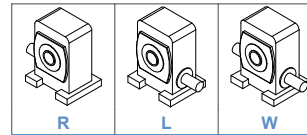
軸向選擇 Shaft Direction



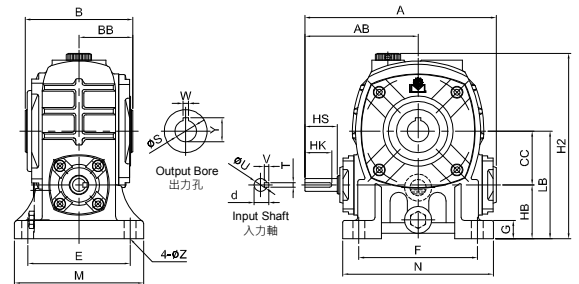
#### MODEL : LOW



Model	N
50	140
60	150
70	190
80	214
100	270
120	310
135	340
155	380
175	415



軸向選擇 Shaft Direction



unit: mm

Model	Ratio \ 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			
													E	F	M	G	Z	HS	U	d	TxVxHK	W	Y	S	HOW	LOW		
													1/10	1/40	1/30	1/60												
50	1/4	-	179	105	98	49	50	171	172	130	50	80	100	95	110	120	16	11	30	12	13.5	4x4x25	6	22.8	20	7.6	7.6	
60	1/2	1/4	198	120	108	54	60	200	200	150	60	90	120	105	120	130	20	11	40	15	17	5x5x35	8	28.3	25	10.4	11.4	
70	1	1/2	235	140	128	64	70	235	235	175	70	105	140	115	150	150	18	15	40	18	20	5x5x35	8	33.3	30	16.6	16.2	
80	2	1	268	161	138	69	80	260	200	200	80	120	160	135	180	170	20	15	50	22	25	7x7x45	10	38.3	35	22	22.2	
100	3	2	323	190	178	89	100	324	337	250	100	150	200	155	220	195	25	15	50	25	28	7x7x45	10	43.3	40	37.8	36.8	
120	5	3	391	231	198	99	120	380	398	300	120	180	240	180	260	230	30	18	65	30	33	7x7x60	12	48.3	45	65.2	59	
135	7	1/2	438	258	218	109	135	445	440	350	135	215	270	200	290	250	32	18	75	35	38	10x8x70	15	59.3	55	78	76.4	
155	10	7	491	292	247	123.5	155	482	482	390	135	235	290	220	320	285	35	20	85	40	43	10x8x80	15	69.3	65	112.2	105.8	
175	15	10	554	324	262	131	175	536	565	435	160	260	335	250	350	315	40	22	85	45	48	12x8x80	18	94.3	90	159.6	166.6	

# 1-STAGE WORM REDUCER VW SERIES

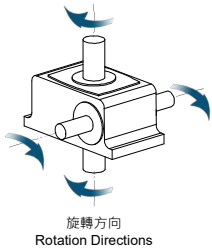
## 單段蝸輪減速機 VW 系列

### 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# ~ 350# ·

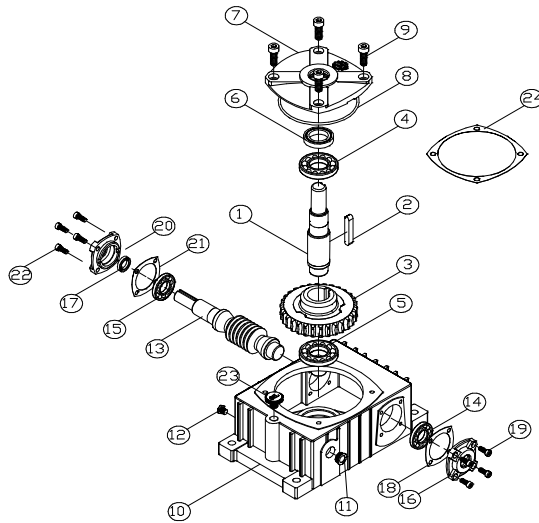
Small space needed for installation; good lubrication effect; suitable for higher torque transmission. Model NO.: 40# to 350#.



油量表 Oil Capacities (unit: ℓ)							
Type Model	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					

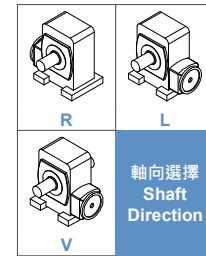
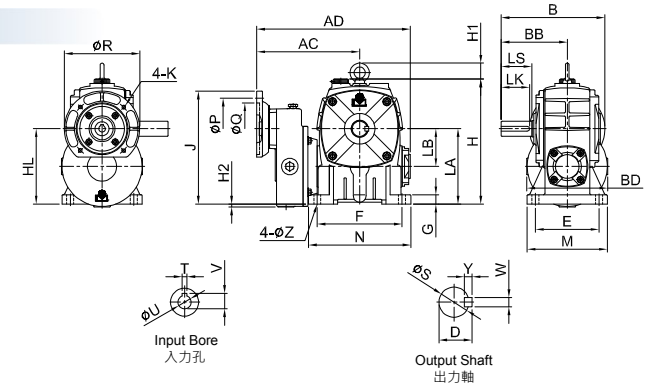
### 分解系統圖 System Drawing

#### MODEL : VW



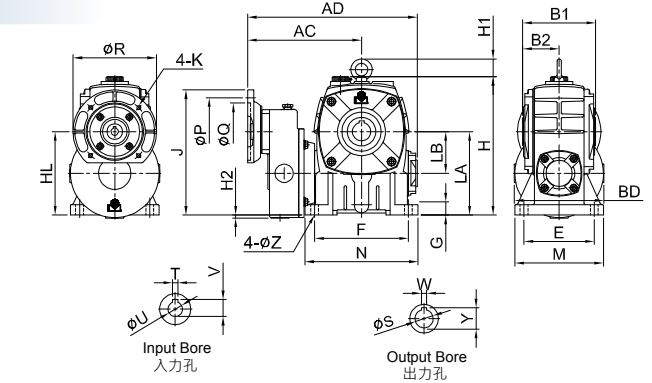
NO.	零件名稱	Name of Parts
1	出力軸	Output Shaft
2	雙圓鍵	Key
3	蝸輪	Worm Wheel
4	滾珠軸承	Ball Bearing
5	滾珠軸承	Ball Bearing
6	油封	Oil Seal
7	出力軸蓋	Output Shaft Cover
8	O 形環	O-Ring
9	六角承高頭螺絲	Hex Screw
10	蝸輪箱	Outer Shell
11	油鏡	Oil Gauge
12	排油栓	Oil Drain Plug
13	蝸桿	Worm Shaft
14	滾錐軸承	Taper Roller Bearing
15	滾錐軸承	Taper Roller Bearing
16	入力軸蓋	Input Shaft Cover
17	油封	Oil Seal
18	非石棉墊片	Asbestos Free Gasket
19	六角承高頭螺絲	Hex Screw
20	入力軸蓋 (有孔)	Input Shaft Cover (with bore)
21	非石棉墊片	Asbestos Free Gasket
22	六角承高頭螺絲	Hex Screw
23	注油栓	Oil Plug
24	非石棉墊片	Asbestos Free Gasket
14,15	60# 以下滾珠軸承	Ball Bearing for Model 60# below

#### MODEL : LGM



型號 Model	出力軸 Output Shaft					重量 (kg) Weight
	LS	S	D	WxYxLK	LGM	
80	65	32	35	10x8x60	31.6	
100	75	38	41	10x8x70	48	
120	85	45	48	12x8x80	72.2	
135	95	55	59	15x10x90	101.2	
155	110	60	64	15x10x105	131.6	

#### MODEL : LOGM



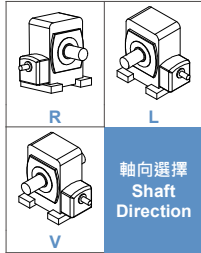
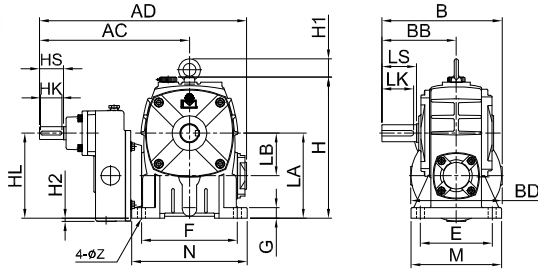
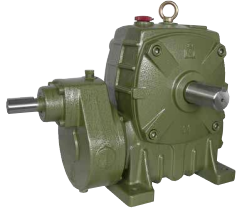
型號 Model	出力孔 Output Bore			重量 (kg) Weight
	W	Y	S	
80	10	38.3	35	30
100	10	43.3	40	48.6
120	12	48.3	45	74
135	15	59.3	55	104.6
155	15	69.3	65	126.8

型號 Model	馬力 HP (4P)	減速比 Ratio	AC	AD	B	BB	B1	B2	BD	H1	H2	LB	H	HL	LA	J	馬達盤 IEC Motor Flange				腳座 FOOT STOCK					入力孔 Input Bore			
																	P	Q	R	K	E	F	M	N	G	Z	V	T	U
80	1/2	80-300	219	326	235	140	138	70	172	-	6	80	266	160	160	246	130	110	160	M8	135	180	170	214	20	15	16.3	5	14
		80-160	220	327	240												266	165	130	200	M10							21.7	6
100	1	80-300															165	130	200	M10	155	220	195	270	25	15	21.7	6	19
		80-160	244	377	270	170	178	90	172	36	-	100	335	180	200	280											27.3	8	24
120	1	80-300															165	130	200	M10	180	260	230	310	30	18	21.7	6	19
		80-200	282	442	305	190	198	100	172	34	-	120	398	200	240	300											27.3	8	24
135	2	80-300															165	130	200	M10	200	290	250	340	32	18	27.3	8	24
		80-200	306	487	322	214	218	110	240	41	-	135	440	227	270	353											31.3	8	28
		80-300															215	180	250	M12									
155	3	80-300															215	180	250	M12	220	320	285	380	38	20	31.3	8	28
		80-160	325	525	392	253	247	123.5	240	37	-	155	486	227	290	353													

## 2-STAGE WORM REDUCER (GEAR+WORM) SERIES

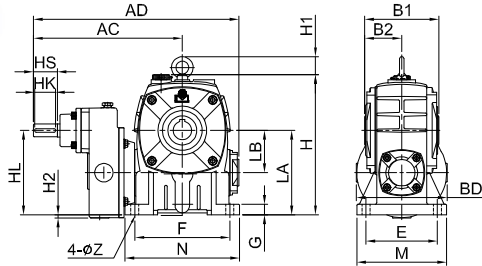
### 雙段蝸輪減速機 (齒輪 + 蝸輪) 系列

#### MODEL : LG



型號 Model	出力軸 Output Shaft					重量 (kg) Weight
	LS	S	D	WxYxLK	LG	
80	65	32	35	10x8x60	32.2	
100	75	38	41	10x8x70	48.8	
120	85	45	48	12x8x80	73	
135	95	55	59	15x10x90	103.4	
155	110	60	64	15x10x105	133.6	

#### MODEL : LOG



型號 Model	出力孔 Output Bore			重量 (kg) Weight
	W	Y	S	
80	10	38.3	35	30.6
100	10	43.3	40	49.6
120	12	48.3	45	74.8
135	15	59.3	55	106.8
155	15	69.3	65	128.8

型號 Model	馬力 HP (4P)	減速比 Ratio	AC	AD	B	BB	B1	B2	BD	H1	H2	LB	H	HL	LA	腳座 Foot Stock							入力軸 Input Shaft			
																E	F	M	N	G	Z	HS	U	d	TxVxHK	LS
80	1/2	80-300	282	389	235	140	138	70	172	-	6	80	266	160	160	135	180	170	217	20	15	45	24	27	7x7x40	
		80-160	306	439	267.5	170	178	90	172	36	-	100	335	180	200	155	220	195	270	25	15	45	24	27	7x7x40	
100	1	80-300	344	504	305	190	198	100	172	34	-	120	398	200	240	180	260	230	320	30	18	45	24	27	7x7x40	
		80-160	401	582	322	214	218	110	240	41	-	135	440	227	270	200	290	250	350	32	18	55	28	31	7x7x50	
120	1	80-300	420	620	392	253	247	123.5	240	37	-	155	486	227	290	220	320	285	380	38	20	55	28	31	7x7x50	
		80-160	420	620	392	253	247	123.5	240	37	-	155	486	227	290	220	320	285	380	38	20	55	28	31	7x7x50	

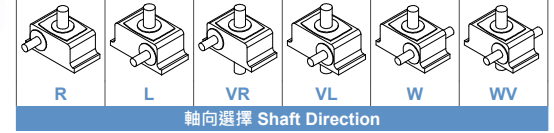
#### MODEL : VW



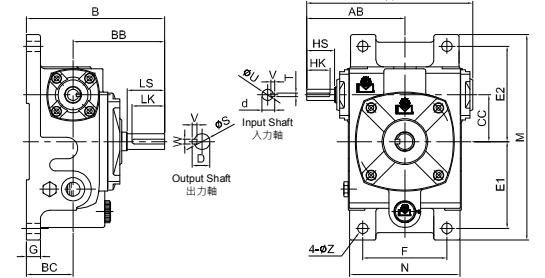
▲ 40#~135#



▲ 155#~175#



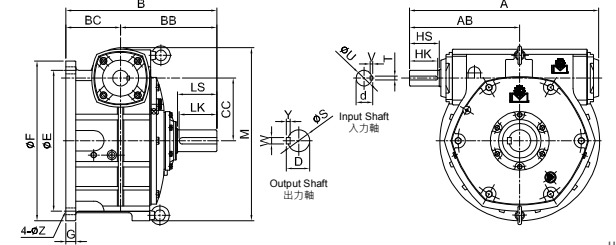
軸向選擇 Shaft Direction



型號 Model	Ratio \ 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)	
	1/10 ~ 1/30	1/40 ~ 1/60							E1	E2	F	M	N	G	Z	HS	U	d	TxVxHK	LS	S	D		WxYxLK
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	245	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



▲ 200#~350#



型號 Model	Ratio \ 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)
	1/10 ~ 1/30	1/40 ~ 1/60							E	F	M	N	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	74.5	20x12x120	185.2	
225	25	20	650	375	525	335	190	225	510	580	622	35	27	95	55	59	15x10x90	140	80	84.5	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	8-36	125	70	73	18x10x120	170	95	101	24x16x160	465	
350	50	40	945	570	770	480	290	350	780	880	945	38	8-38	145	80	85	20x12x135	190	115	124	32x20x185	785	

# 1-STAGE WORM REDUCER VW SERIES

## 單段蝸輪減速機 VW 系列

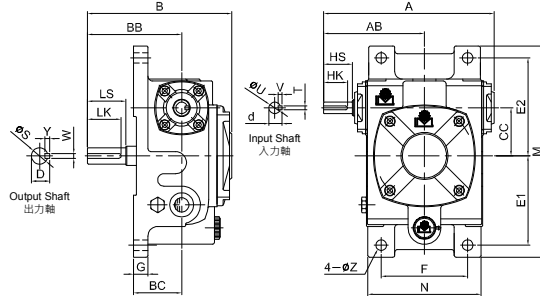
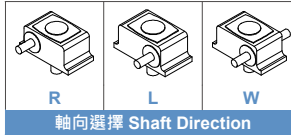
### MODEL : UW



▲ 40#~135#



▲ 155#~175#

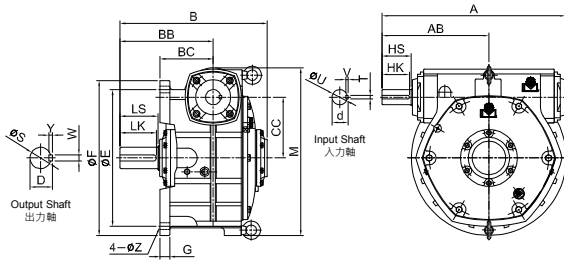


unit: mm

型號 Model	Ratio \ 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)	
	1/10	1/40							E1	E2	F	M	N	G	Z	HS	U	d	TxVxHK	LS	S	D		WxYxLK
	1/30	1/60																						
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	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	315	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	18x12x105	141



▲ 200#~350#

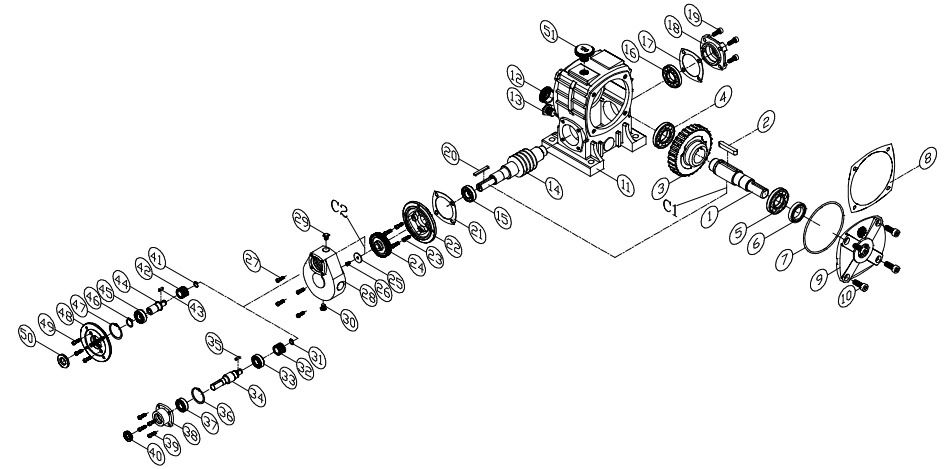


unit: mm

型號 Model	Ratio \ 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)
	1/10	1/40							E	F	M	G	Z	HS	U	d	TxVxHK	LS	S	D	WxYxLK		
	1/30	1/60																					
200	20	15	604	352	486	311	175	200	450	510	558	32	22	22	95	50	53	12x8x90	125	70	74.5	20x12x120	185.2
225	25	20	650	375	525	335	190	225	510	580	622	35	27	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	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	36	125	70	73	18x10x120	170	95	101	24x16x160	465
350	50	40	960	569	770	480	290	350	780	880	945	38	43	43	145	80	85	20x12x135	190	115	124	32x20x185	785

### 分解系統圖 System Drawing

### MODEL : LG



NO.	零件名稱	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	非石棉墊片	Asbestos Free Gasket
9	出力軸蓋	Output Shaft Cover
10	六角承高頭螺絲	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	滾錐軸承	Taper Roller Bearing
16	滾錐軸承	Taper Roller Bearing
17	非石棉墊片	Asbestos Free Gasket
18	入力軸蓋	Input Shaft Cover
19	六角承高頭螺絲	Hex Screw
20	雙圓鍵	Key
21	非石棉墊片	Asbestos Free Gasket
22	連接盤	Adapter
23	六角承高頭螺絲	Hex Screw
24	B 齒輪	B Gear
25	鐵制華司	Shim Washer
26	六角螺絲	Hexagon Head Bolt
27	六角承高頭螺絲	Hex Screw

NO.	零件名稱	Name of Parts
28	偏心齒輪箱	Gear Box
29	油栓	Oil 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	A 齒輪軸	A Gear 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	六角承高頭螺絲	Hex Screw
40	油封	Oil Gauge
41	扣環 (S)	Snap Ring (S)
42	A 齒輪	A Gear
43	單圓鍵	Key
44	A 齒輪軸	A Gear 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 Flange
49	六角承高頭螺絲	Hex Screw
50	油封	Oil Seal
51	注油栓	Oil Plug
8	100#(含) 以上不使用 非石棉墊片	Model 100# and above are without Asbestos Free Gasket

## 2-STAGE WORM REDUCER (GEAR+WORM) SERIES

### 雙段蝸輪減速機 (齒輪 + 蝸輪) 系列

#### 齒輪 + 蝸輪系列 Gear + Worm Series

◆特點 Features :

1. 入力段螺旋齒輪減速 (減速比 1/3~1/5)  
Input-stage spiral gear reduction (reduction ratio 1/3 ~ 1/5)
2. 出力段蝸輪減速 (減速比 1/10~1/60)  
Output-stage worm reduction (reduction ratio 1/10 ~ 1/60)
3. 效率高 · 螺旋齒輪經研磨  
High efficiency, grinding spiral gear.
4. 速比變化多 (1/80~1/300)  
Various reduction ratios (1/8 ~ 1/300)
5. 適合低速高扭力之轉動  
Suitable for low-speed and high-torque transmission.
6. 可選擇組合角度  
Various assembling angles for choice.

◆型號 Model :

80#~155#

◆馬力 HP :

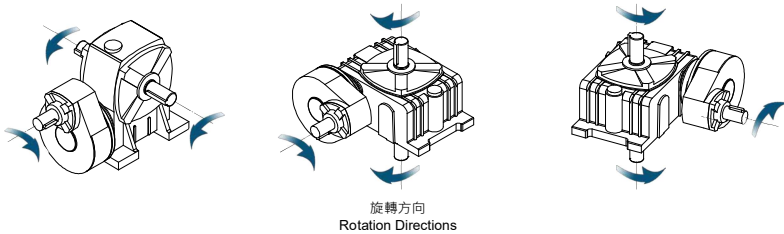
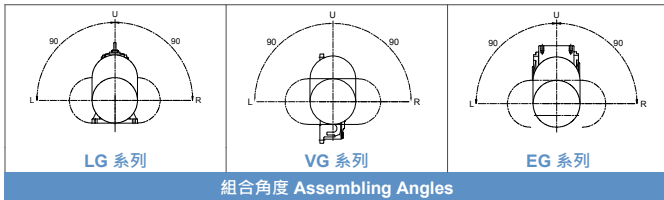
1/2HP~5HP

◆減速比 Ratio :

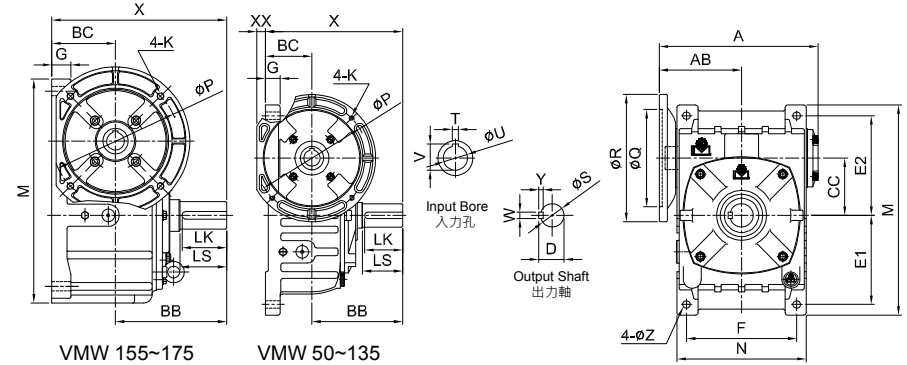
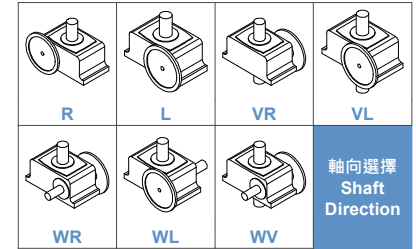
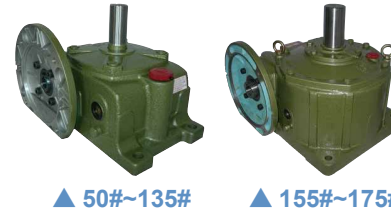
馬力 HP	型號 Model	可組立之減速比 Ratio
1/2	80	80, 90, 100, 120, 150, 160, 180, 200, 240, 250, 300
	100	80, 90, 100, 120, 150, 160, 180, 200, 240, 250, 300
1	80	80, 90, 100, 120, 150, 160,
	100	80, 90, 100, 120, 150, 160, 180, 200, 240, 250, 300
	120	80, 90, 100, 120, 150, 160, 180, 200, 240, 250, 300
2	100	80, 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 (unit: ℓ)

Type Model	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	-	-	-	-	-



#### MODEL : VMW



型號 Model	Ratio \ HP		馬達殼 IEC Motor Flange							腳座 Foot Stock							入力孔 Input Bore			出力軸 Output Shaft			重量 Weight (kg)					
	1/10 ~ 1/30	1/40 ~ 1/60	P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	LS	S	D	WxYxLk								
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	86	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
70	1	1/2	200	105	195	-	130	65	70	130	110	160	M8	120	135	120	288	160	20	15	16.3	5	14	60	28	31	7x7x55	14.4
80	2	1	226	118	210	-	140	70	80	165	130	200	M10	130	150	140	315	183	20	15	21.8	6	19	65	32	35	10x8x60	21.2
100	3	2	279	146	260	-	170	90	100	165	130	200	M10	155	180	190	380	230	26	15	27.3	8	24	75	38	41	10x8x70	43
120	5	3	335	173	290	-	190	100	120	215	180	248	M12	185	215	220	450	266	30	18	31.3	8	28	85	45	48	12x8x80	65
135	7	1/2	369	187	324	-	214	110	135	215	180	248	M12	210	235	260	495	305	35	18	31.3	8	28	95	55	59	15x10x90	85.2
155	10	7	412	212	393	-	253	140	155	265	230	300	M12	245	265	290	460	340	45	20	41.3	10	38	110	60	64	15x10x105	108
175	15	10	467	236	412	-	262	150	175	265	230	300	M16	267	293	320	516	385	45	22	45.3	12	42	110	65	69	18x10x105	150

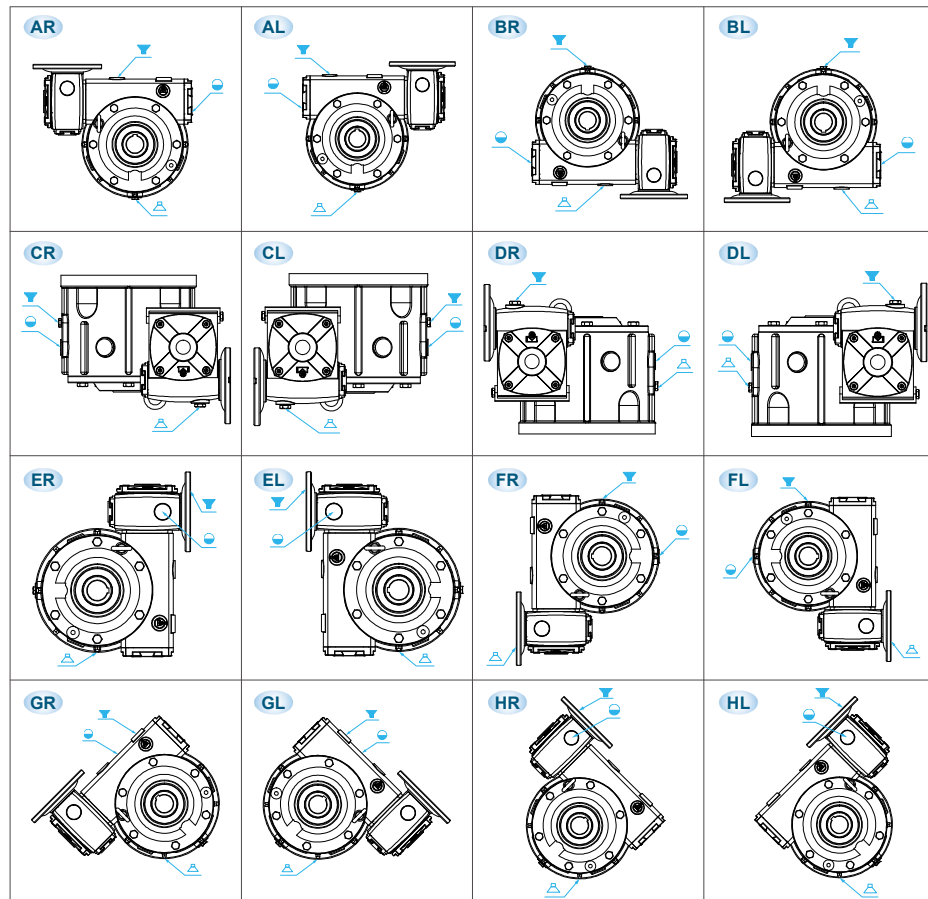


## 2-STAGE WORM REDUCER (WORM+WORM) SERIES

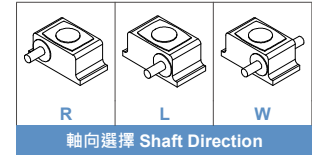
### 雙段蝸輪減速機 ( 蝸輪 + 蝸輪 ) 系列

#### ■ 安裝方向 Installation Direction ( VOFH & VOFHM )

- 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。  
The life time of gear reducer can be prolonged in proper direction.
  - ◆ 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.
  - ◆ 減速機使用方向特殊時，請與我們聯繫。  
For special installation direction, please contact us.

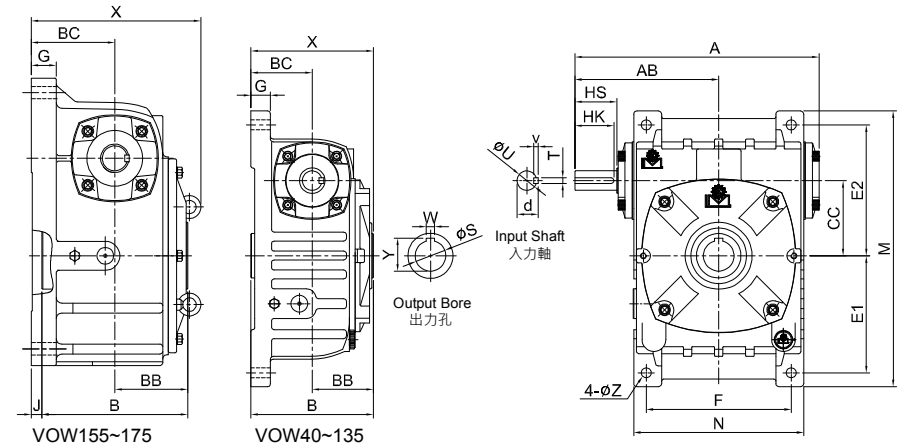


#### MODEL : VOW



▲ 40#~135#

▲ 155#~175#



型號 Model	Ratio \ HP		腳座 Foot Stock																	輸入軸 Input Shaft			出力孔 Output Bore			重量 Weight (kg)
	1/10	1/40	A	AB	J	B	X	BB	BC	CC	E1	E2	F	M	N	G	Z	HS	U	d	TxVxHK	W	Y	S		
	1/30	1/60																								
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	520	390	45	22	85	45	48	12x8x80	18	94.3	90	149	

unit: mm

# 1-STAGE WORM REDUCER VW SERIES

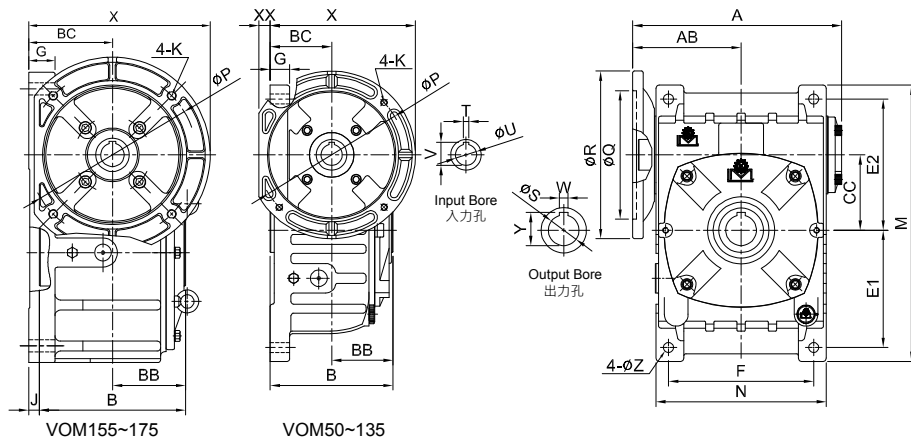
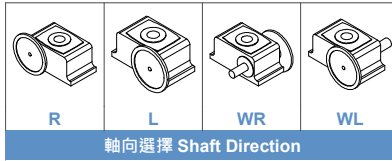
## 單段蝸輪減速機 VW 系列

### MODEL : VOM



▲ 50#~135#

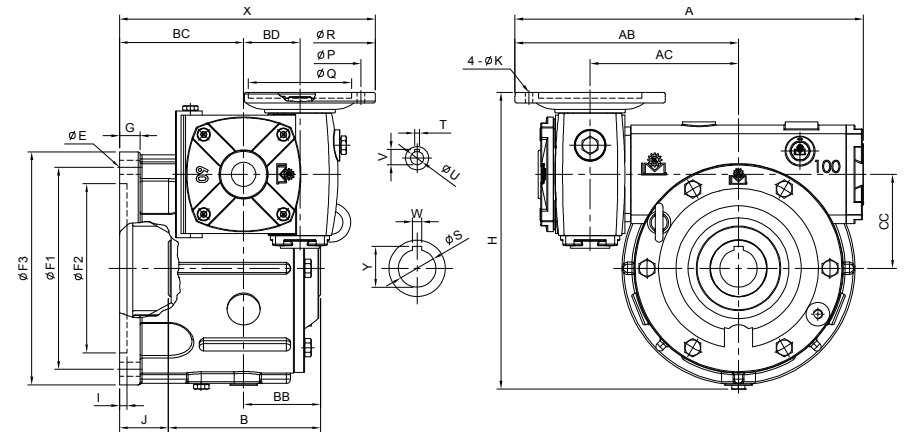
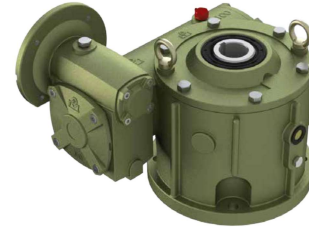
▲ 155#~175#



型號 Model	Ratio \ 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)
	1/10	1/40										P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	W	Y	S		
	1/30	1/60																												
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	-	111	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	
70	1	1/2	200	105	-	128	165	-	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	-	69	70	80	165	130	200	M10	130	150	140	315	183	20	15	27.3	8	24	10	38.3	35	22.6	
100	3	2	279	146	-	178	215	-	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	1	198	225	-	99	100	120	215	180	248	M12	185	215	220	450	266	30	18	31.3	8	28	12	48.3	45	65	
135	7 1/2	5	369	187	1	218	234	-	109	110	135	215	180	248	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	
175	15	10	467	236	19	262	300	325	-	131	150	265	230	300	M12	167	293	320	520	390	45	22	41.3	10	38	18	94.3	90	158	

# 雙段蝸輪減速機 (蝸輪 + 蝸輪) 系列 2-STAGE WORM REDUCER (WORM+WORM) SERIES

### MODEL : VOFHM



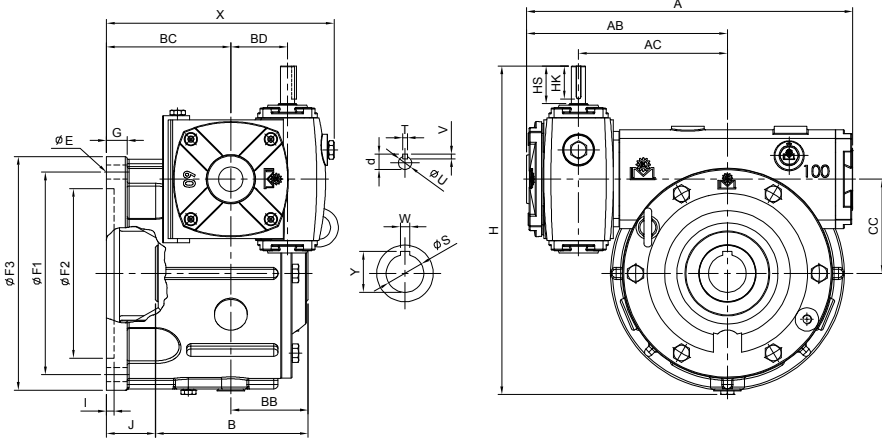
型號 Model	Ratio \ HP		A	AB	AC	J	B	X	BB	BC	BD	CC	H	馬達盤 IEC Motor Flange				腳座 Foot Stock						入力孔 Input Bore				出力孔 Output Bore				重量 Weight (kg)
	1/100	1/4000												P	Q	R	K	E	F1	F2	F3	G	I	V	T	U	W	Y	S			
	1/300	1/3600																														
80	1/4	-	323	216	136	30	150	237	73	107	50	80	262	130	110	160	M8	4-15	170	130	200	20	8	12.7	4	11	10	38.3	35	24.5		
100	1/2	1/4	371	238	158	52	162	272	82	132	60	100	316	130	110	160	M8	4-15	215	180	248	22	8	12.7	4	11	10	43.3	40	45.4		
120	1	1/2	425	265	185	56	178	295	89	145	70	120	386	130	110	160	M8	8-18	300	260	330	24	6	16.3	5	14	12	48.3	45	67.5		
135	2	1	498	319	219	63	184	335	92	155	80	135	432	165	130	200	M10	8-18	330	290	360	25	7	21.8	6	19	15	59.3	55	89.3		



## 2-STAGE WORM REDUCER (WORM+WORM) SERIES

### 雙段蝸輪減速機 (蝸輪 + 蝸輪) 系列

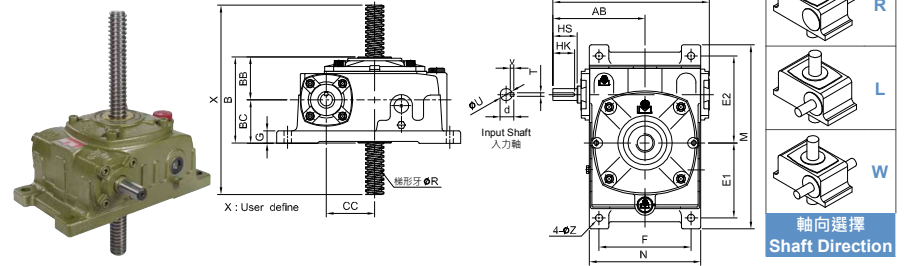
#### MODEL : VOFH



型號 Model	Ratio \ HP		腳座 Foot Stock													入力軸 Input Shaft				出力孔 Output Bore			重量 Weight (kg)				
	1/100 ~ 1/800	1/1000 ~ 1/3500	A	AB	AC	J	B	X	BB	BC	BD	CC	H	E	F1	F2	F3	G	I	HS	U	d		TxVxHK	W	Y	S
	70	1/8	-	241	151	120	42	128	183	64	106	40	70	247	4-15	150	115	182	17	9	25	12		13.5	4x4x20	7	28.3
80	1/4	-	296	189	136	30	150	197	73	107	50	80	285	4-15	170	130	200	20	8	30	12	13.5	4x4x25	10	38.3	35	24.5
100	1/2	1/4	346	213	158	52	162	242	82	132	60	100	349	4-15	215	180	248	22	8	40	15	17	5x5x35	10	43.3	40	45.5
120	1	1/2	407	223	185	56	178	266	89	145	70	120	425	8-18	300	260	330	24	6	40	18	20	5x5x35	12	48.3	45	67.5
135	2	1	470	290	219	63	184	291	92	155	80	135	476	8-18	330	290	360	25	7	50	22	25	7x7x45	15	49.3	55	89.3

unit: mm

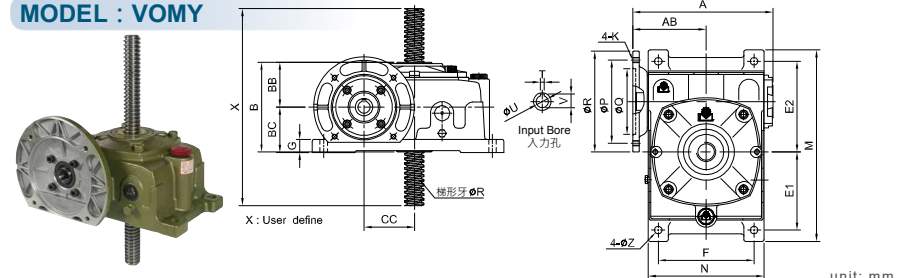
#### MODEL : VOWY



unit: mm

型號 Model	Ratio \ HP		腳座 Foot Stock													入力軸 Input Shaft				角牙 R"	螺距 inch/ Pitch	重量 Weight (kg)
	1/10~ 1/30	1/40~ 1/60	A	AB	B	BB	BC	CC	E1	E2	F	M	N	G	Z	HS	U	d	TxVxHK			
40	1/8	-	139.5	86	88	45	45	40	75	85	70	183	94	11	9	25	12	13.5	4x4x20	1"	4T	4.6
50	1/4	-	178	105	98	50	50	50	93	102	90	220	118	16	11	30	12	13.5	4x4x25	1"	4T	7.2
60	1/2	1/4	198	120	108	55	55	60	105	120	100	252	128	18	11	40	15	17	5x5x35	1"	4T	11.8
70	1	1/2	235	140	128	65	65	70	120	135	120	288	160	20	15	40	18	20	5x5x35	1 1/8"	4T	15.8
80	2	1	268	161	138	70	70	80	130	150	140	315	183	20	15	50	22	25	7x7x45	1 1/4"	4T	21.8
100	3	2	322	190	178	90	90	100	155	180	190	380	230	30	15	50	25	28	7x7x45	1 1/2"	4T	40.4
120	5	3	390	231	198	100	100	120	185	215	220	450	266	30	18	65	30	33	7x7x60	2"	4T	62
135	7 1/2	5	438	258	218	110	110	135	210	235	260	495	305	35	18	75	35	38	10x8x70	2"	4T	78.8

#### MODEL : VOMY



unit: mm

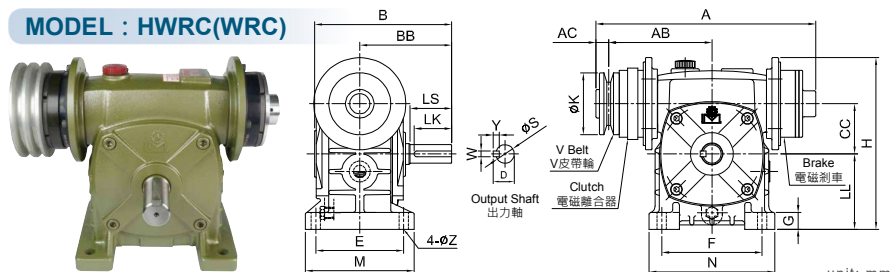
型號 Model	Ratio \ HP		馬達盤 IEC Motor Flange													腳座 Foot Stock					入力孔 Input Bore			角牙 R"	螺距 inch/ Pitch	重量 Weight (kg)		
	1/10~ 1/30	1/40~ 1/60	A	AB	B	BB	BC	CC	P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U						
	50	1/4	-	154	81	98	50	50	50	130	110	160	M8	93	102	90	220	118	16	11	12.7	4	11				12.7	4
60	1/2	1/4	167	87	111	55	55	60	130	110	160	M8	105	120	100	252	128	18	11	16.3	5	14	16.3	5	14	1"	4T	11.4
70	1	1/2	200	105	128	65	65	70	130	110	160	M8	120	135	120	288	160	20	15	16.3	5	14	16.3	5	14	1 1/8"	4T	17.6
80	2	1	226	118	138	70	70	80	165	130	200	M10	130	150	140	315	183	20	15	21.8	6	19	21.8	6	19	1 1/4"	4T	23.2
100	3	2	279	146	178	90	90	100	165	130	200	M10	155	180	190	380	230	26	15	27.3	8	24	27.3	8	24	1 1/2"	4T	41.4
120	5	3	333	173	198	100	100	120	215	180	248	M12	185	215	220	450	266	30	18	31.3	8	28	31.3	8	28	2"	4T	65
135	7 1/2	5	369	187	218	110	110	135	215	180	248	M12	210	235	260	495	305	35	18	41.3	10	38	41.3	10	38	2"	4T	81

- VOWY · VOMY 減速機只適合輕負荷使用 · VOWY & VOMY only used for light loading.
- VOWY · VOMY 減速機之配合螺桿只生產全牙型 · The screw for VOWY & VOMY is "No End Type" only.
- 本公司另有生產螺旋升降器減速機 (J1-J9) 供客戶參考 · Please refer to Page J1-J9 for Screw Jack Reducers.

# 1-STAGE WORM REDUCER WRC SERIES

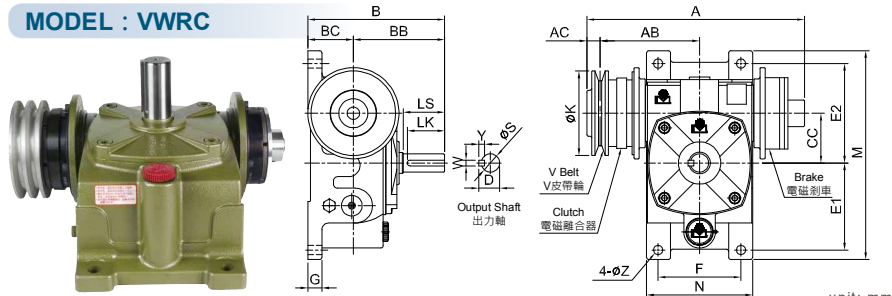
## 單段蝸輪減速機 WRC 系列

### MODEL : HWRC(WRC)



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	246	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	288	190	120	210	180	405	180	260	230	310	30	18	85	45	48	12x8x80	70				

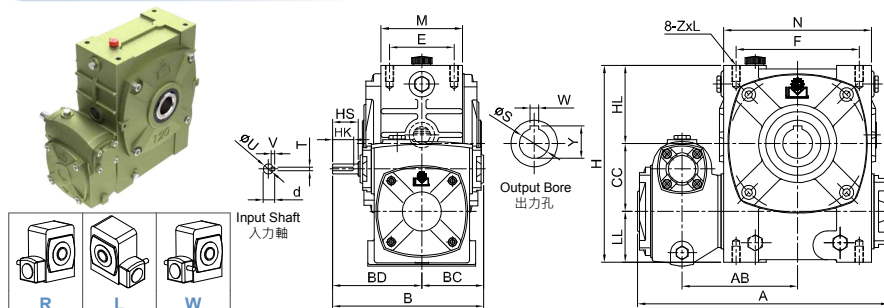
### MODEL : VWRC



型號 Model	容量 kg	馬力 HP	減速比 Ratio	A	AB	AC	B	BB	CC	K	BC	H	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	326	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				
120	8	3 5	40~60 10~30	504	227	32	290	190	120	210	100	215	185	220	450	266	30	18	85	45	48	12x8x80	66.8				

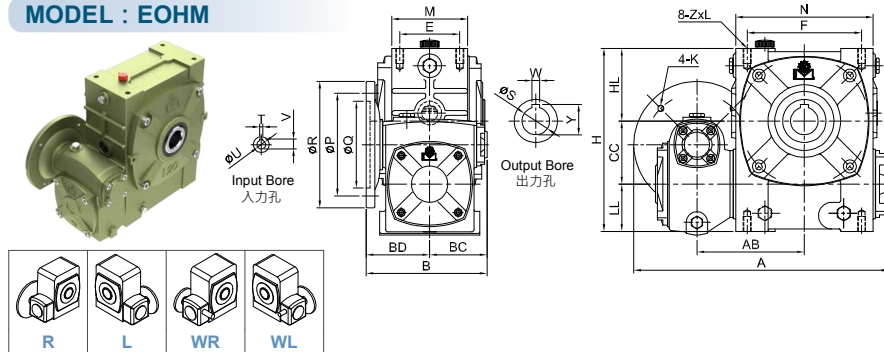
HWRC(WRC) · VWRC 電磁剎車 / 離合器定格電壓 DC 24V(需另外訂購) ·  
HWRC (WRC), VWRC electromagnetic brake / clutch rated voltage DC 24V (must be ordered separately).

### MODEL : EOH



型號 Model	Ratio \ HP		A	AB	B	BC	BD	CC	LL	HL	H	腳座 Foot Stock					入力軸 Input Shaft			出力孔 Output Bore			重量 Weight (kg)	
	1/100 ~ 1/900	1/1000 ~ 1/3600										E	F	M	N	ZxL	HS	U	d	TxVxHK	W	Y		S
60	1/16	-	218	100	144	55	86	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	1/4	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	1/2	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	1	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

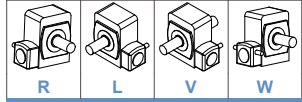
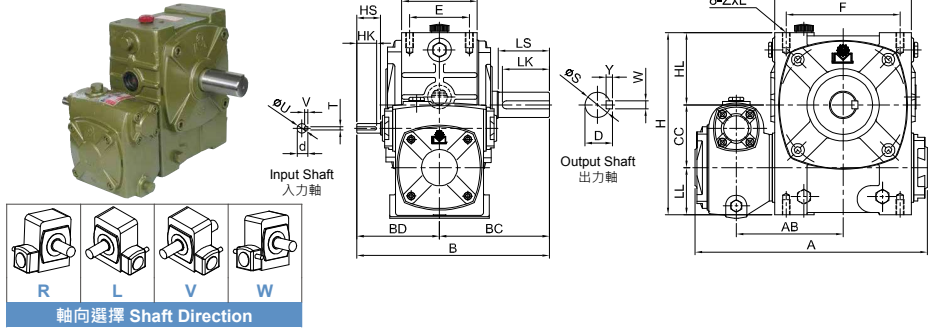


型號 Model	Ratio \ HP		A	AB	B	BD	BC	CC	LL	HL	H	馬達殼 IEC Motor Flange				腳座 Foot Stock					入力孔 Input Bore			出力孔 Output Bore			重量 Weight (kg)
	1/100 ~ 1/900	1/1000 ~ 1/3600										P	Q	R	K	E	F	M	N	ZxL	V	T	U	W	Y	S	
80	1/4	-	323	136	151	81	70	80	60	92	232	130	110	160	M8	75	145	98	175	M10x20	12.7	4	11	10	38.3	35	26
100	1/2	1/4	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	1/2	424 444	185	202	102	100	120	95	155	370	130	110	160	M8 M10	100	220	132	264	M14x28	16.3	5	14	12	48.3	45	69.4
135	2	1	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

## 2-STAGE WORM REDUCER (WORM+WORM) SERIES

### 雙段蝸輪減速機 (蝸輪 + 蝸輪) 系列

#### MODEL : EH

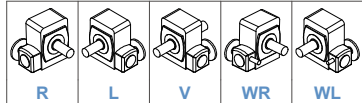
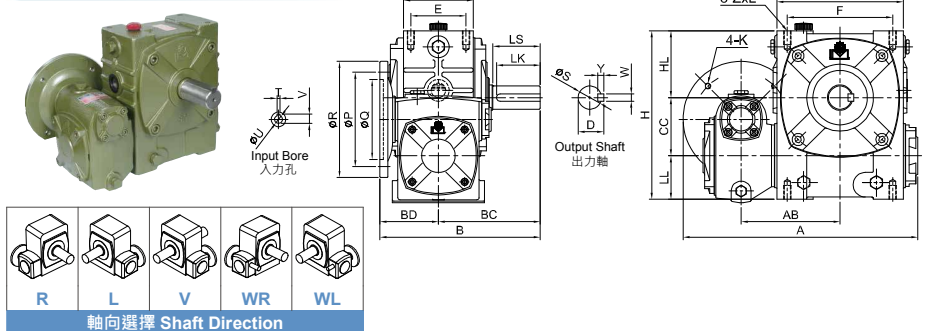


軸向選擇 Shaft Direction

unit: mm

型號 Model	Ratio \ HP		腳座 Foot Stock											輸入軸 Input Shaft				輸出軸 Output Shaft				重量 Weight (kg)			
	1/100	1/1000	A	AB	B	BC	BD	CC	LL	HL	H	E	F	M	N	ZxL	HS	U	d	TxVxHK	LS		S	D	WxYxLK
	1/800	1/3600																							
60	1/16	-	207	100	198	110	86	60	42	75	177	55	100	77	124	M10x20	25	12	13.5	4x4x25	50	22	25	7x7x45	12
70	1/8	-	260	121	216	130	86	70	50	85	205	65	125	85	154	M10x20	25	12	13.5	4x4x20	60	28	31	7x7x55	17
80	1/4	-	295	136	245	140	105	80	60	92	232	75	145	96	174	M10x20	30	12	13.5	4x4x25	65	32	35	10x8x60	23.4
100	1/2	1/4	346	158	290	170	120	100	75	115	290	85	185	117	226	M12x24	40	15	17	5x5x35	75	38	41	10x8x70	41.8
120	1	1/2	407	185	330	190	140	120	95	155	370	100	220	132	264	M14x28	40	18	20	5x5x35	85	45	48	12x8x80	66.6
135	2	1	471	219	375	214	161	135	105	185	425	110	260	150	306	M16x35	50	22	25	7x7x45	95	55	59	15x10x90	97.2

#### MODEL : EHM



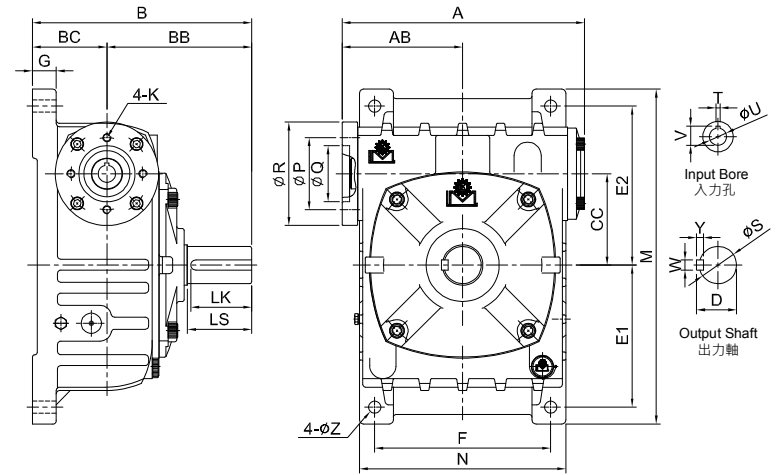
軸向選擇 Shaft Direction

unit: mm

型號 Model	Ratio \ HP		馬達殼 IEC Motor Flange											腳座 Foot Stock					輸入孔 Input Bore				輸出軸 Output Shaft				重量 Weight (kg)		
	1/100	1/1000	A	AB	B	BC	BD	CC	LL	HL	H	P	Q	R	K	E	F	M	N	ZxL	V	T	U	LS	S	D		WxYxLK	
	1/800	1/3600																											
80	1/4	-	323	136	221	140	81	80	60	92	232	130	110	160	M8	75	145	96	174	M10x20	12.7	4	11	65	32	35	10x8x60	24	
100	1/2	1/4	370	158	256	170	86	100	75	115	290	130	110	160	M8	85	185	117	226	M12x24	12.7	4	11	75	38	41	10x8x70	44.8	
120	1	1/2	424	185	291	190	101	120	95	155	370	130	110	160	M8	100	220	132	264	M14x28	16.3	5	14	85	45	48	12x8x80	68	
135	2	1	499	219	330	214	116	135	105	185	425	165	130	200	M10	110	260	150	306	M16x35	21.8	6	19	95	55	59	15x10x90	98.4	
																					27.3	8	24						

#### MODEL : VMP

裝配油壓馬達用 For Hydraulic Motor



unit: mm

型號 Model	Ratio \ HP		油壓殼 Motor Flange											腳座 Foot Stock					輸入孔 Input Bore				輸出軸 Output Shaft				重量 Weight (kg)			
	1/100	1/1000	A	AB	B	BB	BC	CC	LL	HL	H	P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	LS		S	D	WxYxLK
	1/800	1/3600																												
100	2/8	-	278	143.5	260	170	90	100	106.5	82.55	133	M12	155	180	190	380	230	26	15	28.2	6.35	25.4	75	38	41	10x8x70	41			
120	3/4	-	314	155	290	190	100	120	106.5	82.55	145	M12	185	215	220	452	266	30	18	28.2	6.35	25.4	85	45	48	12x8x80	63.6			
135	3/8	-	358	178	324	214	110	135	106.5	82.55	153	M12	210	235	260	497	306	35	18	28.2	6.35	25.4	95	55	59	15x10x90	84			
155	3/8	-	396	197	393	253	140	155	106.5	82.55	153	M12	145	265	290	464	345	45	20	28.2	6.35	25.4	110	60	64	15x10x105	116.8			
175	4/8	-	457	227.5	412	262	150	175	106.5	82.55	174	M12	167	293	320	520	385	45	20	28.2	6.35	25.4	110	65	69	18x10x105	148.4			

# WORM REDUCER E SERIES

## 蝸輪減速機 E 系列

### E 系列 Series

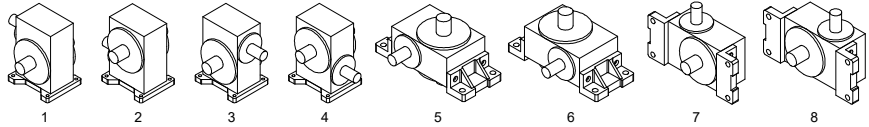
#### 特點 Features

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# ~ 135#。

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

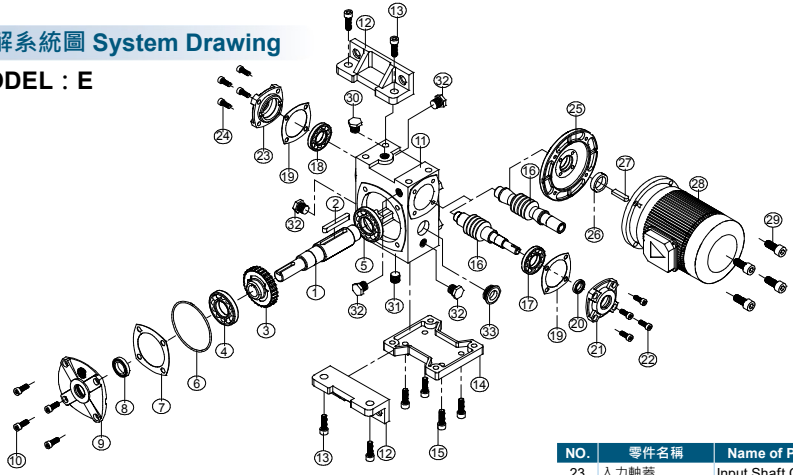
#### 油量表 Oil Capacities (unit: ℓ)

Model	Type	E EM	EO EOM	EOV	EOVM	LD	LDM	TW	TM	VOF VOFM
40	0.2	0.2	-	-	-	-	-	-	-	-
50	0.3	0.3	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	1.5	1.5	0.9	0.9	0.6	-
80	1.2	1.2	1.2	1.2	2.5	2.5	1.2	1.2	1.0	-
100	2.6	2.6	2.6	2.6	4.7	4.7	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	6.4	6.4	4.8	4.8	3.5	-



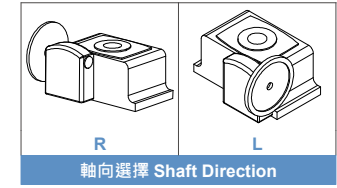
#### 分解系統圖 System Drawing

##### MODEL : E



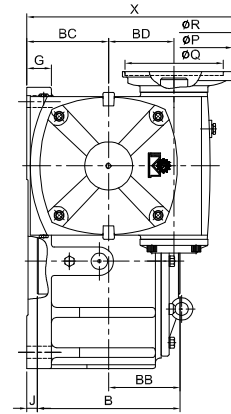
NO.	零件名稱	Name of Parts	NO.	零件名稱	Name of Parts
1	出力軸	Output Shaft	12	L 型腳座	Base Kits (L)
2	雙圓鍵	Key	13	六角承高頭螺絲	Hex Screw
3	蝸輪	Worm Wheel	14	H 型腳座	Base Kits (H)
4	滾珠軸承	Ball Bearing	15	六角承高頭螺絲	Hex Screw
5	滾珠軸承	Ball Bearing	16	蝸桿	Worm Shaft (Input Shaft)
6	O 形環	O-Ring	17	滾錐軸承	Taper Roller Bearing
7	非石棉墊片	Asbestos Free Gasket	18	滾錐軸承	Taper Roller Bearing
8	油封	Oil Seal	19	非石棉墊片	Asbestos Free Gasket
9	出力軸蓋	Output Shaft Cover	20	油封	Oil Seal
10	六角承高頭螺絲	Hex Screw	21	入力軸蓋 (有孔)	Input Shaft Cover (with bore)
11	蝸輪箱	Worm Wheel	22	六角承高頭螺絲	Hex Screw
			17,18	60# 以下滾珠軸承	Ball Bearing for Model 60# below
			23	入力軸蓋	Input Shaft Cover
			24	六角承高頭螺絲	Hex Screw
			25	馬達盤	Motor Flange
			26	油封	Oil Seal
			27	單圓鍵	Key
			28	馬達	Motor
			29	六角承高頭螺絲	Hex Screw
			30	注油栓	Oil Plug
			31	沉頭油栓	Plug
			32	洩油栓	Drain Plug
			33	油鏡	Oil Gauge

#### MODEL : VOHM

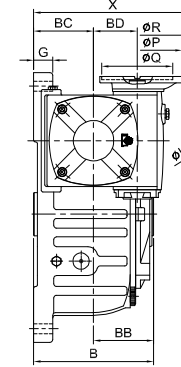


▲ 80#~135#

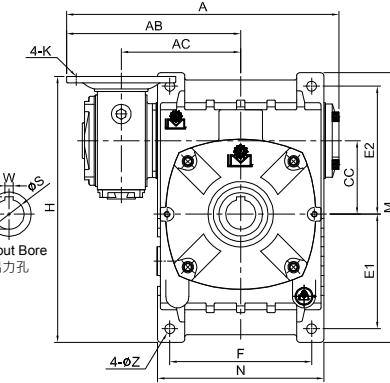
▲ 155#~175#



VOHM155~175



VOHM80~135



型號 Model	Ratio \ 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)				
	1/100	1/1000	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
	1/900	1/3600																													
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	1/4	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
120	1	1/2	425	265	185	-	198	250	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
135	2	1	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
155	3	2	557	358	258	16.5	247	340	123.5	140	100	155	471	165	130	200	M10	245	265	290	460	340	45	20	27.3	8	24	15	69.3	65	121.4
175	5	3	638	408	284	19	262	395	131	150	120	175	530	215	180	248	M12	167	293	320	516	385	45	22	31.3	8	28	18	94.3	90	194.2

# 2-STAGE WORM REDUCER (WORM+WORM) SERIES

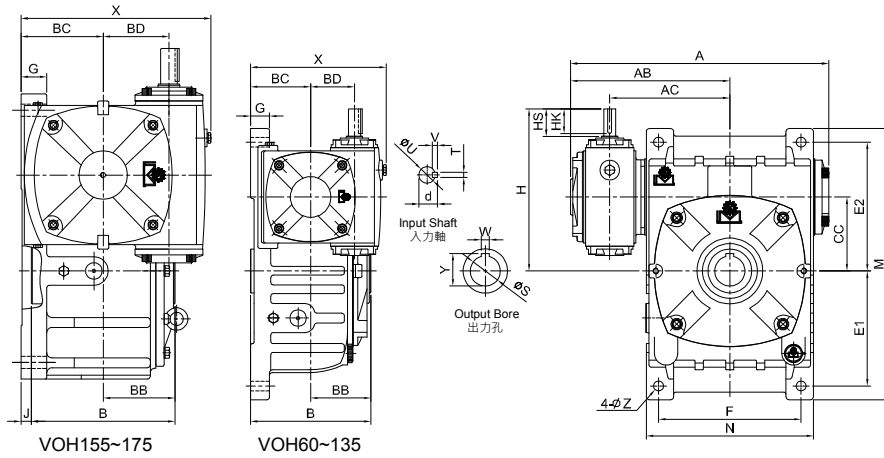
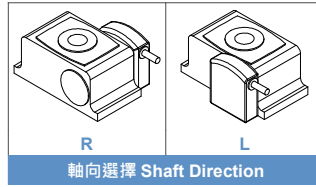
## 雙段蝸輪減速機 (蝸輪 + 蝸輪) 系列

### MODEL : VOH



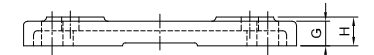
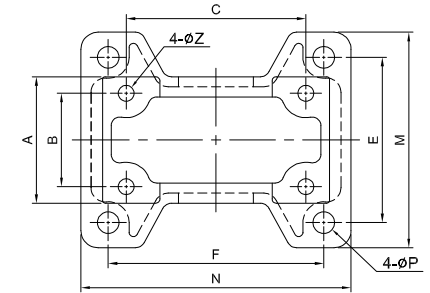
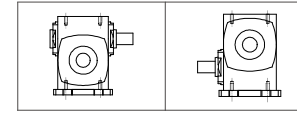
▲ 60#~135#

▲ 155#~175#



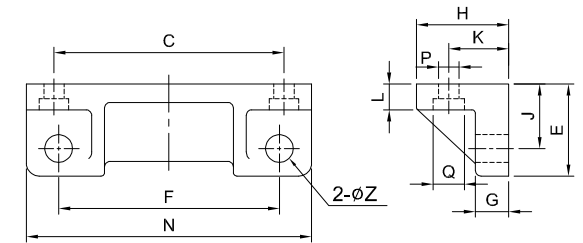
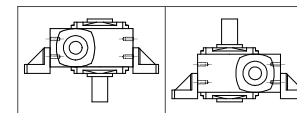
型號 Model	Ratio \ HP		腳座 Foot Stock													入力軸 Input Shaft				出力孔 Output Bore			重量 Weight (kg)					
	1/100	1/1000	A	AB	AC	J	B	X	BB	BC	BD	CC	H	E1	E2	F	M	N	G	Z	HS	U		d	TxVxHK	W	Y	S
	1/900	1/3600																										
60	1/16	-	218	140	100	-	108	120	54	55	32	60	148	105	120	100	252	128	18	11	25	12	13.5	4x4x25	8	28.3	25	14.8
70	1/8	-	260	165	121	-	128	142	64	65	40	70	156	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	185	130	150	140	315	183	20	15	30	12	13.5	4x4x25	10	38.3	35	27.2
100	1/2	1/4	346	214	158	-	178	200	89	90	60	100	220	155	180	190	380	230	30	15	40	15	17	5x5x35	10	43.3	40	39
120	1	1/2	407	248	185	-	198	225	99	100	70	120	260	185	215	220	450	266	30	18	40	18	20	5x5x35	12	48.3	45	69.8
135	2	1	472	292	219	-	218	248	109	110	80	135	296	210	235	260	495	305	35	18	50	22	25	7x7x45	15	59.3	55	92.6
155	3	2	547	348	258	16.5	247	310	123.5	140	100	155	345	145	265	290	460	340	45	20	50	25	28	7x7x45	15	69.3	65	117.4
175	5	3	623	393	284	19	262	343	131	150	120	175	406	167	293	320	516	385	45	22	65	30	33	7x7x60	18	94.3	90	190.8

### H 型腳座 H Type Base Kits



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

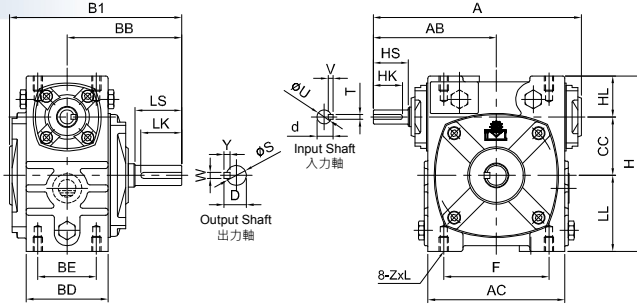


型號 Model	C	E	F	G	H	J	K	L	N	P	Q	Z	重量 Weight (kg)
50	90	40	90	14	40	25	25	9	115	9	14	11	1
60	100	45	100	15	45	30	27.5	12	126	11	17	11	2
70	125	50	120	18	50	35	32.5	14	155	11	17	15	2.5
80	145	60	140	20	52	40	32.5	18	174	11	17	15	4
100	185	60	190	20	70	40	47.5	18	224	13	19	15	4
120	220	62.5	220	24	80	40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

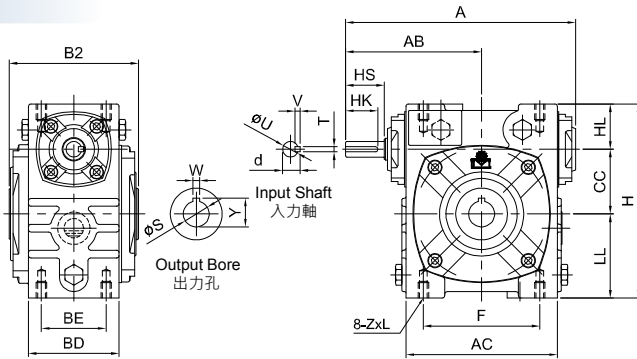
# WORM REDUCER E SERIES

## 蝸輪減速機 E 系列

### MODEL : E

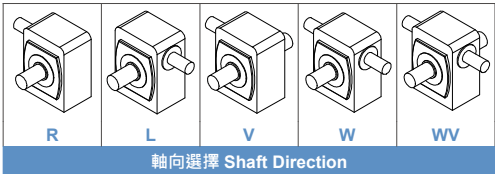


### MODEL : EO



unit: mm

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

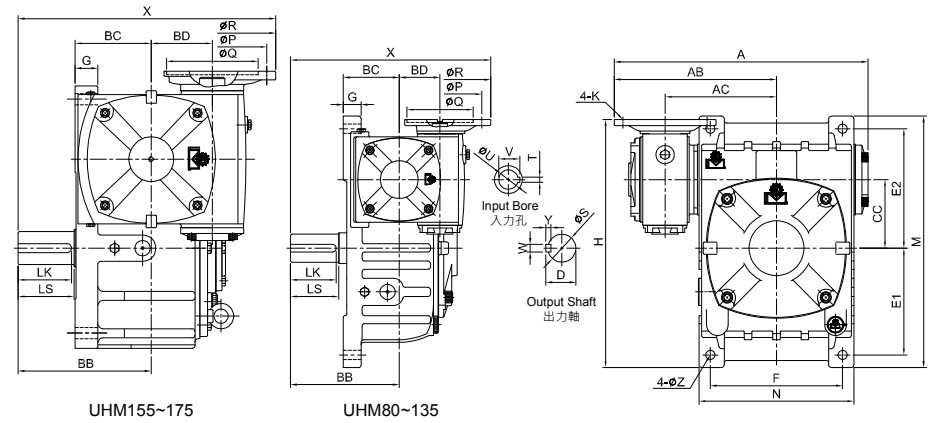
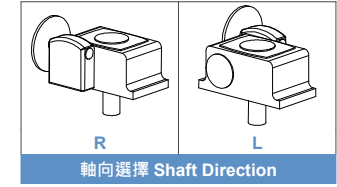


unit: mm

型號 Model	Ratio \ HP		腳座 Foot Stock																輸入軸 Input Shaft				輸出軸 Output Shaft				重量 Weight (kg)
	1/10 1/30	1/40 1/60	A	AB	B1	B2	BB	CC	HL	LL	H	腳座 Foot Stock				輸入軸 Input Shaft				輸出軸 Output Shaft							
			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	12	13.5	4x4x20	30	15	17	5x5x25	3	4	
50	1/4	-	178	105	147	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	165	108	110	60	42	75	177	124	100	77	55	M10x18	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	154	125	85	65	M10x18	40	18	20	5x5x35	60	28	31	7x7x55	14	14.2	
80	2	1	268	161	208	138	140	80	60	92	232	174	145	96	75	M10x18	50	22	25	7x7x45	65	32	35	10x8x60	18.4	20.4	
100	3	2	323	190	258	178	170	100	75	115	290	225	185	116	85	M12x20	50	25	28	7x7x45	75	38	41	10x8x70	34.6	35.4	
120	5	3	391	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	7/2	5	438	258	319	218	214	135	105	185	425	306	260	150	110	M16x30	75	35	38	10x8x70	95	55	59	15x10x90	81.2	78.8	

# 雙蝸輪減速機 (蝸輪 + 蝸輪) 系列 2-STAGE WORM REDUCER (WORM+WORM) SERIES

### MODEL : UHM



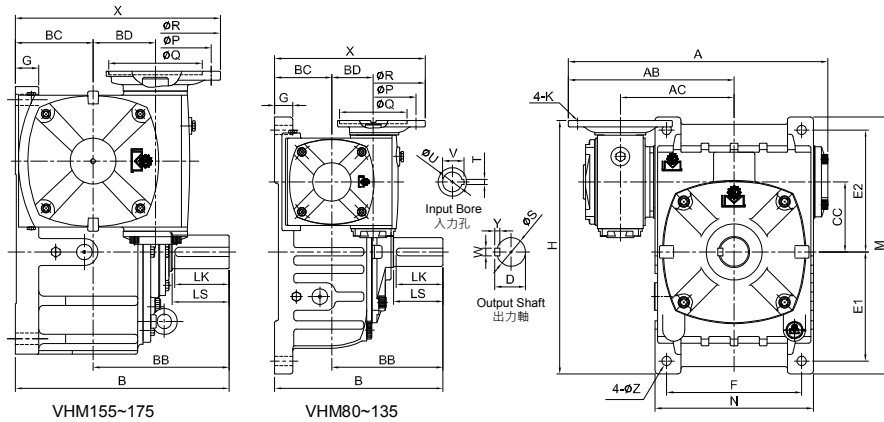
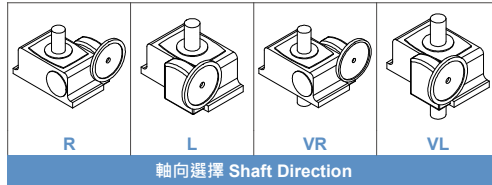
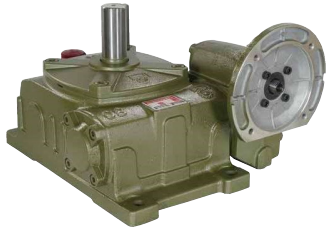
unit: mm

型號 Model	Ratio \ HP		馬達盤 IEC Motor Flange																腳座 Foot Stock				輸入孔 Input Bore				輸出軸 Output Shaft				重量 Weight (kg)
	1/100 1/300	1/1000 1/3600	A	AB	AC	X	BB	BC	BD	CC	H	馬達盤 IEC Motor Flange				腳座 Foot Stock				輸入孔 Input Bore				輸出軸 Output Shaft							
			P	Q	R	K	E1	E2	F	M	N	G	Z	V	T	U	LS	S	D	WxYxLK	E	EO									
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	1/4	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	1/2	425	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	1	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	2	557	358	258	453	253	140	100	155	471	165	130	200	M10	245	265	290	460	340	45	20	27.3	8	24	110	60	64	15x10x105	124.4	
175	5	3	638	408	284	506	262	150	120	175	543	215	180	248	M12	267	293	320	516	385	45	22	31.3	8	28	110	65	69	18x10x105	190.4	

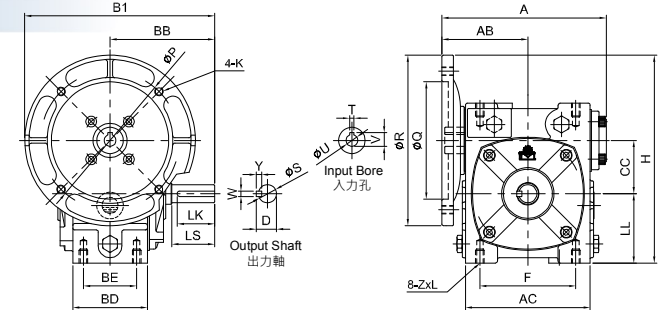
## 2-STAGE WORM REDUCER (WORM+WORM) SERIES

### 雙段蝸輪減速機 (蝸輪 + 蝸輪) 系列

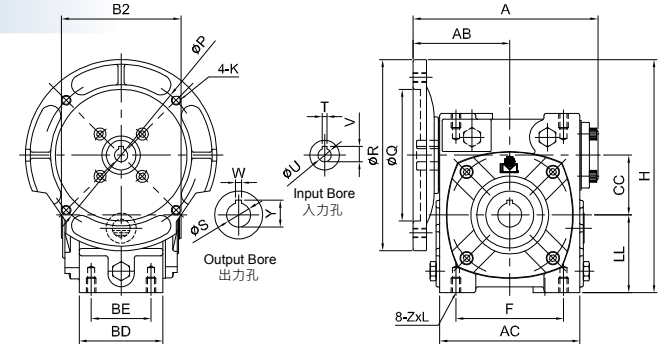
#### MODEL : VHM



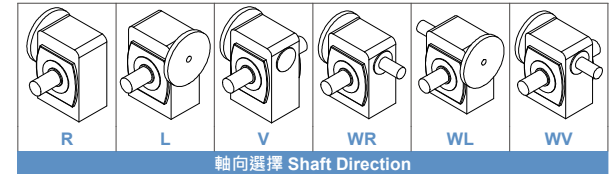
#### MODEL : EM



#### 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



unit: mm

型號 Model	Ratio \ HP		馬達殼 IEC Motor Flange											腳座 Foot Stock							入力孔 Input Bore							出力軸 Output Shaft							重量 Weight (kg)
	1/100	1/1000	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					
	1/900	1/3600																																	
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				
120	1	1/2	425	265	185	290	250	190	100	70	120	432	130	110	160	M8	165	150	220	450	266	30	18	16.3	5	14	85	45	48	12x8x80	74.8				
135	2	1	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				
155	3	2	557	358	258	393	340	253	140	100	155	471	165	130	200	M10	145	265	290	460	340	45	20	27.3	8	24	110	60	64	15x10x105	124.4				
175	5	3	638	408	284	412	395	262	150	120	175	530	215	180	248	M12	167	293	320	516	385	45	20	31.3	8	28	110	65	69	18x10x105	190.4				

unit: mm

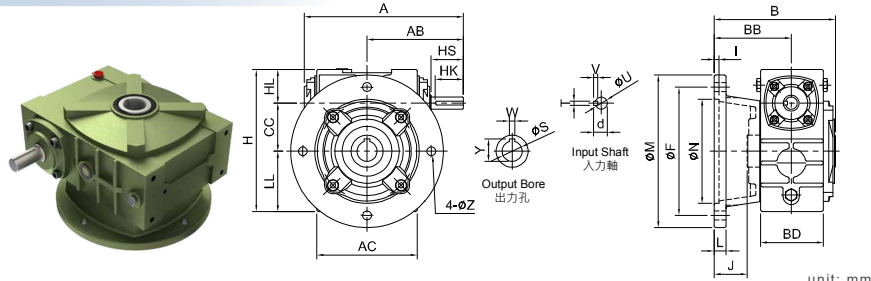
型號 Model	Ratio \ HP		馬達殼 IEC 及 入力孔 Motor Flange & Input Bore											腳座 Foot Stock					出力軸 Output Shaft							重量 Weight (kg)		
	1/100	1/1000	A	AB	B1	B2	BB	CC	LL	H	AC	F	BD	BE	ZxL	P	Q	R	K	V	T	U	LS	S	D	WxYxLK	EM	EOM
	1/90	1/360																										
50	1/4	-	154	81	178	98	98	50	65	195	115	90	70	50	M8x16	130	110	160	M8	12.7	4	11	40	17	19	5x5x35	6.6	8.2
60	1/2	1/4	165	87	190	108	110	60	75	215	124	100	77	55	M10x18	130	110	160	M8	12.7	4	11	50	22	25	7x7x45	9.4	10.6
70	1	1/2	200	105	210	128	130	70	85	235	154	125	85	65	M10x18	130	110	160	M8	16.3	5	14	60	28	31	7x7x55	15.6	15.4
80	2	1	229	121	240	138	140	80	92	272	174	145	96	75	M10x18	165	130	200	M10	21.8	6	19	65	32	35	10x8x60	20	22
100	3	2	280	146	270	178	170	100	115	315	225	185	116	85	M12x20	165	130	200	M10	27.1	8	24	75	38	41	10x8x70	37.8	38.4
120	5	3	333	173	315	198	190	120	155	400	264	220	132	100	M14x28	215	180	248	M12	31.3	8	28	85	45	48	12x8x80	60.2	61.6
135	7 1/2	5	374	193	339	218	214	135	185	445	300	260	150	110	M16x30	265	230	300	M12	41.3	10	28	95	55	59	15x10x90	81.6	84

# WORM REDUCER E SERIES

## 蝸輪減速機 E 系列

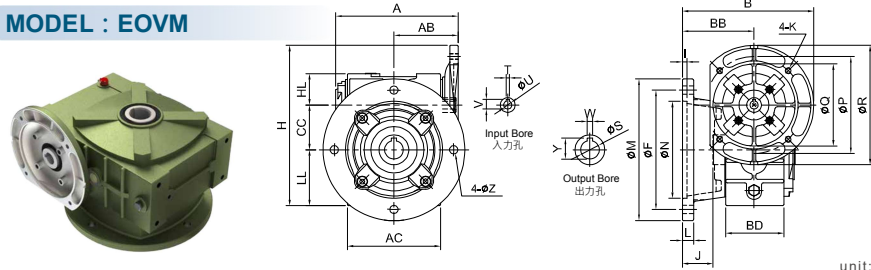
◆ 安裝方式，依 VOF 系列安裝方向為主 (第 G38 頁)。  
Please refer to Page. G38 to confirm the installation.

### MODEL : EOJ



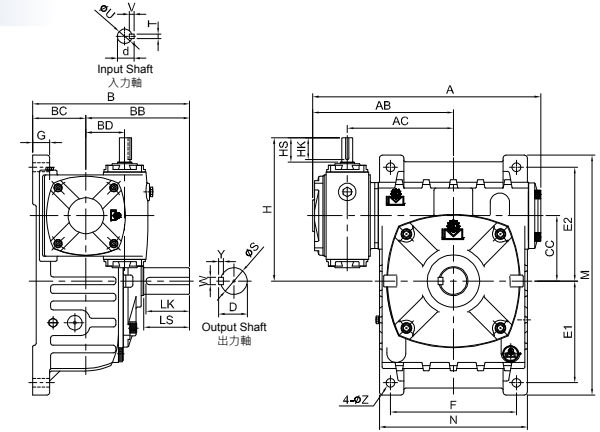
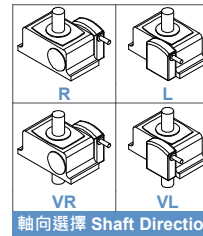
型號 Model	Ratio \ HP		A	AB	AC	B	BB	BD	CC	HL	LL	H	M	F	L	I	J	N	Z	馬達盤 Motor Flange				輸入孔 Input Shaft			輸出孔 Output Bore			重量 Weight (kg)
	1/10 ~ 1/30	1/40 ~ 1/60																		P	Q	R	K	V	T	U	W	Y	S	
50	1/4	-	178	105	115	145	96	70	50	35	65	150	180	150	15	6	47	120	11	30	12	13.5	4x4x25	6	22.8	20	9.2			
60	1/2	1/4	198	120	124	151	96	77	60	42	75	177	190	160	15	6	42	130	11	40	15	17	5x5x35	8	28.3	25	12.2			
70	1	1/2	235	140	154	179	115	85	70	50	85	205	250	215	16	6	51	180	15	40	18	20	5x5x35	8	33.3	30	18.4			
80	2	1	268	161	174	184	115	96	80	60	92	232	250	215	16	6	46	180	15	50	22	25	7x7x45	10	38.3	35	24.4			
100	3	2	323	190	225	234	145	116	100	75	115	290	300	265	16	5	56	230	15	50	25	28	7x7x45	10	43.3	40	41.6			
120	5	3	391	231	264	244	145	132	120	95	155	370	350	300	20	7	46	260	17	65	30	33	7x7x60	12	48.3	45	63			
135	7 1/2	5	438	258	306	284	175	150	135	105	185	425	400	350	24	7	66	320	18	75	35	38	10x8x70	15	59.3	55	83			

### MODEL : EOVM

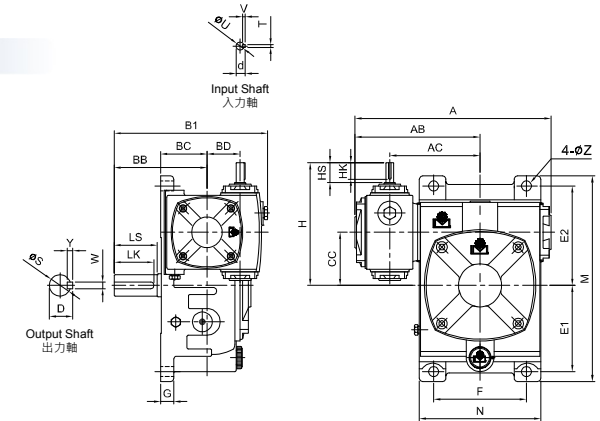
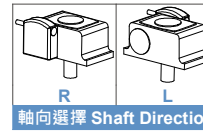


型號 Model	Ratio \ HP		A	AB	AC	B	BB	BD	CC	HL	LL	H	M	F	L	I	J	N	Z	馬達盤 Motor Flange				輸入孔 Input Shaft			輸出孔 Output Bore			重量 Weight (kg)
	1/10 ~ 1/30	1/40 ~ 1/60																		P	Q	R	K	V	T	U	W	Y	S	
50	1/4	-	154	81	115	176	96	70	50	35	65	195	180	150	15	6	47	120	11	130	110	160	M8	12.7	4	11	6	22.8	20	9.6
60	1/2	1/4	165	87	124	176	96	77	60	42	75	215	190	160	15	6	42	130	11	130	110	160	M8	12.7	4	11	8	28.3	25	12.4
70	1	1/2	206	105	154	195	115	85	70	50	85	235	250	215	16	6	51	180	15	130	110	160	M8	16.3	5	14	8	33.3	30	20
80	2	1	229	121	174	215	115	96	80	60	92	272	250	215	16	6	46	180	15	165	130	200	M10	21.7	8	24	10	38.3	35	26
100	3	2	280	146	225	245	145	116	100	75	115	315	300	265	16	5	56	230	15	165	130	200	M10	27.1	8	28	10	43.3	40	44.6
120	5	3	333	173	264	270	145	132	120	95	155	400	350	300	20	7	46	260	17	215	180	250	M12	31.3	8	28	12	48.3	45	66.6
135	7 1/2	5	374	193	306	300	175	150	135	105	185	445	400	350	24	7	66	320	18	215	180	250	M12	41.3	10	38	15	59.3	55	89

### MODEL : VH



### MODEL : UH



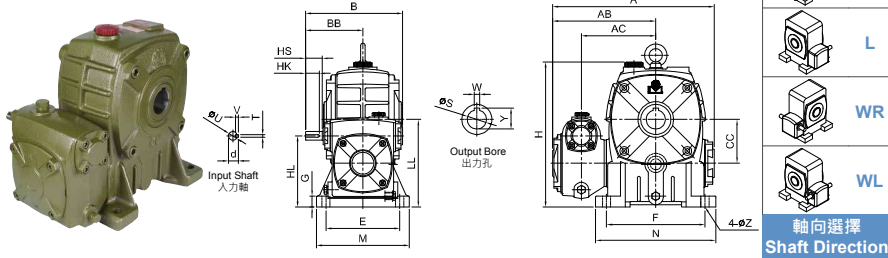
型號 Model	Ratio \ HP		A	AB	AC	B	B1	BB	BC	BD	CC	H	腳座 Foot Stock						輸入軸 Input Shaft				輸出軸 Output Shaft			重量 Weight (kg)		
	1/100 ~ 1/300	1/1000 ~ 1/3000											E1	E2	F	M	N	G	Z	HS	U	d	TxVxHK	LS	S		D	WxYxLK
60	1/16	-	218	140	100	165	175	110	55	32	60	148	105	120	100	252	128	18	11	25	12	13.5	4x4x25	50	22	25	7x7x45	12
70	1/8	-	260	165	121	195	207	130	65	40	70	156	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	185	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	220	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	260	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	296	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	345	145	265	290	460	340	45	20	50	25	28	7x7x45	110	60	64	15x10x105	120.4
175	5	3	616	386	284	412	451	262	150	120	175	406	167	293	320	516	385	45	22	65	30	33	7x7x60	110	65	69	18x10x105	187



## 2-STAGE WORM REDUCER (WORM+WORM) SERIES

### 雙段蝸輪減速機 (蝸輪 + 蝸輪) 系列

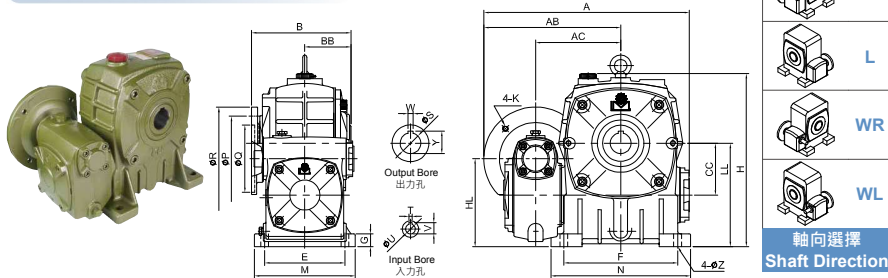
#### MODEL : LOH



unit: mm

型號 Model	Ratio \ HP		A	AB	AC	B	BB	CC	H	HL	LL	腳座 Foot Stock						入力軸 Input Shaft				出力孔 Output Bore			重量 Weight (kg)
	1/100 - 1/900	1/1000 - 1/3600										E	F	M	N	G	Z	HS	U	d	TxVxHK	W	Y	S	
60	1/16	-	222	144	100	144	88	60	200	92	120	105	120	130	150	20	11	38	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	214	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	310	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	340	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	285	380	38	20	50	25	28	7x7x45	15	69.3	65	113.2
175	5	3	623	393	284	362	231	175	556	280	335	250	350	315	415	40	22	65	30	33	7x7x60	18	94.3	90	200

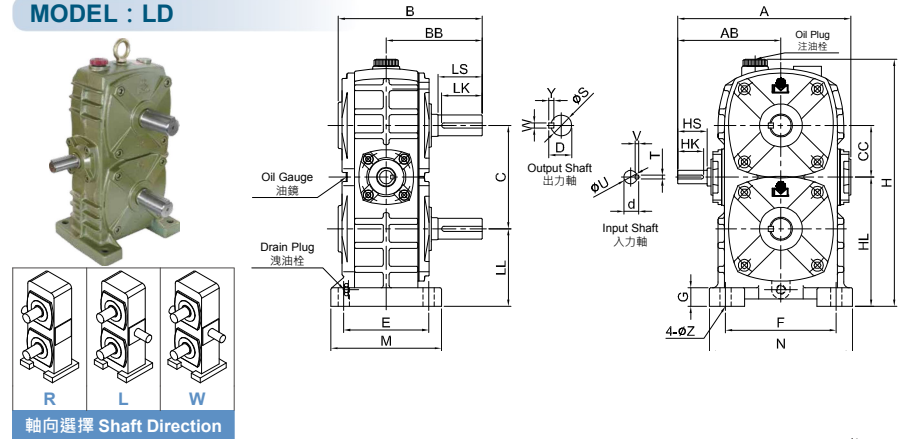
#### MODEL : LOHM



unit: mm

型號 Model	Ratio \ 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)
	1/100 - 1/900	1/1000 - 1/3600										P	Q	R	K	E	F	M	N	G	Z	V	T	U	W	Y	S		
80	1/4	-	324	216	136	151	70	80	266	130	160	130	110	160	M8	135	180	170	214	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	310	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	340	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	285	380	38	20	21.8	6	19	15	69.3	65	117.2	
175	5	3	645	415	284	295	131	175	556	280	335	215	180	248	M12	250	350	315	415	40	22	27.3	8	24	18	94.3	90	203.4	

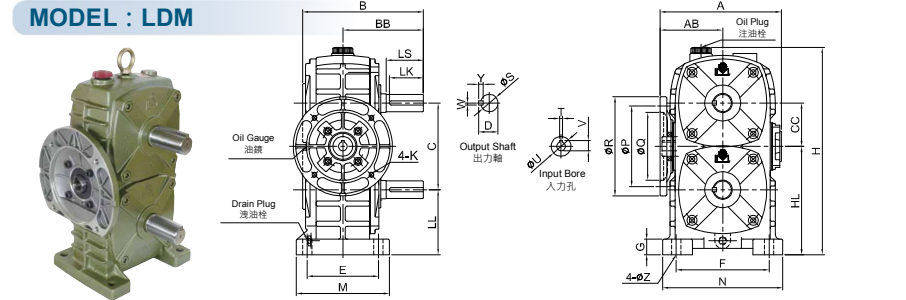
#### MODEL : LD



unit: mm

型號 Model	Ratio \ HP		A	AB	B	BB	C	CC	H	HL	LL	腳座 Foot Stock						入力軸 Input Shaft				出力軸 Output Shaft			重量 Weight (kg)	
	1/10 - 1/30	1/40 - 1/60										E	F	M	N	G	Z	HS	U	d	TxVxHK	LS	S	D		WxYxLxK
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	7/12	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



unit: mm

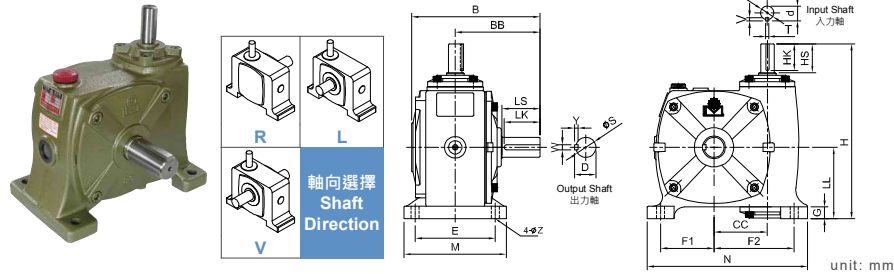
型號 Model	Ratio \ HP		A	AB	B	BB	C	CC	H	HL	LL	腳座 Foot Stock						入力孔 Input Bore				馬達盤 IEC Motor Flange				出力軸 Output Shaft			重量 Weight (kg)
	1/16 - 1/30	1/40 - 1/60										E	F	M	N	G	Z	V	T	U	P	Q	R	K	LS	S	D	WxYxLxK	
70	1	1/2	200	102	108	130	140	70	348	175	105	115	150	150	194	25	15	16.3	5	14	130	110	160	M8	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	6	19	165	130	200	M10	65	32	35	10x8x60	32
100	3	2	278	146	258	170	200	100	472	250	150	155	220	197	270	27	15	27.3	8	24	165	130	200	M10	75	38	41	10x8x70	62.4
135	7/12	5	370	193	371	214	270	135	636	350	215	200	290	250	350	35	18	31.3	8	28	215	180	250	M12	95	55	59	15x10x90	142

# WORM REDUCER T SERIES

## 蝸輪減速機 T 系列

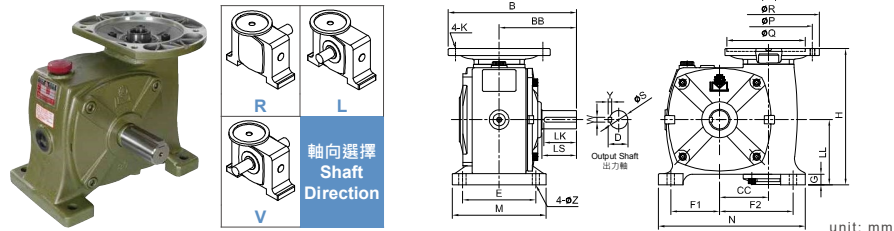
### MODEL : TW

R : 右軸 (腳座貼地面, 油鏡端面向自己, 此時輸出端位於右側)  
Right Shaft (when facing oil gauge and foot on the ground, output shaft is on the right)  
L : 左軸 (腳座貼地面, 油鏡端面向自己, 此時輸出端位於左側)  
Left Shaft (when facing oil gauge and foot on the ground, output shaft is on the left)



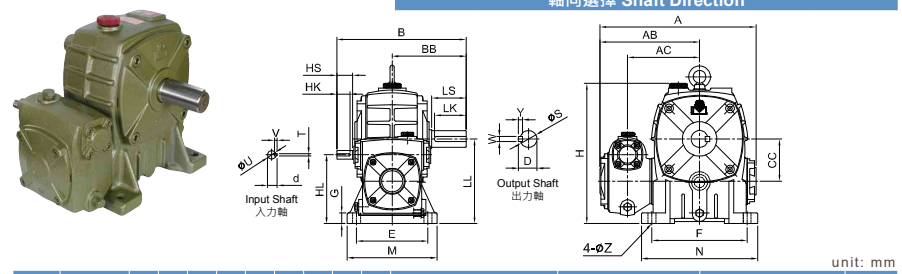
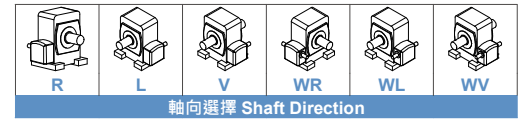
型號 Model	Ratio \ HP		H	LL	CC	B	BB	腳座 Foot Stock								入力軸 Input Shaft				出力軸 Output Shaft				重量 Weight (kg)
	1/10 ~ 1/30	1/40 ~ 1/60						F1	F2	E	M	N	G	Z	HS	U	d	TxVxHK	LS	S	D	WxYxLK		
50	1/4	-	181	76	50	149	98	53	77	100	124	163	16	11	30	12	13.5	4x4x25	40	17	19	5x5x35	7	
60	1/2	1/4	210	90	60	165	110	67	98	105	130	200	17	11	40	15	17	5x5x35	50	22	25	7x7x45	9.8	
70	1	1/2	236	95	70	189	130	75	115	120	150	230	20	15	40	18	20	5x5x35	60	28	31	7x7x55	13.4	
80	2	1	269	105	80	206	140	90	125	125	160	260	20	15	50	22	25	7x7x45	65	32	35	10x8x60	18.4	
100	3	2	326	135	100	256	170	100	150	155	195	310	25	15	50	25	28	7x7x45	75	38	41	10x8x70	40.4	
120	5	3	392	160	120	286	190	120	180	180	230	360	30	18	65	30	33	7x7x60	85	45	48	12x8x80	57.8	
135	7 1/2	5	426	170	135	323	214	130	200	200	250	390	30	18	75	35	38	10x8x70	95	55	59	15x10x90	80	

### MODEL : TMW



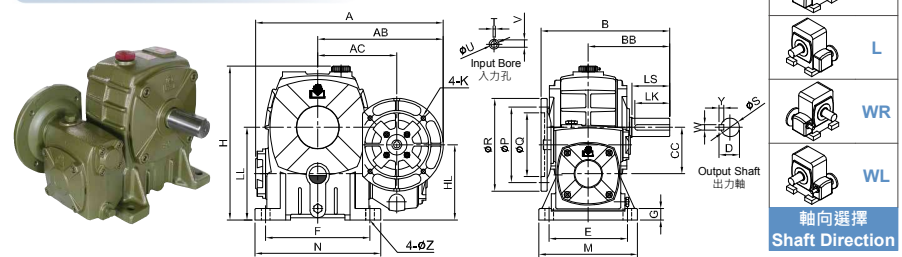
型號 Model	Ratio \ HP		H	LL	CC	B	BB	馬達盤 IEC Motor Flange				腳座 Foot Stock								入力孔 Input Bore				出力軸 Output Shaft				重量 Weight (kg)
	1/10 ~ 1/30	1/40 ~ 1/60						P	Q	R	K	F1	F2	E	M	N	G	Z	V	T	U	LS	S	D	WxYxLK			
50	1/4	-	163	76	50	178	98	130	110	160	M8	53	77	100	124	163	16	11	12.7	4	11	40	17	19	5x5x35	7.8		
60	1/2	1/4	177	90	60	190	110	130	110	160	M8	67	98	105	130	200	17	11	12.7	4	11	50	22	25	7x7x45	10.2		
70	1	1/2	201 207	95	70	210 230	130	130	110	160	M8 M10	75	115	120	150	230	20	15	16.3	5	14	60	28	31	7x7x55	15		
80	2	1	229	105	80	240	140	165	130	200	M10	90	125	125	160	260	20	15	21.7	6	19	65	32	35	10x8x60	20		
100	3	2	282 286	135	100	270 294	170	165	130	200	M10 M12	100	150	155	195	310	25	15	27.1	8	24	75	38	41	10x8x70	43.4		
120	5	3	324 329	160	120	315 319	190	215	180	248	M12	120	180	180	230	360	30	18	31.3	8	28	85	45	48	12x8x80	60		
135	7 1/2	5	360 361	170	135	339 364	214	215	180	248	M12	130	200	200	250	390	30	18	31.3	8	28	95	55	59	15x10x90	80.4		

### MODEL : LH



型號 Model	Ratio \ HP		H	LL	CC	B	BB	CC	H	HL	LL	腳座 Foot Stock								入力軸 Input Shaft				出力軸 Output Shaft				重量 Weight (kg)
	1/100 ~ 1/300	1/1000 ~ 1/3600										A	AB	AC	B	BB	CC	H	HL	LL	E	F	M	N	G	Z	HS	
60	1/16	-	222	144	100	198	110	60	200	92	120	105	120	130	150	20	11	38	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	214	20	15	30	12	13.5	4x4x25	65	32	35	10x8x60	24		
100	1/2	1/4	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	1/2	407	248	185	330	190	120	398	190	240	180	260	230	310	30	18	40	18	20	5x5x35	85	45	48	12x8x80	70.6		
135	2	1	471	290	219	375	214	135	440	215	270	200	290	250	340	32	18	50	22	25	7x7x45	95	55	59	15x10x90	96.6		
155	3	2	547	348	258	443	253	155	490	235	290	220	320	285	380	38	20	50	25	28	7x7x45	110	60	64	15x10x105	118		
175	5	3	623	393	284	493	262	175	565	280	335	250	350	315	415	40	22	65	30	33	7x7x60	110	65	69	18x10x105	196.2		

### MODEL : LHM



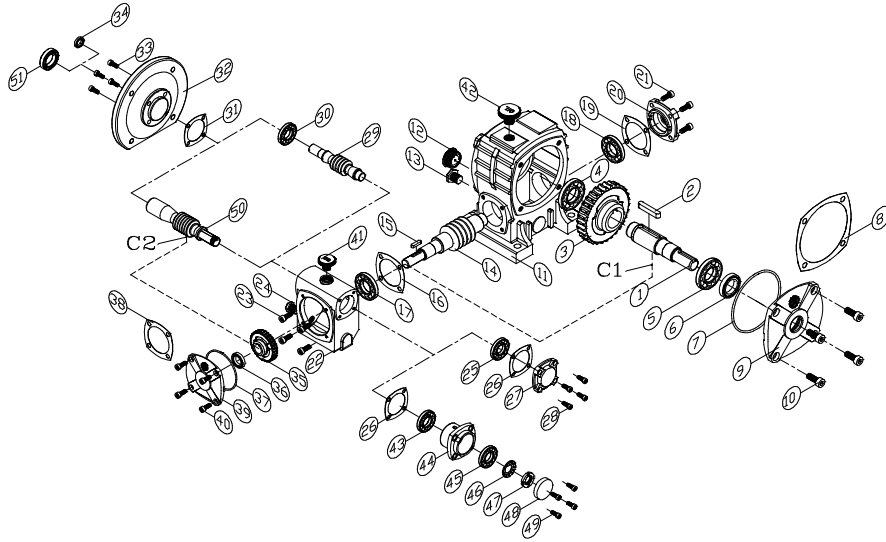
型號 Model	Ratio \ HP		H	LL	CC	B	BB	CC	H	HL	LL	馬達盤 IEC Motor Flange				腳座 Foot Stock								入力孔 Input Bore				出力軸 Output Shaft				重量 Weight (kg)
	1/100 ~ 1/300	1/1000 ~ 1/3600										P	Q	R	K	E	F	M	N	G	Z	V	T	U	LS	S	D	WxYxLK				
80	1/4	-	324	216	136	221	140	80	260	130	160	130	110	160	M8	135	180	170	214	20	15	12.7	4	11	65	32	35	10x8x60	25.6			
100	1/2	1/4	371	238	158	256	170	100	337	160	200	130	110	160	M8	155	220	195	270	25	15	16.3	5	14	75	38	41	10x8x70	45.6			
120	1	1/2	424 444	265 285	185	291	190	120	398	190	240	130	110	160	M8 M10	180	260	230	310	30	18	16.3	5	14	85	45	48	12x8x80	72			
135	2	1	500	319	219	330	214	135	440	215	270	165	130	200	M10	200	290	250	340	32	18	21.8	6	19	95	55	59	15x10x90	97.8			
155	3	2	557 582	358 383	258	397 403	253	155	490	235	290	165	130	200	M10 M12	220	320	285	380	38	20	21.8	6	19	110	60	64	15x10x105	122			
175	5	3	645	415	284	435	262	175	565	280	335	215	180	248	M12	250	350	315	415	40	22	31.3	8	28	110	65	69	18x10x105	199.6			

## 2-STAGE WORM REDUCER (WORM+WORM) SERIES

### 雙段蝸輪減速機 (蝸輪 + 蝸輪) 系列

#### 分解系統圖 System Drawing

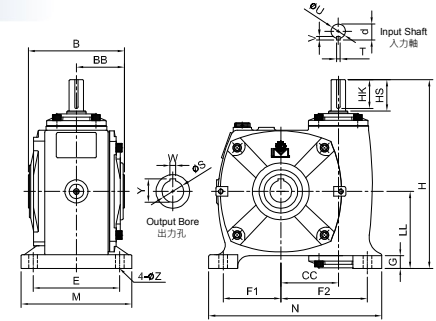
##### MODEL : LHM



NO.	零件名稱	Name of Parts
1	出力軸	Output Shaft
2	雙園鍵	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	非石棉墊片	Asbestos Free Gasket
9	出力軸蓋 (有孔)	Output Shaft Cover (with bore)
10	六角承高頭螺絲	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	雙園鍵	Key
16	非石棉墊片	Asbestos Free Gasket
17	滾珠軸承	Taper Roller Bearing
18	滾珠軸承	Taper Roller Bearing
19	非石棉墊片	Asbestos Free Gasket
20	入力軸蓋	Input Shaft Cover
21	六角承高頭螺絲	Hex Screw
22	蝸輪箱	Outer Shell
23	六角承高頭螺絲	Hex Screw
24	排油栓	Drain Plug
25	滾珠軸承或滾珠軸承	Taper Roller Bearing or Ball Bearing
26	非石棉墊片	Asbestos Free Gasket
27	入力軸蓋	Input Shaft Cover

NO.	零件名稱	Name of Parts
28	六角承高頭螺絲	Hex Screw
29	蝸桿 (入力軸)	Worm Shaft (Input Shaft)
30	滾珠軸承或滾珠軸承	Taper Roller Bearing or Ball Bearing
31	非石棉墊片	Asbestos Free Gasket
32	馬達盤	Motor Cover
33	六角承高頭螺絲	Hex Screw
34	油封	Oil Seal
35	蝸輪	Worm Wheel
36	滾珠軸承	Ball Bearing
37	O 型環	O Ring
38	非石棉墊片	Asbestos Free Gasket
39	出力軸蓋	Output Shaft Cover
40	六角承高頭螺絲	Hex Screw
41	油栓	Oil Plug
42	注油栓	Oil Plug
43	滾珠軸承	Taper Roller Bearing
44	入力後蓋	Input Shaft Cover
45	滾珠軸承	Taper Roller Bearing
46	太陽片	Lock Washers AW
47	軸承螺帽	Lock Nuts AN
48	密油封	Oil Seal
49	六角承高頭螺絲	Hex Screw
50	蝸桿	Worm Shaft
51	油封	Oil Seal
17, 18	60# 以下滾珠軸承	Ball Bearing for Model 60# below
8, 38	100# (含) 以上不使用非石棉墊片	Model 100# and above are without Asbestos Free Gasket
36	80# 以下不用滾珠軸承	Model 80# below are without Ball Bearing

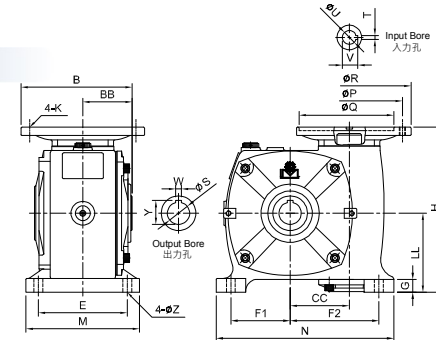
##### MODEL : TOW



unit: mm

型號 Model	Ratio \ HP		H	LL	CC	BB	B	腳座 Foot Stock							入力軸 Input Shaft				出力孔 Output Bore			重量 Weight (kg)
	1/10 ~ 1/30	1/40 ~ 1/60						F1	F2	E	M	N	G	Z	HS	U	d	TxVxHK	W	Y	S	
60	1/2	1/4	210	90	60	57	108	67	98	105	130	200	17	11	40	15	17	5x5x35	8	28.3	25	
70	1	1/2	236	95	70	64	128	75	115	120	150	230	20	15	40	18	20	5x5x35	8	33.3	30	13.6
80	2	1	269	105	80	69	138	90	125	125	160	260	20	15	50	22	25	7x7x45	10	38.3	35	20
100	3	2	326	135	100	89	178	100	150	155	195	310	25	15	50	25	28	7x7x45	10	43.3	40	41.2
120	5	3	392	160	120	99	198	120	180	180	230	360	30	18	65	30	33	7x7x60	12	48.3	45	57.8
135	7 1/2	5	426	170	135	109	218	130	200	200	250	390	30	18	75	35	38	10x8x70	15	59.3	55	77.8

##### MODEL : TOM



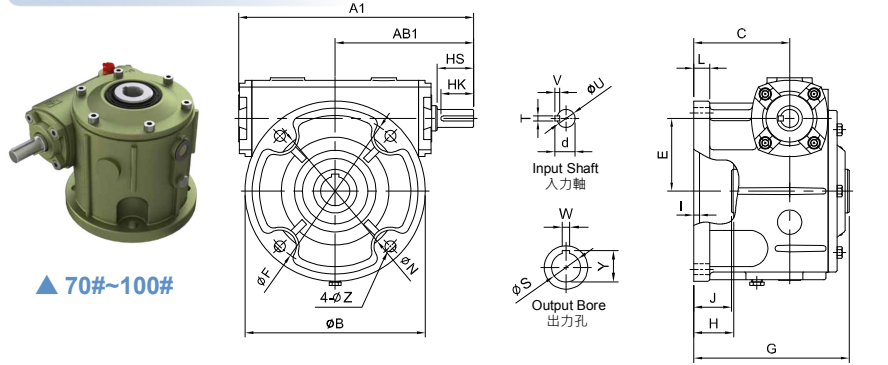
unit: mm

型號 Model	Ratio \ 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)
	1/10 ~ 1/30	1/40 ~ 1/60						P	Q	R	K	F1	F2	E	M	N	G	Z	V	T	U	W	Y	S	
60	1/2	1/4	177	90	60	57	108	130	110	160	M8	67	98	105	130	200	17	11	12.7	4	11	8	28.3	25	10.8
70	1	1/2	201 207	95	70	64	128	130 165	110 130	160 200	M8 M10	75	115	120	150	230	20	15	16.3 21.7	5 14	5 14	8	33.3	30	15.2
80	2	1	229	105	80	69	138	165	130	200	M10	90	125	125	160	260	20	15	21.7 27.2	6 8	6 19	10	38.3	35	22.4
100	3	2	282 286	135	100	89	178	215	180	248	M12	100	150	155	195	310	25	15	31.3 31.3	8 8	8 28	10	43.3	40	43.2
120	5	3	326	160	120	100	198	215	180	248	M12	120	180	180	230	360	30	18	31.3 31.3	8 8	8 28	12	48.3	45	60
135	7 1/2	5	360 361	170	135	109	218	265	230	300	M12	130	200	200	250	390	30	18	41.3 41.3	10 10	10 38	15	59.3	55	78.4

# WORM REDUCER VOF SERIES

## 蝸輪減速機 VOF 系列

### MODEL : VOF

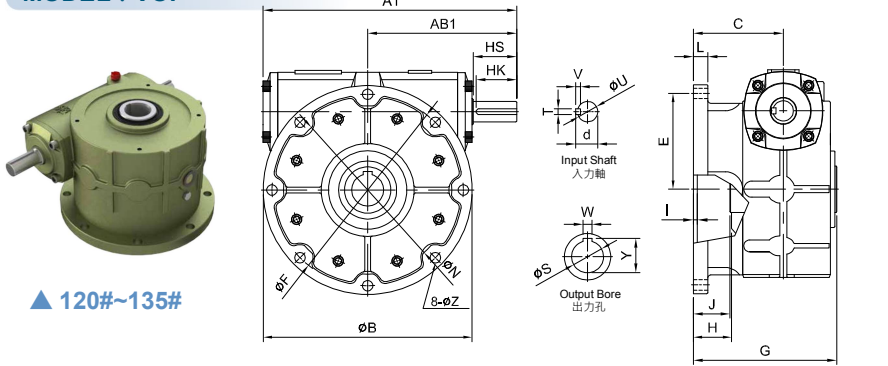


▲ 70#~100#

型號 Model	Ratio \ HP		A1	AB1	B	C	N	E	F	G	H	I	J	L	Z	入力軸 Input Shaft				出力孔 Output Bore			重量 Weight (kg)
	1/10 ~ 1/30	1/40 ~ 1/60														HS	U	d	TxVxHK	W	Y	S	
70	1	1/2	235	140	182	106	115	70	150	170	45	9	42	17	15	40	18	20	5x5x35	7	28.3	25	14
80	2	1	268	161	200	107	130	80	170	180	34	12	30	20	15	50	22	25	7x7x45	10	38.3	35	19.4
100	3	2	323	190	248	132	180	100	215	214	55	14	52	22	15	50	25	28	7x7x45	10	43.3	40	35

unit: mm

### MODEL : VOF



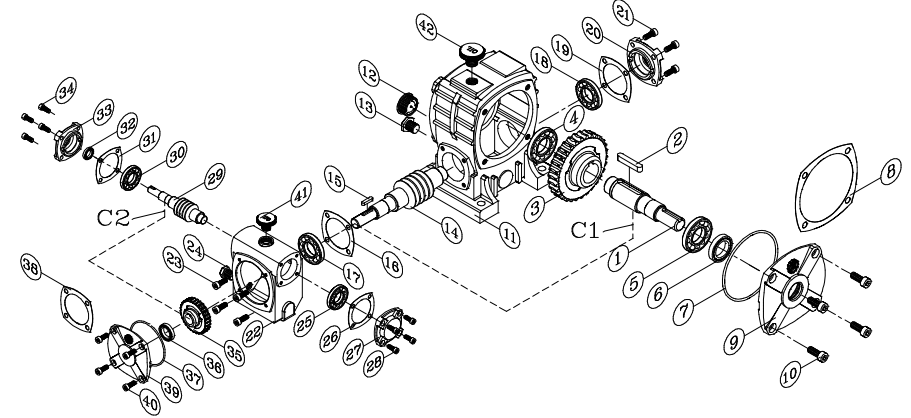
▲ 120#~135#

型號 Model	Ratio \ HP		A1	AB1	B	C	N	E	F	G	H	I	J	L	Z	入力軸 Input Shaft				出力孔 Output Bore			重量 Weight (kg)
	1/10 ~ 1/30	1/40 ~ 1/60														HS	U	d	TxVxHK	W	Y	S	
120	5	3	391	231	330	145	260	120	300	234	61	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	66	7	63	25	18	75	35	38	10x8x70	15	59.3	55	84.6

unit: mm

### 分解系統圖 System Drawing

#### MODEL : LH



NO.	零件名稱	Name of Parts	NO.	零件名稱	Name of Parts
1	出力軸	Output Shaft	24	排油栓	Drain Plug
2	雙圓鍵	Key	25	滾珠軸承 120# 以上	Taper Roller Bearing for Model 120# above
3	蝸輪	Worm Wheel	26	非石棉墊片	Asbestos Free Gasket
4	滾珠軸承	Ball Bearing	27	入力軸蓋	Input Shaft Cover
5	滾珠軸承	Ball Bearing	28	六角承窩頭螺絲	Hex Screw
6	油封	Oil Seal	29	蝸桿 (入力軸)	Worm Shaft (Input Shaft)
7	O 型環	O Ring	30	滾珠軸承 120# 以上	Taper Roller Bearing for Model 120# above
8	非石棉墊片	Asbestos Free Gasket	31	非石棉墊片	Asbestos Free Gasket
9	出力軸蓋 (有孔)	Output Shaft Cover (with bore)	32	油封	Oil Seal
10	六角承窩頭螺絲	Hex Screw	33	入力軸蓋 (有孔)	Input Shaft Cover (with bore)
11	蝸輪箱	Outer Shell	34	六角承窩頭螺絲	Hex Screw
12	油鏡	Oil Gauge	35	蝸輪	Worm Wheel
13	排油栓	Drain Plug	36	滾珠軸承	Ball Bearing
14	蝸桿 (入力軸)	Worm Shaft (Input Shaft)	37	O 型環	O Ring
15	雙圓鍵	Key	38	非石棉墊片	Asbestos Free Gasket
16	非石棉墊片	Asbestos Free Gasket	39	出力軸蓋	Output Shaft Cover
17	滾珠軸承	Taper Roller Bearing	40	六角承窩頭螺絲	Hex Screw
18	滾珠軸承	Taper Roller Bearing	41	油栓	Oil Plug
19	非石棉墊片	Asbestos Free Gasket	42	注油栓	Oil Plug
20	入力軸蓋	Input Shaft Cover	17, 18	60# 以下滾珠軸承	Ball Bearing for 60# below
21	六角承窩頭螺絲	Hex Screw	8, 38	100# (含) 以上不使用非石棉墊片	Model 100# and above are without Asbestos Free Gasket
22	蝸輪箱	Outer Shell	36	80# 以下不用滾珠軸承	Model 80# below are without Ball Bearing
23	六角承窩頭螺絲	Hex Screw			

## 2-STAGE WORM REDUCER (WORM+WORM) SERIES

### 雙段蝸輪減速機 (蝸輪 + 蝸輪) 系列

#### 蝸輪 + 蝸輪系列 Worm + Worm Series

◆特點 Features :

1. 減速比多變化  
Various reduction ratios.
2. 適合低速高扭力矩之轉動  
Suitable for low-speed and high-torque transmission.
3. 可選擇組合角度  
Various assembling angles for choice.

◆型號 Model :

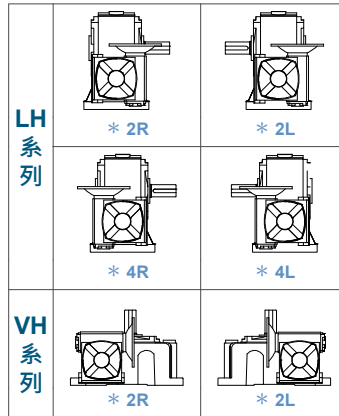
60#~175#

◆馬力 HP :

1/16HP~5HP

◆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



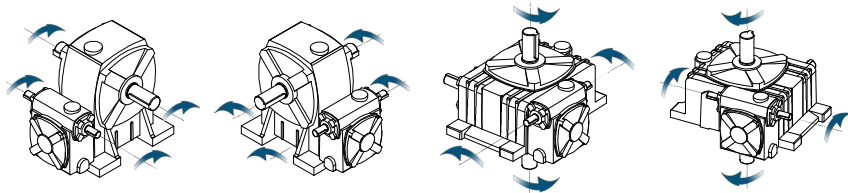
特殊組合角度選擇  
Special Assembling Angles for choice

\*記號者為特殊品 \* means special product  
\*適用機型 100#~175# \* Model: 100#~175#

#### 油量表 Oil Capacities (unit: ℓ)

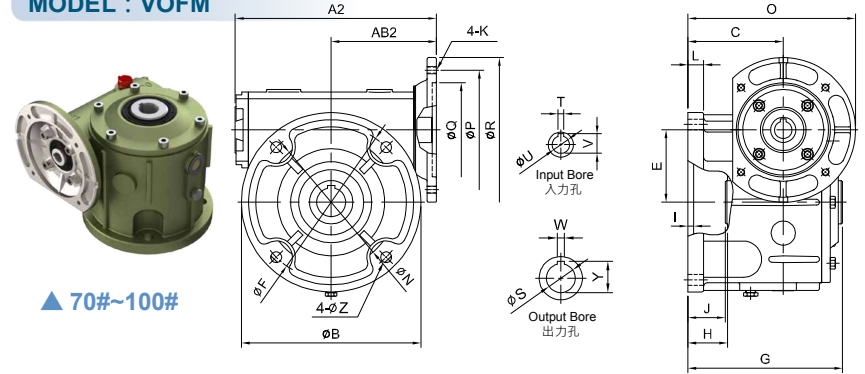
Type Model	LH	LHM	LOH	LOHM	VH UH	VHM UHM	VOH	VOHM	EH	EHM	EOH	EOHM
60	0.5	-	0.5	-	0.6	-	0.6	-	0.5	-	0.5	-
70	0.8	-	0.8	-	1	-	1	-	0.8	-	0.8	-
80	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1	1	1	1
100	1.8	1.8	1.8	1.8	2.9	2.9	2.9	2.9	1.8	1.8	1.8	1.8
120	2.8	2.8	2.8	2.8	4.6	4.6	4.6	4.6	2.8	2.8	2.8	2.8
135	4.6	4.6	4.6	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	-	-	-	-

出力段減速機中心距離 (mm) Central distance of output of reducer.	C1	60	70	80	100	120	135	155	175
入力段減速機中心距離 (mm) Central distance of input of reducer.	C2	32	40	50	60	70	80	100	120



旋轉方向  
Rotation Directions

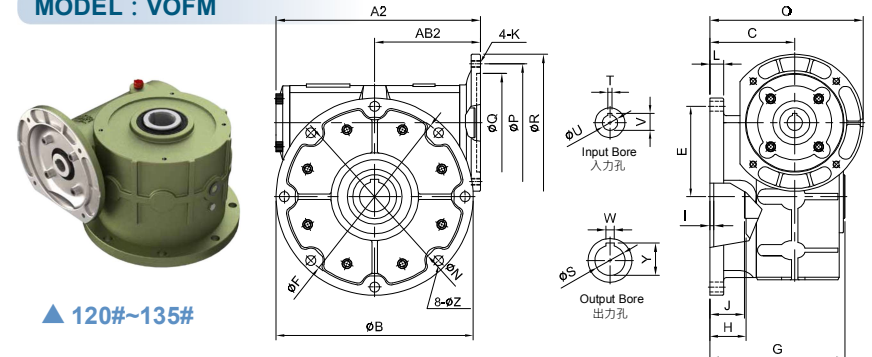
#### MODEL : VOFM



▲ 70#~100#

型號 Model	Ratio \ HP		A2	AB2	B	C	N	E	F	G	H	I	J	L	O	Z	馬達盤 IEC Motor Flange				入力孔 Input Bore			出力孔 Output Bore			重量 Weight (kg)
	1/10 ~ 1/30	1/40 ~ 1/60															P	Q	R	K	V	T	U	W	Y	S	
70	1	1/2	200 206	105 111	182	106	115	70	150	170	45	9	42	17	186 206	15	130 165	110 130	160 200	M8 M10	16.3 21.8	5 6	14 19	7 10	28.3 38.3	25 35	15.4 21
100	3	2	279 284	146 150	248	132	180	100	215	214	55	14	52	22	232 257	15	165 215	130 180	200 248	M10 M12	27.3 31.3	8 8	24 28	10	43.3	40	38

#### MODEL : VOFM



▲ 120#~135#

型號 Model	Ratio \ HP		A2	AB2	B	C	N	E	F	G	H	I	J	L	O	Z	馬達盤 IEC Motor Flange				入力孔 Input Bore			出力孔 Output Bore			重量 Weight (kg)
	1/10 ~ 1/30	1/40 ~ 1/60															P	Q	R	K	V	T	U	W	Y	S	
120	5	3	334	173	330	145	260	120	300	234	61	6	56	24	270	18	215 265	180 230	248 300	M12 M12	31.3 41.3	8 10	28 38	12 15	53.3 59.3	50 55	56.4 85
135	7 1/2	5	374 375	193 194	360	155	290	135	330	247	66	7	63	25	280 305	18	215 265	180 230	248 300	M12 M12	31.3 41.3	8 10	28 38	15	59.3	55	85

# WORM REDUCER SERIES

## 蝸輪減速機系列

### ■ 安裝方向 Installation Direction (EOV、EOVM、VOF、VOFM)



Oil Indicator



Oil Plug



Oil Drain Plug

◆ 正常的使用方向可以使減速機保持較高的壽命。

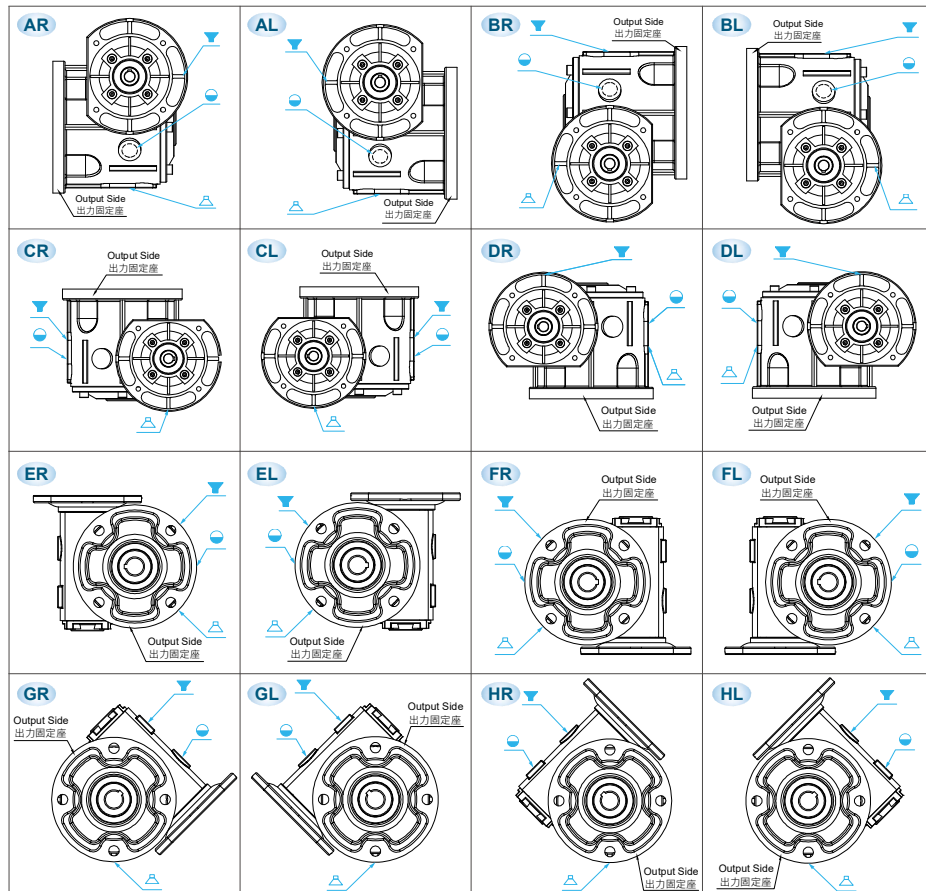
The life time of gear reducer can be prolonged in proper direction.

◆ 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.

◆ 減速機使用方向特殊時，請與我們聯繫。

For special installation direction, please contact us.



# MEMO

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---