GEAR REDUCERS

齒輪減速機

Gear Reducer Series

Indication of Model Numbers
機種型號表示

H	205	–	20	–	1	A	–	OH
機型 Type	型號 Model		減速比 Ratio		馬力 Horse Power	馬達極數 Motor Poles		安裝方向 Installation Direction
H HD HB V VD VB LSH LSHD LSHB LSV LSVD LSVB	[Note 1]		雙段 2-Stage 1/3~1/30 三段 3-Stage 1/31~1/200 連結 Multi-Stage 1/200~1/6000		1/4HP ~ 75HP	A: 4 極 Poles B: 6 極 Poles C: 2 極 Poles D: 8 極 Poles 可搭配： 無段變速 Variator 皮帶變速 Belt-Variator		OH OD OU OL OR OS [Note 2]

Note:

1. 請參閱「齒輪減速機馬力型號速比一覽表」。 See "Selection Table of HP, Model & Ratio".
2. 請參閱「安裝方向」。 See "Installation Direction".

■ 齒輪減速機馬力型號速比一覽表
Selection Table of HP, Model & Ratio

功率 Power HP (4P) (kW)	型號 Model	減速比 Ratio
1/4 (0.2)	201	5 10 15 20 25 30
	203	35 40
	304	50 60 70 90 100 120 ※150
	306	150 180 200
1/2 (0.4)	202	5 10
	203	10 15 20 25 30
	205	35 40 45 50
	※304	40 50
	306	60 70 80 90 100 120
	308	130 140 150 180 200
1 (0.75)	205	5 10 15 20 25 30
	207	35 40
	308	40 50 60 70 80 90 100 120
	310、310S	130 150 160 180 200
	312、312S	140 150 200
2 (1.5)	206	5 10
	207	15 20 25 30
	209	35 40
	※308	35 40
	310、310S	40 50 60 70 80 90 100 120
	312	140 150 180 190 200
	312S	40 50 60 70 80 90 100 120
3 (2.2)	208	5 10
	209、209S	15 20 25 30
	211	35 40
	※310	40 50 60
	312	50 60 70 80 90 100 120
	314	130 140 150 160 170 180 190 200
5 (3.7)	210、210S	5 10
	211、211S	15 20 25 30
	312	40 50 ※60
	314、314S	60 70 80 90 100 120
	315	150 180 200

功率 Power HP (4P) (kW)	型號 Model	減速比 Ratio
7 1/2 (5.5)	212	5 10
	213、213S	15 20 25 30
	314、314S	35 40 50
	315	60 70 80 90 100 120
	317	150 160 180 190 200
10 (7.5)	212	5 10
	214、214S	15 20 25 30
	315	35 40 50
	316	60 70 80 90 100 120
	318	150 180 190 200
15 (11)	213、213S	5 10
	215	15 20 25 30
	316	35 40 50
	317	60 80 90 100 120
20 (15)	215	5 10
	216	15 20 25 30
	317	40 50
	318	60 70 80 90 100 120
	319	150 175 200
25 (18)	216	5 10
	217	15 20 25 30
	318	40 50 60
	319	100 110
30 (22)	217	5 10 15 20 25 30
	318	40 50
	319	60 70 120
40 (29)	217	5 10
	218	10 15 20 25 30
	319	40 50 60
50 (37)	218	5 10
	219	15 20 25 30
60 (44)	※218	5 10
	219	15 20 30
75 (55)	219	5 10
	220	15 20 30

◆ 表中 ※ 表示輕負荷使用。
※ means used for light loading.

◆ 亦可訂製其他不定減速比。
Other ratios are available upon request.

◆ 以下減速比屬於標準品，其餘皆屬於特殊品。
The following gear ratio are standard, others are special specification.
5,10,15,20,25,30,40,50,60,70,80,90,100,120,150,200

■ 齒輪減速機實際減速比對照表 Actual Ratio Table

型號 Model	馬力 HP (4P)	減速比 Ratio	實際減速比 Actual Ratio
201	1/4	5	5.00
		10	10.09
		15	14.89
		20	20.57
		25	24.92
		30	30.39
202	1/2	5	5.00
		10	10.09
203	1/4	35	34.86
		40	39.35
	1/2	15	15.25
		20	20.08
		25	24.62
		30	30.02
205	1	5	4.99
		10	9.95
		15	14.90
		20	20.06
		25	24.16
		30	29.89
	1/2	35	35.20
		40	39.70
		45	45.10
		50	50.87
206	2	5	4.99
		10	9.95
207	1	35	35.85
		40	39.85
	2	15	15.00
		20	20.21
		25	25.39
		30	29.16
208	3	5	5.02
		10	10.09
209	2	35	34.80
		40	40.48

型號 Model	馬力 HP (4P)	減速比 Ratio	實際減速比 Actual Ratio
209	3	15	15.07
		20	20.00
		25	24.00
		30	29.97
209S	2	35	35.37
		40	38.50
	3	15	15.13
		20	19.51
		25	24.55
		30	29.25
210	5	5	4.98
		10	10.00
210S	5	5	5.02
		10	9.87
211	3	35	35.00
		40	39.67
	5	15	15.00
		20	19.45
		25	25.05
		30	29.70
211S	5	15	15.00
		20	19.80
		25	24.00
		30	30.30
212	71/2	5	5.05
		10	10.09
	10	5	5.05
		10	10.09
213 213S	71/2	15	14.88
		20	20.67
		25	25.28
		30	29.40
	15	5	5.00
		10	10.05
214 214S	10	15	14.89
		20	20.67
		25	25.28
		30	29.40

型號 Model	馬力 HP (4P)	減速比 Ratio	實際減速比 Actual Ratio
215	15	15	15.20
		20	19.95
		25	25.24
		30	30.07
	20	5	5.09
		10	9.69
216	20	15	15.20
		20	19.95
		25	25.24
		30	30.07
	25	5	5.09
		10	9.69
217	30	5	5.03
		10	10.07
		15	15.05
		20	19.77
		25	24.75
		30	28.11
	40	5	5.03
		10	10.07
218	40	15	15.06
		20	20.00
		25	25.45
		30	29.91
	50	5	5.18
		10	10.01
219	50	10	10.04
		15	14.84
		20	20.22
		25	25.06
		30	28.74
	60	15	14.84
		20	20.22
		30	28.74
	75	5	5.03
		10	10.04
220	75	15	15.00
		20	19.90
		30	29.19

■ 齒輪減速機實際減速比對照表 Actual Ratio Table

型號 Model	馬力 HP (4P)	減速比 Ratio	實際減速比 Actual Ratio
304	1/4	50	49.47
		60	59.60
		70	71.18
		90	92.89
		100	100.03
		120	120.59
		150	147.85
	1/2	40	38.03
		50	49.47
306	1/4	150	149.11
		180	181.69
		200	197.85
	1/2	40	42.84
		50	50.59
		60	59.28
		70	69.47
		80	79.43
		90	90.05
		100	100.10
		120	119.94
308	1/2	100	101.56
		120	121.62
		150	146.70
		200	199.51
	1	40	40.18
		50	50.46
		60	59.06
		70	68.63
		80	81.04
		90	90.14
		100	100.75
		120	120.90
	2	35	36.55
		40	40.18
310	1	50	50.32
		80	80.29
		100	100.42
		120	120.82
		140	136.07
		150	148.82
		160	161.23
		170	175.88
		180	178.59
		200	194.82

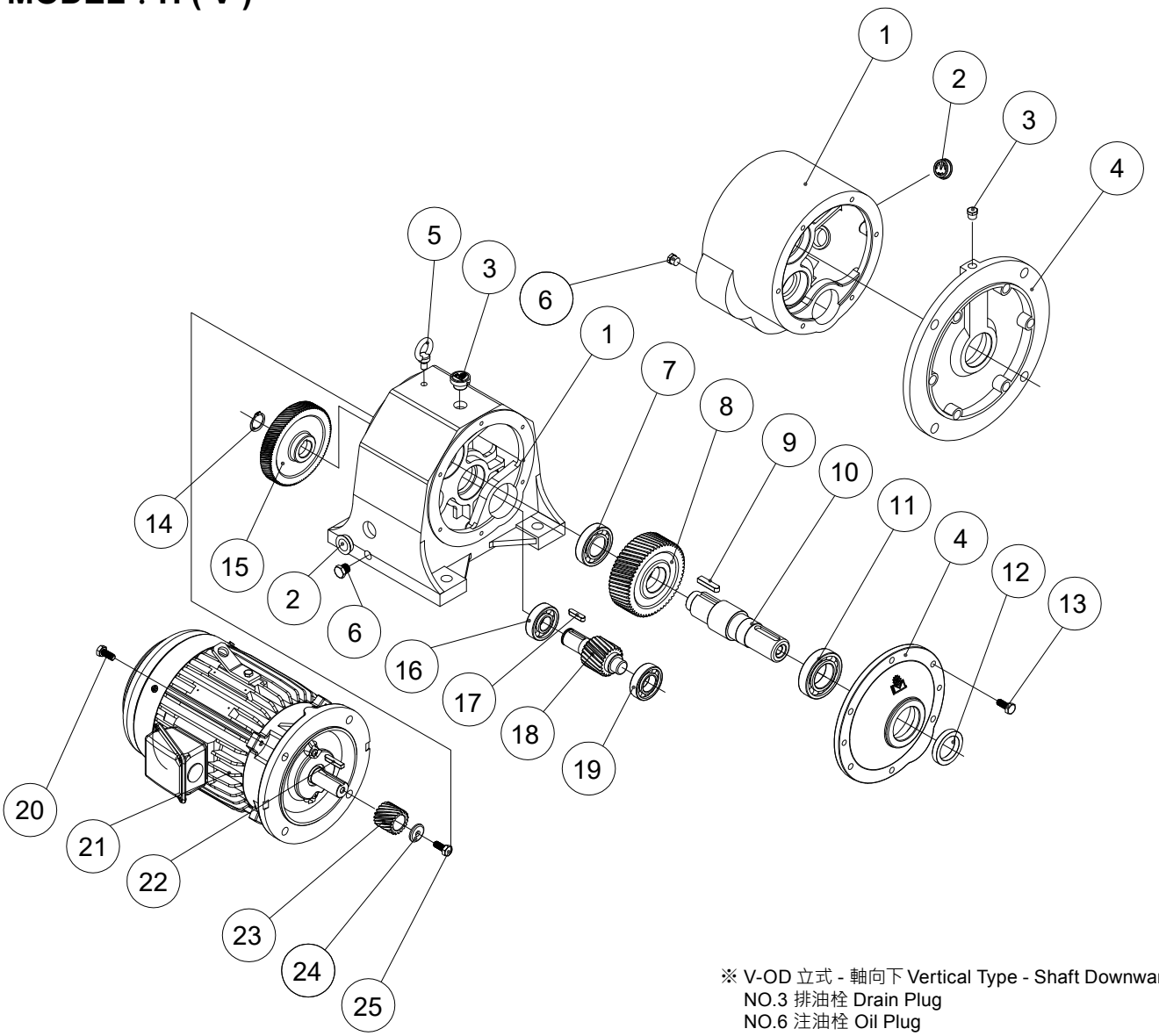
型號 Model	馬力 HP (4P)	減速比 Ratio	實際減速比 Actual Ratio
310	2	40	41.18
		50	50.15
		60	58.95
		70	70.68
		80	80.29
		90	92.70
		100	100.42
		120	120.82
	3	40	41.18
		50	49.38
310S	1	130	131.21
		150	147.67
		180	183.25
	2	40	41.81
		50	50.25
		60	60.4
		70	69.12
		80	81.96
		90	90.25
		100	98.32
		120	121.91
312	2	60	60.20
		100	100.50
		120	120.92
		140	145.35
		150	153.42
		165	163.22
		170	166.57
		180	179.54
		190	189.52
		200	200.22
	3	60	58.86
		70	71.25
		80	80.75
		90	91.10
		100	99.83
		120	120.92
	5	40	39.90
		50	49.70
312S	1	140	140.4
		150	150.68
		200	197.77

型號 Model	馬力 HP (4P)	減速比 Ratio	實際減速比 Actual Ratio
312S	2	35	36.88
		40	39.16
		50	50.19
		60	60.95
		70	70.3
		80	84.58
		90	89.87
		100	99.53
		120	123.6
314 314S	3	140	141.97
		150	149.86
		170	167.62
		180	184.42
		200	204.29
	5	60	62.45
		70	72.55
		80	81.99
		90	90.43
		100	100.53
		120	122.96
	71/2	35	33.60
		40	44.19
		50	52.19
315	5	150	150.43
		165	166.15
		180	180.04
		200	201.14
	71/2	40	40.56
		50	51.78
		60	60.89
		70	68.63
		80	79.13
		90	88.40
		100	100.58
		120	118.76
	10	35	35.16
		40	40.56
		50	51.78
316	10	60	60.89
		70	68.63
		80	79.13
		100	100.58
		120	118.76
	15	35	35.16
		40	40.56
		50	50.05

型號 Model	馬力 HP (4P)	減速比 Ratio	實際減速比 Actual Ratio
317	71/2	125	125.00
		150	151.10
		160	158.65
		170	173.60
		190	190.38
		200	200.40
	15	40	43.82
		50	49.50
		60	60.06
		80	79.80
		90	90.48
		100	100.00
		120	119.05
	20	40	43.82
		50	49.50
318	10	150	148.83
		165	165.07
		180	179.30
		190	189.42
		195	195.35
	20	40	40.62
		60	60.13
		70	69.63
		80	83.33
		90	92.93
		100	98.83
		120	120.33
	25、30	40	40.62
		50	48.62
		60	60.13
319	20	150	152.33
		175	175.64
		200	201.19
	25、30	60	61.01
		70	69.56
		100	98.09
	40	40	40.20
		50	48.91
		60	61.01

雙段式分解系統圖 2-Stage System Drawing

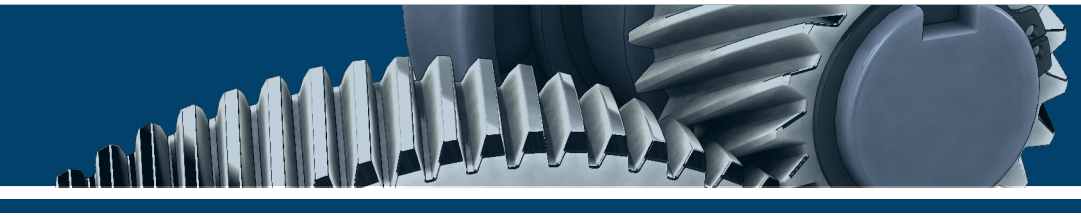
MODEL：H (V)



※ V-OD 立式 - 軸向下 Vertical Type - Shaft Downward
NO.3 排油栓 Drain Plug
NO.6 注油栓 Oil Plug

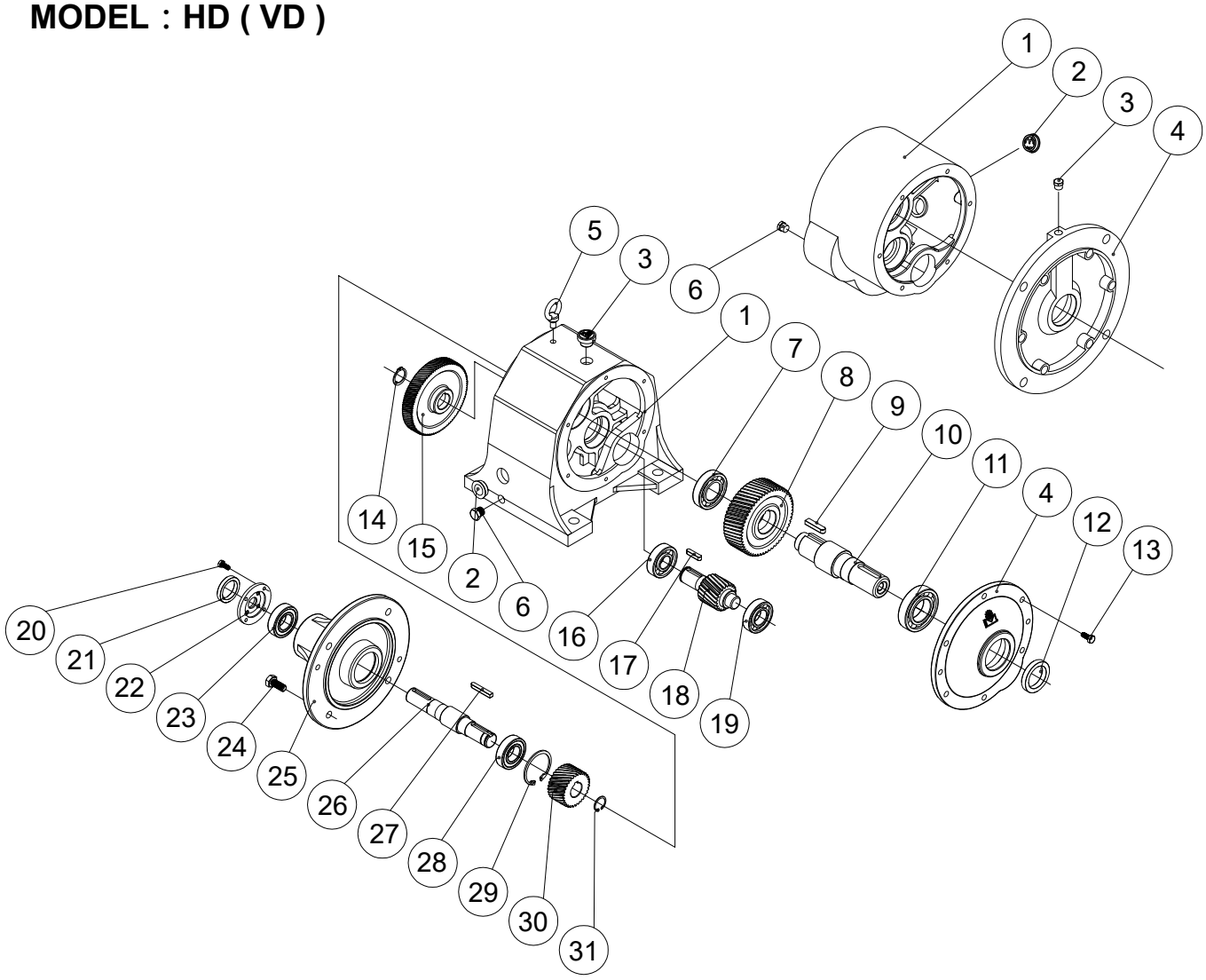
NO.	零件名稱	Name of Parts
1	本體	Outer Shell
2	油鏡	Oil Gauge
※3	注油栓	Oil Plug
4	前蓋	Front Cover
5	吊環	Hoisting Ring
※6	排油栓	Drain Plug
7	軸承	Bearing
8	D 齒輪	D Gear
9	鍵	Key
10	出力軸	Output Shaft
11	軸承	Bearing
12	油封	Oil Seal
13	立式：內六角螺絲 臥式：外六角螺絲	Vertical: Hex Socket Cap Screw Horizontal: Hex Head Cap Screw

NO.	零件名稱	Name of Parts
14	扣環	Snap Ring
15	B 齒輪	B Gear
16	軸承	Bearing
17	鍵	Key
18	C 齒輪軸	C Gear Shaft
19	軸承	Bearing
20	六角螺絲	Hexagon Head Bolt
21	馬達	Motor
22	鍵	Key
23	A 齒輪	A Gear
24	華司 (或扣環)	Washer (or Snap Ring)
25	六角螺絲	Hexagon Head Bolt



雙段式分解系統圖 2-Stage System Drawing

MODEL：HD (VD)



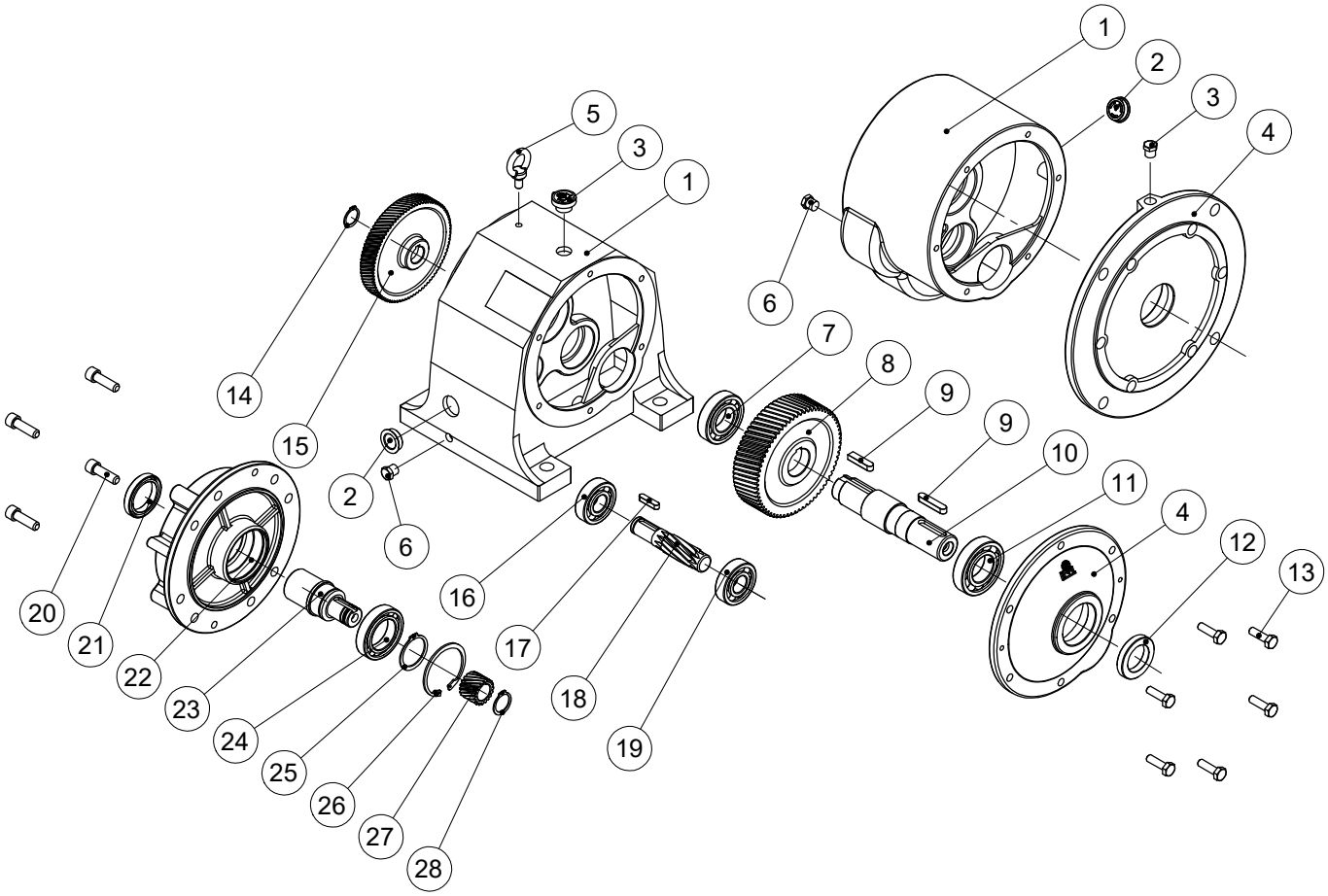
※ VD-OD 立式 - 軸向下 Vertical Type - Shaft Downward
NO.3 排油栓 Drain Plug
NO.6 注油栓 Oil Plug

NO.	零件名稱	Name of Parts
1	本體	Outer Shell
2	油鏡	Oil Gauge
※3	注油栓	Oil Plug
4	前蓋	Front Cover
5	吊環	Hoisting Ring
※6	排油栓	Drain Plug
7	軸承	Bearing
8	D 齒輪	D Gear
9	鍵	Key
10	出力軸	Output Shaft
11	軸承	Bearing
12	油封	Oil Seal
13	立式：內六角螺絲 臥式：外六角螺絲	Vertical: Hex Socket Cap Screw Horizontal: Hex Head Cap Screw
14	扣環	Snap Ring
15	B 齒輪	B Gear

NO.	零件名稱	Name of Parts
16	軸承	Bearing
17	鍵	Key
18	C 齒輪軸	C Gear Shaft
19	軸承	Bearing
20	六角螺絲	Hexagon Head Bolt
21	油封	Oil Seal
22	小蓋 (71/2HP 以上使用)	Small Cover of 71/2 HP above
23	軸承	Bearing
24	六角螺絲	Hexagon Head Bolt
25	入力軸大蓋	Big Cover
26	入力軸	Input Shaft
27	鍵	Key
28	軸承	Bearing
29	扣環	Snap Ring
30	A 齒輪	A Gear
31	扣環	Snap Ring

雙段式分解系統圖 2-Stage System Drawing

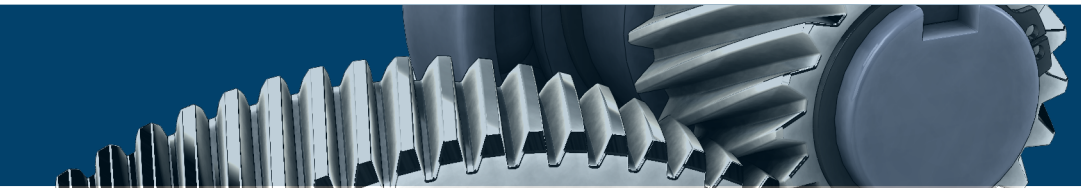
MODEL：HB (VB)



※ V-OD 立式 - 軸向下 Vertical Type - Shaft Downward
NO.3 排油栓 Drain Plug
NO.6 注油栓 Oil Plug

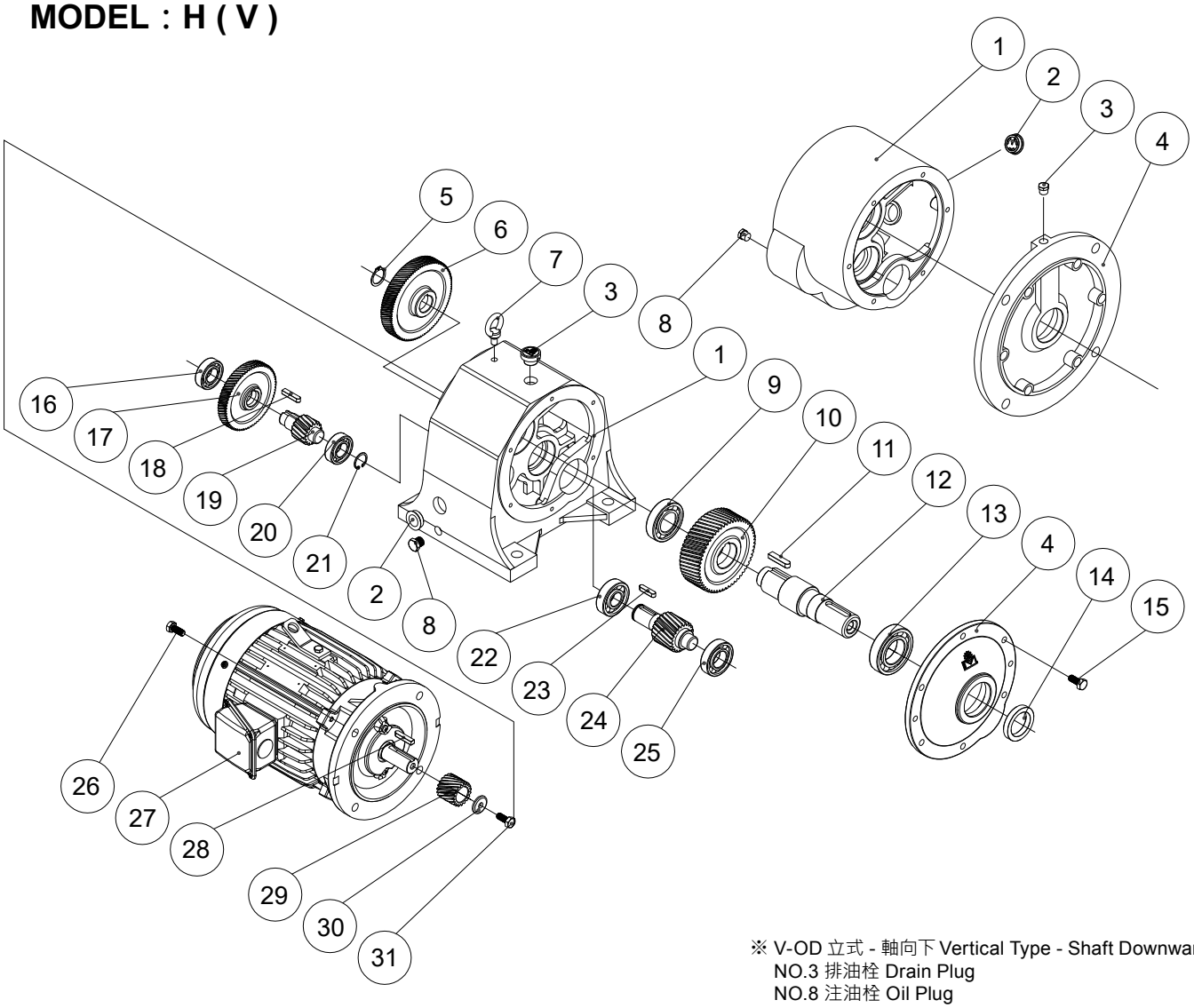
NO.	零件名稱	Name of Parts
1	本體	Outer Shell
2	油鏡	Oil Gauge
※3	注油栓	Oil Plug
4	前蓋	Front Cover
5	吊環	Hoisting Ring
※6	排油栓	Drain Plug
7	軸承	Bearing
8	D 齒輪	D Gear
9	鍵	Key
10	出力軸	Output Shaft
11	軸承	Bearing
12	油封	Oil Seal
13	立式：內六角螺絲 臥式：外六角螺絲	Vertical: Hex Socket Cap Screw Horizontal: Hex Head Cap Screw

NO.	零件名稱	Name of Parts
14	扣環	Snap Ring
15	B 齒輪	B Gear
16	軸承	Bearing
17	鍵	Key
18	C 齒輪軸	C Gear Shaft
19	軸承	Bearing
20	六角螺絲	Hexagon Head Bolt
21	油封	Oil Seal
22	馬達盤	Motor Flange
23	輔助軸心	Auxiliary shaft
24	軸承	Bearing
25	扣環	Snap Ring
26	R 扣環	R Snap Ring
27	A 齒輪	A Gear
28	扣環	Snap Ring



三段式分解系統圖 3-Stage System Drawing

MODEL：H (V)



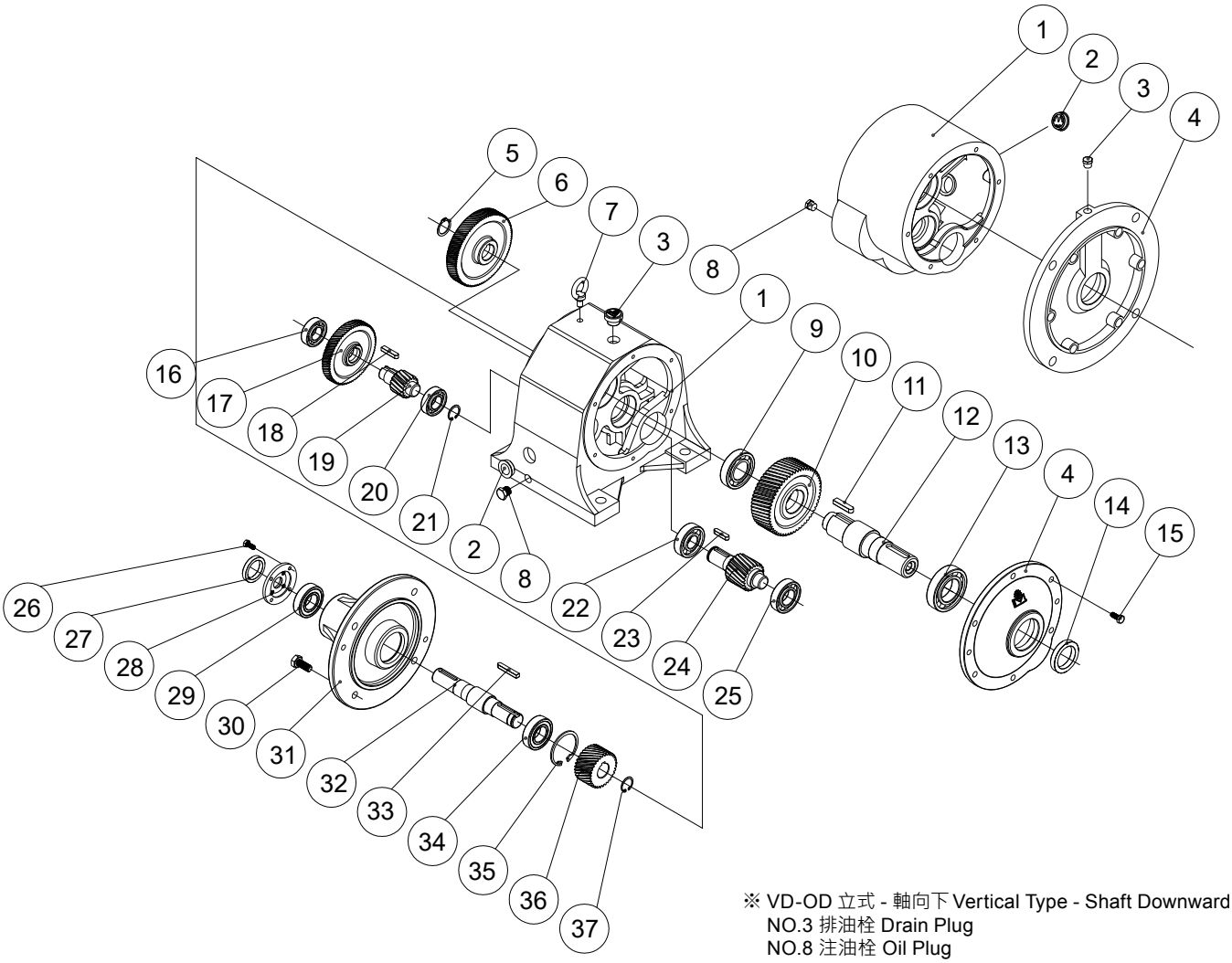
※ V-OD 立式 - 軸向下 Vertical Type - Shaft Downward
NO.3 排油栓 Drain Plug
NO.8 注油栓 Oil Plug

NO.	零件名稱	Name of Parts
1	本體	Outer Shell
2	油鏡	Oil Gauge
※3	注油栓	Oil Plug
4	前蓋	Front Cover
5	扣環	Snap Ring
6	B'(F) 齒輪	B'(F) Gear
7	吊環	Hoisting Ring
※8	排油栓	Drain Plug
9	軸承	Bearing
10	D 齒輪	D Gear
11	鍵	Key
12	出力軸	Output Shaft
13	軸承	Bearing
14	油封	Oil Seal
15	立式 : 內六角螺絲 臥式 : 外六角螺絲	Vertical: Hex Socket Cap Screw Horizontal: Hex Head Cap Screw

NO.	零件名稱	Name of Parts
16	軸承	Bearing
17	B 齒輪	B Gear
18	鍵	Key
19	A'(E) 齒輪軸	A'(E) Gear Shaft
20	軸承	Bearing
21	R 扣環	R Snap Ring
22	軸承	Bearing
23	鍵	Key
24	C 齒輪軸	C Gear Shaft
25	軸承	Bearing
26	六角螺絲	Hexagon Head Bolt
27	馬達	Motor
28	鍵	Key
29	A 齒輪	A Gear
30	華司 (或扣環)	Washer or Snap Ring
31	六角螺絲	Hexagon Head Bolt

三段式分解系統圖 3-Stage System Drawing

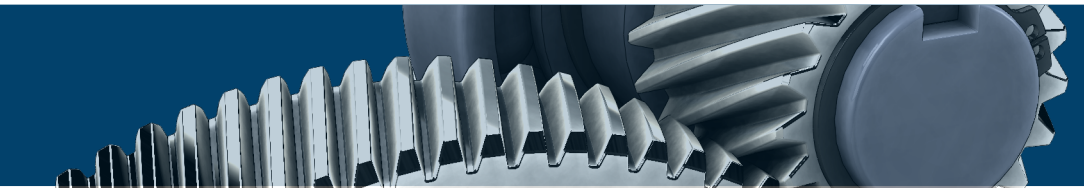
MODEL：HD (VD)



※ VD-OD 立式 - 軸向下 Vertical Type - Shaft Downward
NO.3 排油栓 Drain Plug
NO.8 注油栓 Oil Plug

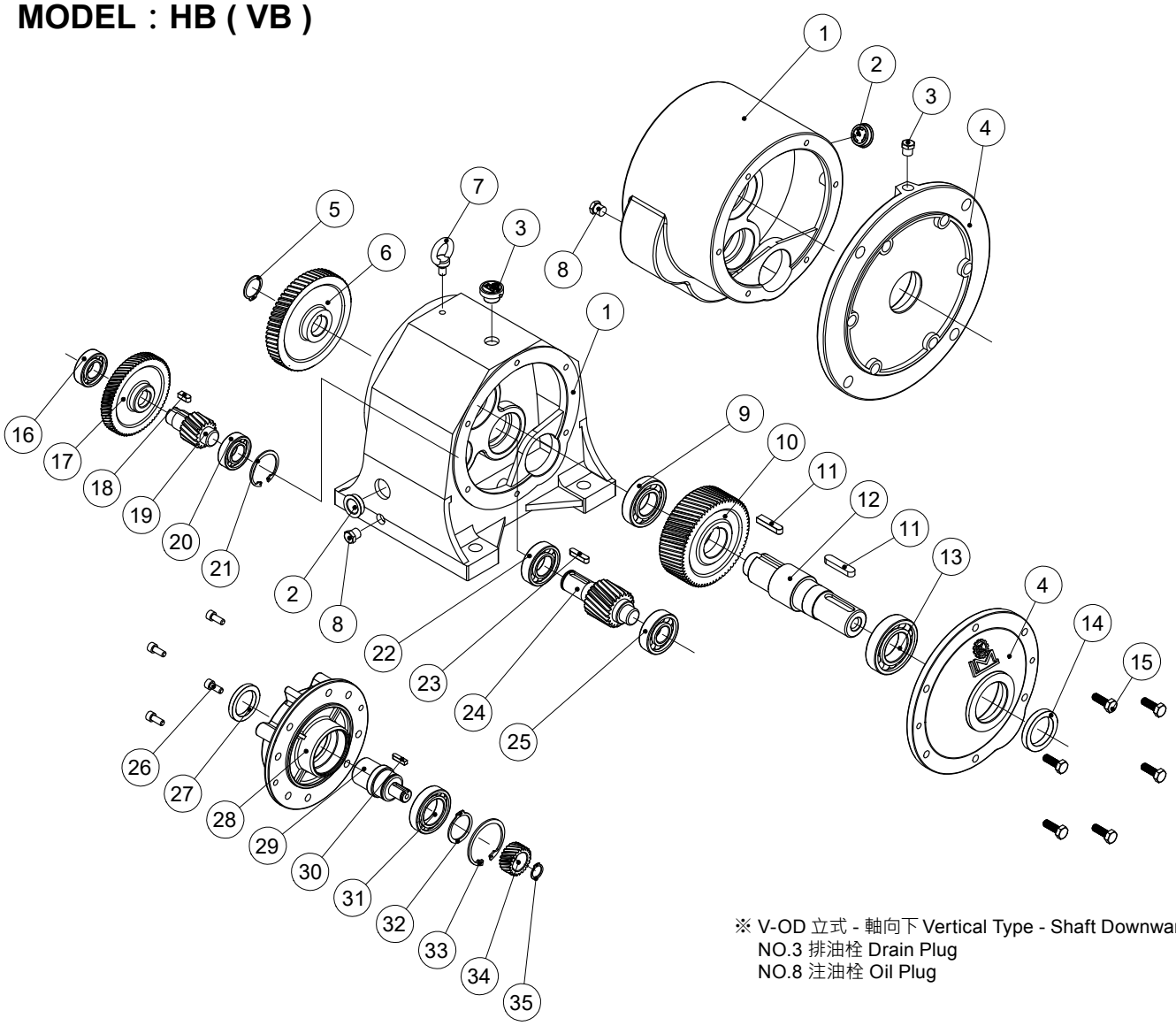
NO.	零件名稱	Name of Parts
1	本體	Outer Shell
2	油鏡	Oil Gauge
※3	注油栓	Oil Plug
4	前蓋	Front Cover
5	扣環	Snap Ring
6	B'(F) 齒輪	B'(F) Gear
7	吊環	Hoisting Ring
※8	排油栓	Drain Plug
9	軸承	Bearing
10	D 齒輪	D Gear
11	鍵	Key
12	出力軸	Output Shaft
13	軸承	Bearing
14	油封	Oil Seal
15	立式 : 內六角螺絲 臥式 : 外六角螺絲	Vertical: Hex Socket Cap Screw Horizontal: Hex Head Cap Screw
16	軸承	Bearing
17	B 齒輪	B Gear
18	鍵	Key

NO.	零件名稱	Name of Parts
19	A'(E) 齒輪軸	A'(E) Gear Shaft
20	軸承	Bearing
21	扣環	Snap Ring
22	軸承	Bearing
23	鍵	Key
24	C 齒輪軸	C Gear Shaft
25	軸承	Bearing
26	六角螺絲	Hexagon Head Bolt
27	油封	Oil Seal
28	小蓋 (71/2HP 以上使用)	Small Cover of 71/2 HP above
29	軸承	Bearing
30	六角螺絲	Hexagon Head Bolt
31	入力軸大蓋	Big Cover
32	入力軸	Input Shaft
33	鍵	Key
34	軸承	Bearing
35	扣環	Snap Ring
36	A 齒輪	A Gear
37	扣環	Snap Ring



三段式分解系統圖 3-Stage System Drawing

MODEL：HB (VB)



※ V-OD 立式 - 軸向下 Vertical Type - Shaft Downward
NO.3 排油栓 Drain Plug
NO.8 注油栓 Oil Plug

NO.	零件名稱	Name of Parts
1	本體	Outer Shell
2	油鏡	Oil Gauge
※3	注油栓	Oil Plug
4	前蓋	Front Cover
5	扣環	Snap Ring
6	B'(F) 齒輪	B'(F) Gear
7	吊環	Hoisting Ring
※8	排油栓	Drain Plug
9	軸承	Bearing
10	D 齒輪	D Gear
11	鍵	Key
12	出力軸	Output Shaft
13	軸承	Bearing
14	油封	Oil Seal
15	立式：內六角螺絲 臥式：外六角螺絲	Vertical: Hex Socket Cap Screw Horizontal: Hex Head Cap Screw
16	軸承	Bearing
17	B 齒輪	B Gear

NO.	零件名稱	Name of Parts
18	鍵	Key
19	A'(E) 齒輪軸	A'(E) Gear Shaft
20	軸承	Bearing
21	R 扣環	R Snap Ring
22	軸承	Bearing
23	鍵	Key
24	C 齒輪軸	C Gear Shaft
25	軸承	Bearing
26	六角螺絲	Hexagon Head Bolt
27	油封	Oil Seal
28	馬達盤	Motor Flange
29	輔助軸心	Auxiliary shaft
30	鍵	Key
31	軸承	Bearing
32	扣環	Snap Ring
33	R 扣環	R Snap Ring
34	A 齒輪	A Gear
35	扣環	Snap Ring

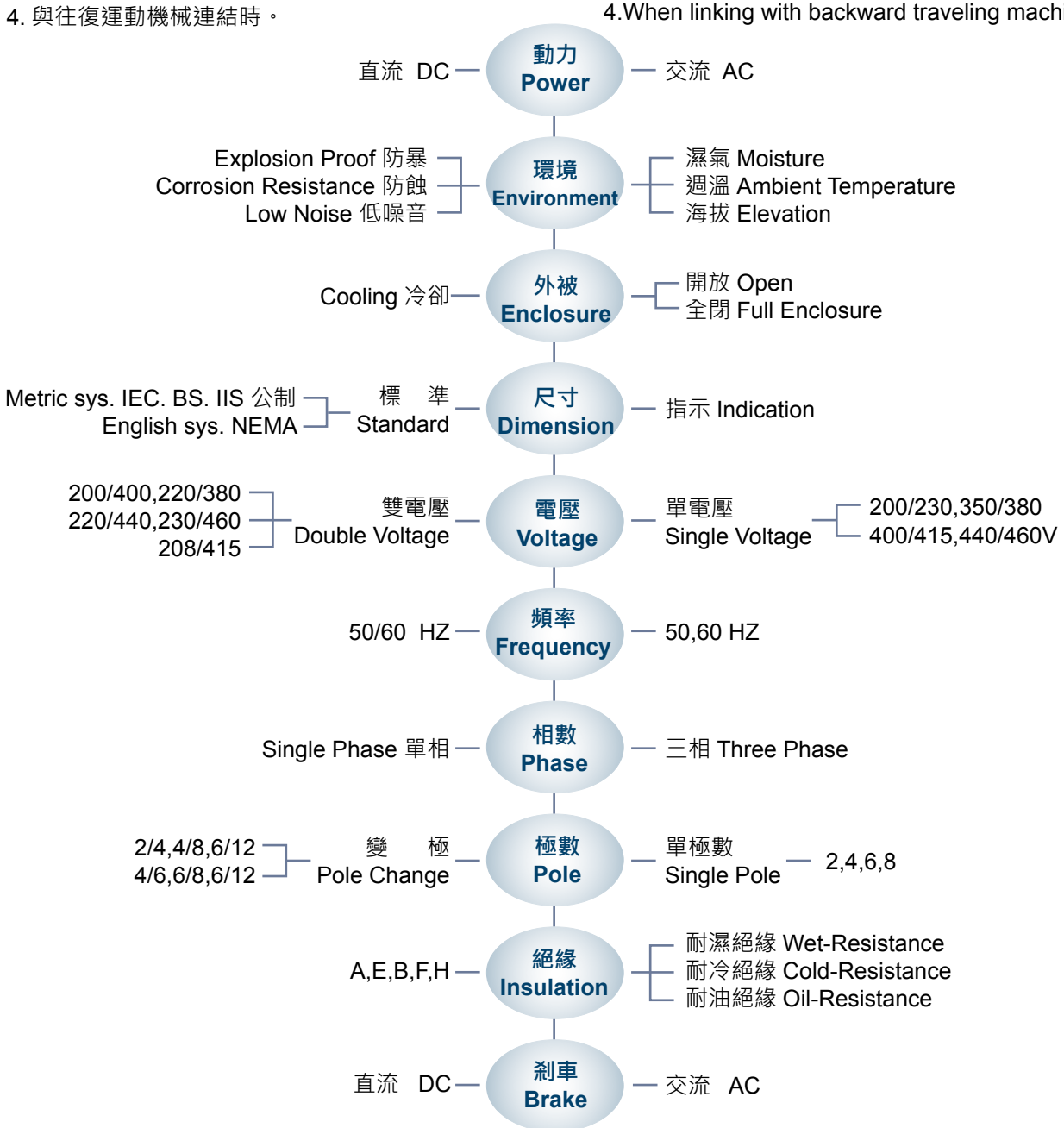
■ 馬達選擇 Selection of Motor

一般注意事項

◆電源：單相、三相、電壓週率、變壓器容量等。
◆負載機械：所需馬力數，負載轉矩特性。
◆特殊使用條件：
1. 急速逆轉或停止。
2. 啟動停止頻繁。
3. 需特別大之啟動轉矩。
4. 與往復運動機械連結時。

General Notices

◆ Electricity: Single phase, 3 phase, voltage frequency, capacity of transformer, etc.
◆ Loading machine: Required horsepower, load torque characteristics.
◆ Special Conditions of Use:
1.Rush reverse or stop.
2.Frequent start-up or stop.
3.Specially large Start-up torque required.
4.When linking with backward traveling machinery.



◆齒輪減速機之標準品使用低壓、三相感應馬達、IEC 尺寸、全封閉外扇鼠籠型轉子。
Standard gear reducers use low voltage, 3 phase induction motor, IEC dimension, full-enclosed outer fan cage rotor.
◆馬達尺寸請參考「IEC 標準馬達尺寸參考表」(第 W1 頁)。
Reference page W1 for IEC flange motor dimension.

■ 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。
- 使用前請拔掉加油蓋上的插梢。

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℃ ~40℃異常高溫或低溫時請註明。

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，確保鎖固緊密。
- 所有配備均應輕裝於軸上，勿使用鐵鎚，並避免裝配過緊而引起軸承損壞。
- 滑輪、鏈輪或齒輪在裝配時應盡量靠近軸承以減少彎曲應力。使用適當大小 (在出力軸徑的 6 倍以內) 與出力軸連接之鍊輪，皮帶輪等請配合 H7 公差使用，可避免發出異聲與軸面受損。
- VB、HB 型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。

馬達

- 電源電壓變動大於 10% 時，馬達會有燒燬之虞，並使出力軸扭力降低或異常。
- 馬達超負荷使用有燒燬之虞。
- 馬達結線錯誤會導致馬達燒燬。
- 濕氣過重的環境會使剎車馬達的剎車器產生鏽蝕失去剎車功能。
- 搭配變頻器使用時，如常使用於低頻，請使用變頻專用馬達。或變更比數改 HB(VB)，請電洽。

Check Before Operating

- Check if the type, model No., horsepower, shaft direction, reduction ratio, revolution direction and input/output shaft revolutions are inaccordance 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.
- Please pull the pin out of the plug lid before use.

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℃ to 40℃ . Abnormal high or low temperature shall be dedicated.

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 VB and HB input hole to ensure the hole against over-wearing and making abnormal noise.
- The application of anti-rust paint can keep the shaft from rusting.

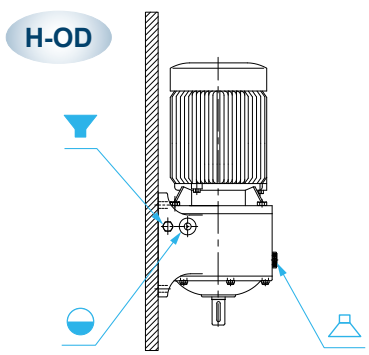
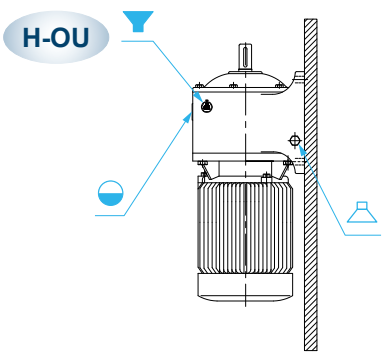
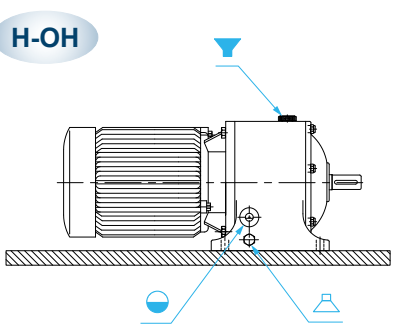
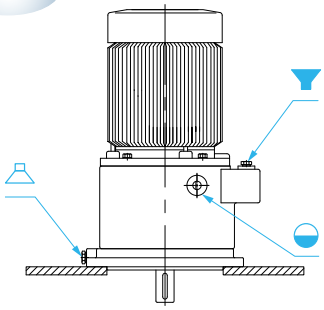
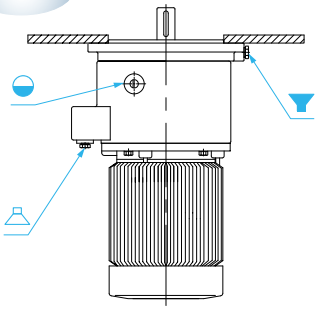
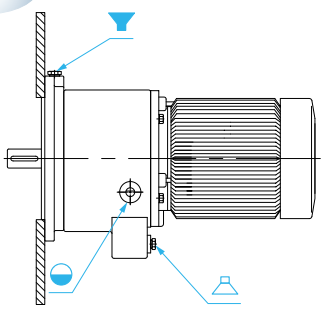
Motor

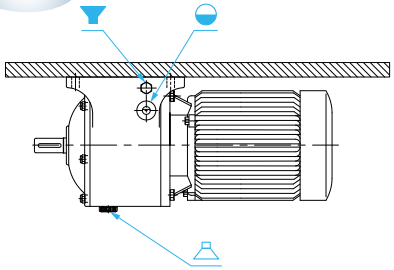
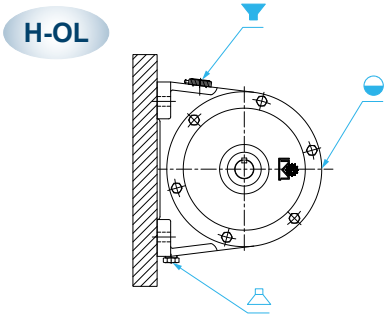
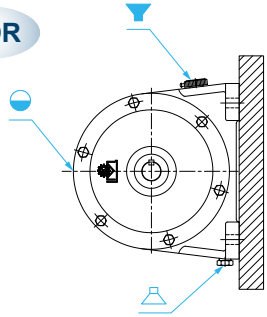
- The voltage variation over 10% could cause motor to burn out and reduce the torque of output shaft.
- Motor is subject to damage due to overload.
- Improper connection could cause motor to burn out.
- High-moisture environment could cause the brake of motor rusted and disabled.
- An appropriate motor shall be applied with the frequency converter while the low frequency is required in usual condition.

安裝方向 Installation Direction

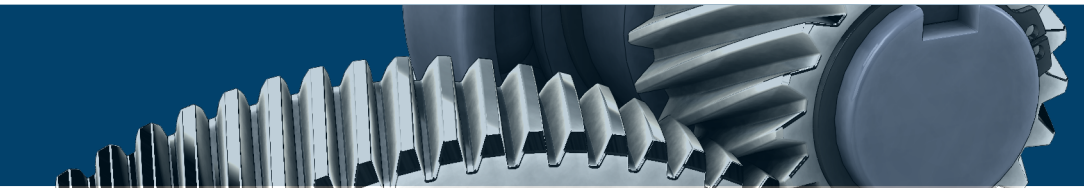
- 油面計
  Oil Indicator
- 注油栓
  Oil Plug
- 排油栓
  Oil Drain Plug

- 正常的使用方向可以使減速機保持較高的壽命。
  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.

Type	軸向下 Shaft Downward	軸向上 Shaft Upward	軸水平 Shaft Horizontal
臥式 Horizontal	H-OD 	H-OU 	H-OH 
立式 Vertical	V-OD 	V-OU 	V-OH 

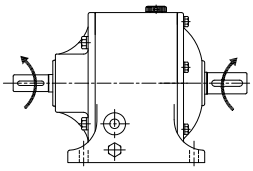
Type	倒吊安裝 Inverse Installation	左側壁 On Left Side Wall	右側壁 On Right Side Wall
臥式 Horizontal	H-OS 	H-OL 	H-OR 

- 正常的使用方向可使減速機保持較高的壽命，非不得已的情況下盡量不要採用 H-OU 的方式，因入力軸端的油封在高速運轉下，較出力軸端的油封容易損壞，而導致潤滑油由油封滲出，如須採用請註明，以特別處理。
  The life time of gear reducer can be prolong with proper operation. Unless otherwise specified, H-OU types of operation shall be avoid as much as possible, because the oil seal of input shaft could be damaged more easily than output shaft and thus result in leakage.
- 建議H-OD、H-OU、H-OS使用潤滑油脂，加潤滑油時因型號不同請另購加油彎管，否則產生油量過多會造成漏油之疑慮。
- 線盒標準是面向出力軸盒在左方，如有特殊時，請電洽。

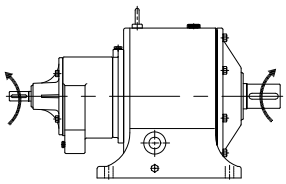


出力軸迴轉方向

雙段式齒輪減速機的迴轉方向與入力的方向相同，
三段式齒輪減速機的迴轉方向與入力的方向相反。
多速比以配齒設計後，確認段數為準。



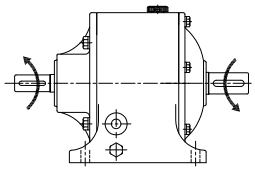
雙段式 (2-Stage) 1/3~1/30



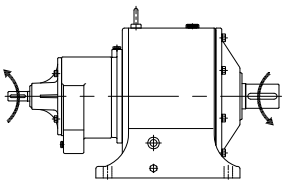
四段式 (4-Stage)
六段式 (6-Stage)

Revolving Direction of Output Shaft

2-stage gear reducer revolves in the same direction as the input shaft, while 3-stage gear reducer does in the opposite direction.



三段式 (3-Stage) 1/40~1/200



五段式 (5-Stage)

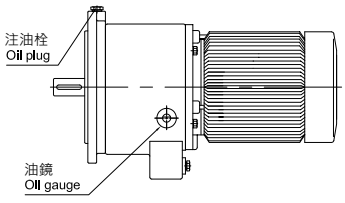
馬達配線盒位置

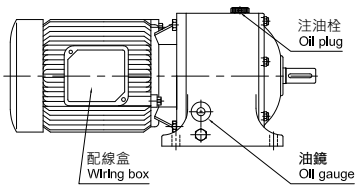
安裝方向注意潤滑油加油便利，油量計可看見且配線容易，正常情況下，附馬達之減速機其配線盒位置、油鏡及注油栓位置如下圖，如有不同時，請註明。

Position of Motor Wiring Box

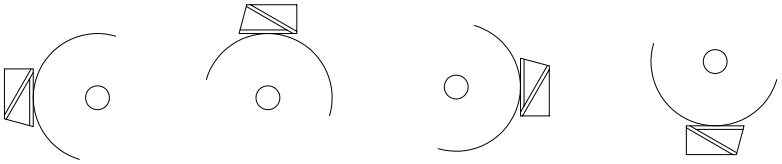
Be aware that the installation direction of wiring box shall facilitate the filling of lubricant, the visibility of oil level and wiring. In normal condition, the positions of motor wiring box, oil gauge and oil plug is as shown below, unless otherwise specified.

◆ 標準配線盒、油鏡及加油口位置
Standard positions of wiring box, oil gauge, and oil fillingentrance.





◆ 馬達配線盒之選擇 (以面向出力軸為準)
Selection of motor wiring box (based on output shaft)
◆ 訂購時，請註明。For any order, please specify your need clearly.



M1 左 (Left)
標準 Standard

M2 上 (Up)
側壁 Side

M3 右 (Right)

M4 下 (Down)

■ 潤滑油之選定 Selection of Lubricant Oil

適當潤滑油的黏度，須使齒輪磨擦容易，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 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℃	100℃					
普通荷重 Common Load	HD-150	143.6	14.38	-18℃	264℃	OMALA OIL 150	MOBIL GEAR 629	ISO VG EP 150
	HD-320	310.5	23.7	-18℃	290℃	OMALA OIL 320	MOBIL GEAR 632	ISO VG EP 320
	HD-460	440.4	29.8	-18℃	310℃	OMALA OIL 460	MOBIL GEAR 634	ISO VG EP 460
超 荷 重 Heavy Load	HD-320	310.5	23.7	-18℃	290℃	OMALA OIL 320	MOBIL GEAR 632	ISO VG EP 320
	HD-460	440.4	29.8	-18℃	310℃	OMALA OIL 460	MOBIL GEAR 634	ISO VG EP 460
	HD-680	656.2	38.68	-12℃	316℃	OMALA OIL 680	MOBIL GEAR 636	ISO VG EP 680

注意事項

- 本公司出廠減速機，使用 ISO VG 460 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噪音和齒輪快速磨損。
- 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)。
- 請檢視油鏡，如油品已經變黑混濁或異味，請更換油品。

Notice

- LI MING speed reducers use ISO VG 460 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.
- Could cause noise and fast abrasion of gears.
- Excessive lubricant could result in leakage.
- Please feed proper lubricant above half of the oil meter (see oil gauge).
- Refill the lubricant if it is deteriorated.

■ 油量表 Oil Capacities （unit: ℓ）

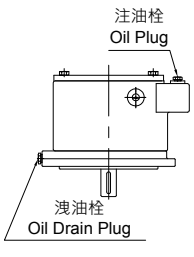
Type	V		VD		VB	
Dircetion / Model	OH	OD	OH	OD	OH	OD
201	0.3	0.5	0.3	0.5	0.3	0.5
202	0.3	0.5	0.3	0.5	0.3	0.5
203	0.5	1	0.5	1	0.5	1
205	1	2	1	2	1	2
206	1	2	1	2	1	2
207	1.5	3	1.5	3	1.5	3
208	1.5	3	1.5	3	1.5	3
209、209S	2	4	2	4	2	4
210、210S	2	4	2	4	2	4
211	3	8	3	8	3	8
211S	2	4	2	4	2	4
212	3	8	3	8	3	8
213、213S	5	12	5	12	5	12
214、214S	5	12	5	12	5	12
215	8	20	8	20	8	20
216	8	20	8	20	8	20
217	10	24	10	24	10	24
218	12	30	12	30	12	30
219	32	55	32	55	32	55
304	0.5	1	0.5	1	0.5	1
306	1	2	1	2	1	2
308	1.5	3	1.5	3	1.5	3
310、310S	2	4	2	4	2	4
312	3	8	3	8	3	8
312S	2	4	2	4	2	4
314、314S	5	12	5	12	5	12
315	8	20	8	20	8	20
316	8	20	8	20	8	20
317	10	24	10	24	10	24
318	12	30	12	30	12	30
319	32	55	32	55	32	55

Type	LSV				LSVD			
Dircetion	OH		OD		OH		OD	
Model	LSV1	LSV2	LSV1	LSV2	LSV1	LSV2	LSV1	LSV2
406	0.8	0.3	2	0.5	1	0.3	2	0.5
408	1.5	0.5	3	1	1.5	0.5	3	1
410、410S	2	1	4	2	2	1	4	2
412	3	1	8	2	3	1	8	2
412S	2	1	4	2	2	1	4	2
414、414S	5	2	12	4	5	2	12	4
416	8	2	20	4	8	2	20	4
417	10	3	24	8	10	3	24	8
418	12	3	30	8	12	3	30	8
508	1.5	0.5	3	1	1.5	0.5	3	1
510、510S	2	1	4	2	2	1	4	2
512	3	1	8	2	3	1	8	2
512S	2	1	4	2	2	1	4	2
514、514S	5	1	12	3	5	1	12	3
516	8	2	20	4	8	2	20	4
517	10	3	24	8	10	3	24	8
518	12	3	30	8	12	3	30	8
610、610S	2	1	4	1	2	1	4	1
612	3	1	8	2	3	1	8	2
612S	2	1	4	1	2	1	4	2
614、614S	5	1	12	3	5	1	12	3
616	8	2	20	4	8	2	20	4
617	10	3	24	8	10	3	24	8
618	12	3	30	8	12	3	30	8

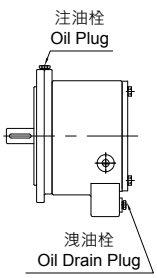
◆ 立式減速機依使用方向的不同而使用不同的油量，而油鏡及洩油孔位置亦不同，訂貨時請註明使用方向。
The capacity of lubricant oil and the positions of oil gauge and drain hole for the vertical speed reducers are based on use direction. Please indicate the intended use direction when ordering.

◆ 臥式減速機之油量請參閱尺寸表。
Please refer to the table below for the lubricant oil.

立式 Vertical

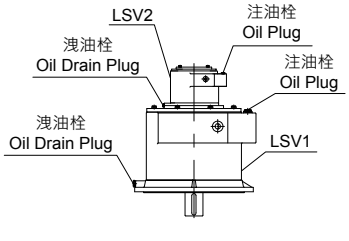


V-OD 立式 - 軸向下
Vertical Type - Shaft Downward

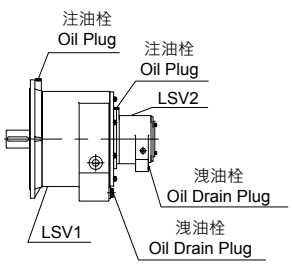


V-OH 立式 - 軸水平
Vertical Type - Shaft Horizontal

立式連結式 Multi-Stage

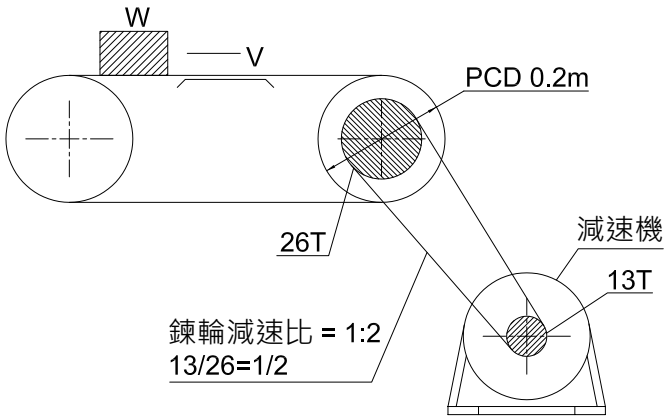


V-OD 立式 - 軸向下
Vertical Type - Shaft Downward



V-OH 立式 - 軸水平
Vertical Type - Shaft Horizontal

選型計算範例一 Example 1



- 搬運物總重量 Total Weight of Cargo:
  W=600kg
- 搬送速度 Carrying Speed:
  V=9.5m/min
- 與導軌之摩擦係數 Friction Coefficient to Guiding Rail:
  μ=0.15
- 鍊輪傳動效率 Chain Pulley Transmission Coefficient:
  η_1=0.95
- 減速機傳動效率 Gear Reducer Transmission Coefficient:
  η_2=0.9
- 運轉時間 Operation Time:
  8 小時 / 日　8 hours / day
- 啟動次數 Start Frequency:
  1 回 / 分，中衝擊　1 time/min., medium shock
- 使用電源 Power:
  三相 220V，60Hz　3 phase 220V, 60Hz

減速比 Ratio

選定之注意事項 Notices Calculation Example

藉由必要的入力軸回轉數及出力軸回轉數來選定減速比
1. 先求出輸送帶滾輪回轉數 (N1)
   N1= 搬送速度 / (滾輪直徑 x π)
2. 再求出減速機出力軸回轉數 (N2)
   N2 = N1x (鍊輪齒數 / 減速機齒數)
3. 以 3φ, 60Hz 之馬達計算減速比 (τ)
   τ = 出力軸回轉數 / 入力軸回轉數 (馬達轉速 N)

Reduction Ratio Notices Calculation Example The reduction ratio is based on input/output shaft revolutions.
1.Find the revolution of conveyer pulley (N1) first
  N1=carrying speed / (pulley D x π)
2.Find the output shaft revolution of gear reducer (N2)
  N2= N1x (chain pulley speed/gear number of reducer)
3.Calculate reduction ratio (τ) based on 3φ, 60Hz motor
  τ = output shaft revolution/input shaft revolution (motor RPM N)

計算範例 Load Condition Notices Calculation Example

1.N1 = V / (D x π)
= 9.5 / (0.2x3.14)
= 15 r/min (RPM)
2.N2 = N1 x (26 / 13)
= 15 x 2/1
= 30 r/min (RPM)
3. τ = N2 / N
= 30 / 1800 = 1/60
(馬達轉速，motor RPM , input RPM)

扭力 Torque

選定之注意事項 Notices Calculation Example

決定減速比後，由使用機械之條件換算其扭力
1. 先算出輸送帶滾輪之扭力 (T1) T1= (μ x 荷重 x 滾輪半徑) / η_1
2. 再換算成減速機出力軸所須扭力 (T2) T2 = (T1 x 鍊輪減速比) / η_2

After reduction ratio is decided, calcuate the torque by the pulley reducers radius condition of the machine used.
1.Find the torque of conveyer pulley (T1) T1 = (μ x load x pulley radius) / η_1
2.Find the torque needed from the output shaft of reducer (T2)
  T2 = (T1 x reduction ratio of chain pulley) / η_2

計算範例 Load Condition Notices Calculation Example

1.T1 = μ x W (D / 2) / η_1
= 0.15 x 600 x (0.2 / 2) / 0.95 = 9.5 kgf·m
2.T2 = (T1 x (1/2)) / η_2
= (9.5 x 1/2) / 0.9 = 5.28 kgf·m

負荷條件 Load conditions

選定之注意事項 Notices Calculation Example

原動機 Prime Mover	傳動機負荷等級 Driven machine Load Classification	每日使用時間 Duration of Service Per Day			
		0.50 hrs	2 hrs	8-10 hrs	10-24 hrs
電動機 Electric Motor	均一負荷 Uniform	0.80	0.90	1.00	1.25
	中衝擊 Medium Shock	0.90	1.00	1.25	1.50
	重衝擊 Heavy Shock	1.00	1.25	1.50	1.75

補正扭力 = 減速機出力軸扭力 x 系數
Corrective torque = reducer shaft torque x coefficient

計算範例 Load Condition Notices Calculation Example

T3 = T2 x K
= 5.28 x 1.25
= 6.6 kgf·m

馬力 Horse Power

選定之注意事項 Notices Calculation Example

最後換算成馬力 (HP) HP = (補正扭力 x 出力軸轉數) / 716.2

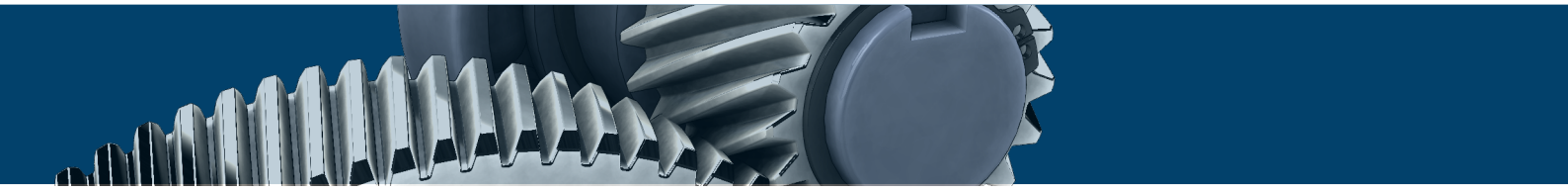
Find horse power (HP)
HP = (corrective torque x revolution of output shaft) / 716.2

計算範例 Load Condition Notices Calculation Example

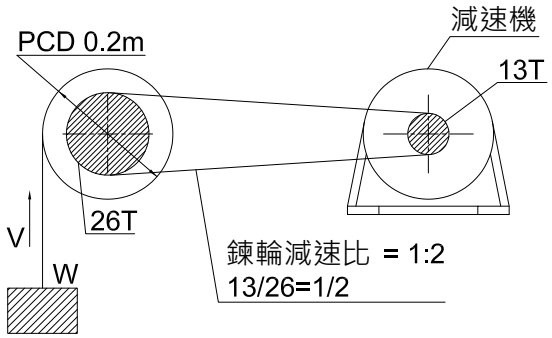
HP = (T3 x N2) / 716.2
= (6.6 x 30) / 716.2 = 0.27
1/2HP 馬達適用 (For 1/2 HP motor)

型號選定 Model Selected

根據本目錄之型號速比對照表 1/2HP、減速比 1/60，型號 306 適用。
According to the model-reduction ratio reference table, model 306, 1/2 HP, reduction ratio 1/60 are selected.



選型計算範例二 Example 2



- 搬運物總重量 Total Weight of Cargo:
  W=600kg
- 搬送速度 Carrying Speed:
  V=9.5m/min
- 鍊輪傳動效率 Chain Pulley Transmission Coefficient:
  η_1=0.95
- 減速機傳動效率 Gear Reducer Transmission Coefficient:
  η_2=0.9
- 運轉時間 Operation Time:
  8 小時 / 日　8 hours / day
- 啟動次數 Start Frequency:
  1 回 / 分，中衝擊　1 time/min., medium shock
- 使用電源 Power:
  三相 220V，60Hz　3 phase 220V, 60Hz

減速比 Ratio	選定之注意事項 Notices Calculation Example	計算範例 Load Condition Notices Calculation Example
	藉由必要的入力軸回轉數及出力軸回轉數來選定減速比 1. 先求出輸送帶滾輪回轉數 (N1) N1= 搬送速度 / (滾輪直徑 x π) 2. 再求出減速機出力軸回轉數 (N2) N2 = N1x 鍊輪齒數減速比 3. 以 3ϕ, 60Hz 之馬達計算減速比 (τ) τ = 出力軸回轉數 / 入力軸回轉數 (馬達轉速 N) Reduction Ratio Notices Calculation Example The reduction ratio is based on input/output shaft revolutions. 1.Find the revolution of conveyer pulley (N1) first N1=carrying speed / (pulley D x π) 2.Find the output shaft revolution of gear reducer (N2) N2= N1x (chain pulley speed/gear number of reducer) 3.Calculate reduction ratio (τ) based on 3ϕ, 60Hz motor τ = output shaft revolution/input shaft revolution (motor RPM N)	1.N1 = V / (D x π) = 9.5 / (0.2x3.14) = 15r/min (RPM) 2.N2 = N1 x i = 15 x (2/1) = 30 r/min 3. τ = 出力軸回轉數 / 入力軸回轉數 = 30 / 1800 = 1/60 (馬達轉速，motor RPM , input RPM)
扭力 Torque	選定之注意事項 Notices Calculation Example	計算範例 Load Condition Notices Calculation Example
	決定減速比後，由使用機械之條件換算其扭力 1. 先算出輸送帶滾輪之扭力 (T1) T1= (μ x 荷重 x 滾輪半徑) / η_1 2. 再換算成減速機出力軸所須扭力 (T2) T2 = (T1 x 鍊輪減速比) / η_2 Torque Notices Calculation Example After reduction ratio is decided, calcuate the torque by the pulley reducers radius condition of the machine used. 1.Find the torque of conveyer pulley (T1) T1 = (μ x load x pulley radius) / η_1 2.Find the torque needed from the output shaft of reducer (T2) T2 = (T1 x reduction ratio of chain pulley) / η_2	1.T1 = μ x W (D / 2) / η_1 = 600 x (0.2 / 2) = 60 Kg-m 2.T2 = T1 x 1/2 x 1 / η_2 = 60 x 1/2 x 1/ 0.9 = 33.3 Kg-m
負荷條件 Load conditions	選定之注意事項 Notices Calculation Example	計算範例 Load Condition Notices Calculation Example
	根據運轉條件算出補正扭力 (T3) T3 = T2 x 運轉條件 (系數 K) Find corrective torque (T3) according to operation condition T3 = T2 x operation condition (coefficient K)	T3 = T2 x K = 33.3 x 1 = 33.3 kgf·m
馬力 Horse Power	選定之注意事項 Notices Calculation Example	計算範例 Load Condition Notices Calculation Example
	最後換算成馬力 (HP) HP = (T x N2) / 716.2 Find horse power (HP) HP = (T x N2) / 716.2	HP = (T x N2) / 716.2 = (33.3 x 30) / 716.2 = 1.39 .....(2HP)
型號選定 Model Selected	根據本目錄之型號速比對照表 2HP、減速比 1/60，型號 310 適用。 According to the model-reduction ratio reference table, model 310, 2 HP, reduction ratio 1/60 are selected.	

常用的公式集 Frequently Used Formula

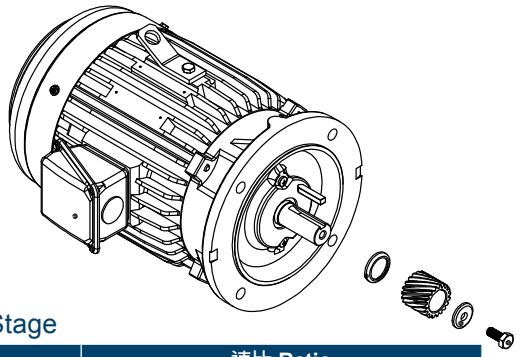
欲知的條件 Intended Conditions		已知的條件 Known Conditions	公式 Formula	
扭力 (Torque)	T	動力 (F) 與半徑 (R) / 馬力 (HP) 與回轉數 (N)(RPM)	T = F x R	(kgf·m)
扭力 (Torque)	T	動力 (Kw) 與回轉數 (N)(RPM) / 扭力 (T) 與回轉數 (N)(RPM)	T = (716 x HP) / N	(kgf·m)
扭力 (Torque)	T	扭力 (T) 與回轉數 (N)(RPM) / 重力 (F) 與速度 (V)(m/sec)	T = (974 x kW) / N	(kgf·m)
馬力 (Horse Power)	HP	重力 (F) 與速度 (V)(m/sec) / 齒輪、皮帶輪等的直徑 (D) 與回轉速 (N)(RPM)	HP = (T x N) / 716.2	(馬力)
動力 (Power)	kW	入力回轉數 (N1) 與出力回轉數 (N2)	kW = (T x N) / 974	(千瓦)
馬力 (Horse Power)	HP	Power (F) & Radius (R) Horse power (HP) & Revolution(N)(RPM)	HP = (F x V) / 75	(馬力)
動力 (Power)	kW	Power (Kw) & Revolution(N)(RPM) / Torque (T) & Revolution(N)(RPM)	kW = (F x V) / 102	(千瓦)
速度 (Velocity)	V	Torque (T) & Revolution(N)(RPM) / Gravity (F) & Velocity (V) (m/sec)	V = (π x D x N) / 60	(m/sec)
減速比 (Reduction Ratio)	i	Gravity (F) & Velocity (V) (m/sec) Diameter (D) of gear and belt pulley & revolution (N) (RPM) Input Shaft revolution (N1) & Output / shaft revolution (N2)	i = N1 / N2	

■ 螺旋齒輪減速機 H、V 系列與電機搭配注意事項：

1. 搭配本公司電機可達最佳效率，實現機電一體化。
2. 在馬達軸心上安裝傳動齒輪，可彈性搭配各種 IEC 標準法蘭電機。
3. 馬達軸心處，必須有油封，防止潤滑油從齒箱洩漏至電機。
4. 下列規格需要修改馬達軸心尺寸或加裝 S 扣環：

■ Cautions:
Assemble Motor To Helical Gear Reducer H, V Series:

1. With our motor to achieve the best efficiency and achieve mechatronics.
2. Flexibly installation various IEC standard motor by Install the transmission gear on the motor shaft.
3. At the motor shaft, there must be an oil seal to prevent oil from leaking from the gear box to the motor.
4. The following specifications require modification of the motor dimension or machining for S ring:

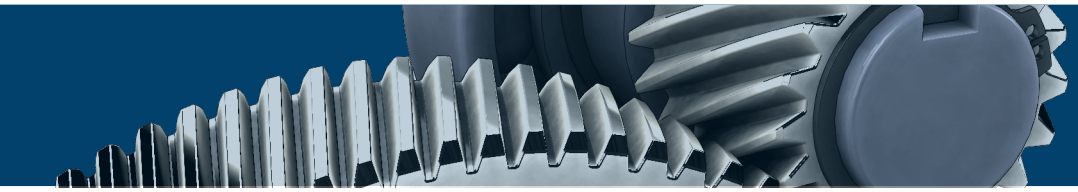


雙段 2-Stage

型號 Model	馬力 HP(4P)	速比 Ratio	
		修改馬達軸心 Modification of the Motor Dimension	加裝 S 扣環 Machining S Ring
206	2	-	3~10
208	3	-	3~10
209	2	35~40	-
	3	30	-
209S	3	20~30	-
211	3	35~40	-
212	7 1/2、10	-	3~10
213 213S	7 1/2	20~30	-
	15	3~15	3~10
	20	3~15	3~10
214 214S	10	20~30	-
215	15	25~30	3~30
216	20	25~30	11~30
	25	-	3~10
217	25、30	25~30	-
218	40	30	-
	50	3~10	-
219	50、60	20~30	-
220	75	30	-

三段 3-Stage

型號 Model	馬力 HP(4P)	速比 Ratio	
		修改馬達軸心 Modification of the Motor Dimension	加裝 S 扣環 Machining S Ring
308	1	-	40~120
310	2	170~200	-
310S	3	-	40~90
312	2	170~200	-
	3	90~120	40~120
	5	-	31~50
312S	2	120~200	-
314 314S	3	160~200	-
	7 1/2	-	31~60
315	5	160~200	110~150
	7 1/2	120	60~120
316	10	120	60~120
	15	-	31~60
317	7 1/2	121~200	-
	15	120	40~120
	20	-	40~50
318	10	150~200	120~150
	15	-	60~100
	20	120	60~100
	25、30	-	40~50
319	20	175~200	121~200
	25、30	110~120	60~90
	40	-	40~60

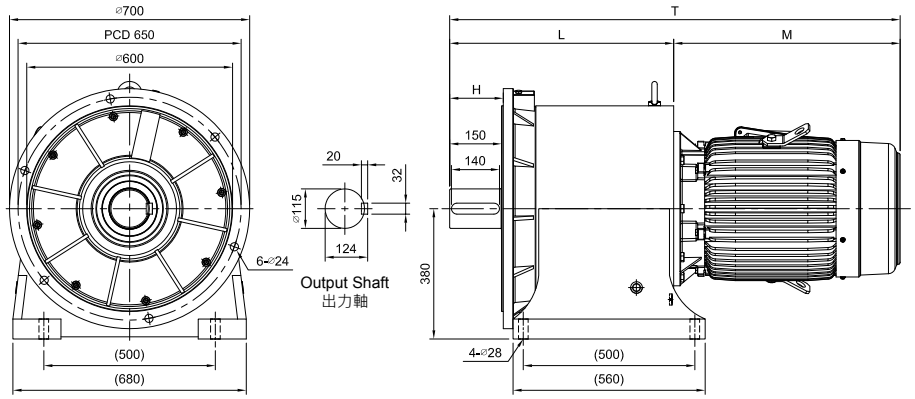


■ 219 & 319 立式外觀圖 Dimension of Model 219, 319 :

MODEL : V

unit: mm

型號 Model	馬力 HP (4P)	減速比 Ratio	M	L	T	H
219	50 60 75	11~30 11~30 5~10	660 660 676	653	1,313 1,313 1,329	156
319	20 25、30 40	121~200 70~90 40~60	542 562 600	676	1,218 1,238 1,276	156

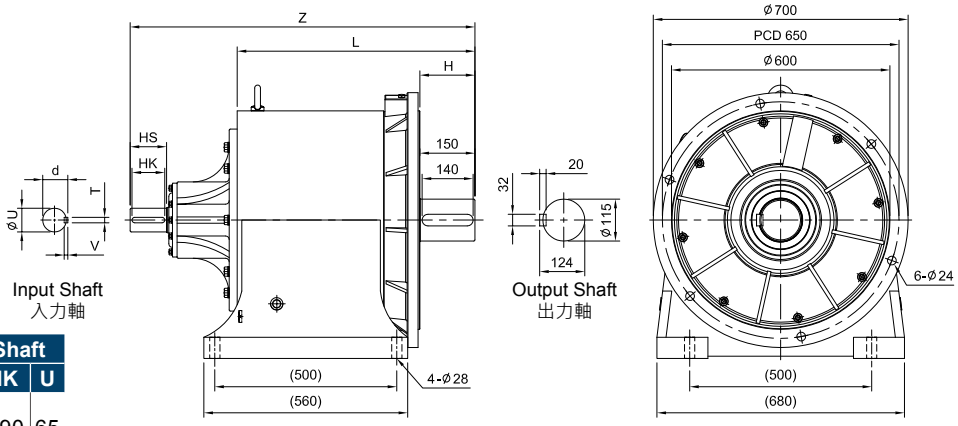


MODEL : VD

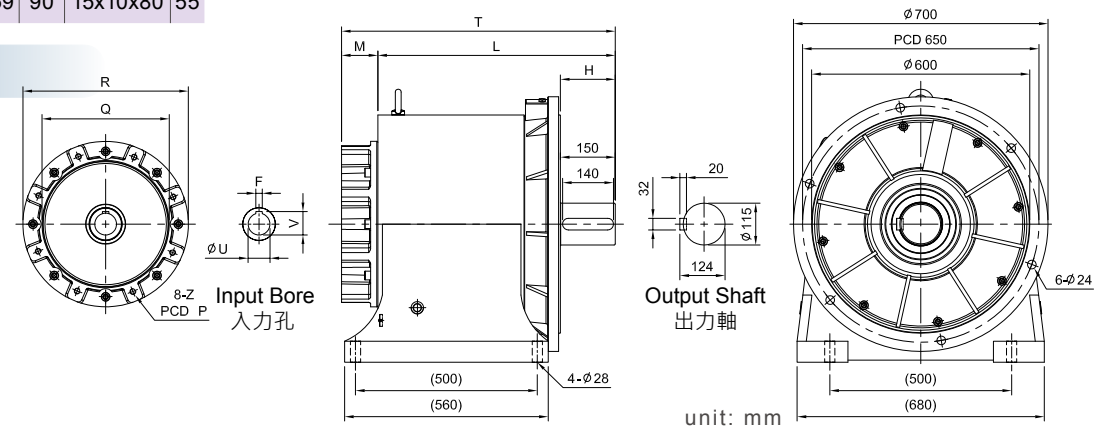
unit: mm

型號 Model	馬力 HP (4P)	減速比 Ratio	L	Z	H
219	50 60	10~30	653	953	156
319	20 25、30 40	121~200 70~90 40~60	676	964	156

型號 Model	馬力 HP (4P)	減速比 Ratio	入力軸 Input Shaft			
			d	HS	TxVxHK	U
219	50 60	10~30	69	100	15x10x90	65
319	20 25、30 40	121~200 70~90 40~60	51 51 59	80 80 90	12x8x70 12x8x70 15x10x80	48 48 55



MODEL : VB



unit: mm

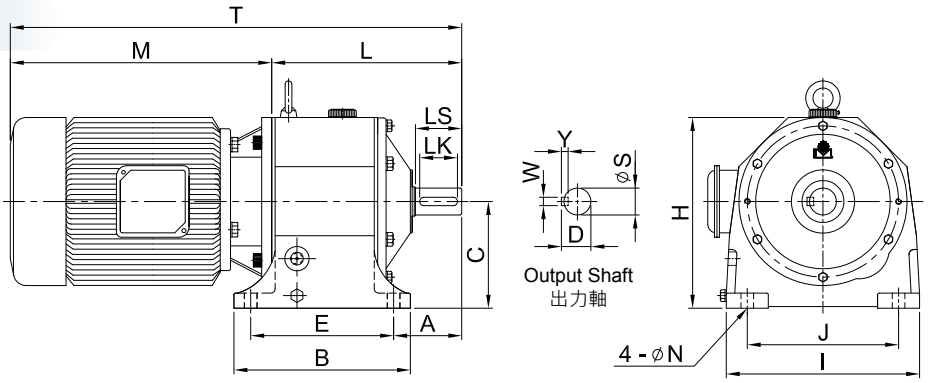
型號 Model	馬力 HP (4P)	減速比 Ratio	T	L	H	馬達盤 IEC Motor Flange					入力孔 Input Bore		
						M	P	Q	R	Z	U	F	V
219	50 60	10~30	754	653	156	100	400	350	450	M16	60	18	64.3
319	20 25、30 40	121~200 70~90 40~60	764 785 785	676 698 698	156	88	300 350 350	250 300 300	350 400 400	M16	42 48 55	12 14 16	45.3 51.8 59.3

GEAR REDUCER SERIES
齒輪減速機系列

MODEL：H

臥式減速機 Horizontal Type Reducer

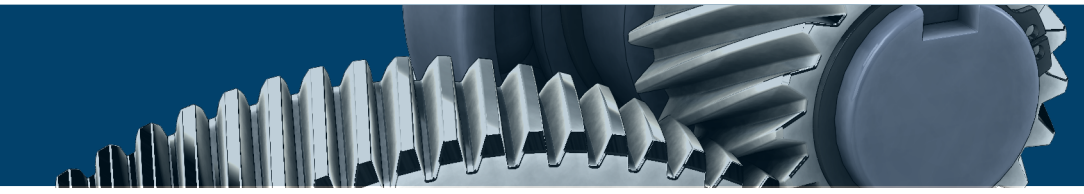
RATIO：1/3~1/30 (雙段 2-Stage)



unit: mm

型號 Model	馬力 HP (4P)	減速比 Ratio	M	L	T	H	C	A	腳座 Foot Stock					出力軸 Output Shaft				重量 Weight (kg)	油量 Oil (ℓ)
									E	J	B	I	N	D	LS	S	WxYxLK		
201	1/4	3~30	225	165	390	170	90	54	125	140	155	180	10	21	38	19	5x5x30	8	0.5
202	1/2	3~10	248	171	419	170	90	60	125	140	155	180	10	27	45	24	7x7x35	8	0.5
203	1/4	31~50	225	178	405	190	110	62	135	145	170	190	13	27	45	24	7x7x35	10.5	0.7
	1/2	11~30	248		426														
205	1/2	31~50	248	231	479	227	127	77	170	180	210	230	15	31	50	28	7x7x40	18.5	1
	1	3~30	242	222	464														
206	2	3~10	322	226	548	227	127	81	170	180	210	230	15	35	55	32	10x8x45	18.5	1
207	1	31~40	242	254	496	253	145	80	205	195	240	260	15	35	55	32	10x8x45	25.5	1.4
	2	11~30	322		576														
208	3	3~10	315	259	574	265	145	87	205	195	240	260	15	41	60	38	10x8x50	28	1.4
209	2	31~40	322	290	612	289	164	88	215	215	265	295	19	41	60	38	10x8x50	34	2
	3	11~30	315	279	594														
209S	2	31~40	322		601	286		86				280						31	
	3	15~30	315	268	583														
210	5	3~10	371	283	654	289	164	92	215	215	265	295	19	45	65	42	12x8x55	36	2
210S				273	644	286						280						35	
211	3	31~40	315	325	640	332	192	109	250	270	295	345	19	51	75	48	12x8x65	56	3
	5	11~30	371		696														
211S	5	11~30		298	669	289	164	105	215	215	265	295						46	2.5
212	7 1/2	3~10	374	325	669	332	192	109	250	270	295	345	19	51	75	48	12x8x65	56	3
	10	3~10	412		737														
213	7 1/2	11~30	374	385	759	385	210	125	310	310	370	400	22	60	80	56	15x10x70	93	6.5
	15	3~10	498		883														
213S	7 1/2	11~30	374	382	756	377						390						86	
	15	3~10	498	394	892													87	
214	10	11~30	412	390	802	385	210	130	310	310	370	400	22	66	85	62	15x10x75	97	6.5
214S				387	799	377						390						94	
215	15	11~30	498	471	970	445	245	157	360	360	430	450	25	76.5	100	72	20x12x90	149	10
	20	3~10	542		1,013														
216	20	11~30	542	471	1,013	445	245	157	360	360	430	450	25	80.5	100	76	20x12x90	151	10
	25	5~10	562		1,033														
217	25	11~30	562	508	1,070	505	280	172	380	420	460	530	25	84.5	110	80	20x12x100	205	15
	30	4~30																	
	40	4~10	600		1,108														
218	40	11~30	600	608	1,208	565	310	196	480	480	570	600	28	106.5	130	100	24x16x120	335	24
	50	5~10	660		1,268														
	60																		
219	50	11~30	660	676	1,336	670	380	214	540	500	635	670	28	124	150	115	32x20x140	485	32
	60																		
	75	5~10	676		1,352														
220	75	11~30	676	792	1,468	782	425	272	600	680	700	830	38	139	180	130	35x22x170	760	45

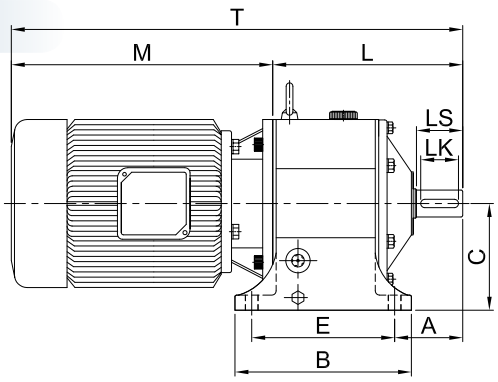
1. 表中 S 表示新尺寸。 "S" means new dimension.
2. H213(含) 以上有雙油鏡雙排油孔。 The model above H213 have dual oil gauges & drain plugs.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

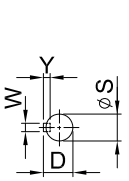


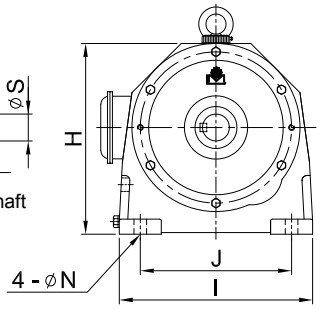
MODEL：H

臥式減速機 Horizontal Type Reducer

RATIO：1/31~1/200 (三段 3-Stage)







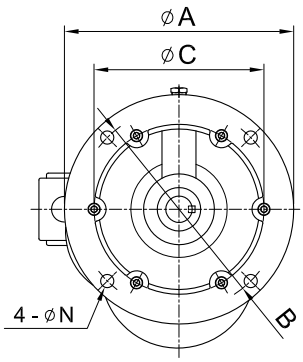
unit: mm

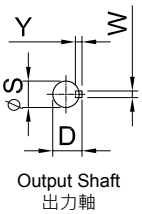
型號 Model	馬力 HP (4P)	減速比 Ratio	M	L	T	H	C	A	腳座 Foot Stock					出力軸 Output Shaft				重量 Weight (kg)	油量 Oil (ℓ)
									E	J	B	I	N	D	LS	S	WxYxLK		
304	1/4	51~120	225	194	419	190	110	68	135	145	170	190	13	31	50	28	7x7x40	12	0.7
306	1/4	121~200	225	236	461	227	127	81	170	180	210	230	15	35	55	32	10x8x45	20.5	1
	1/2	51~120	248		484														
308	1/2	121~200	248	268	516	253	145	85	205	195	240	260	15	41	60	38	10x8x50	28	1.4
	1 2	40~120 31~40	242 322	259	501 581														
310	1 2	121~200 51~120	242 322	306	548 628	289	164	92	215	215	265	295	19	45	65	42	12x8x55	39	2
	3	31~60	315	295	610														
310S	1	121~200	242	297	538	286						280						37	
	2	60~120	322		618														
312	2	121~200	322	348	670	332	192	109	250	270	295	345	19	51	75	48	12x8x65	61	3
	3 5	41~120 31~60	315 371	337	652 708														
312S	1 2	121~200 51~120	242 322	323	565 645	289	164	105	215	215	265	295						53	2.5
314	3 5	121~200 60~120	315 371	413	728 784	385	210	130	310	310	370	400	22	66	85	62	15x10x75	105	6.5
	7 1/2	31~50	374	402	776														
314S	3 5	121~200 60~120	315 371	410	725 781	377						390						103	
	7 1/2	31~50	374	399	773														
315	5	121~200	371	492	858	445	245	157	360	360	430	450	25	76.5	100	72	20x12x90	169	10
	7 1/2	60~120	374		866														
	10	31~50	412		904														
316	10	60~120	412	492	904	445	245	157	360	360	430	450	25	80.5	100	76	20x12x90	169	10
	15	31~50	498		990														
317	7 1/2	121~200	374	539	913	505	280	172	380	420	460	530	25	84.5	110	80	20x12x100	220	15
	15 20	40~120 40~50	498 542	523	1,021 1,065														
318	10 15 20	150~200 121~200 60~120	412 498 542	628	1,040 1,126 1,170	565	310	196	480	480	570	600	28	106.5	130	100	24x16x120	366	24
	25 30	60 40~50	562		1,190														
319	20 25、30 40	121~200 70~90 40~60	542 565 603	696	1,238 1,261 1,299	670	380	214	540	500	635	670	28	124	150	115	32x20x140	529	32

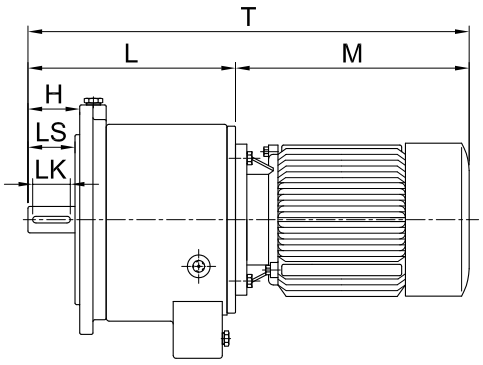
1. 表中 S 表示新尺寸。 "S" means new dimension.
2. H314(含) 以上有雙油鏡雙排油孔。 The model above H314 have dual oil gauges & drain plugs.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

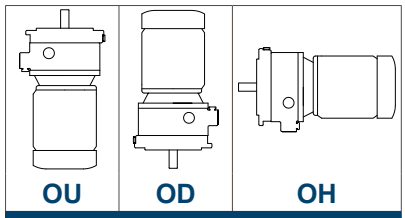
MODEL：V

立式減速機 Vertical Type Reducer
RATIO：1/3~1/30 (雙段 2-Stage)









使用方向 Installation Direction

unit: mm

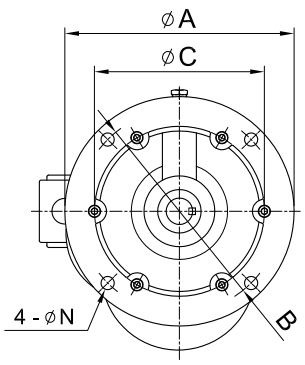
型號 Model	馬力 HP (4P)	減速比 Ratio	M	L	T	H	法蘭面 Flange				出力軸 Output Shaft				重量 Weight (kg)
							A	B	C	N	D	LS	S	WxYxLK	
201	1/4	3~30	225	146	371	43	186	155	130	10	21	38	19	5x5x30	8
202	1/2	3~10	248	153	401	50	186	155	130	10	27	45	24	7x7x35	8
203	1/4	31~50	225	187	412	50	200	175	150	13	27	45	24	7x7x35	12
	1/2	11~30	248		435										
205	1/2	31~50	248	220	468	55	243	215	180	14	31	50	28	7x7x40	17.5
	1	3~30	242	211	453										
206	2	3~10	322	216	538	60	243	215	180	14	35	55	32	10x8x45	17.5
207	1	31~40	242	233	475	60	280	245	210	14	35	55	32	10x8x45	25
	2	11~30	322		555										
208	3	3~10	315	239	554	65	280	245	210	14	41	60	38	10x8x50	25
209	2	31~40	322	271	593	65	330	300	250	18	41	60	38	10x8x50	36
	3	11~30	315	261	576										
209S	2	31~40	322	265	587		300	265	230						34
	3	11~30	315	254	569										
210	5	3~10	371	266	637	70	330	300	250	18	45	65	42	12x8x55	37
210S				259	630		300	265	230						35
211	3	31~40	315	305	620	80	380	335	290	18	51	75	48	12x8x65	56.5
	5	11~30	371		676										
211S	5	11~30		282	653		340	300	250						48
212	7 1/2	3~10	374	305	679	80	380	335	290	18	51	75	48	12x8x65	56.5
	10	3~10	412		717										
213	7 1/2	11~30	374	358	732	85	450	400	350	22	60	80	56	15x10x70	85.5
	15	3~10	498		856										
213S	7 1/2	11~30	374	356	730		440								82
	15	3~10	498	368	866										83
214	10	11~30	412	363	775	90	450	400	350	22	66	85	62	15x10x75	86
214S	10	11~30		361	773		440								
215	15	11~30	498	434	932	105	500	450	400	24	76.5	100	72	20x12x90	136
	20	3~10	542		976										
216	20	11~30	542	434	976	105	500	450	400	24	80.5	100	76	20x12x90	137
	25	5~10	562		996										
217	25	11~30	562	465	1,027	115	590	540	480	24	84.5	110	80	20x12x100	192
	30	4~30													
	40	4~10	600		1,065										
218	40	11~30	600	571	1,171	135	660	610	560	6x24	106.5	130	100	24x16x120	285
	50	5~10	660	621	1,281										
	60	5~10													
219[Note 2]	50	11~30	660	653	1,313	156	700	650	600	6x24	124	150	115	32x20x140	520
	60	11~30													
	75	5~10	676		1,329										

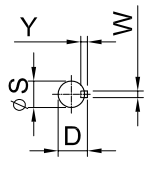
1. 表中 S 表示新尺寸。 "S" means new dimension.
2. V219 外觀及尺寸請參考 B21 頁。 Please refer to page B21 for the dimension of V219.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

MODEL : V

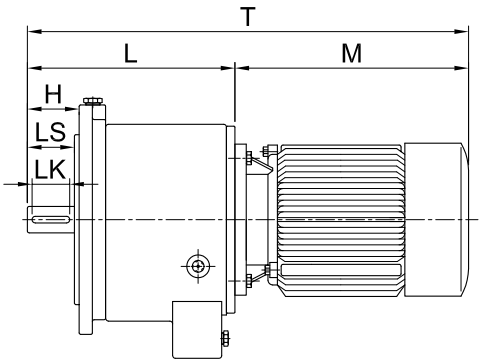
立式減速機 Vertical Type Reducer

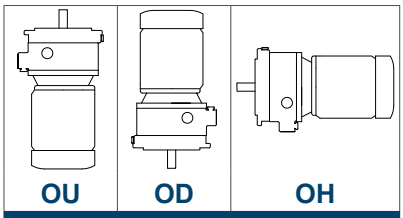
RATIO：1/31~1/200 (三段 3-Stage)





Output Shaft
出力軸





使用方向 Installation Direction

unit: mm

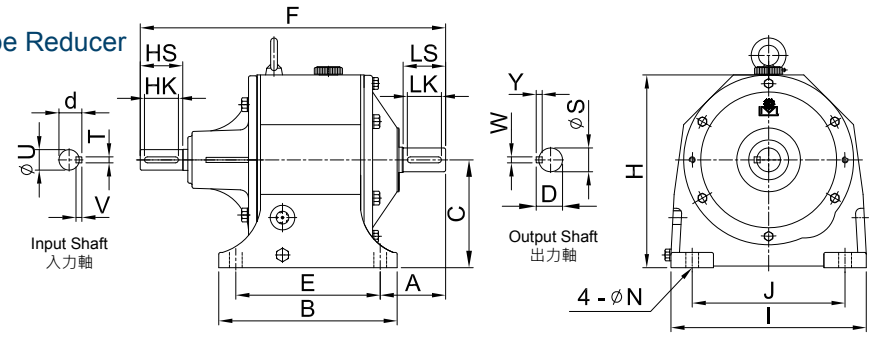
型號 Model	馬力 HP (4P)	減速比 Ratio	M	L	T	H	法蘭面 Flange				出力軸 Output Shaft				重量 Weight (kg)
							A	B	C	N	D	LS	S	WxYxLK	
304	1/4	51~120	225	192	417	55	200	175	150	13	31	50	28	7x7x40	12.5
306	1/4	121~200	225	226	451	60	243	215	180	14	35	55	32	10x8x45	19.5
	1/2	51~120	248		474										
308	1/2	121~200	248	247	495	65	280	245	210	14	41	60	38	10x8x50	26
	1 2	40~120 31~40	242 322	238	480 560										
310	1 2	121~200 51~120	242 322	290	532 612	70	330	300	250	18	45	65	42	12x8x55	41
	3	31~50	315	279	594										
310S	1 2	121~200 60~120	242 322	282	524 604		300	265	230						37
312	2	121~200	322	326	648	80	380	335	290	18	51	75	48	12x8x65	63.5
	3 5	41~120 31~50	315 371	315	630 686										
312S	1 2	121~200 35~120	242 322	307	549 628		340	300	250						57
314	3 5	121~200 60~120	315 371	389	704 760	90	450	400	350	22	66	85	62	15x10x75	98
	7 1/2	31~50	374	378	752										
314S	3 5	121~200 60~120	315 371	384	699 755		440	400	350						95
	7 1/2	31~50	374	373	747										
315	5	121~200	371	454	822	105	500	450	400	24	76.5	100	72	20x12x90	158
	7 1/2	60~120	374		828										
	10	31~50	412		866										
316	10	60~120	412	454	866	105	500	450	400	24	80.5	100	76	20x12x90	160
	15	31~50	498		952										
317	7 1/2	121~200	374	496	870	115	590	540	480	24	84.5	110	80	20x12x100	206
	15 20	40~120 40~50	498 542	480	978 1,022										
318	10 15 20	150~200 121~200 60~120	412 498 542	589	1,001 1,087 1,131	135	660	610	560	6x24	106.5	130	100	24x16x120	326
	25 30	60 40~50	562		1,159										
319[Note 2]	20 25、30 40	121~200 70~90 40~60	542 562 600	674	1,216 1,236 1,274	155	700	650	600	6x24	124	150	115	32x20x140	552

1. 表中 S 表示新尺寸。 "S" means new dimension.
2. V319 外觀及尺寸請參考 B21 頁。 Please refer to page B21 for the dimension of V319.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

GEAR REDUCER SERIES
齒輪減速機系列

MODEL：HD

臥式雙軸減速機 Horizontal Double Shaft Type Reducer
RATIO：1/3~1/30 (雙段 2-Stage)



unit: mm

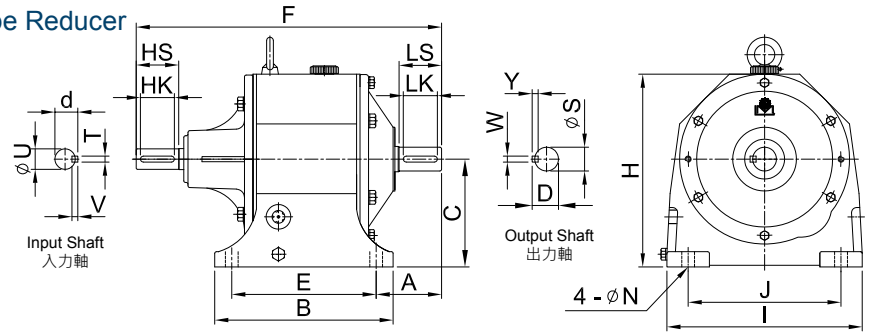
型號 Model	馬力 HP (4P)	減速比 Ratio	F	A	C	H	入力軸 Input Shaft				腳座 Foot Stock					出力軸 Output Shaft				重量 Weight (kg)	油量 Oil (ℓ)
							d	HS	TxVxHK	U	E	J	B	I	N	D	LS	S	WxYxLK		
201	1/4	3~30	251	54	90	170	18	35	5x5x25	16	125	140	155	180	10	21	38	19	5x5x30	10	0.5
202	1/2	3~10	264	60	90	170	21	40	5x5x30	19	125	140	155	180	10	27	45	24	7x7x35	10.5	0.5
203	1/4 1/2	31~50 11~30	264 271	62	110	190	18 21	35 40	5x5x25 5x5x30	16 19	135	145	170	190	13	27	45	24	7x7x35	12.5	0.7
205	1/2 1	31~50 3~30	357	77	127	227	27	50	7x7x40	24	170	180	210	230	15	31	50	28	7x7x40	22.5 24.5	1
206	2	3~10	361	81	127	227	27	50	7x7x40	24	170	180	210	230	15	35	55	32	10x8x45	22.5	1
207	1 2	31~40 11~30	389	80	145	253	27	50	7x7x40	24	205	195	240	260	15	35	55	32	10x8x45	29	1.4
208	3	3~10	394	85	145	265	27	50	7x7x40	24	205	195	240	260	15	41	60	38	10x8x50	31.5	1.4
209	2 3	31~40 11~30	419	88	164	289	31	55	7x7x45	28	215	215	265	295	19	41	60	38	10x8x50	42	2
209S	2 3	31~40 11~30	408	86		286								280						39	
210	5	3~10	423	92	164	289	31	55	7x7x45	28	215	215	265	295	19	45	65	42	12x8x55	43	2
210S			413			286								280						41	
211	3 5	31~40 11~30	465 484	109	192	332	31 35	55 60	7x7x45 10x8x50	28 32	250	270	295	345	19	51	75	48	12x8x65	62	3
211S	5	11~30	457	105	164	289	35	60	10x8x50	32	215	215	265	280						46	2.5
212	7 1/2 10	3~10	484	109	192	332	35	60	10x8x50	32	250	270	295	345	19	51	75	48	12x8x65	62	3
213	7 1/2 15	11~30 3~10	564	125	210	385	41	65	10x8x55	38	310	310	370	400	22	60	80	56	15x10x70	107	6.5
213S	7 1/2 15	11~30 3~10	561			377								390						105	
214	10	11~30	569	130	210	385	41	65	10x8x55	38	310	310	370	400	22	66	85	62	15x10x75	108	6.5
214S			566			377								390						106	
215	15 20	11~30 3~10	697	157	245	445	51	80	12x8x70	48	360	360	430	450	25	76.5	100	72	20x12x90	178	10
216	20 25	11~30 5~10	697	157	245	445	51	80	12x8x70	48	360	360	430	450	25	80.5	100	76	20x12x90	179	10
217	25 30 40	11~30 4~30 4~10	733	172	280	505	51	80	12x8x70	48	380	420	460	530	25	84.5	110	80	20x12x100	235	15
218	40 50 60	11~30 5~10 5~10	881	196	310	565	59	90	15x10x80	55	480	480	570	600	28	106.5	130	100	24x16x120	376	24
219	50 60 75	11~30 11~30 5~10	970	214	380	670	69	100	15x10x90	65	540	500	635	670	28	124	150	115	32x20x140	565	32
220	75	11~30	1,174	272	425	782	79.5	110	20x12x100	75	600	680	700	830	38	139	180	130	35x22x170	852	45

1. 表中 S 表示新尺寸。 "S" means new dimension.
2. HD213(含) 以上有雙油鏡雙排油孔。 The model above HD213 have dual oil gauges & drain plugs.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

MODEL：HD

臥式雙軸減速機 Horizontal Double Shaft Type Reducer

RATIO：1/31~1/200 (三段 3-Stage)



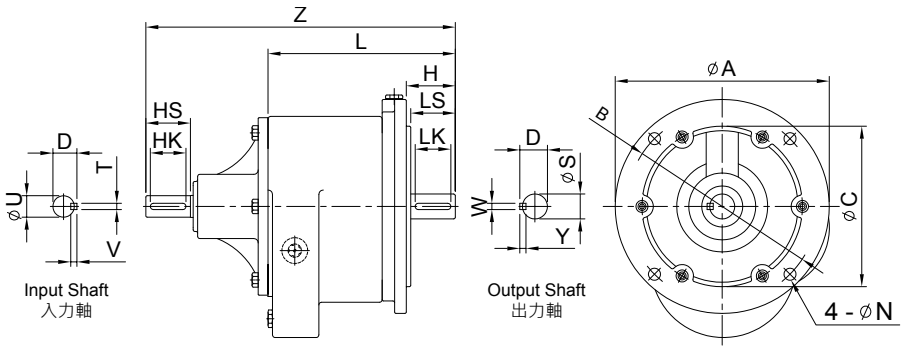
unit: mm

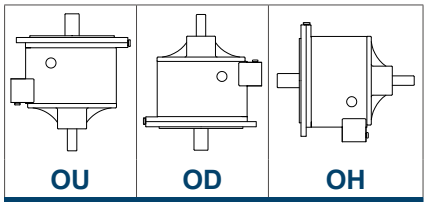
型號 Model	馬力 HP (4P)	減速比 Ratio	F	A	C	H	入力軸 Input Shaft				腳座 Foot Stock					出力軸 Output Shaft				重量 Weight (kg)	油量 Oil (ℓ)
							d	HS	TxVxHK	U	E	J	B	I	N	D	LS	S	WxYxLK		
304	1/4	51~120	280	68	110	190	18	35	5x5x25	16	135	145	170	190	13	31	50	28	7x7x40	14	0.7
306	1/4 1/2	121~200 51~120	322 329	81	127	227	18 21	35 40	5x5x25 5x5x30	16 19	170	180	210	230	15	35	55	32	10x8x45	23	1
308	1/2	121~200	361	85	145	253	21	40	5x5x30	19	205	195	240	260	15	41	60	38	10x8x50	33	1.4
	1 2	40~120 31~40	392				27	50	7x7x40	24											
310	1 2 3	121~200 51~120 31~50	441	92	164	289	27	50	7x7x40	24	215	215	265	295	19	45	65	42	12x8x55	42.5	2
310S	1 2	121~200 60~120	432			286														40	
312	2 3 5	121~200 41~120 31~50	478	109	192	332	31	55	7x7x45	28	250	270	295	345	19	51	75	48	12x8x65	67	3
312S	1 2	121~200 51~120	458	105	164	289					215	215	265	295						59	2.5
314	3 5	121~200 60~120	572	130	210	385	35	60	10x8x50	32	310	310	370	400	22	66	85	62	15x10x75	113	6.5
	7 1/2	31~50																		114	
314S	3 5	121~200 60~120	572			377								400						115	
	7 1/2	31~50																			
315	5	121~200	647	157	245	445	35	60	10x8x50	32	360	360	430	450	25	76.5	100	72	20x12x90	183	10
	7 1/2 10	60~120 31~50	671				41	65	10x8x55	38											
316	10 15	60~120 31~50	671	157	245	445	41	65	10x8x55	38	360	360	430	450	25	80.5	100	76	20x12x90	198	10
317	7 1/2	121~200	718	172	280	505	41	65	10x8x55	38	380	420	460	530	25	84.5	110	80	20x12x100	250	15
	15 20	40~120 40~50	747				51	80	12x8x70	48											
318	10	150~200	807	196	310	565	41	65	10x8x55	38	480	480	570	600	28	106.5	130	100	24x16x120	410	24
	15 20 25 30	121~200 51~120 60 31~50	852				51	80	12x8x70	48											
319	20 25、30	121~200 70~90	923	214	380	670	51	80	12x8x70	48	540	500	635	670	28	124	150	115	32x20x140	570	32
	40	40~60	972				59	90	15x10x80	55											

1. 表中 S 表示新尺寸。 "S" means new dimension.
2. HD314(含) 以上有雙油鏡雙排油孔。 The model above HD314 have dual oil gauges & drain plugs.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

MODEL：VD

立式雙軸減速機 Vertical Double Shaft Type Reducer
RATIO：1/3~1/40 (雙段 2-Stage)



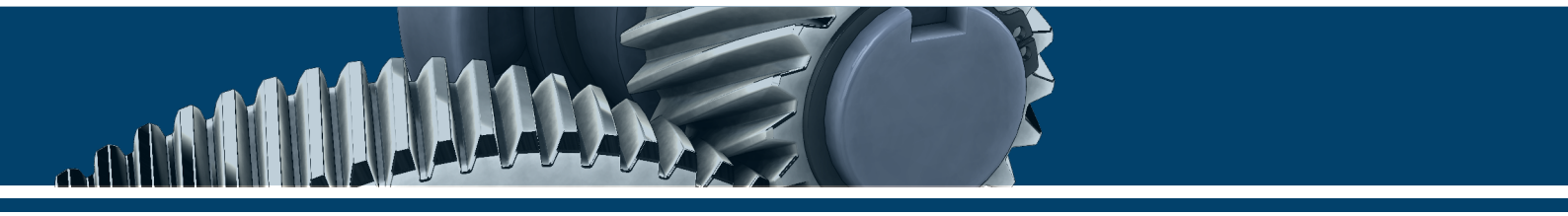


使用方向 Installation Direction

unit: mm

型號 Model	馬力 HP (4P)	減速比 Ratio	L	Z	入力軸 Input Shaft				法蘭面 Flange				出力軸 Output Shaft					重量 Weight (kg)
					d	HS	TxVxHK	U	A	B	C	N	D	LS	S	H	WxYxLK	
201	1/4	3~30	146	232	18	35	5x5x25	16	186	155	130	10	21	38	19	43	5x5x30	10.5
202	1/2	3~10	153	245	21	40	5x5x30	19	186	155	130	10	27	45	24	50	7x7x35	10.5
203	1/4 1/2	31~40 11~30	201	273	18 21	35 40	5x5x25 5x5x30	16 19	200	175	150	13	27	45	24	50	7x7x35	12.5
205	1/2 1	31~50 3~30	211	349	27	50	7x7x40	24	243	215	180	14	31	50	28	55	7x7x40	21.7
206	2	3~10	214	351	27	50	7x7x40	24	243	215	180	14	35	55	32	60	10x8x45	21.5
207	1 2	31~40 11~30	233	370	27	50	7x7x40	24	280	245	210	14	35	55	32	60	10x8x45	29
208	3	3~10	239	375	27	50	7x7x40	24	280	245	210	14	41	60	38	65	10x8x50	29.5
209	2 3	31~40 11~30	261	401	31	55	7x7x45	28	330	300	250	18	41	60	38	65	10x8x50	43.5
209S	2 3	31~40 11~30	254	394					300	265	230							42
210	5	3~10	266	406	31	55	7x7x45	28	330	300	250	18	45	65	42	70	12x8x55	45
210S			259	399					300	265	230							44
211	3 5	31~40 11~30	305	464	31 35	55 60	7x7x45 10x8x50	28 32	375	335	290	18	51	75	48	80	12x8x65	66.5
211S	5	11~30	282	422	35	60	10x8x50	32	340	300	250							44
212	7 1/2 10	3~10	305	464	35	60	10x8x50	32	380	335	290	18	51	75	48	80	12x8x65	66.5
213	7 1/2 15	11~30 3~10	358	537	41	65	10x8x55	38	450	400	350	22	60	80	56	85	15x10x70	104
213S	7 1/2 15	11~30 4~10	356 368	535 547					440									102
214	10	11~30	363	542	41	65	10x8x55	38	450	400	350	22	66	85	62	90	15x10x75	104
214S			361	539					440									102
215	15 20	11~30 3~10	434	661	51	80	12x8x70	48	500	450	400	24	76.5	100	72	105	20x12x90	168
216	20 25	11~30 4~10	434	661	51	80	12x8x70	48	500	450	400	24	80.5	100	76	105	20x12x90	170
217	25 30 40	11~30 4~30 4~10	465	691	51	80	12x8x70	48	590	540	480	24	84.5	110	80	115	20x12x100	226
218	40 50 60	11~30 5~10 5~10	571	845	59	90	15x10x80	55	660	610	560	6x24	106.5	130	100	135	24x16x120	332
219[Note 2]	50 60	11~30	653	947	69	100	15x10x90	65	700	650	600	6x24	124	150	115	156	32x20x140	560

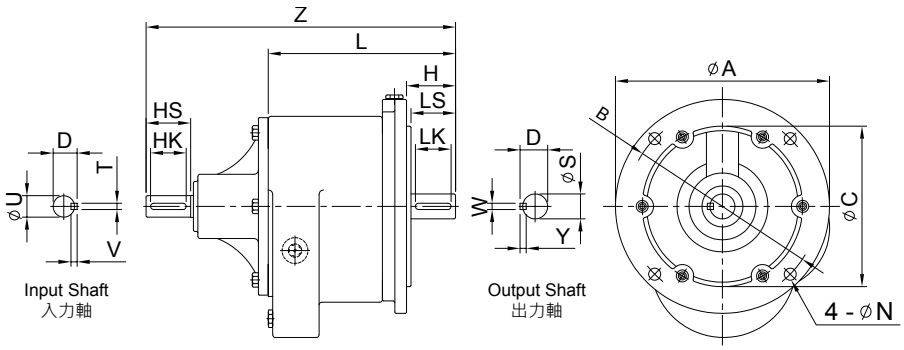
1. 表中 S 表示新尺寸。 "S" means new dimension.
2. VD219 外觀及尺寸請參考 B21 頁。 Please refer to page B21 for the dimension of VD219.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

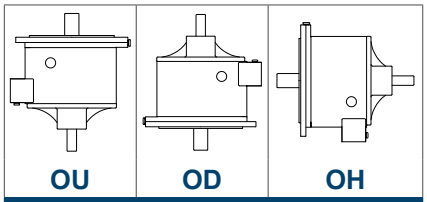


MODEL：VD

立式雙軸減速機 Vertical Double Shaft Type Reducer

RATIO：1/31~1/200 (三段 3-Stage)





使用方向 Installation Direction

unit: mm

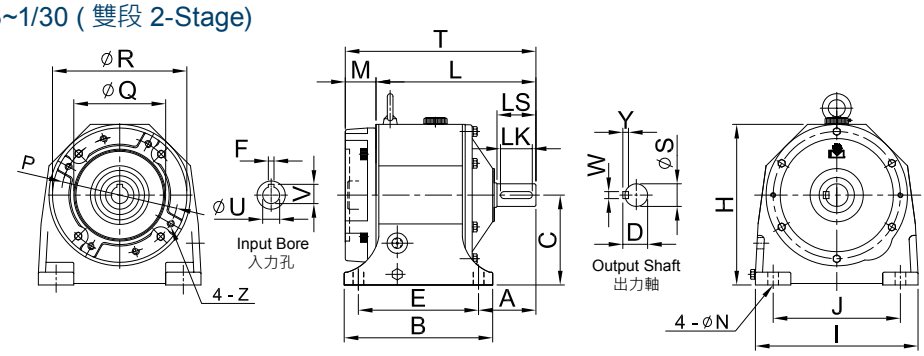
型號 Model	馬力 HP (4P)	減速比 Ratio	L	Z	入力軸 Input Shaft				法蘭面 Flange				出力軸 Output Shaft					重量 Weight (kg)
					d	HS	TxVxHK	U	A	B	C	N	D	LS	S	H	WxYxLK	
304	1/4	51~120	192	278	18	35	5x5x25	16	200	175	150	12	31	50	28	55	7x7x40	14.5
306	1/4 1/2	121~200 51~120	311 319	312 319	18 21	35 40	5x5x25 5x5x30	16 19	242	215	180	14	35	55	32	60	10x8x45	22
308	1/2	121~200	247	341	21	40	5x5x30	19	280	245	210	14	41	60	38	65	10x8x50	30
	1 2	40~120 31~40	238	377	27	50	7x7x40	24										
310	1 2 3	121~200 51~120 31~50	279	425	27	50	7x7x40	24	330	300	250	18	45	65	42	70	12x8x55	45.5
310S	1 2	121~200 51~120	282	419					300	265	230							44
312	2 3 5	121~200 41~120 31~50	315	455	31	55	7x7x45	28	380	335	290	18	51	75	48	80	12x8x65	70
312S	1 2	121~200 51~120	296	433					340	300	250							65
314	3 5 7 1/2	121~200 60~120 31~50	389	548	35	60	10x8x50	32	450	400	350	22	66	85	62	90	15x10x75	111
314S	3 5 7 1/2	121~200 60~120 31~50	384	543					440									109
315	5	121~200	456	635	35	60	10x8x50	32	500	450	400	24	76.5	100	72	105	20x12x90	178
	7 1/2 10	60~120 31~50			41	65	10x8x55	38										
316	10 15	60~120 31~50	454	635	41	65	10x8x55	38	500	450	400	24	80.5	100	76	105	20x12x90	180
317	7 1/2	121~200	496	675	41	65	10x8x55	38	590	540	480	24	84.5	110	80	115	20x12x100	236
	15 20	40~120 40~50	480	703	51	80	12x8x70	48										
318	10	150~200	599	823	41	65	10x8x55	38	660	610	560	6x24	106.5	130	100	135	24x16x120	380
	15 20	121~200 51~120		828	51	80	12x8x70	48										
	25 30	60 31~50	604	828														
319[Note 2]	20 25、30	121~200 70~90	674	901	51	80	12x8x70	48	700	650	600	6x24	124	150	115	155	32x20x140	591
	40	40~60			59	90	15x10x80	55										

1. 表中 S 表示新尺寸。 "S" means new dimension.
2. VD319 外觀及尺寸請參考 B21 頁。 Please refer to page B21 for the dimension of VD319.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

MODEL：HB

馬達插入式臥式減速機 Horizontal Type Reducer Motor Plug-In

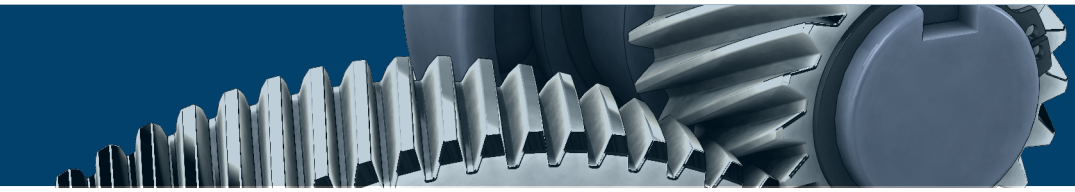
RATIO：1/3~1/30 (雙段 2-Stage)



unit: mm

型號 Model	馬力 HP (4P)	減速比 Ratio	T	H	L	C	A	腳座 Foot Stock					馬達盤 IEC Motor Flange					入力孔 Input Bore			出力軸 Output Shaft				重量 Weight (kg)	油量 Oil (ℓ)
								E	J	B	I	N	M	P	Q	R	Z	U	F	V	D	LS	S	WxYxLK		
201	1/4	3~30	194	170	165	90	54	125	140	155	180	10	29	130	110	158	M8	11	4	12.7	21	38	19	5x5x30	9	0.5
202	1/2	3~10	201	170	172	90	60	125	140	155	180	10	29	130	110	158	M8	14	5	16.3	27	45	24	7x7x35	9	0.5
203	1/4 1/2	31~50 11~30	209	190	180	110	62	135	145	170	190	13	29	130	110	158	M8	11 14	4 5	12.7 16.3	27	45	24	7x7x35	11.5	0.7
205	1/2 1	31~50 3~30	248 255	227	222	127	77	170	180	210	230	15	26 34	130 165	110 130	200	M8 M10	14 19	5 6	16.3 21.8	31	50	28	7x7x40	19.5	1
206	2	3~10	271	227	226	127	81	170	180	210	230	15	45	165	130	200	M10	24	8	27.3	35	55	32	10x8x45	21	1
207	1 2	31~40 11~30	299	253	254	145	80	205	195	240	260	15	34 45	165	130	200	M10	19 24	6 8	21.8 27.3	35	55	32	10x8x45	29 26.5	1.4
208	3	3~10	319	265	262	145	87	205	195	240	260	15	57	215	180	250	M12	28	8	31.3	41	60	38	10x8x50	30.5	1.4
209	2 3	31~40 11~30	328 336	299	279	164	88	215	215	265	295	19	49 57	165 215	130 180	250	M10 M12	24 28	8	27.3 31.3	41	60	38	10x8x50	42 37.5	2
209S	2 3	31~40 15~30	317 325	286	268						280		49 57	165 215	130 180		M10 M12	24 28		27.3 31.3					40 35	
210	5	3~10	340	299	283	164	92	215	215	265	295	19	57	215	180	250	M12	28	8	31.3	45	65	42	12x8x55	39	2
210S			345		273						280														37	
211	3 5	31~40 11~30	382	332	325	192	109	250	270	295	345	19	57	215	180	250	M12	28	8	31.3	51	75	48	12x8x65	59	3
211S	5	11~30	355	289	298	164	105	215	215	265	295														50	2.5
212	7 1/2 10	3~10 3~10	390	332	325	192	109	250	270	295	345	19	65	265	230	300	M12	38	10	41.3	51	75	48	12x8x65	67	3
213	7 1/2 15	11~30 3~10	450 475	385	385	210	125	310	310	370	400	22	65 88	265 300	230 250	300 350	M12 M16	38 42	10 12	41.3 45.3	60	80	56	15x10x70	105 109	6.5
213S	7 1/2 15	11~30 3~10	447 482	377	382 394						390		65 88	265 300	230 250	300 350	M12 M16	38 42	10 12	41.3 45.3					98 102	
214	10	11~30	455	385	390	210	130	310	310	370	400	22	65	265	230	300	M12	38	10	41.3	66	85	62	15x10x75	105	6.5
214S				377							390														98	
215	15 20	11~30 3~10	559	445	471	245	157	360	360	430	450	25	88	300	250	350	M16	42	12	45.3	76.5	100	72	20x12x90	167	10
216	20 25	11~30 5~10	559	445	471	245	157	360	360	430	450	25	88	300 350	250 300	350 390	M16	42 48	12 14	45.3 51.8	80.5	100	76	20x12x90	170	10
217	25 30	11~30 4~30	595	505	508	280	172	380	420	460	530	25	88	350	300	390	M16	48	14	51.8	84.5	110	80	20x12x100	235	15
	40	4~10																55	16	59.3						
218	40	11~30	695	565	608	310	196	480	480	570	600	28	88	350	300	390	M16	55	16	59.3	106.5	130	100	24x16x120	364	24
	50 60	5~10	726		626								100	400	350	450		60	18	64.3					390	
219	50 60	11~30	776	670	676	380	214	540	500	635	670	28	100	400	350	450	M16	60	18	64.3	124	150	115	32x20x140	541.5	32

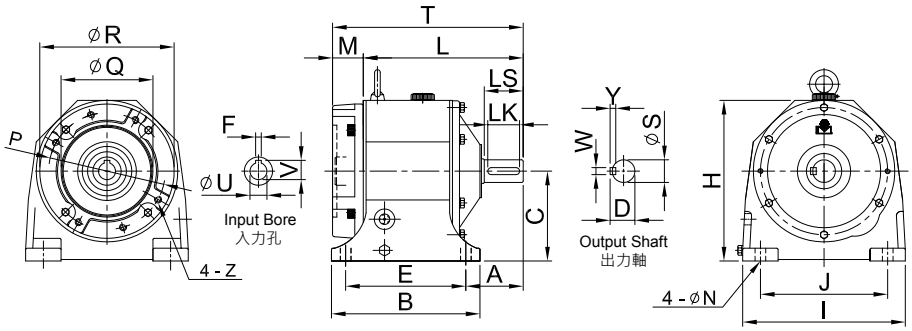
1. 表中 S 表示新尺寸。 "S" means new dimension.
2. HB213(含) 以上有雙油鏡雙排油孔。 The model above HB213 have dual oil gauges & drain plugs.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.



MODEL：HB

馬達插入式臥式減速機 Horizontal Type Reducer Motor Plug-In

RATIO：1/31~1/200 (三段 3-Stage)



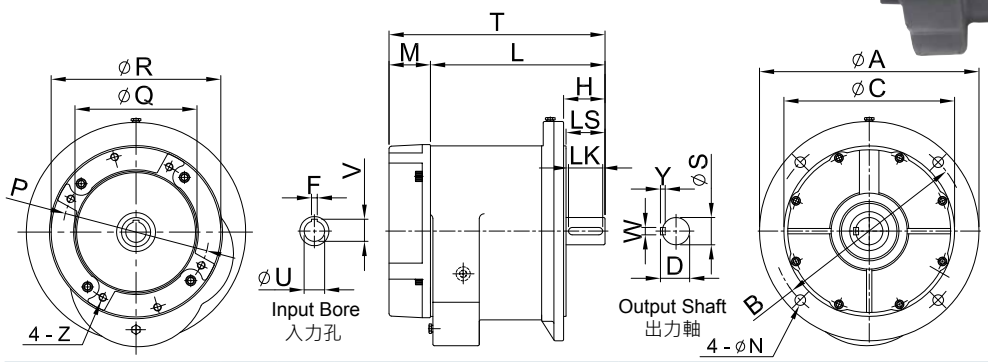
unit: mm

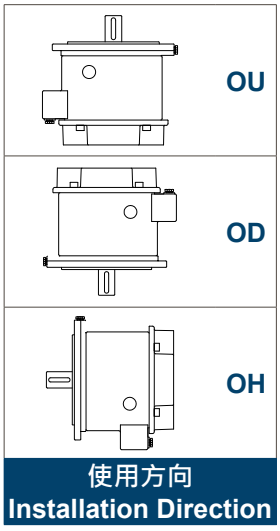
型號 Model	馬力 HP (4P)	減速比 Ratio	T	H	L	C	A	腳座 Foot Stock					馬達盤 IEC Motor Flange					入力孔 Input Bore			出力軸 Output Shaft				重量 Weight (kg)	油量 Oil (ℓ)
								E	J	B	I	N	M	P	Q	R	Z	U	F	V	D	LS	S	WxYxLK		
304	1/4	51~120	220	190	194	110	68	135	145	170	190	13	29	130	110	158	M8	11	4	12.7	31	50	28	7x7x40	12.5	0.7
306	1/4 1/2	121~200 51~120	265	227	236	127	81	170	180	210	230	15	29	130	110	200	M8	11 14	4 5	12.7 16.3	35	55	32	10x8x45	21.5	1
308	1/2	121~200	285	253	259	145	85	205	195	240	260	15	26	130	110	200	M8	14	5	16.3	41	60	38	10x8x50	29	1.4
	1 2	40~120 31~40	293 313		259 268								34 45	165	130		M10	19 24	6 8	21.8 27.3						
310	1 2	121~200 51~120	344	289	295	164	92	215	215	265	295	19	49	165	130	250	M10	19 24	6 8	21.8 27.3	45	65	42	12x8x55	45	2
	3	31~50	352										57	215	180		M12	28	8	31.3						
310S	1 2	121~200 60~120	334	286	286						280		49	165	130		M10	19 24	6 8	21.8 27.3					43	
312	2	121~200	386	332	337	192	109	250	270	295	345	19	49	165	130	250	M10	24	8	27.3	51	75	48	12x8x65	65	3
	3 5	41~120 31~50	394										57	215	180		M12	28		31.3						
312S	1 2	121~200 60~120	361	289	312	164	105	215	215	265	295		49	165	130		M10	19 24	6 8	21.8 27.3					57	2.5
314	3 5	121~200 60~120	470	385	413	210	130	310	310	370	400	22	57	215	180	250	M12	28	8	31.3	66	85	62	15x10x75	107	6.5
	7 1/2	31~50	467		402								65	265	230	300		38	10	41.3						
314S	3 5	121~200 60~120	467	377	410						390		57	215	180	250		28	8	31.3					105	
	7 1/2	31~50	464		399								65	265	230	300		38	10	41.3						
315	5	121~200	545	445	488	245	157	360	360	430	450	25	57	215	180	250	M12	28	8	31.3	76.5	100	72	20x12x90	176	10
	7 1/2 10	60~120 31~50	557		492								65	265	230	300		38	10	41.3						
316	10 15	60~120 31~50	557 580	445	492	245	157	360	360	430	450	25	65 88	265 300	230 250	300 350	M12 M16	38 42	10 12	41.3 45.3	80.5	100	76	20x12x90	184	10
317	7 1/2	121~200	604	505	539	280	172	380	420	460	530	25	65	265	230	300	M12	38	10	41.3	84.5	110	80	20x12x100	239	15
	15 20	40~120 40~50	611		523								88	300	250	350	M16	42	12	45.3						
318	10	150~200	693	565	628	310	196	480	480	570	600	28	65	265	230	300	M12	38	10	41.3	106.5	130	100	24x16x120	377	24
	15 20	121~200 51~120	716										88	300	250	350	M16	42	12	45.3					394	
	25 30	60 31~50	737		650									350	300	390		48	14	51.8						
319	20	121~200	787	670	699	380	214	540	500	635	670	28	88	300	250	350	M16	42	12	45.3	124	150	115	32x20x140	595	32
	25、30 40	70~90 40~60	808											350	300	390		48 55	14 16	51.8 59.3						

1. 表中 S 表示新尺寸。"S" means new dimension.
2. HB314(含) 以上有雙油鏡雙排油孔。 The model above HB314 have dual oil gauges & drain plugs.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

MODEL：VB

馬達插入式立式減速機 Vertical Type Reducer Motor Plug-In
RATIO：1/3~1/30 (雙段 2-Stage)



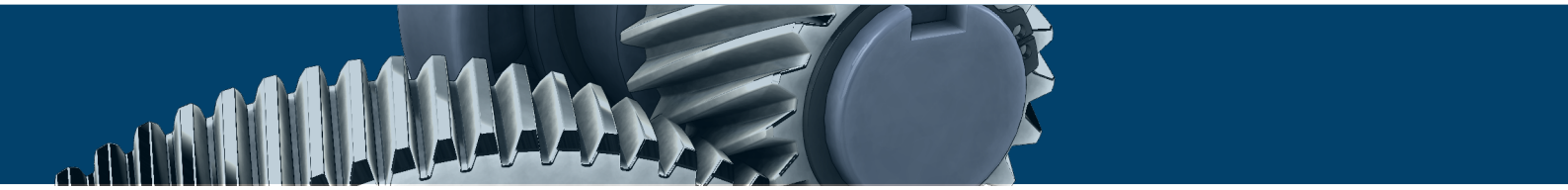


使用方向
Installation Direction

unit: mm

型號 Model	馬力 HP (4P)	減速比 Ratio	T	L	H	法蘭面 Flange				馬達盤 IEC Motor Flange					入力孔 Input Bore			出力軸 Output Shaft				重量 Weight (kg)
						A	B	C	N	M	P	Q	R	Z	U	F	V	D	LS	S	WxYxLK	
201	1/4	3~30	175	146	43	186	155	130	10	29	130	110	160	M8	11	4	12.7	21	38	19	5x5x30	9
202	1/2	3~10	182	153	50	186	155	130	10	29	130	110	160	M8	14	5	16.3	27	45	24	7x7x35	9
203	1/4 1/2	31~50 11~30	216	187	50	200	175	150	13	29	130	110	160	M8	11 14	4 5	12.7 16.3	27	45	24	7x7x35	12.5
205	1/2 1	31~50 3~30	237 245	211	55	243	215	180	14	26 34	130 165	110 130	200	M8 M10	14 19	5 6	16.3 21.8	31	50	28	7x7x40	19
206	2	3~10	261	216	60	243	215	180	14	45	165	130	200	M10	24	8	27.3	35	55	32	10x8x45	20.5
207	1 2	31~40 11~30	278	233	60	280	245	210	14	34 45	165	130	200	M10	19 24	6 8	21.8 27.3	35	55	32	10x8x45	27
208	3	3~10	295	239	65	280	245	210	14	57	215	180	250	M12	28	8	31.3	41	60	38	10x8x50	27.5
209	2 3	31~40 11~30	310 318	261	65	330	300	250	18	49 57	165 215	130 180	250	M10 M12	24 28	8	27.3 31.3	41	60	38	10x8x50	47.5 39
209S	2 3	31~40 11~30	303 311	254		300	265	230		49 57	165 215	130 180		M10 M12	24 28		27.3 31.3					44 36
210	5	3~10	323	266	70	330	300	250	18	57	215	180	250	M12	28	8	31.3	45	65	42	12x8x55	41
210S			316	259		300	265	230														37
211	3 5	31~40 11~30	362	305	80	380	335	290	18	57	215	180	250	M12	28	8	31.3	51	75	48	12x8x65	60.5
211S	5	11~30	339	282		340	300	250														53
212	7 1/2 10	3~10	370	305	80	380	335	290	18	65	265	230	300	M12	38	10	41.3	51	75	48	12x8x65	69
213	7 1/2 15	11~30 3~10	423 446	358	85	450	400	350	22	65 88	265 300	230 250	300 350	M12 M16	38 42	10 12	41.3 45.3	60	80	56	15x10x70	101
213S	7 1/2 15	11~30 3~10	421 456	356 368		440				65 88	265 300	230 250	300 350	M12 M16	38 42	10 12	41.3 45.3					98 99.5
214	10	11~30	428	362	90	450	400	350	22	65	265	230	300	M12	38	10	41.3	66	85	62	15x10x75	99.5
214S			426			440																96.5
215	15 20	11~30 3~10	522	434	105	500	450	400	24	88	300	250	350	M16	42	12	45.3	76.5	100	72	20x12x90	156
216	20 25	11~30 5~10	522	434	105	500	450	400	24	88	300 350	250 300	350 390	M16	42 48	12 14	45.3 51.8	80.5	100	76	20x12x90	158
217	25 30	11~30 4~30	552	465	115	590	540	480	24	88	350	300	390	M16	48	14	51.8	84.5	110	80	20x12x100	220
	40	4~10													55	16	59.3					
218	40	11~30	658	571	135	660	610	560	6x24	88	350	300	390	M16	55	16	59.3	106.5	130	100	24x16x120	320
	50 60	5~10	689	589						100	400	350	450		60	18	64.3					
219[Note 2]	50 60	11~30	754	653	156	700	650	600	6x24	100	400	350	450	M16	60	18	64.3	124	150	115	32x20x140	575

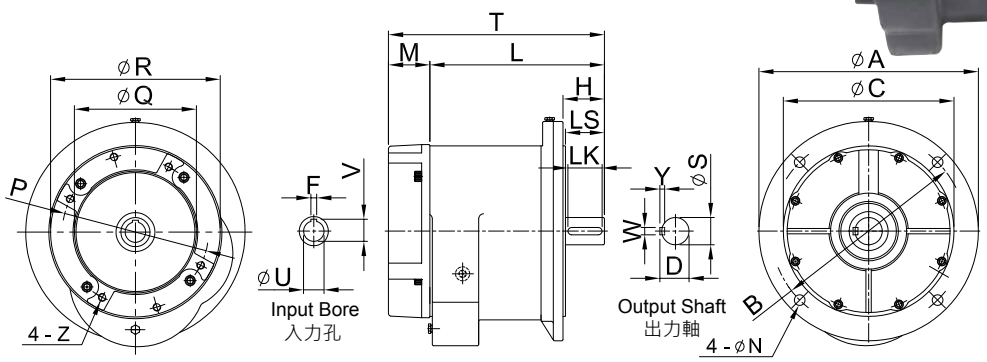
1. 表中 S 表示新尺寸。 "S" means new dimension.
2. VB219 外觀及尺寸請參考 B21 頁。 Please refer to page B21 for the dimension of VB219.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

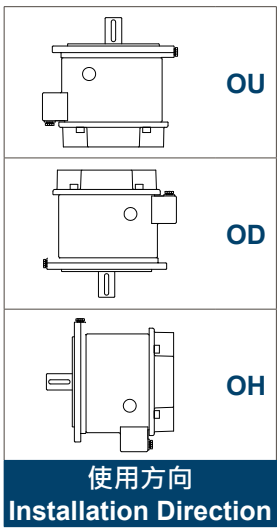


MODEL：VB

馬達插入式立式減速機 Vertical Type Reducer Motor Plug-In

RATIO：1/31~1/200 (三段 3-Stage)





unit: mm

型號 Model	馬力 HP (4P)	減速比 Ratio	T	L	H	法蘭面 Flange				馬達盤 IEC Motor Flange					入力孔 Input Bore			出力軸 Output Shaft				重量 Weight (kg)
						A	B	C	N	M	P	Q	R	Z	U	F	V	D	LS	S	WxYxLK	
304	1/4	51~120	221	187	55	200	175	150	12	29	130	110	160	M8	11	4	12.7	31	50	28	7x7x40	13
306	1/4 1/2	121~200 51~120	255 255	226	60	243	215	180	14	29	130	110	160	M8	11 14	4 5	12.7 16.3	35	55	32	10x8x45	20.5
308	1/2	121~200	264	247	65	280	245	210	14	29	130	110	200	M8	14	5	16.3	41	60	38	10x8x50	28
	1 2	40~120 31~40	271 328	238						34 45	165	130		M10	19 24	6 8	21.8 27.3					
310	1 2	121~200 51~120	336	279	70	330	300	250	18	34 49	165	130	250	M10	19 24	6 8	21.8 27.3	45	65	42	12x8x55	45
	3	31~50	322							57	215	180		M12	28	8	31.3					
310S	1 2	121~200 60~120	320	271		300	265	230		49	165	130		M10	19 24	6 8	21.8 27.3					41
312	2	121~200	364	315	80	380	335	290	18	49	165	130	250	M10	24	8	27.3	51	75	48	12x8x65	65
	3 5	41~120 31~50	372							57	215	180		M12	28		31.3					
312S	1 2	121~200 60~120	344	296		340	300	250		49	165	130		M10	19 24	6 8	21.8 27.3					58
314	3 5	121~200 60~120	445	389	90	450	400	350	22	57	215	180	250	M12	28	8	31.3	66	85	62	15x10x75	105
	7 1/2	31~50	443	378						65	265	230	300		38	10	41.3					
314S	3 5	121~200 60~120	430	373		440				57	215	180	250		28	8	31.3					102
	7 1/2	31~50	439							65	265	230	300		38	10	41.3					
315	5	121~200	510	451	105	500	450	400	24	57	215	180	250	M12	28	8	31.3	76.5	100	72	20x12x90	165
	7 1/2 10	60~120 31~50	521	454						65	265	230	300		38	10	41.3					
316	10 15	60~120 31~50	521 538	454	105	500	450	400	24	65 88	265 300	230 250	300 350	M12 M16	38 42	10 12	41.3 45.3	80.5	100	76	20x12x90	174
317	7 1/2	121~200	561	496	115	590	540	480	24	65	265	230	300	M12	38	10	41.3	84.5	110	80	20x12x100	226.5
	15 20	40~120 40~50	567	480						88	300	250	350	M16	42	12	45.3					
318	10	150~200	654	589	135	660	610	560	6x24	65	265	230	300	M12	38	10	41.3	106.5	130	100	24x16x120	347
	15 20	121~200 51~120	677							88	300	250	350	M16	42	12	45.3					
	25 30	60 31~50	681								350	300	390		48	14	51.8					
319[Note 2]	20	121~200	764	674	155	700	650	600	6x24	88	300	250	350	M16	42	12	45.3	124	150	115	32x20x140	597
	25、30 40	70~90 40~60	785								350	300	390		48 55	14 16	51.8 59.3					

1. 表中 S 表示新尺寸。 "S" means new dimension.
2. VB319 外觀及尺寸請參考 B21 頁。 Please refer to page B21 for the dimension of VB319.
3. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

VERTICAL REDUCER SERIES
多速比多段齒輪減速機系列

特點

高減速比，從 1/210~1/6000。

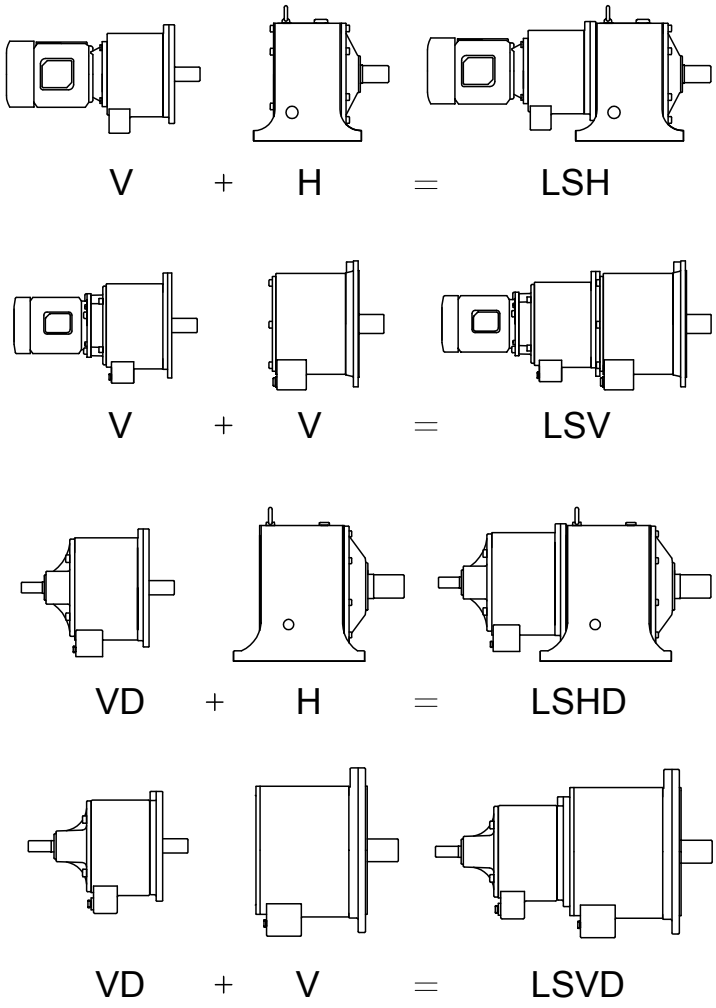
多速比減速機－連結規格一覽表
Multi-Stage Reducer - Link Specification Table

Type / Model NO.	LSH、LSHD	LSV、LSVD
406	201V+206H	201V+206V
408	203V+208H	203V+208V
508	201V+308H	201V+308V
410	205V+210H	205V+210V
410S	205V+210HS	205V+210VS
510	306V+210H	306V+210V
510S	306V+210HS	306V+210VS
610	306V+310H	306V+310V
610S	306V+310HS	306V+310VS
412	205V+212H	205V+212V
412S	205V+212HS	205V+212VS
512	205V+312H	205V+312VS
512S	205V+312HS	205V+312VS
612	306V+312H	306V+312V
612S	306V+312HS	306V+312VS
414	209V+214H	209V+214V
414S	209VS+214HS	209VS+214VS
514	207V+314H	207V+314V
514S	207V+314HS	207V+314VS
614	308V+314H	308V+314V
614S	308V+314HS	308V+314VS
416	209V+216H	209V+216V
516	209V+316H	209V+316V
616	310V+316H	310V+316V
417	211V+217H	211V+217V
517	312V+217H	312V+217V
617	310V+317H	310V+317V
418	212V+218H	212V+218V
518	212V+318H	212V+318V
618	312V+318H	312V+318V
419	213V+219H	213V+219V

連結規格僅供參考用。

Specifications

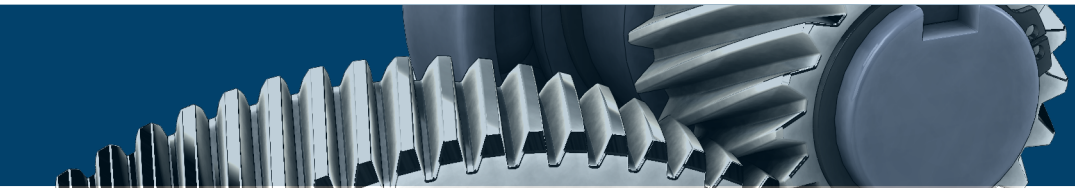
High gear ratio from 1/210 to 1/6000.



多速比減速機型號速比一覽表 (速比超過 1/6000 以上請另議)
Model / Speed Ratio Table for Multi-Stage Reducer
(Speed Ratio Above 1/6000 Excluded)

Horse Power	Model	減速比 Ratio		
		1/210 ~ 1/600	1/610 ~ 1/1200	1/1210 ~ 1/6000
4P	6P	Model	Model	Model
1/4		406	508	610
1/2	1/4	408	510	612
1	1/2	410	512	614
2	1	412	514	616
3	2	414	516	617
5	3	416	517	618
71/2	5	417	518	
10	7.5	418		
15	10	419		

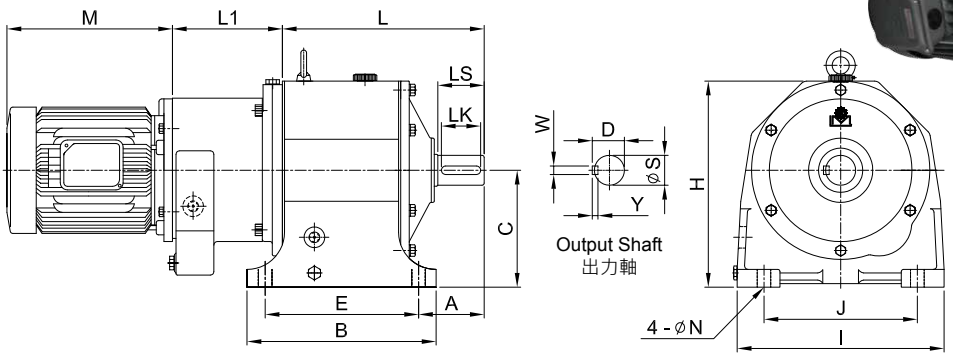
此表屬標準品，如馬力 (HP) 或安全係數 (SF) 標註不同則型號、配齒不同，如需安全係數 (SF)、扭力 (T)，請電洽。



MODEL：LSH

臥式多速比減速機 Horizontal Multi-Stage Reducer

RATIO：1/200~1/6000



unit: mm

型號 Model	L	L1	M	A	C	H	腳座 Foot Stock					出力軸 Output Shaft				重量 Weight (kg)	油量 Oil (ℓ)
							E	J	B	I	N	D	LS	S	WxYxLK		
406	226	103	225	81	127	227	170	180	210	230	15	35	55	32	10x8x45	27	1.3
408	259	137	248	87	145	253	205	195	240	260	15	41	60	38	10x8x50	40	2
508	259	103	225	87	145	253	205	195	240	260	15	41	60	38	10x8x50	40	2
410	284	155	242	92	164	289	215	215	265	295	19	45	65	42	12x8x55	54	3
410S	273					286				280						52	
510	294	166	248	92	164	289	215	215	265	295	19	45	65	42	12x8x55	56	3
510S	273					286				280						53	
610	306	132	225	92	164	289	215	215	265	295	19	45	65	42	12x8x55	59	3
610S	296					286				280						54	
412	325	155	322	109	192	332	250	270	295	345	19	51	75	48	12x8x65	74	4
412S	298			105	164	289	215	215	265	295						65	3.5
512	337	155	242	109	192	332	250	270	295	345	19	51	75	48	12x8x65	79	4
512S	323			105	164	289	215	215	265	295						70	3.5
612	337	166	248	109	192	332	250	270	295	345	19	51	75	48	12x8x65	80.5	4
612S	323			105	164	289	215	215	265	295						72	3.5
414	390	189	315	130	210	385	310	310	370	400	22	66	85	62	15x10x75	139	10.5
414S	387					377				390						130	8
514	402	173	322	130	210	385	310	310	370	400	22	66	85	62	15x10x75	145	14
514S	389					377				390						132	8
614	402	173	242	130	210	385	310	310	370	400	22	66	85	62	15x10x75	149	14
614S	399					377				390						134	8
416	471	196	371	157	245	445	360	360	430	450	25	80.5	100	76	20x12x90	188	12
516	492	196	315	157	245	445	360	360	430	450	25	80.5	100	76	20x12x90	206	12
616	492	212	322	157	245	445	360	360	430	450	25	80.5	100	76	20x12x90	211	12
417	508	225	374	172	280	505	380	420	460	530	25	84.5	110	80	20x12x100	262	18
517	508	231	371	172	280	505	380	420	460	530	25	84.5	110	80	20x12x100	269	18
617	523	209	315	172	280	505	380	420	460	530	25	84.5	110	80	20x12x100	270	18
418	607	221	412	196	310	565	480	480	570	600	28	106.5	130	100	24x16x120	392	27
518	628	221	374	196	310	565	480	480	570	600	28	106.5	130	100	24x16x120	423	27
618	628	231	371	196	310	565	480	480	570	600	28	106.5	130	100	24x16x120	430	27
419	685	273	498	214	380	670	540	500	635	670	28	124	150	115	32x20x140	571	37

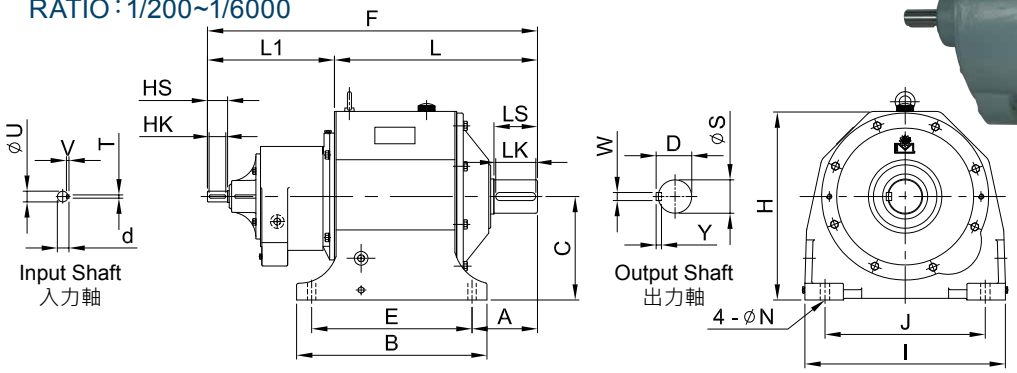
1. 表中 S 表示新尺寸。 "S" means new dimension.
2. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

VERTICAL REDUCER SERIES
多速比多段齒輪減速機系列

MODEL：LSHD

臥式多速比雙軸減速機 Horizontal Multi-Stage & Double Shaft Reducer

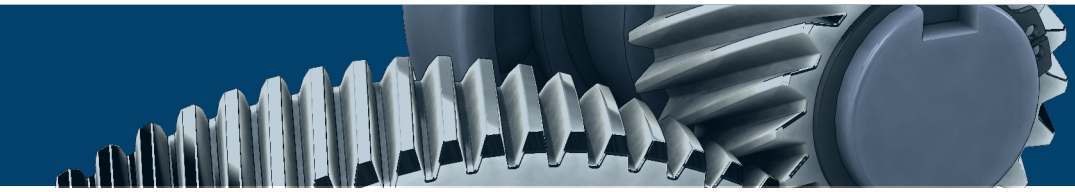
RATIO：1/200~1/6000



unit: mm

型號 Model	L	L1	F	A	C	H	入力軸 Input Shaft				腳座 Foot Stock					出力軸 Output Shaft				重量 Weight (kg)	油量 Oil (ℓ)
							U	HS	TxVxHK	d	E	J	B	I	N	S	LS	D	WxYxLK		
406	226	190	416	81	127	227	16	35	5x5x25	18	170	180	210	230	15	32	55	35	10x8x45	29	1.3
408	259	243	502	87	145	253	19	40	5x5x30	21	205	195	240	260	15	38	60	41	10x8x50	41	2
508	259	190	449	87	145	253	16	35	5x5x25	18	205	195	240	260	15	38	60	41	10x8x50	41	2
410	283	292	575	92	164	289	24	50	7x7x40	27	215	215	265	295	19	42	65	45	12x8x55	58	3
410S	273		565			286								280						56	
510	283	268	551	92	164	289	19	40	5x5x30	21	215	215	265	295	19	42	65	45	12x8x55	58	3
510S	273	266	539			286								280						56	
610	306	215	521	92	164	289	16	35	5x5x25	18	215	215	265	295	19	42	65	45	12x8x55	61	3
610S	296		511			286								280						59	
412	325	292	617	109	192	332	24	50	7x7x40	27	250	270	295	345	19	48	75	51	12x8x65	78	4
412S	298			105	164						215	215	265	295						69	3.5
512	337	292	629	109	192	332	24	50	7x7x40	27	250	270	295	345	19	48	75	51	12x8x65	83	4
512S	323			105	164						215	215	265	295						74	3.5
612	337	268	605	109	192	332	19	40	5x5x30	21	250	270	295	345	19	48	75	51	12x8x65	83	4
612S	323			105	164						215	215	265	295						74	3.5
414	390	329	719	130	210	385	28	55	7x7x45	31	310	310	370	400	22	62	85	66	15x10x75	147	8
414S	387					377								390						139	
514	402	310	712	130	210	385	24	50	7x7x40	27	310	310	370	400	22	62	85	66	15x10x75	141	8
514S	399					377								390						132	
614	402	310	712	130	210	385	19 24	40 50	5x5x30 7x7x40	21 27	310	310	370	400	22	62	85	66	15x10x75	145	8
614S	399					377	19 24	40 50	5x5x30 7x7x40	21 27				390						133	
416	471	329	804	157	245	445	28	55	7x7x45	31	360	360	430	450	25	76	100	80.5	20x12x90	194	12
516	492	329	817	157	245	445	28	55	7x7x45	31	360	360	430	450	25	76	100	80.5	20x12x90	212	12
616	492	349	837	157	245	445	24	50	7x7x40	27	360	360	430	450	25	76	100	80.5	20x12x90	213	12
417	511	379	890	178	280	505	32	55	10x8x45	35	380	420	460	530	25	80	110	84.5	20x12x100	272	18
517	511	370	881	178	280	505	28 32	55 60	7x7x45 10x8x50	31 35	380	420	460	530	25	80	110	84.5	20x12x100	275	18
617	526	353	879	178	280	505	28	55	7x7x45	31	380	420	460	530	25	80	110	84.5	20x12x100	266	18
418	607	382	993	196	310	565	32	60	10x8x50	35	480	480	570	600	28	100	130	106.5	24x16x120	402	27
518	628	382	1014	196	310	565	28 32	55 60	7x7x45 10x8x50	31 35	480	480	570	600	28	100	130	106.5	24x16x120	433	27
618	628	370	998	196	310	565	28	55	7x7x45	31	480	480	570	600	28	100	130	106.5	24x16x120	436	27
419	676	451	949	214	380	670	38	65	10x8x55	41	540	500	635	680	28	115	150	124	32x20x140	589	37

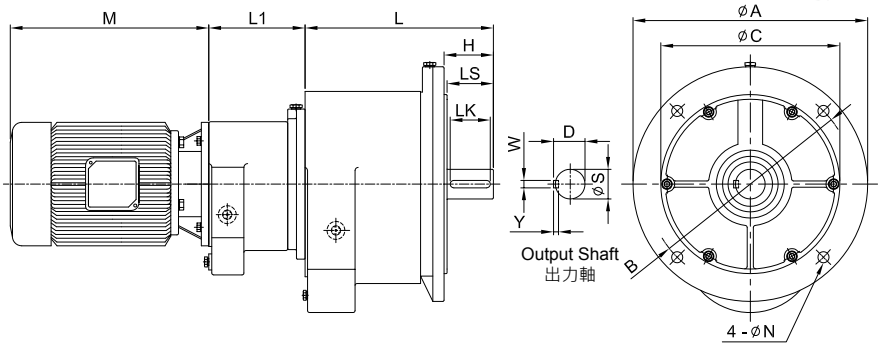
1. 表中 S 表示新尺寸。 "S" means new dimension.
2. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

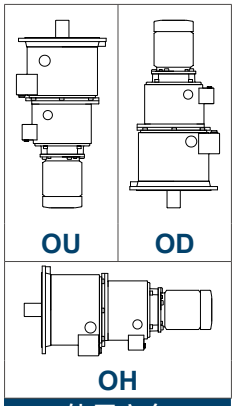


MODEL：LSV

立式多速比減速機 Vertical Multi-Stage Reducer

RATIO：1/200~1/6000





使用方向 Installation Direction

unit: mm

型號 Model	馬力 (4P) HP	L	L1	M	法蘭面 Flange				出力軸 Output Shaft					重量 Weight (kg)
					A	B	C	N	D	LS	S	WxYxLK	H	
406	1/4	216	103	225	243	215	180	14	35	55	32	10x8x45	60	26
408	1/2	239	137	248	280	245	210	14	41	60	38	10x8x50	66	37
508	1/4	238	103	225	280	245	210	14	41	60	38	10x8x50	65	38
410	1	266	155	242	330	300	250	18	45	65	42	12x8x55	70	55
410S	1	259			300	265	230							54
510	1/2	266	166	248	330	300	250	18	45	65	42	12x8x55	70	57
510S	1/2	259			300	265	230							56
610	1/4	289	132	225	330	300	250	18	45	65	42	12x8x55	70	61
610S	1/4	282			300	265	230							60
412	2	305	155	322	380	335	290	18	51	75	48	12x8x65	80	74
412S	2	282			340	300	250							67
512	1	315	155	242	380	335	290	18	51	75	48	12x8x65	80	81
512S	1	296			340	300	250							74
612	1/2	315	166	248	380	335	290	18	51	75	48	12x8x65	80	83
612S	1/2	296			340	300	250							76
414	3	363	196	315	450	400	350	22	66	85	62	15x10x75	90	122
414S	3	361	189		440									119
514	2	363	156	322	450	400	350	22	66	85	62	15x10x75	90	123
514S	2	378	173		440									120
614	1	372	166	242	450	400	350	22	66	85	62	15x10x75	90	124
614S	1	378	173		440									121
416	5	434	196	371	500	450	400	24	80.5	100	76	20x12x90	105	173
416S	5		189											172
516	3	454	196	315	500	450	400	24	80.5	100	76	20x12x90	105	196
516S	3		189											195
616	2	454	219	322	500	450	400	24	80.5	100	76	20x12x90	105	201
616S	2		212											200
417	7 1/2	465	225	374	590	540	480	24	84.5	110	80	20x12x100	115	249
517	5	479	235	371	590	540	480	24	84.5	110	80	20x12x100	115	256
617	3	484	209	315	590	540	480	24	84.5	110	80	20x12x100	115	247
418	10	565	221	412	660	610	560	6x24	106.5	130	100	24x16x120	135	342
518	7 1/2	599	221	374	660	610	560	6x24	106.5	130	100	24x16x120	135	383
618	5	599	235	371	660	610	560	6x24	106.5	130	100	24x16x120	135	390

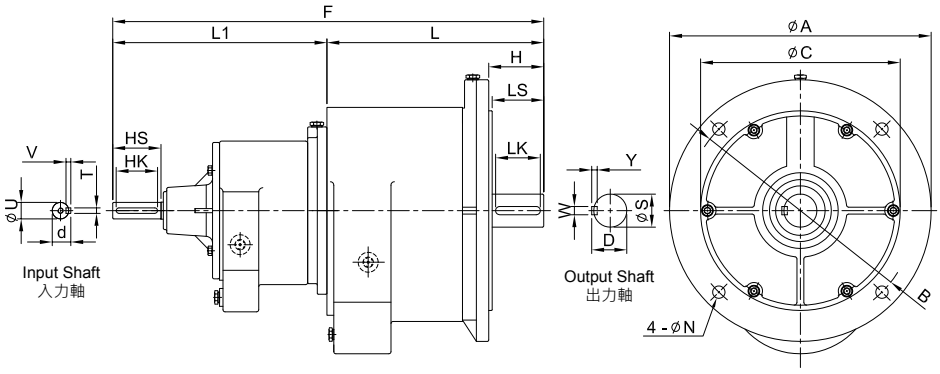
1. 表中 S 表示新尺寸。 "S" means new dimension.
2. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.

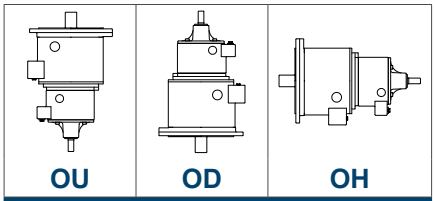
VERTICAL REDUCER SERIES
多速比多段齒輪減速機系列

MODEL：LSVD

立式多速比雙軸減速機 Vertical Multi-Stage & Double Shaft Reducer

RATIO：1/200~1/6000





使用方向 Installation Direction

unit: mm

型號 Model	L	L1	F	法蘭面 Flange				入力軸 Input Shaft				出力軸 Output Shaft					重量 Weight (kg)
				A	B	C	N	d	HS	TxVxHK	U	D	LS	S	WxYxLK	H	
406	216	190	406	243	215	180	14	18	35	5x5x25	16	35	55	32	10x8x45	60	28
408	239	243	482	280	245	210	14	21	40	5x5x30	19	41	60	38	10x8x50	66	38
508	239	190	429	280	245	210	14	18	35	5x5x25	16	41	60	38	10x8x50	65	39
410	266	292	558	330	300	250	18	27	50	7x7x40	24	45	65	42	12x8x55	70	59
410S	259		551	300	265	230											58
510	266	268	534	330	300	250	18	21	40	5x5x30	19	45	65	42	12x8x55	70	59
510S	259	266	525	300	265	230											58
610	289	215	504	330	300	250	18	18	35	5x5x25	16	45	65	42	12x8x55	70	63
610S	282		497	300	265	230											62
412	305	292	597	380	335	290	18	27	50	7x7x40	24	51	75	48	12x8x65	80	78
412S	282		574	340	300	250											
512	315	292	607	380	335	290	18	27	50	7x7x40	24	51	75	48	12x8x65	80	85
512S	296		588	340	300	250											
612	315	268	583	380	335	290	18	21	40	5x5x30	19	51	75	48	12x8x65	80	86
612S	296		564	340	300	250											
414	363	336	699	450	400	350	22	31	55	7x7x45	28	66	85	62	15x10x75	90	130
414S	361	329	690	440													128
514	378	293	656	450	400	350	22	27	50	7x7x40	24	66	85	62	15x10x75	90	127
514S	373	310	683	440													125
614	378	268	640	450	400	350	22	21 27	40 50	5x5x30 7x7x40	19 24	66	85	62	15x10x75	90	128
614S	373	310	683	440				27	40 50	5x5x30 7x7x40	19 24						126
416	434	336	770	500	450	400	24	31	55	7x7x45	28	80.5	100	76	20x12x90	105	181
416S		329	763														180
516	452	336	788	500	450	400	24	31	55	7x7x45	28	80.5	100	76	20x12x90	105	204
516S		329	781														203
616	452	353	805	500	450	400	24	27	50	7x7x40	24	80.5	100	76	20x12x90	105	206
616S		349	801														204
417	479	379	858	590	540	480	24	35	55	10x8x45	32	84.5	110	80	20x12x100	115	259
517	479	370	849	590	540	480	24	31 35	55 60	7x7x45 10x8x50	28 32	84.5	110	80	20x12x100	115	262
617	484	353	825	590	540	480	24	31	55	7x7x45	28	84.5	110	80	20x12x100	115	252
418	565	382	951	660	610	560	6x24	35	60	10x8x50	32	106.5	130	100	24x16x120	135	352
518	599	382	986	660	610	560	6x24	31 35	55 60	7x7x45 10x8x50	28	106.5	130	100	24x16x120	135	393
618	599	370	969	660	610	560	6x24	31	55	7x7x45	32	106.5	130	100	24x16x120	135	396

1. 表中 S 表示新尺寸。 "S" means new dimension.
2. 重量不含馬達及潤滑油。 The weight does not include motor and lubricant.