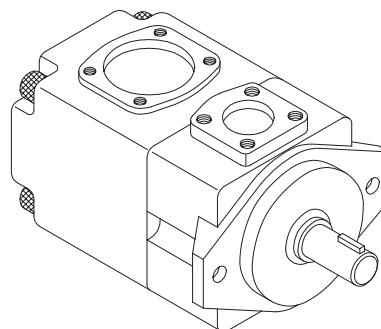


VQ15
VQ20 SVQ25
VQ25 SVQ35
VQ35 SVQ45
VQ45 DVQ45



ORDERING CODE 訂購指引

VQ15	-17	F	R	A	A	-01
Model number 型號	Displacement c.c/rev (吐油量)	Mounting Type 安裝方式	Rotation 轉向	Discharge Position 出口位置	Suction Position 進口位置	Shaft Type 心軸種類
VQ15	6,8,11,14,17, 19,23,26,31,38	F: Flange Type 法蘭型 L: Foot Type 腳座型	View from Shaft End 從心軸方向看	A: Upward (Normal) 向上	A: Upward (Normal) 向上	01:Normal
VQ20	6,8,11,14,17, 19,23,26,31, 38		R: Clockwise 順時針	B: Downward 向下	B: Downward 向下	
VQ25 SVQ25	18,22,26,32, 38,43,47,52, 60,65,75		L: Anti- Clockwise 逆時針	R: On Right Hand 右邊	R: On Right Hand 右邊	
VQ35 SVQ35	60,66,76,82, 88,94,108, 116,125		L: On Left Hand 左邊	L: On Left Hand 左邊		
VQ45 SVQ45 DVQ45	136,156,189, 200,216,237					

SINGLE PUMP WEIGHT LIST (Kg) 單泵重量表

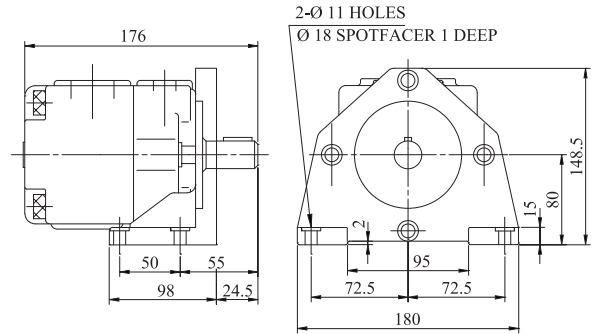
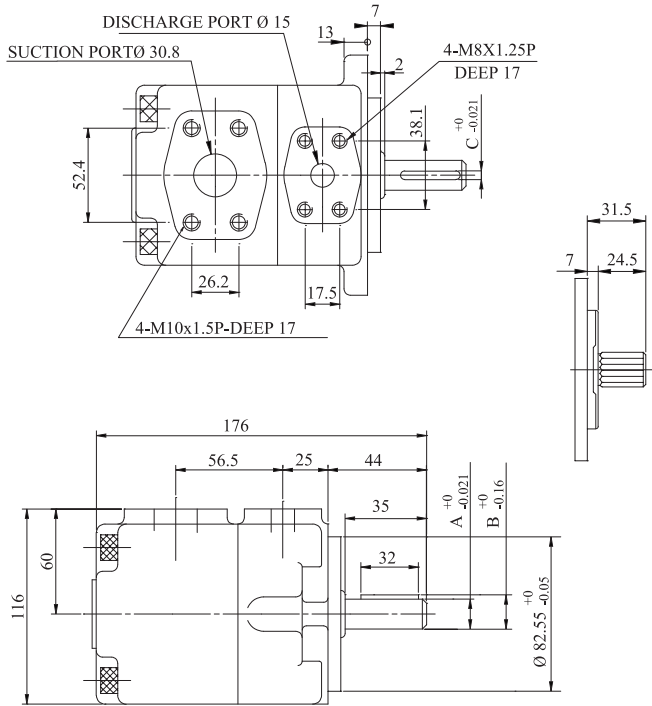
	VQ15	VQ20	VQ25	SVQ25	VQ35	SVQ35	VQ45	DVQ45	SVQ45
Flange Type	10.3	12.3	16.7	23	36	33	52	61	66.5
Foot Type	12.7	17	21.4	31	44	41	60	92	74.5
Outlet & Inlet Flange	0.9	0.9	1.6	1.6	2.0	2.0	3.2	3.2	3.2

VQ 系列工作壓力說明

Model 型號	Geomefric displ. (c.c/rev) 吐出量	Using antiwer oil or Phosphate ester fluid 使用抗磨液壓油		Using water glycol fluid 使用水乙二醇液		Using water-in-oil emulsions 使用油包水乳化液		Min Speed (rpm) 最低轉速					
		Max Pressure (Kgf/cm ²) 最高壓力	Max Speed (rpm) 最高轉速	Max Pressure (Kgf/cm ²) 最高壓力	Max Speed (rpm) 最高轉速	Max Pressure (Kgf/cm ²) 最高壓力	Max Speed (rpm) 最高轉速						
VQ15	06	210	1800	160	1200	140	1200	800					
	08												
	11												
	14												
	17												
	19												
	23												
	26												
	31	175	1500										
38	1200												
VQ20	06	210	1800	160	1200	140	1200	800					
	08												
	11												
	14												
	17												
	19												
	23												
	26												
	31	175	1500										
38	1200												
VQ25 SVQ25	18	210	1800	160	1200	140	1200	800					
	22												
	26												
	32												
	38												
	43												
	47												
	52												
	60	1500											
75													
VQ35 SVQ35	60	175	1800	160	1200	140	1200	600					
	66												
	75												
	82												
	88												
	94												
	108												
	116												
	125	1500											
VQ45 SVQ45 DVQ45	136	175	1800	140	1200	140	1200	600					
	156												
	189												
	200								1500				
	216												
	237												

Model 型號		Delivery Flow (ℓ/min) at no-load pressure 無負壓的傳輸流量				Running Speed (rpm) 轉速		Max Pressure (Kgf/cm ²) 最大壓力	
		Running Speed (rpm) 轉速				Max 最大	Min 最小	Cont.	Peak.
		1000	1200	1500	1800				
VQ15	06	6.2	7.4	9.3	11.2	1800	800	210	240
	08	8.1	9.7	12.1	14.6	1800	800	210	240
	11	11.2	13.4	16.8	20.1	1800	800	210	240
	14	14.3	17.1	21.5	25.7	1800	800	210	240
	17	17.1	20.5	25.6	30.7	1800	800	210	240
	19	19.2	23.0	28.8	34.5	1800	800	210	240
	23	23.3	27.9	34.9	41.9	1800	800	210	240
	26	26.1	31.3	39.1	46.9	1800	800	210	240
	31	31.1	37.3	46.6	—	1500	800	175	240
	38	38.1	45.6	—	—	1200	800	175	230
VQ20	06	6.2	7.4	9.3	11.2	1800	800	210	230
	08	8.1	9.7	12.1	14.6	1800	800	210	230
	11	11.2	13.4	16.8	20.1	1800	800	210	230
	14	14.3	17.1	21.5	25.7	1800	800	210	230
	17	17.1	20.5	25.6	30.7	1800	800	210	230
	19	19.2	23.0	28.8	34.5	1800	800	210	230
	23	23.3	27.9	34.9	41.9	1800	800	210	230
	26	26.1	31.3	39.1	46.9	1800	800	210	230
	31	31.1	37.3	46.6	—	1500	800	175	230
	38	38.1	45.6	—	—	1200	800	175	230
VQ25 SVQ25	18	18.1	21.7	27.2	32.6	1800	800	210	230
	22	22.1	26.5	33.2	39.8	1800	800	210	230
	26	26.2	31.4	39.3	47.1	1800	800	210	230
	32	32.1	38.5	48.1	57.7	1800	800	210	230
	38	38.2	45.8	57.3	68.7	1800	800	210	230
	43	43.2	51.8	64.8	77.7	1800	800	210	230
	47	47.1	56.5	70.0	85.0	1800	800	210	230
	52	52.3	62.7	78.4	94.1	1800	800	210	230
	60	60.2	72.7	90.3	108.3	1800	800	210	230
	65	65.3	78.3	97.9	117.5	1800	800	210	230
	75	75.0	90.0	112.5	—	1500	800	210	230
VQ35 SVQ35	60	60.3	72.3	90.4	108.5	1800	600	175	210
	66	66.4	79.6	99.6	119.5	1800	600	175	210
	75	76.3	91.5	114.4	137.3	1800	600	175	210
	82	82.2	98.6	123.3	147.9	1800	600	175	210
	88	88.3	105.9	132.4	158.9	1800	600	175	210
	94	94.5	113.4	141.7	170.1	1800	600	175	210
	108	108.2	129.8	162.3	194.4	1800	600	175	210
	116	116.1	139.3	174.1	208.9	1800	600	175	210
	125	124.6	149.5	186.9	—	1500	600	175	210
VQ45 SVQ45 DVQ45	136	136.8	164.0	204.0	246.0	1800	600	165	175
	156	156.2	188.0	234.0	280.0	1800	600	165	175
	189	189.5	227.0	284.0	340.0	1800	600	165	175
	200	200.0	240.0	300.0	360.0	1800	600	165	175
	216	216.0	260.0	324.0	—	1500	600	165	175
	237	237.0	285.0	355.0	—	1500	600	165	175

VQ15 Max. Pressure: 240 Kg/cm² (Peak)
Max. Speed: 1800 rpm

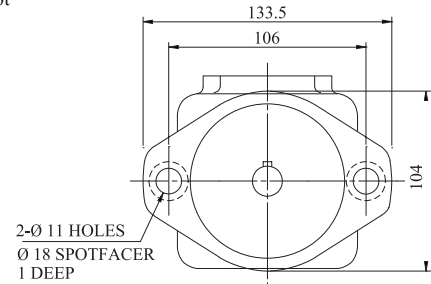


Foot Type (腳座型)

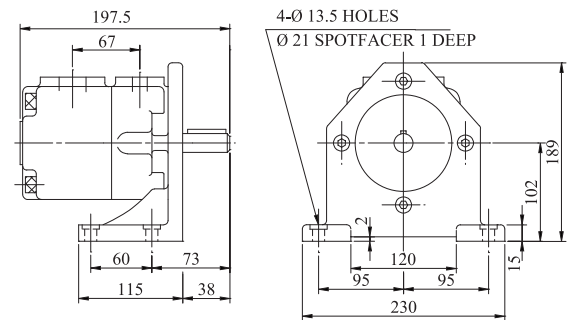
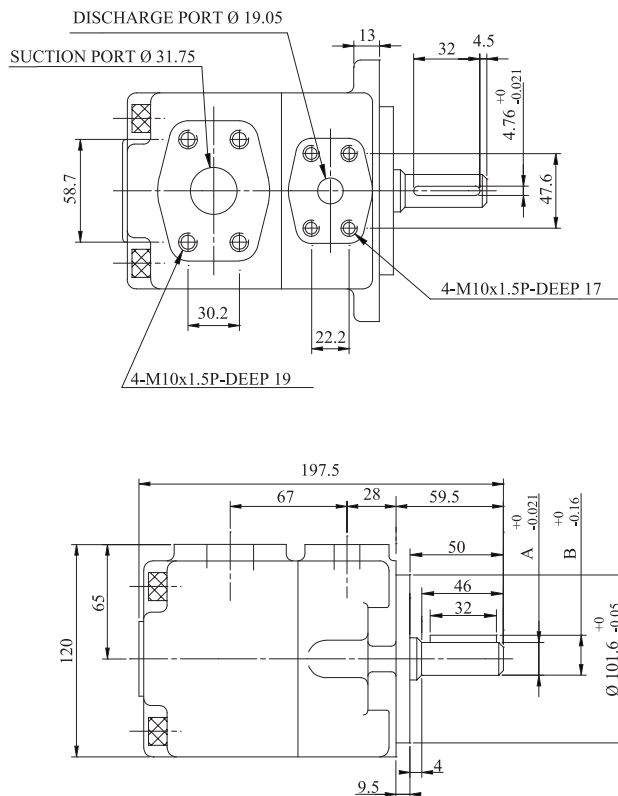
NO.03-Shaft

11-Teeth Spline
3/4" (19.05) DIA
30° pressure angle Flat root side fit

	A	B	C
NO.01-Shaft	Ø19.05	21.24	4.76
NO.03-Shaft	Spline shaft		

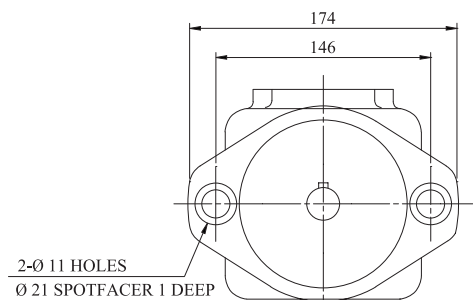


VQ20 Max. Pressure: 230 Kg/cm² (Peak)
Max. Speed: 1800 rpm

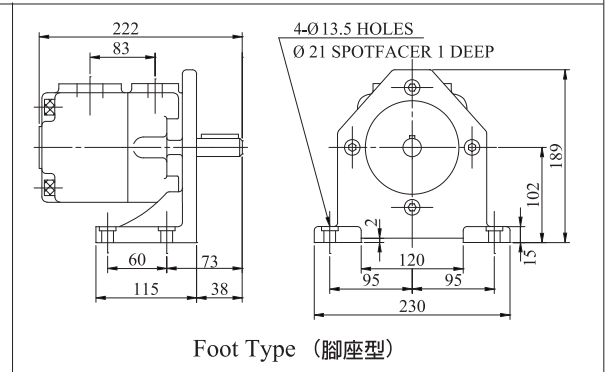
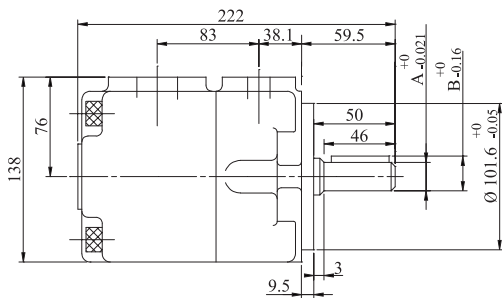
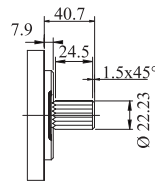
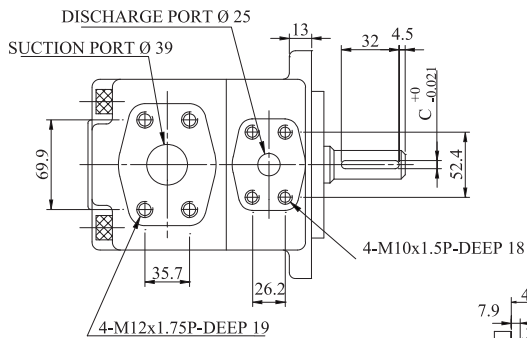


Foot Type (腳座型)

	A	B	C
NO.01-Shaft	Ø 22.23	24.5	4.76
NO.02-Shaft	Ø 25.4	28.18	6.35
NO.03-Shaft	Ø 22.23	24.94	6.35

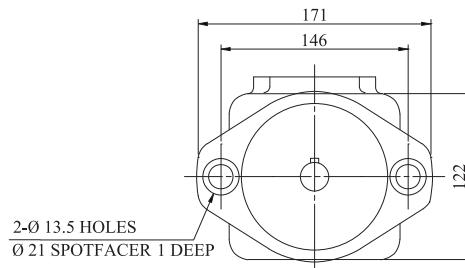


VQ25 Max. Pressure: 230 Kg/cm²(Peak)
Max. Speed: 1800 rpm

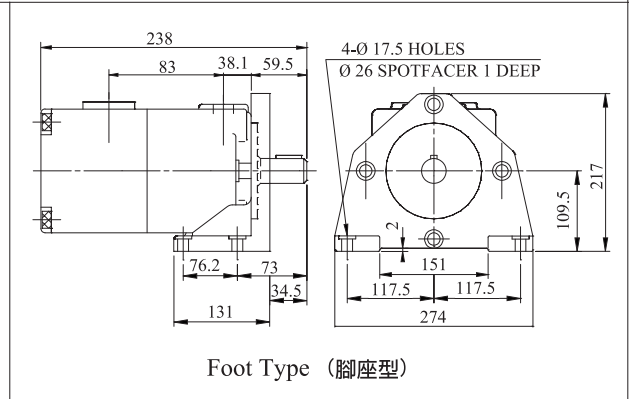
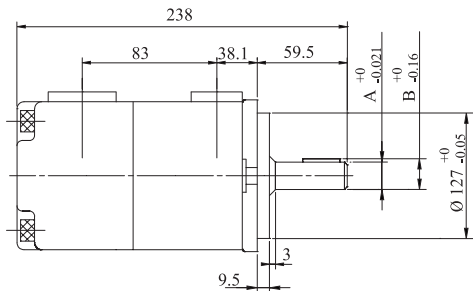
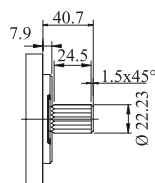
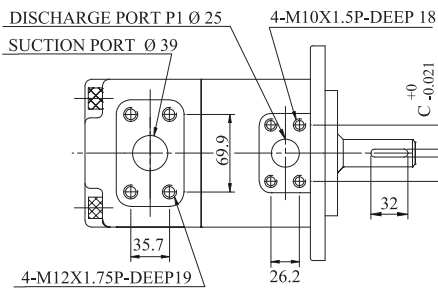


NO.04-Shaft
16/32 d.p. -13
teeth 30°
pressure angle
Flat root side fit.

	A	B	C
NO.01-Shaft	Ø 22.23	24.5	6.35
NO.02-Shaft	Ø 25.4	28.18	6.35
NO.03-Shaft	Ø 30	33	7
NO.04-Shaft	Spline shaft		
NO.W-Shaft	Ø 28	30.8	6.35

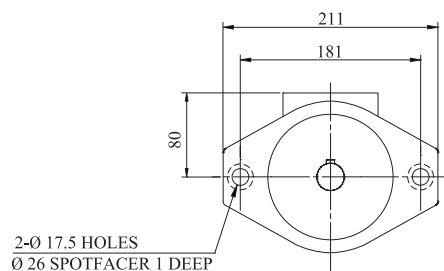


SVQ25 Max. Pressure: 230 Kg/cm²(Peak)
Max. Speed: 1800 rpm



NO.04-Shaft
16/32 d.p. -13
teeth 30°
pressure angle
Flat root side fit.

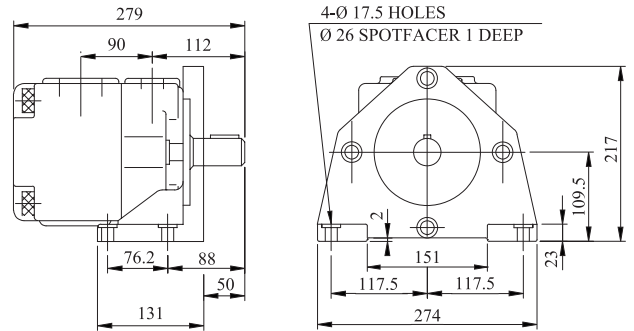
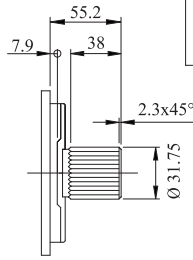
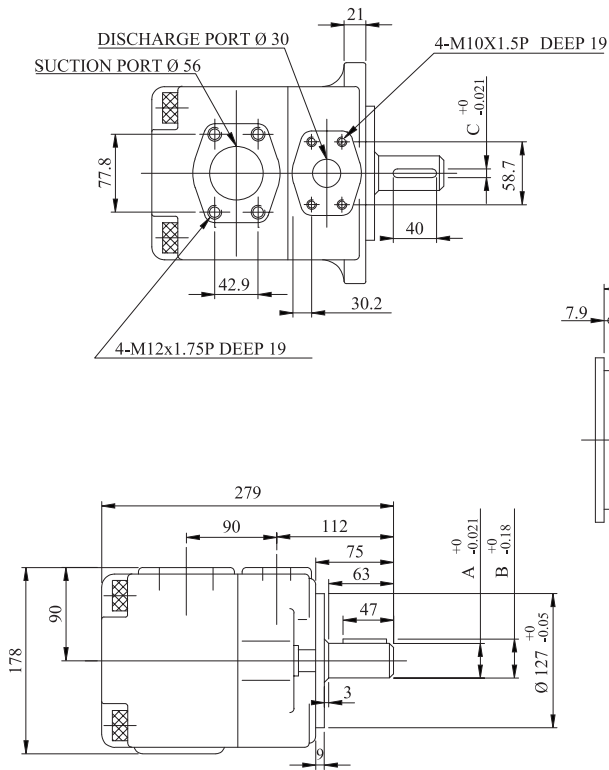
	A	B	C
NO.01-Shaft	Ø 22.23	24.5	6.35
NO.02-Shaft	Ø 25.4	28.18	6.35
NO.03-Shaft	Ø 30	33	7
NO.04-Shaft	Spline shaft		
NO.W-Shaft	Ø 28	30.8	6.35



KCL

VQ Series Single Pump Dimensional Drawing VQ 系列單泵外型尺寸圖

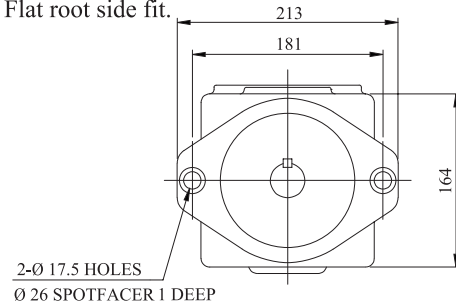
VQ35 Max. Pressure: 210 Kgf/cm²(Peak)
Max. Speed: 1800 rpm



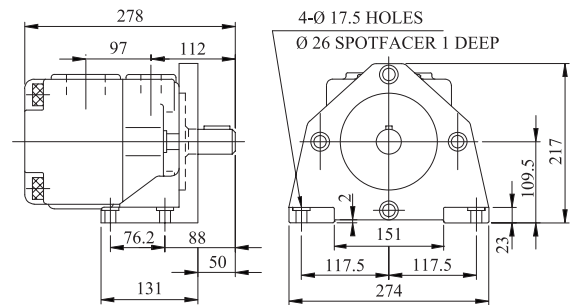
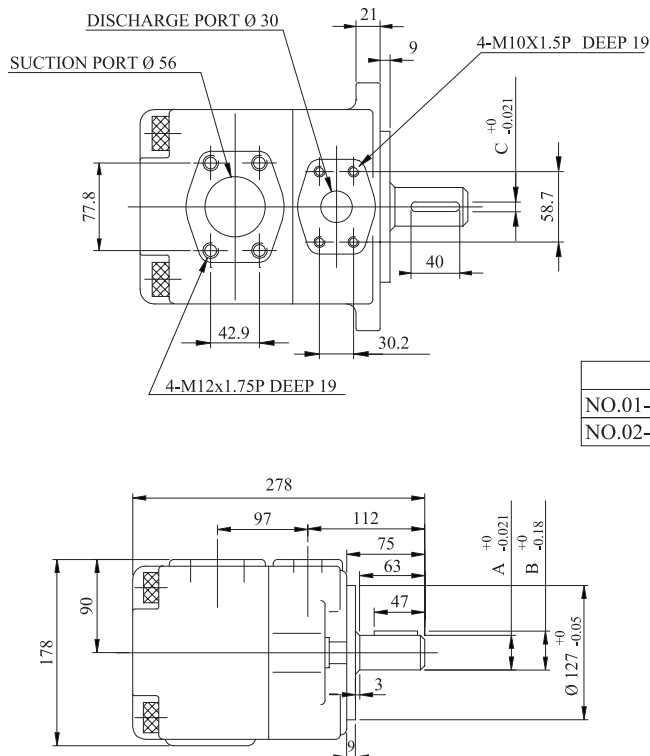
Foot Type (腳座型)

NO.03-Shaft
12/24 d.p.-14
teeth 30°
pressure angle
Flat root side fit.

	A	B	C
NO.01-Shaft	Ø 31.75	35.32	7.95
NO.02-Shaft	Ø 34.9	38.56	7.95
NO.03-Shaft	Spline shaft		

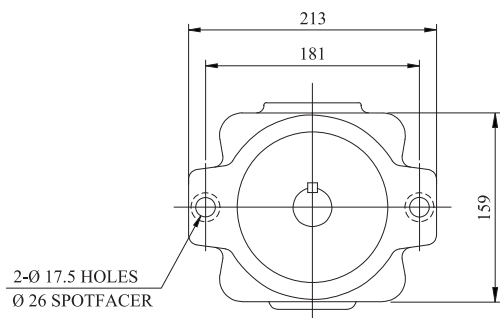


SVQ35 Max. Pressure: 210 Kgf/cm²(Peak)
Max. Speed: 1800 rpm



Foot Type (腳座型)

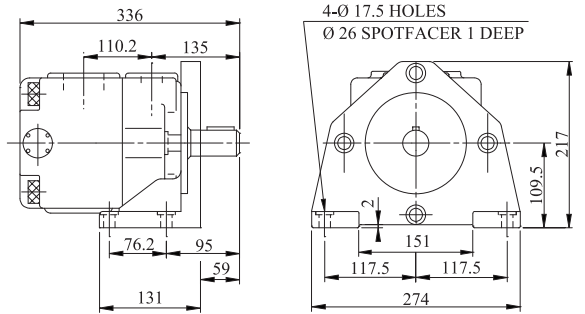
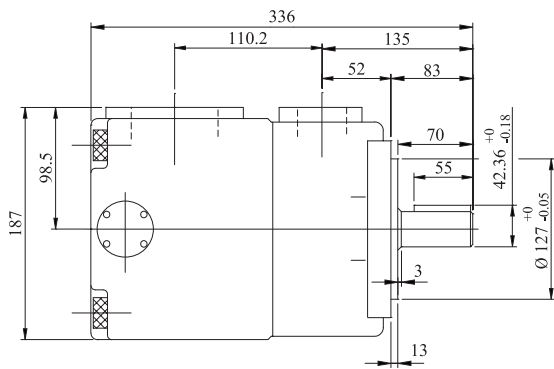
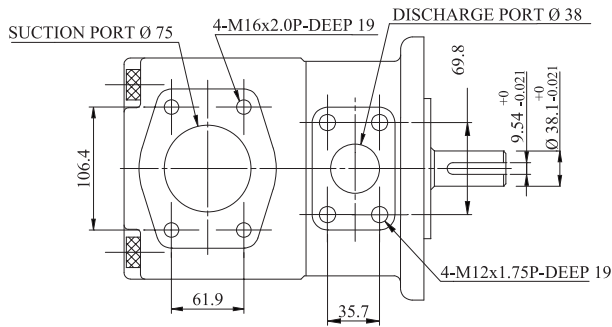
	A	B	C
NO.01-Shaft	Ø 31.75	35.32	7.95
NO.02-Shaft	Ø 34.9	38.56	7.95



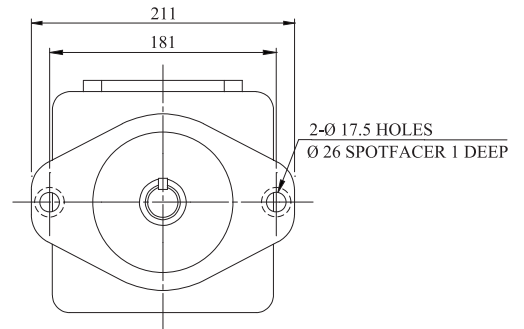
KCL

VQ Series Single Pump Dimensional Drawing VQ 系列單泵外型尺寸圖

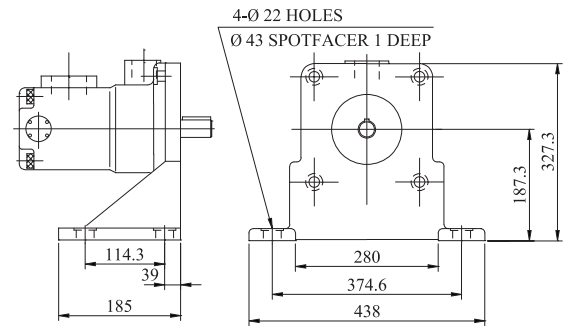
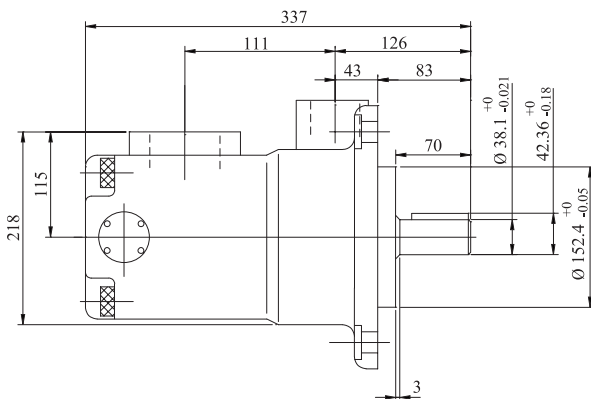
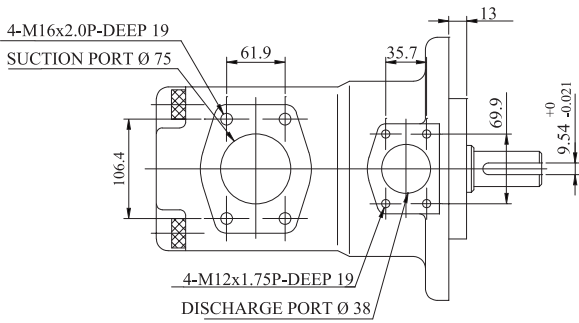
VQ45 Max. Pressure: 175 Kg/cm² (Peak)
Max. Speed: 1800 rpm



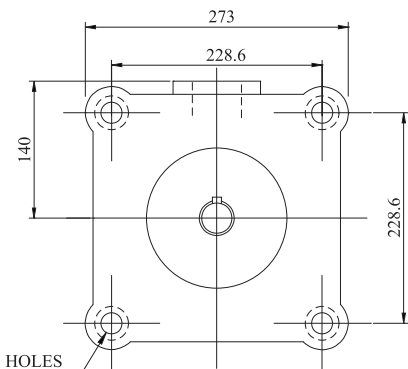
Foot Type (腳座型)



DVQ45 Max. Pressure: 175 Kg/cm² (Peak)
Max. Speed: 1800 rpm

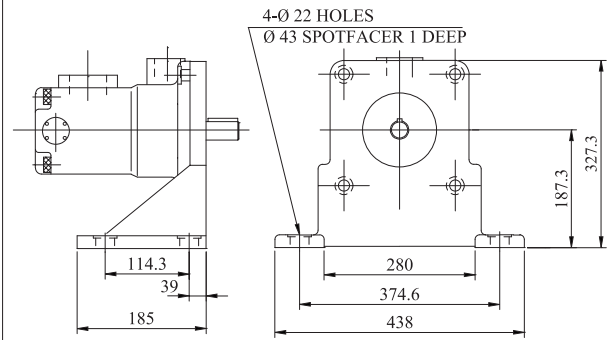
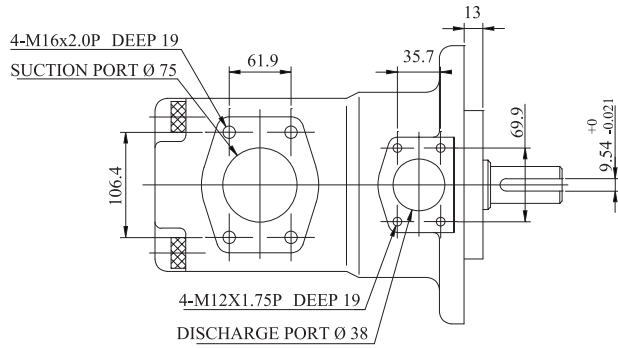


Foot Type (腳座型)

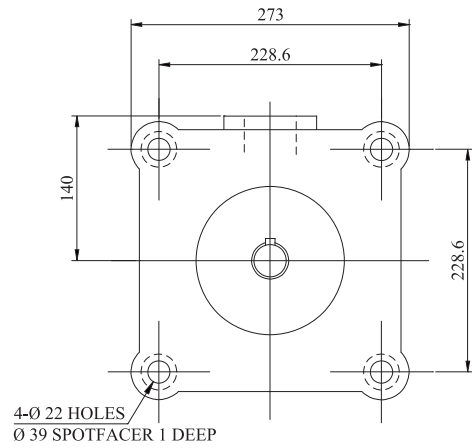
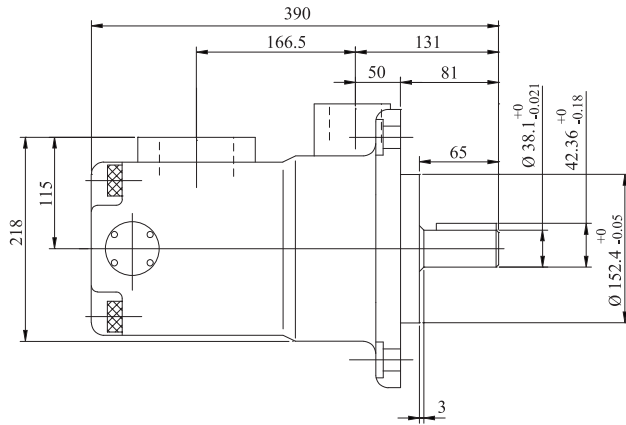


4- $\varnothing 22$ HOLES
 $\varnothing 39$ SPOTFACER 1 DEEP

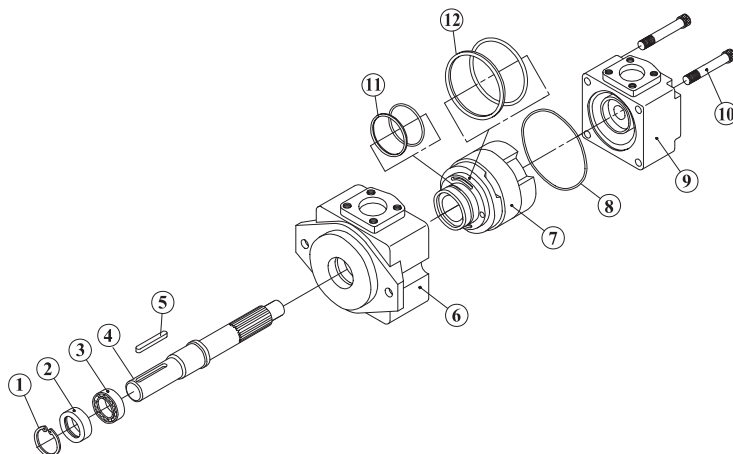
SVQ45 Max. Pressure: 175 Kg/cm² (Peak)
Max. Speed: 1800 rpm



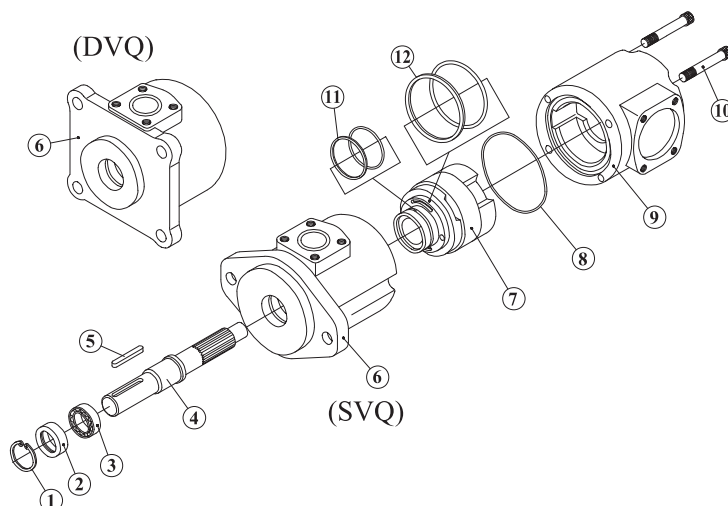
Foot Type (腳座型)



VQ15
VQ20
VQ25
VQ35
VQ45



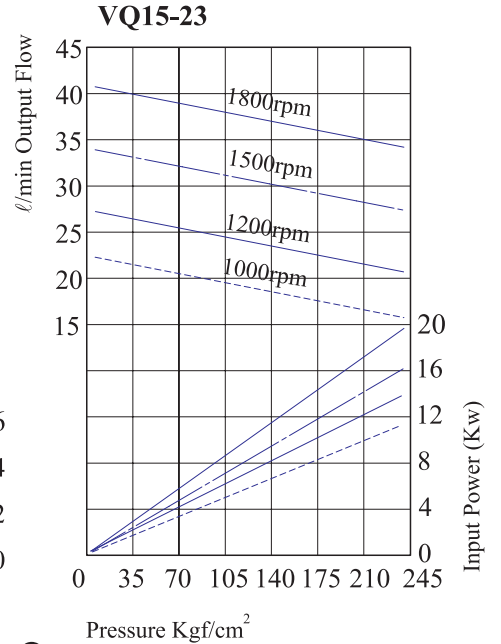
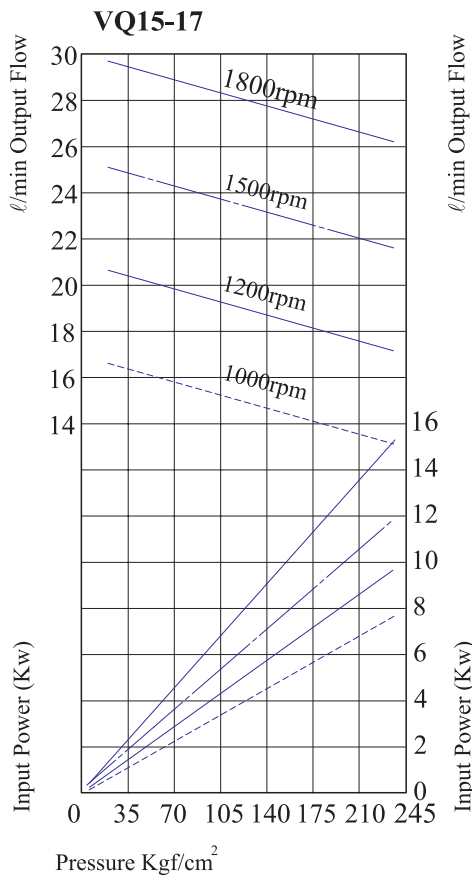
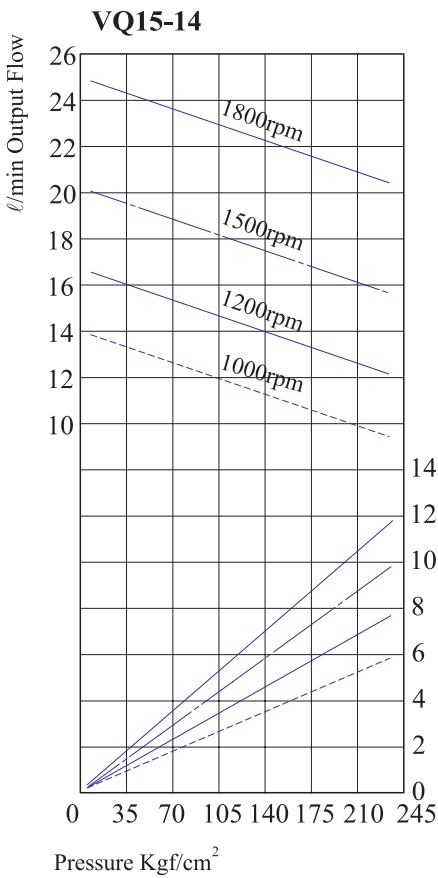
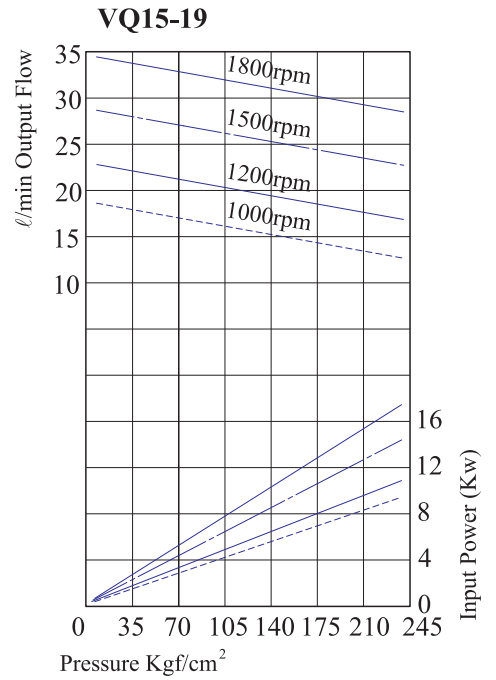
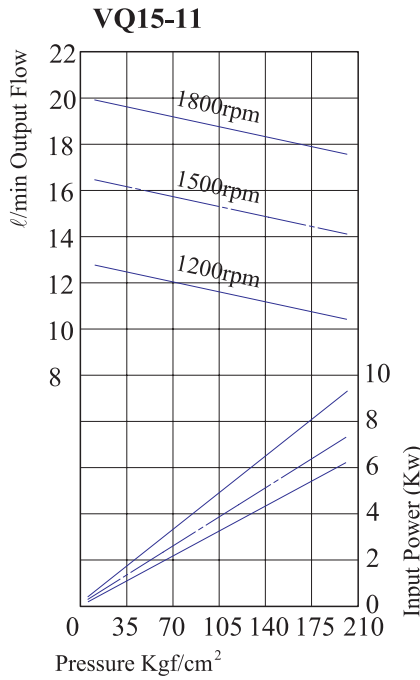
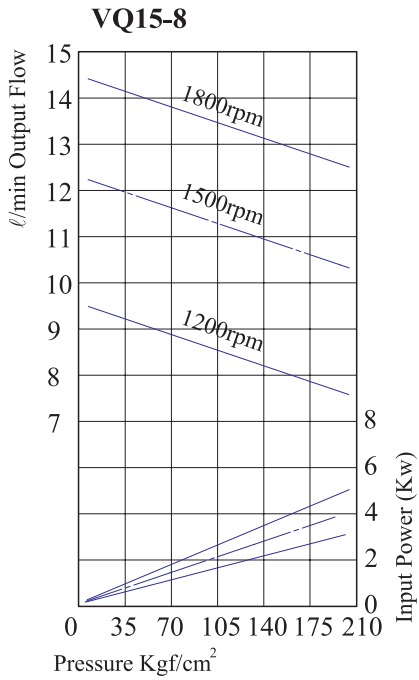
SVQ25
SVQ35
SVQ45
(DVQ45)



VQ Single Pump Parts List

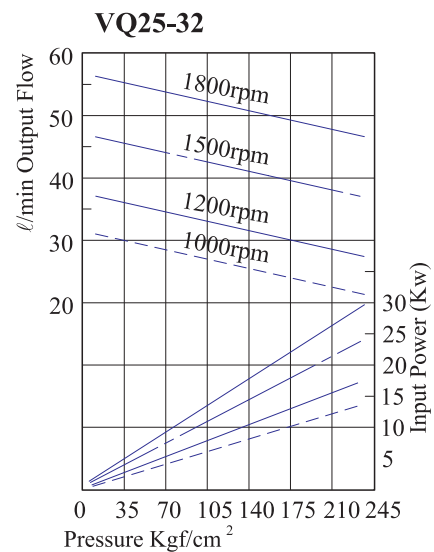
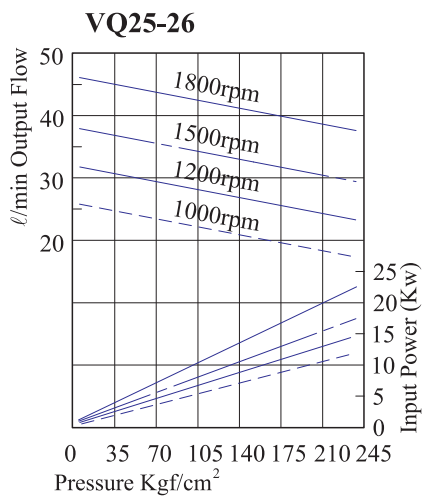
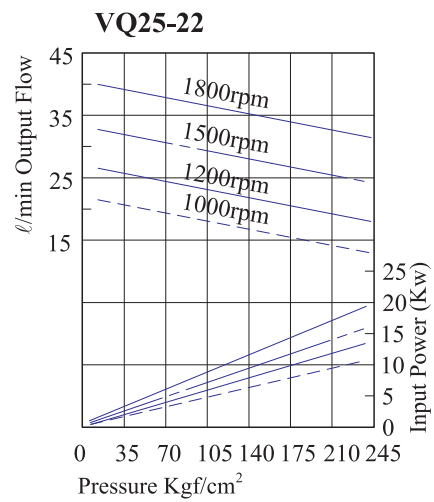
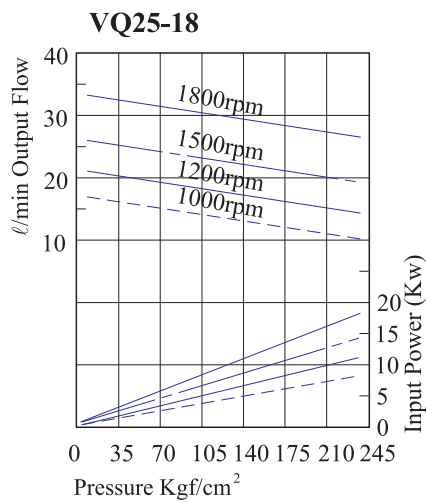
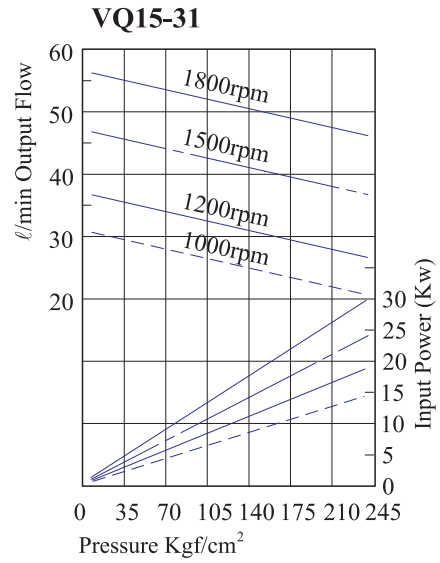
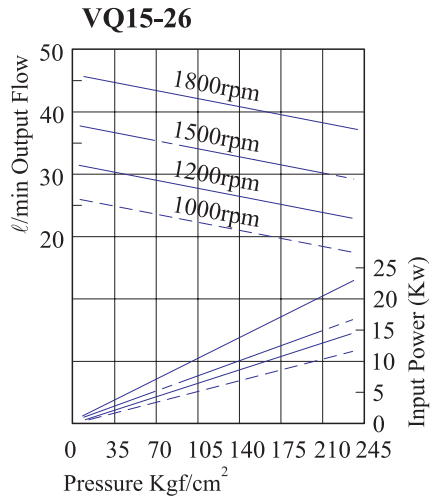
VQ 系列單泵零件表

- | | |
|-------------------------|--|
| NO.1 Retainer Ring (扣環) | NO.11 O-ring & Endless (前壓力板-O型環 (小))
Back-Up Ring (前壓力板-背托環 (小)) |
| NO.2 Seal (油封) | NO.12 O-ring & Endless (前壓力板-O型環 (大))
Back-Up Ring (前壓力板-背托環 (大)) |
| NO.3 Bearing (軸承) | |
| NO.4 Shaft (心軸) | |
| NO.5 Key (鍵) | |
| NO.6 Housing (本體) | |
| NO.7 Cartridge Kit (內臟) | |
| NO.8 O-Ring (O型環) | |
| NO.9 Cover (上蓋) | |
| NO.10 Cap-Screw (上蓋螺絲) | |



KCL Typical Performance Characteristics (VQ Series)

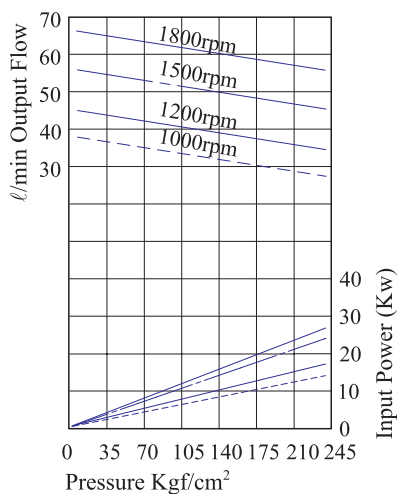
VQ 系列流量與壓力特性表



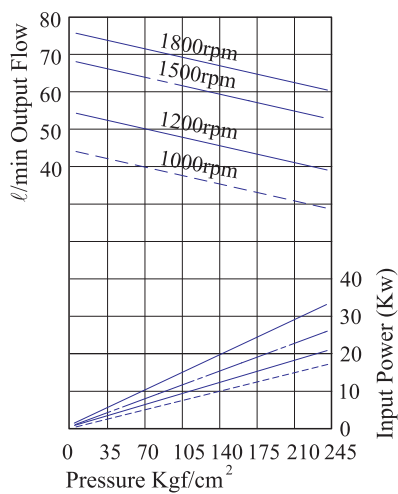
KCL Typical Performance Characteristics (VQ Series)

VQ 系列流量與壓力特性表

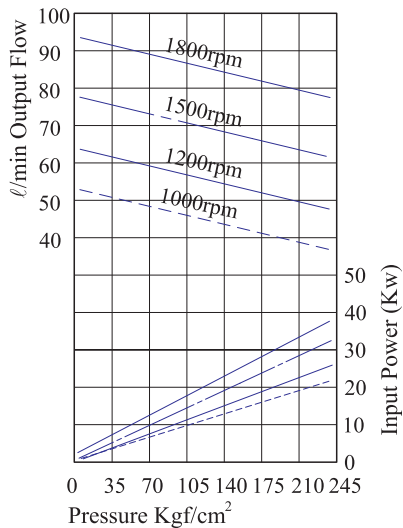
VQ25-38



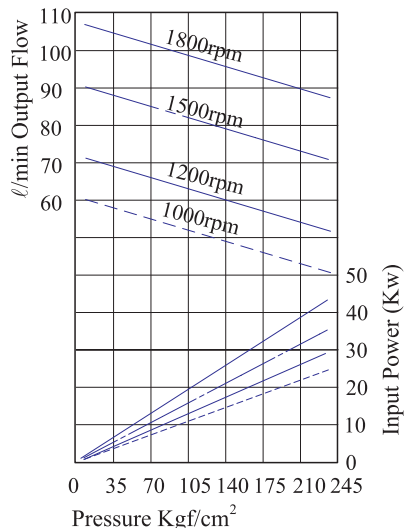
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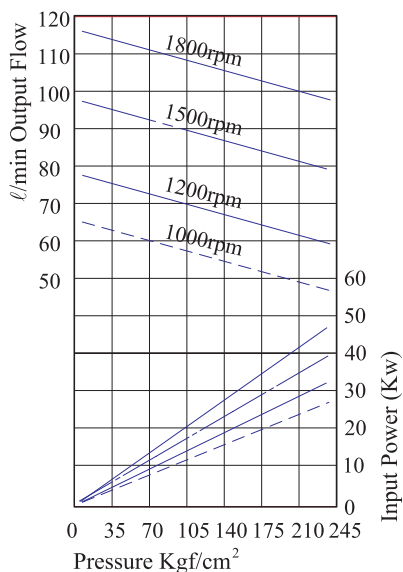
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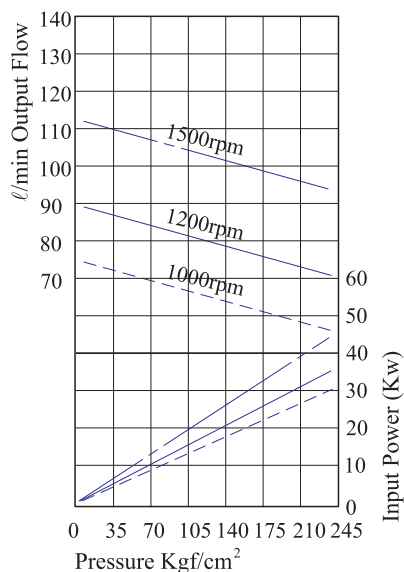
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VQ25-65



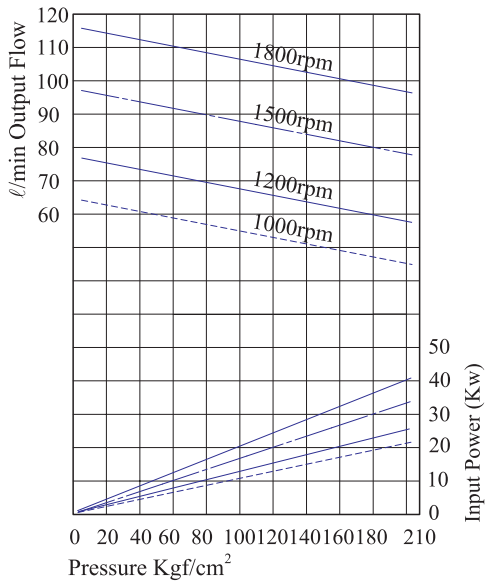
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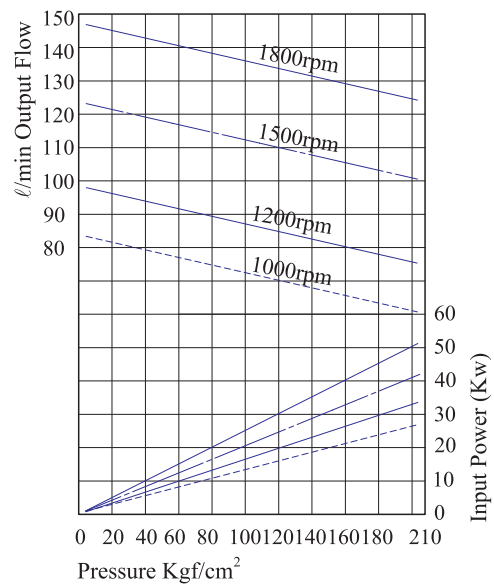
KCL Typical Performance Characteristics (VQ Series)

VQ 系列流量與壓力特性表

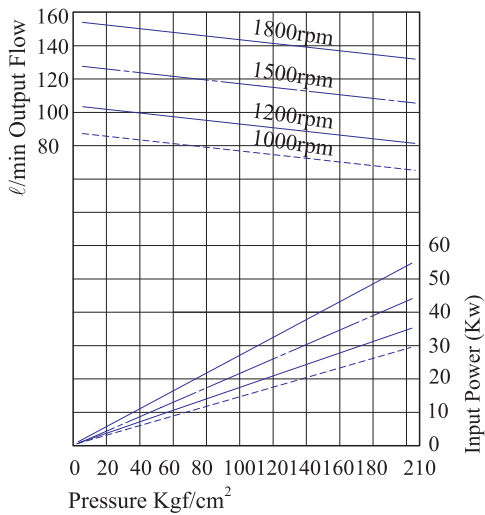
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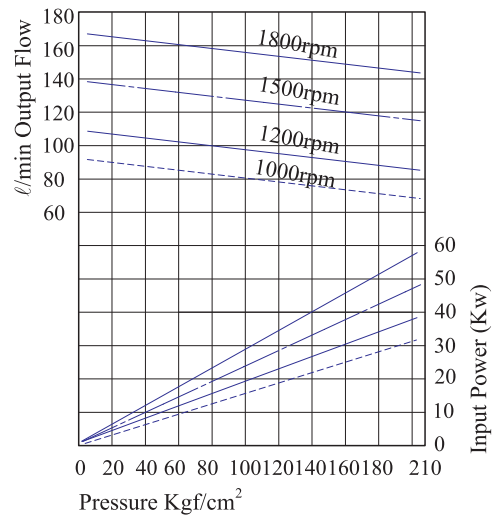
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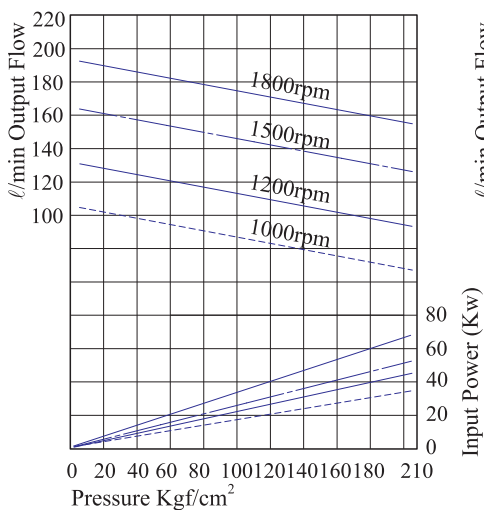
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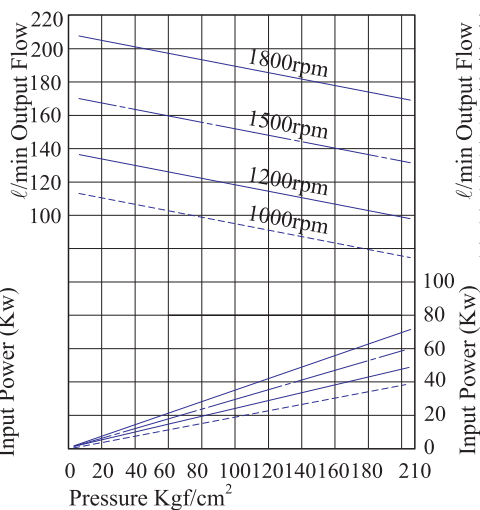
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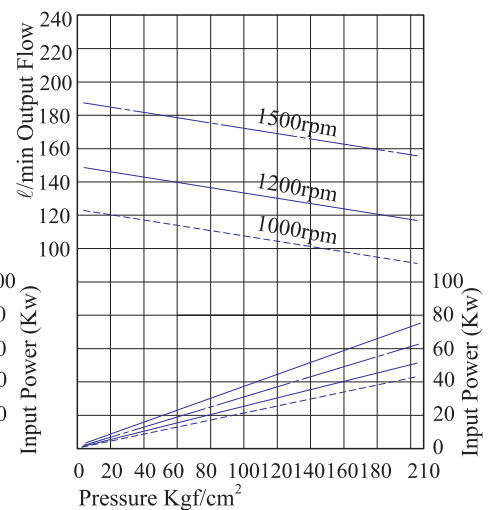
VQ35-108



VQ35-116

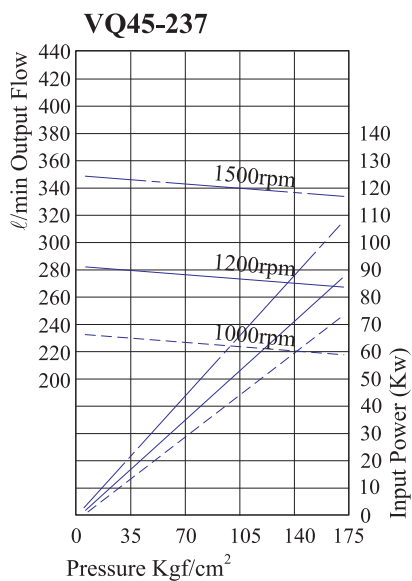
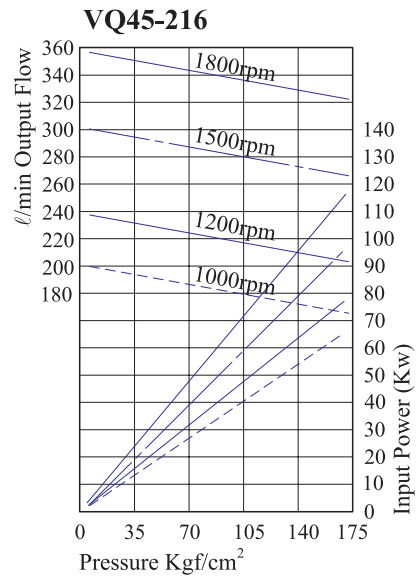
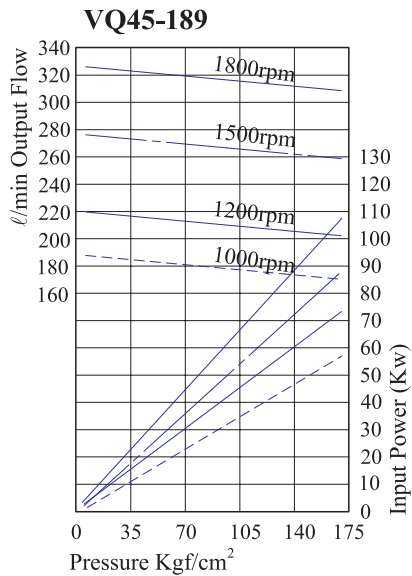
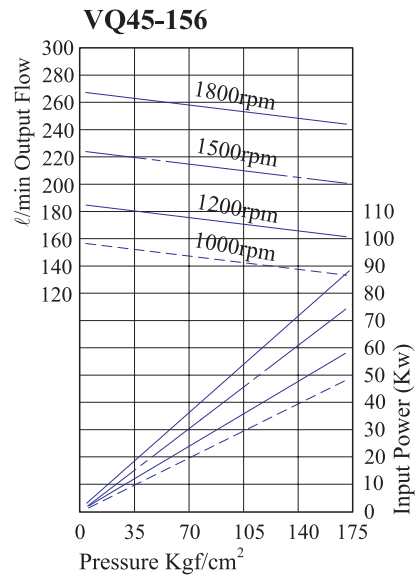
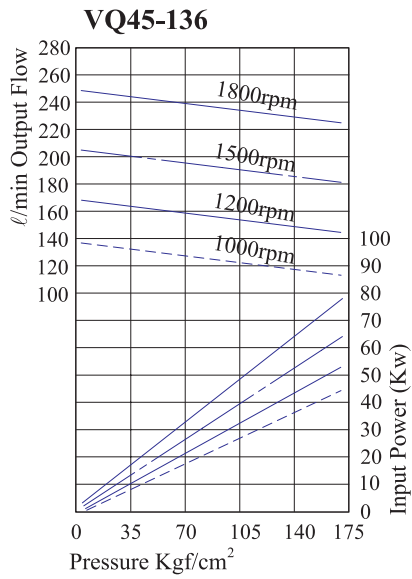


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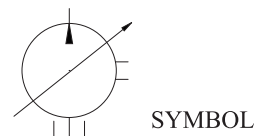


KCL Typical Performance Characteristics (VQ Series)

VQ 系列流量與壓力特性表



Care in Application 變量泵使用時注意事項



Power Unit Circuit

In variable displacement vane pump systems, the close circuit is recommended.

Sharp Characteristics and Quick Response

Quick response is displayed in both off-on control of operation, due to use special design "BIAS PISTON". Stable and accurate operation can be attained in an instant.

Low Noise Level (even in the high pressure range)

The noise level (dB) is very low, even in the high pressure due to use of "JOURNAL BEARING", special setting and shape modification of the suction and delivery ports.

Energy Saving Type

Power loss has been reduced further by application of our highly advanced precision machining technology to assure the same high efficiency performance as the series with many new mechanisms of our new design.

Sturdy Structure for Durable Life

High durability is assured by the sturdy construction based on our rich experience and know how as well as strict selection of materials and high precision machining. Stable and highly efficient performance is possible even under severe operating conditions.

Shaft Rotation

Clockwise rotation viewed from the shaft end is standard.

Fluids Permissible

When working pressure lower than 70 bar, Hydraulic oil with a viscosity from 30 ~ 50 (cst) (VG32) at 40°C is recommended.

1. 一般輪葉變量泵建議使用閉迴路的設計。
2. 良好的應答速度與穩定的性能。
3. 極低的噪音，甚至在 70kgf/cm^2 時也很低。
4. 節省能源（馬力）。
5. 結構堅固耐用，外型精巧。
6. 泵的迴轉是順時針。

Drain Pipe

External drain control type. Drain connection must be piped directly to tank and back pressure must not exceed 0.3 bar.

Oil Temperature Range

Oil temperature range should be from 15°C ~ 60°C during running operation and should be more than 7°C at starting.

Alignment and Installation of Pumps

In case the pump is connected to an electric motor, limit the deflection of the alignment between the shafts to 0.05 mm TIR, and angle ± 1 degree. Be sure the electric motor direction is accordingly with the pump's shaft before starting.

Suction Port min. Pressure

Suction port minimum working pressure is ± 0.03 bar.

Pressure Adjustment

The pressure will be increased with the pressure adjusting screw is turned clockwise and will be reduced when the adjusting screw is turned counter-clockwise.

Cautions for Starting

When the pump is to be operated for the first time, place the pump delivery side in NO-Load condition and repeat starting and stopping of the motor for several times to eject the air from inside of the pump and piping. If keep on 10 minutes operation will be much better.

7. 作動油的黏度建議使用 (VG32)。
8. 泵的内漏回油管，必須單獨直接進入油箱，並且控制内漏的排油管壓力在 0.3bar 以內。
9. 作動油的溫度最好在 (15°~60°) 之間。
10. 泵與馬達心軸連接時的偏心量在 0.05mm 或 $\pm 1^\circ$ 以內。
11. 進油口的壓力必須控制在 0.03bar 以內。