

## V系列单泵 V Series Single Pumps

### 产品外观及简介 Product Appearance And Introduction

适用于塑胶机械、鞋革机械、机床、压铸及冶金设备的高性能子母叶片泵。

High performance vane pump suitable for plastic machinery, shoe leather machinery, machine tools, die-casting and metallurgical equipment.



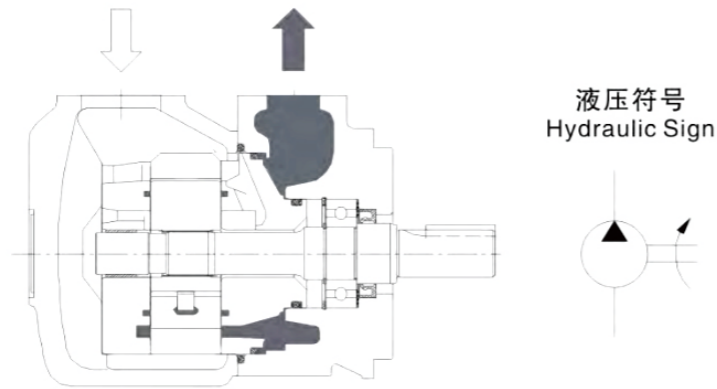
### 特点 Features

- 采用子母叶片及液压平衡的结构，减少了叶片对定子的压力，其性能更稳定，寿命更长。  
Intravane pumps with hydraulic balancing structure provide more stable performance and longer life since less pressure from vane on stator.
- 12叶片制减小了流量脉动的振幅，系统噪声特性低。  
Twelve vane system provide low amplitude flow pulsation resulting in low system noise characteristics.
- 多排量、多轴伸及进出油口四种不同的相对位置，使用户使用更灵活。  
Various displacement and shaft with 4 different outlet opposite position make operation more flexible.
- 泵芯的插装式结构，现场维修更方便。  
The cartridge is independent of the drive shaft, allowing for easy servicing without remove the pump from its mounting.

### 型号说明 Model Designation

(F3-)	25V	19	A	-1	A	22	R				
前注 Preface											
无标记 Unmarked											
石油系列 Petroleum Series											
乳化液 Emulsion											
水-乙二醇 Water Ethylene Glycol											
F3: 磷酸酯液 F3: Phosphate Ester Solution											
系列号 Series Number											
20V											
25V											
35V											
45V											
排量代号 Displacement Code											
2	3	4	5	6	7	8	9	10	11	12	14
10	12	14	15	17	19	21	25				
21	25	30	32	35	38	45					
42	45	50	57	60	66	75					
油口连接 Oil Port Connection											
A- SAE 4螺栓法兰 A-sae 4 Bolt Flange											
轴伸形式 Axial extension form											
1-平键轴 1-Flat Key Shaft				151-花键轴 151-Spline Shaft							
1-平键轴 1-Flat Key Shaft		86-重型平键轴 86- Heavy Duty Flat Key Shaft		11-花键轴 11-Spline Shaft							
出油口位置 (从泵的盖端看) Oil Outlet Position (Viewed From The Cover End Of The Pump)											
A-进油口对侧 A - On The Opposite Side Of The Oil Inlet											
B-从进油口逆时针90° B -90 ° Counterclockwise From The Oil Inlet											
C-进油口同侧 C - On The Same Side Of The Oil Inlet											
D-从进油口顺时针90° D-90 ° Clockwise From The Oil Inlet											
设计号 Design Number											
22											
旋转方向 (从泵的轴端看) Rotation Direction (viewed From The Shaft End Of The Pump)											
L-逆时针旋转 L-counter-clockwise Rotation											
R-顺时针旋转 R-clockwise Rotation											

机能, 剖面 Function Profile

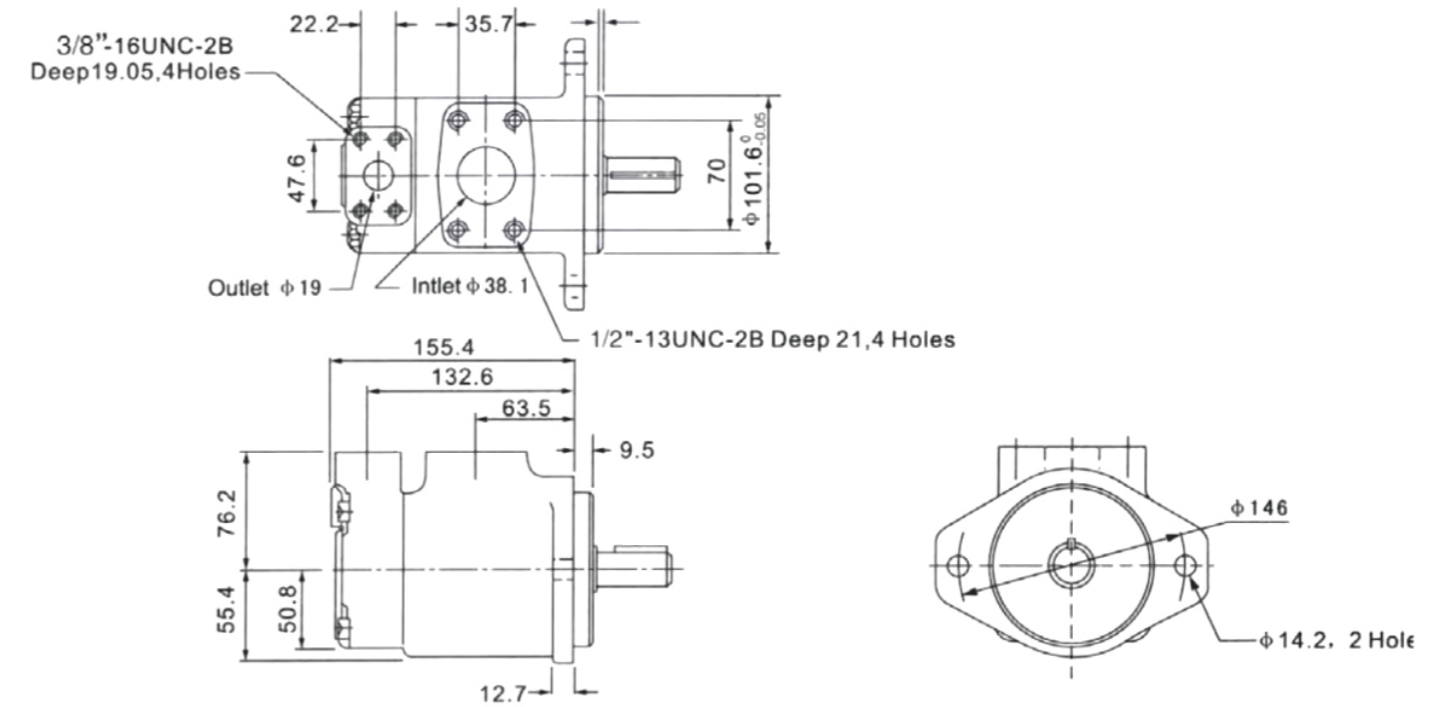


性能参数 Technical Data

系列号 Series Number	排量代号 Displacement Code (Usgpm)	理论排量 Theoretical Displacement mL/r(in <sup>3</sup> /r)	使用抗磨液压油或磷酸酯 Use Anti Wear Hydraulic Oil Or Phosphate Ester		使用水—乙二醇 Using Water And Ethylene Glycol		使用油包水乳化液 Using Water In Oil Emulsion		最低转速 Minimum Speed r/min						
			最高使用压力 Maximum Operating Pressure Mpa	最高转速 Maximum Speed r/min	最高使用压力 Maximum Operating Pressure Mpa	最高转速 Maximum Speed r/min	最高使用压力 Maximum Operating Pressure Mpa	最高转速 Maximum Speed r/min							
20V	2	7.5(0.46)	13.8	1800	13.8	1500	6.9	1200	600						
	3	10(0.61)													
	4	13(0.79)													
	5	16.5(1.01)	20.7												
	6	19(1.16)													
	7	23(1.40)													
	8	27(1.67)													
	9	30(1.85)													
	10	32(1.95)													
	11	36(2.20)													
	12	40(2.44)	15.9												
	14	45(2.78)	13.8												
	25V	10	32.5(1.98)		17.2					1800	15.9	1500	6.9	1500	600
		12	39(2.38)												
14		45(2.78)													
15		47(2.89)													
17		55(3.36)													
19		60(3.66)													
21		67(4.13)													
25	81(4.94)														
35V	21	67(4.13)	17.2	1800	15.9	1500	6.9	1500	600						
	25	81(4.94)													
	30	97(5.91)													
	32	101(6.16)													
	35	112(6.83)													
	38	121(7.37)													
45	147(8.95)	13.8													
45V	42	138(8.41)	17.2	1800	15.9	1500	6.9	1500	600						
	45	147(8.95)													
	50	162(9.85)													
	57	181(11.05)													
	60	193(11.75)													
	66	212(12.93)													
75	237(14.46)	13.8													

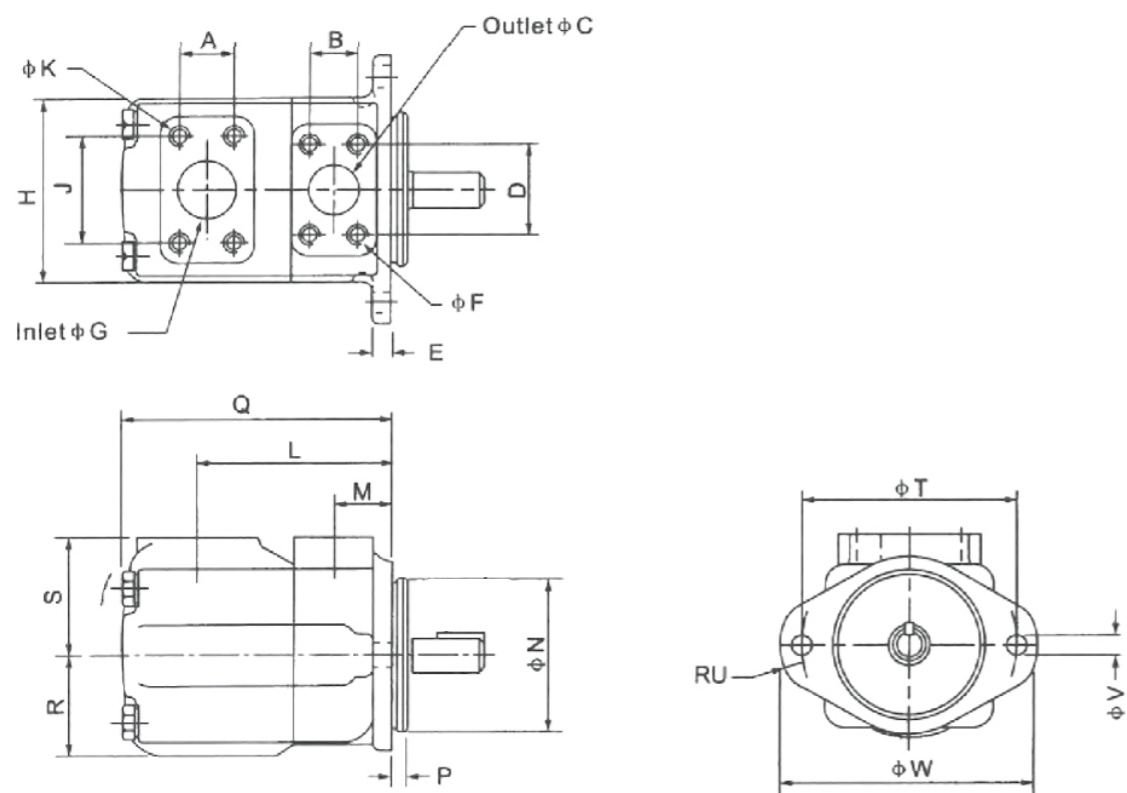
安装连接尺寸 Installation Dimensions

20V



安装连接尺寸 Installation Dimensions

25V,35V,45V



泵型号 Pump Model	A	B	ΦC	D	E	ΦG	H	J	L	M	N	P	Q	R
25V	35.7	26.2	25.4	52.4	12.7	38.1	118	69.9	121	38.1	101.60/101.55	9.53	162.1	63.5
35V	42.9	30.2	31.8	58.7	16	50.8	140	77.8	125.5	38.1	127.00/126.95	9.53	185	69.9
45V	61.9	35.7	38.1	69.9	16	76.2	159	106.4	153	43	127.00/126.95	12.7	216	82.6

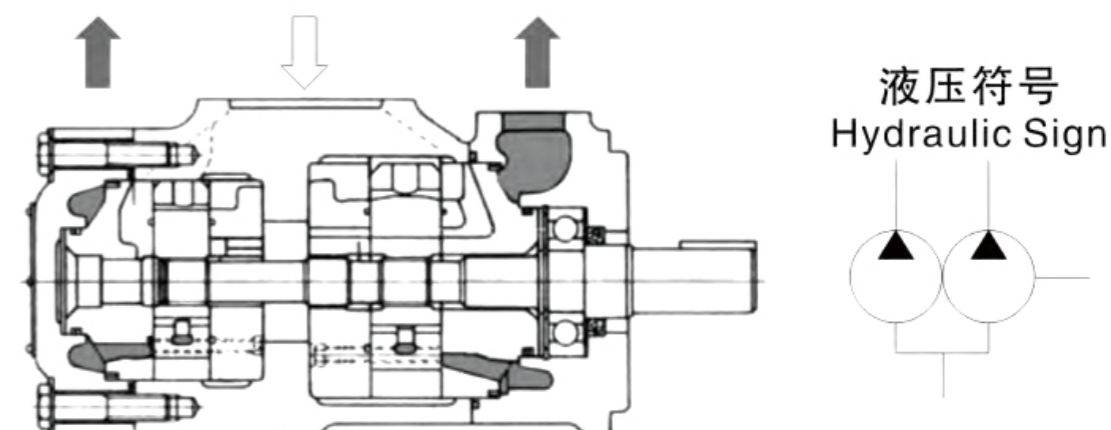
泵型号 Pump Model	A	B	ΦC	D	E	ΦG	ΦFX螺纹深度, 4孔 Φ FX Thread Depth, 4 Holes	ΦKX螺纹深度, 4孔 Φ KX Thread Depth, 4 Holes
25V	76.2	146	14	14.2	175	121	3/8-16UNC-2BX19.1	1/2-13UNC-2BX23.8
35V	82.6	181	16	17.5	213	148	7/16-14UNC-2BX22.3	1/2-13UNC-2BX22.3
45V	93.7	181	16	17.5	213	148	1/2-13UNC-2BX23.8	5/8-11UNC-2BX25.4

V系列双联泵 V Series Double Pumps

产品外观 Product Appearance



机能, 剖面 Function Profile



型号说明 Model Designation

(F3-) 3525V 38 A 17 -1 AB 20 R

前注 Preface

无标记 Unmarked
石油系列 Petroleum Series
乳化液 Emulsion
水-乙二醇 Water Ethylene Glycol
F3: 磷酸酯液 F3: Phosphate Ester Solution

系列号 Series Number

2520V
3520V
3525V
4520V
4525V
4535V

轴端泵排量代号 Shaft End Pump Displacement Code

10	12	14	15	17	19	21	25
21	25	30	32	35	38	45	
21	25	30	32	35	38	45	
42	45	50	57	60	66	75	
42	45	50	57	60	66	75	
42	45	50	57	60	66	75	

油口连接 Oil Port Connection

A-SAE 4螺栓法兰 A-sae 4 Bolt Flange

盖端泵排量代号 Cap End Pump Displacement Code

2	3	4	5	6	7	8	9	10	11	12	14
2	3	4	5	6	7	8	9	10	11	12	14
10	12	14	15	17	19	21	25				
2	3	4	5	6	7	8	9	10	11	12	14
10	12	14	15	17	19	21	25				
21	25	30	32	35	38	45					

轴伸形式 Axial extension form

1-平键轴 1-Flat Key Shaft	151-花键轴 151-Spline Shaft
1-平键轴 1-Flat Key Shaft	86-重型平键轴 86-Heavy Duty Flat Key Shaft
	11-花键轴 11-Spline Shaft

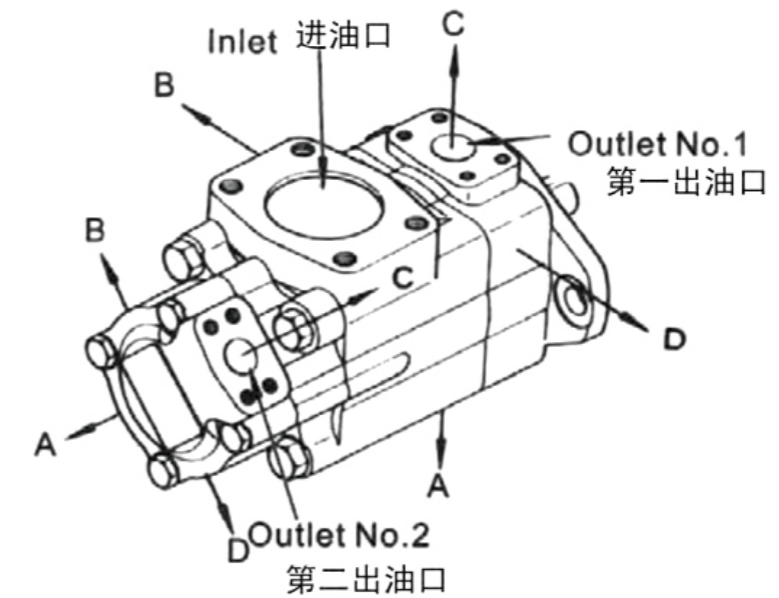
设计号  
Design Number  
22

出油口位置  
Oil Outlet Position  
见下表  
See The Table Below

旋转方向  
(从泵的轴端看)  
Rotation Direction  
(Viewed From The Shaft End Of The Pump)

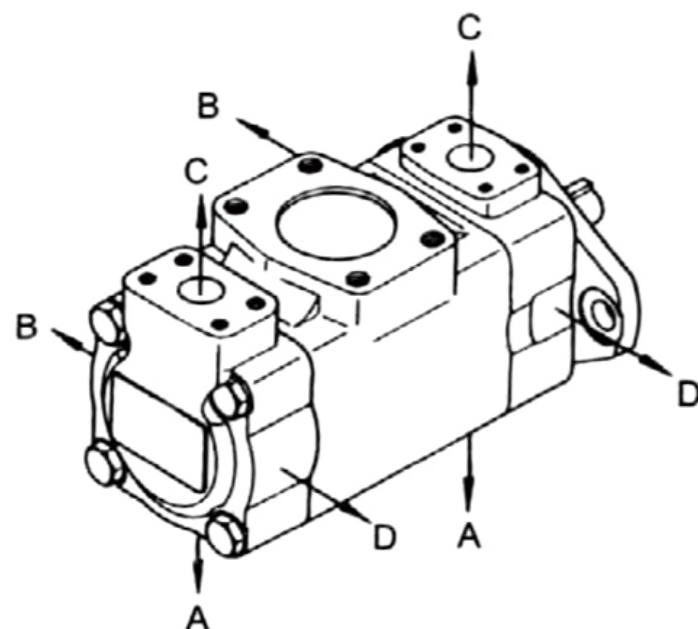
L-逆时针旋转  
L-counterclockwise Rotation  
R-顺时针旋转  
R-clockwise Rotation

出油口位置 (从泵的盖端看) Oil Outlet Position (From the cover end of the pump)



出油口位置 Oil Outlet Position		除4535V外的所有系列 All Series Except For 4535v	4535V
第一出油口 在进油口对面 The First Oil Outlet Is Opposite The Oil Inlet	AA	第二出油口在进油口逆时针转135° Turn The Second Oil Outlet Counterclockwise By 135° at The Oil Inlet	第二出油口在进油口对面 The Second Oil Outlet Is Opposite The Oil Inlet
	AB	第二出油口在进油口逆时针转45° Turn The Second Oil Outlet Counterclockwise By 45° at The Oil Inlet	第二出油口在进油口逆时针转90° Turn The Second Oil Outlet Counterclockwise By 90° at The Oil Inlet
	AC	第二出油口在进油口顺时针转45° Turn The Second Oil Outlet 45° Clockwise At The Oil Inlet	第二出油口在进油口同侧 The Second Oil Outlet Is On The Same Side As The Oil Inlet
	AD	第二出油口在进油口顺时针转135° Turn The Second Oil Outlet 135° Clockwise At The Oil Inlet	第二出油口在进油口顺时针转90° Turn The Second Oil Outlet 90° Clockwise At The Oil Inlet
第一出油口 从进油口逆时针转90° Rotate The First Oil Outlet 90° Counterclockwise From The Oil Inlet	BA	第二出油口在进油口逆时针转135° Turn The Second Oil Outlet Counterclockwise By 135° at The Oil Inlet	第二出油口在进油口对面 The Second Oil Outlet Is Opposite The Oil Inlet
	BB	第二出油口在进油口逆时针转45° Turn The Second Oil Outlet Counterclockwise By 45° at The Oil Inlet	第二出油口在进油口逆时针转90° Turn The Second Oil Outlet Counterclockwise By 90° at The Oil Inlet
	BC	第二出油口在进油口顺时针转45° Turn The Second Oil Outlet 45° Clockwise At The Oil Inlet	第二出油口在进油口同侧 The Second Oil Outlet Is On The Same Side As The Oil Inlet
	BD	第二出油口在进油口顺时针转135° Turn The Second Oil Outlet 135° Clockwise At The Oil Inlet	第二出油口在进油口顺时针转90° Turn The Second Oil Outlet 90° Clockwise At The Oil Inlet

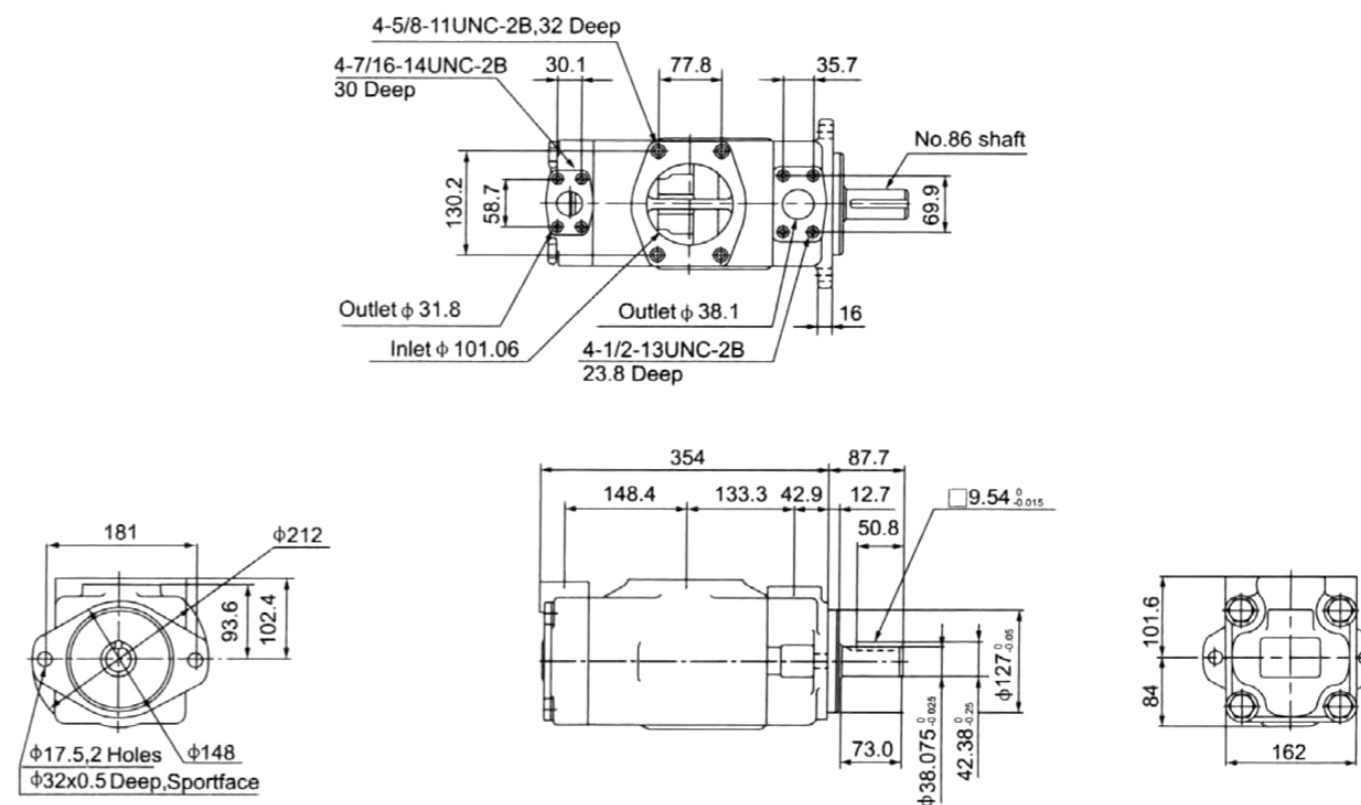
出油口位置 (从泵的盖端看) Oil Outlet Position (From the cover end of the pump)



出油口位置 Oil Outlet Position		除4535V外的所有系列 All Series Except For 4535v	4535V
第一出油口 在进油口对面 The First Oil Outlet Is Opposite The Oil Inlet	CA	第二出油口在进油口逆时针转135° Turn The Second Oil Outlet Counterclockwise By 135° at The Oil Inlet	第二出油口在进油口对面 The Second Oil Outlet Is Opposite The Oil Inlet
	CB	第二出油口在进油口逆时针转45° Turn The Second Oil Outlet Counterclockwise By 45° at The Oil Inlet	第二出油口在进油口逆时针转90° Turn The Second Oil Outlet Counterclockwise By 90° at The Oil Inlet
	CC	第二出油口在进油口顺时针转45° Turn The Second Oil Outlet 45° Clockwise At The Oil Inlet	第二出油口在进油口同侧 The Second Oil Outlet Is On The Same Side As The Oil Inlet
	CD	第二出油口在进油口顺时针转135° Turn The Second Oil Outlet 135° Clockwise At The Oil Inlet	第二出油口在进油口顺时针转90° Turn The Second Oil Outlet 90° Clockwise At The Oil Inlet
第一出油口 从进油口逆时针转90° Rotate The First Oil Outlet 90° Counterclockwise From The Oil Inlet	DA	第二出油口在进油口逆时针转135° Turn The Second Oil Outlet Counterclockwise By 135° at The Oil Inlet	第二出油口在进油口对面 The Second Oil Outlet Is Opposite The Oil Inlet
	DB	第二出油口在进油口逆时针转45° Turn The Second Oil Outlet Counterclockwise By 45° at The Oil Inlet	第二出油口在进油口逆时针转90° Turn The Second Oil Outlet Counterclockwise By 90° at The Oil Inlet
	DC	第二出油口在进油口顺时针转45° Turn The Second Oil Outlet 45° Clockwise At The Oil Inlet	第二出油口在进油口同侧 The Second Oil Outlet Is On The Same Side As The Oil Inlet
	DD	第二出油口在进油口顺时针转135° Turn The Second Oil Outlet 135° Clockwise At The Oil Inlet	第二出油口在进油口顺时针转90° Turn The Second Oil Outlet 90° Clockwise At The Oil Inlet

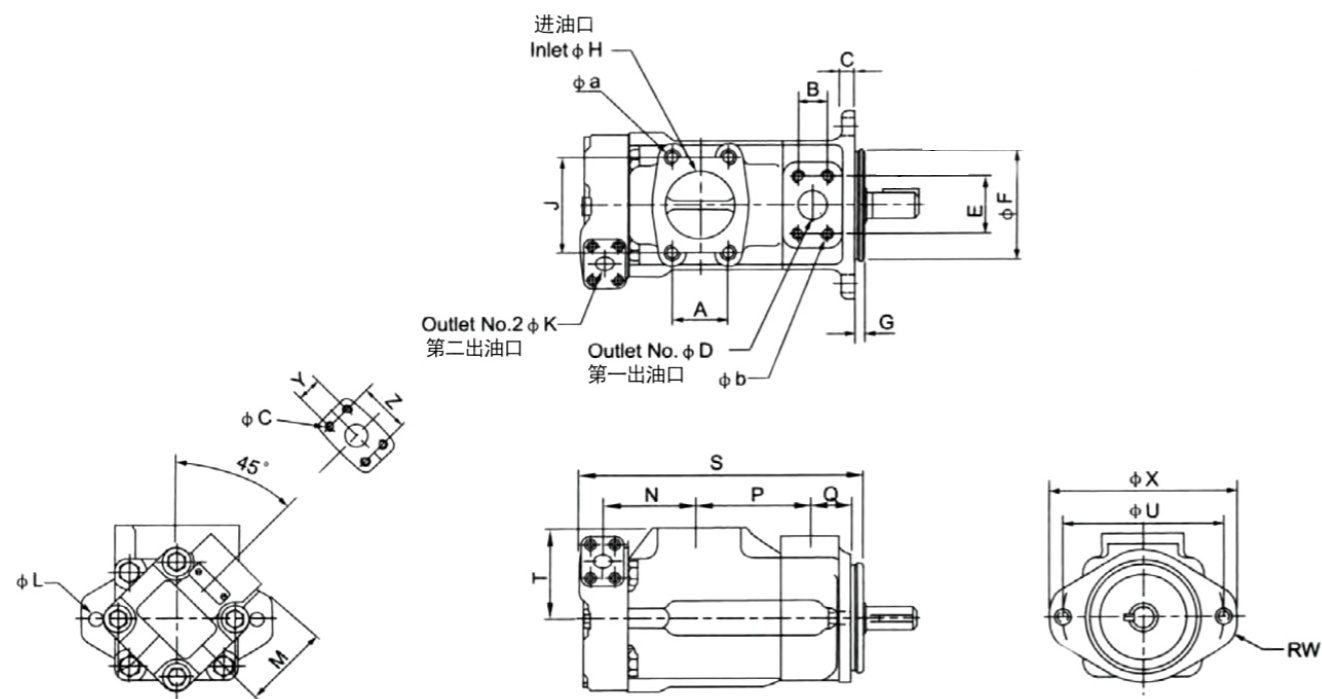
安装连接尺寸 Installation Dimensions

4535V



安装连接尺寸 Installation Dimensions

2520V,3520V,3525V,4520V,4525V



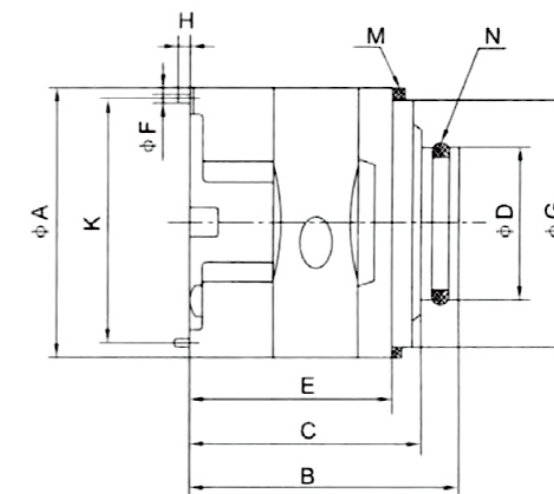
泵型号 Pump Model	ΦAX螺纹深度, 4孔 Φ AX Thread Depth, 4 Holes	ΦBX螺纹深度, 4孔 Φ BX Thread Depth, 4 Holes	ΦCX螺纹深度, 4孔 Φ CX Thread Depth, 4 Holes
2520V	1/2-13UNC-2BX23.8	3/8-16UNC-2BX19.1	3/8-16UNC-2BX19.1
3520V	5/8-11UNC-2BX30.0	7/16-14UNC-2BX22.3	3/8-16UNC-2BX19.1
3525V	5/8-11UNC-2BX30.0	7/16-14UNC-2BX22.3	3/8-16UNC-2BX19.1
4520V	5/8-11UNC-2BX30.0	1/2-13UNC-2BX23.8	3/8-16UNC-2BX19.1
4525V	5/8-11UNC-2BX30.0	1/2-13UNC-2BX23.8	3/8-16UNC-2BX19.1

泵型号 Pump Model	A	B	C	ΦC	E	ΦF	G	ΦH	J	ΦK	ΦL	M
2520V	50.8	26.2	12.7	25.4	52.4	101.60/101.55	9.53	63.5	88.9	19.1	14.2	76.2
3520V	62	30.1	15.9	31.7	58.7	127.00/126.95	9.53	76.2	106.3	19.1	17.5	76.2
3525V	62	30.1	15.9	31.7	58.7	127.00/126.95	9.53	76.2	106.3	25.4	17.5	74.7
4520V	69.9	35.7	15.9	38.1	69.9	127.00/126.95	12.7	88.9	120.6	19.1	17.5	76.2
4525V	69.9	35.7	15.9	38.1	69.9	127.00/126.95	12.7	88.9	120.6	25.4	17.5	74.7

泵型号 Pump Model	N	P	Q	R	S	T	ΦU	ΦV	RW	ΦX	Y	Z
2520V	88.1	101.6	38.1	76.2	250	85.3	146.1	120.7	14	174.7	22.2	47.6
3520V	99.6	114.3	38.1	82.6	273.3	88.9	181	148	16	213	22.2	47.6
3525V	109.5	114.3	38.1	82.6	287.3	88.9	181	148	16	213	26.2	52.4
4520V	120	119.4	42.9	93.7	303.5	102.4	181	148	16	213	22.2	47.6
4525V	136	119.4	42.9	93.7	325	102.4	181	148	16	213	26.2	52.4

V系列泵芯 V Series Pump Cartridge

产品外观 Product Appearance



性能参数 Technical Data

系列号 Series Number	ΦA	B	C	ΦD	E	ΦF	ΦG	H	K	M (档圈) M (Retainer Ring)	M (O形圈) M (O-Ring)
20V	82.55	81.5	70.1	47	61.5	4.8	76.2	7	73.6	82.76×76.26×3.5	40×3.55
25V	96.8	98.8	87	52.2	71.2	4.8	90.5	7	88.19	97×91×3.5	44×3.53
35V	114.3	117.7	105	72.2	90.3	6.4	108	8	103.94	114.5×108.5×3.5	63.09×3.53
45V	133.35	141.1	129.6	80.2	105.5	6.4	127	8	123.8	133.6×127.6×3.5	71×3.55

系列号 Series Number	转子内花键齿廓参数 Parameters Of Rotor Internal Flower Tooth Profile				
	齿数 Number Of Teeth	径节 Diametral Pitch	压力角 Pressure Angle	大径 Major Diameter	小径 Pathway
20V	30	48/96	45°	16.617	15.56
25V	40	48/96	45°	21.9	20.86
35V	37	40/80	45°	24.38	23.10
45V	14	12/24	30°	32.59	27.6

型号说明 Model Designation

	(F3-)	PC-	25V	19	R	10
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前注 Preface

无标记 Unmarked
石油系列 Petroleum Series
乳化液 Emulsion
水-乙二醇 Water Ethylene Glycol
F3: 磷酸酯液 F3: Phosphate Ester Solution

泵芯标志 Pump Core Marking

PC-单泵泵芯 Pc - Single Pump Core
双联泵轴端泵芯 Double Pump Shaft End Pump Core
PCT-双联泵盖端泵芯 PCT - Double pump cover end pump core

系列号 Series Number

20V
25V
35V
45V

排量代号 Displacement Code

2	3	4	5	6	7	8	9	10	11	12	14
10	12	14	15	17	19	21	25				
21	25	30	32	35	38	45					
42	45	50	57	60	66	75					

旋转方向 (从泵的轴端看) Rotation Direction (Viewed From The Shaft End Of The Pump)

L-逆时针旋转 L-counterclockwise Rotation
R-顺时针旋转 R-clockwise Rotation

设计号 Design Number

22
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VQ系列叶片泵 VQ Series Vane Pump

产品简介 Product Introduction

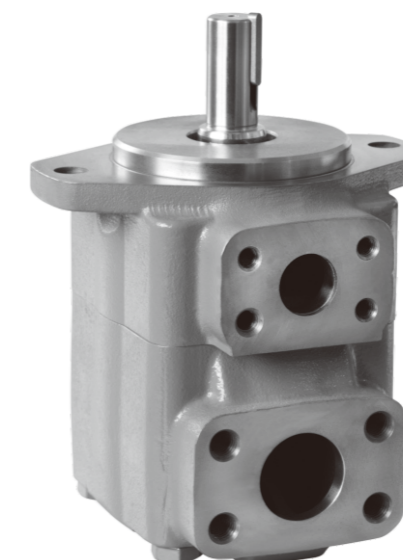
适用于工程机械的高压高性能子母叶片泵。  
High pressure and high-performance vane pump suitable for construction machinery.

主要特点为:  
The Main Characteristics Are:

1. 采用液压平衡的子母叶片结构及10叶片制的设计，压力更高，最高达到21MPa。  
Adopting a hydraulically balanced sub and sub blade structure and a 10 blade design, the pressure is higher, reaching a maximum of 21MPa.
2. 采用浮动侧板结构，可自动补偿端面间隙，使泵在高压下能保持高的容积效率。  
Adopting a floating side plate structure, it can automatically compensate for end face clearance, enabling the pump to maintain high volumetric efficiency under high pressure.
3. 侧板采用双金属材料，提高了抗咬合性能，使泵的使用寿命更长。  
The side panel is made of bimetallic material, which improves the anti bite performance and prolongs the service life of the pump.

VQ系列单泵 VQ Series Single Pump

产品外观 Product Appearance



型号说明 Model Designation

	(F3-)	25VQ	19	A	(F)	-1	A	30	R
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前注 Preface

无标记 Unmarked
石油系列 Petroleum Series
乳化液 Emulsion
水-乙二醇 Water Ethylene Glycol
F3: 磷酸酯液 F3: Phosphate Ester Solution

系列号 Series Number

20V
25V
35V
45V

排量代号 Displacement Code

2	3	4	5	6	7	8	9	10	11	12	14
10	12	14	15	17	19	21	25				
21	25	30	32	35	38	45					
42	45	50	57	60	66	75					

油口连接 Oil Port Connection

A- SAE 4螺栓法兰 A-sae 4 Bolt Flange
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安装形式 Installation Form

无标记-法兰安装型 Unmarked - Flange Mounted Type
F-脚座安装型 F-foot Mount Type

轴伸形式 Axial extension form

1-平键轴 1-Flat Key Shaft	151-花键轴 151-Spline Shaft	
1-平键轴 1-Flat Key Shaft	86-重型平键轴 86-Heavy Duty Flat Key Shaft	11-花键轴 11-Spline Shaft

出油口位置 (从泵的盖端看) Oil Outlet Position (Viewed From The Cover End Of The Pump)

A-进油口对侧 A - On The Opposite Side Of The Oil Inlet
B-从进油口逆时针90° B -90° Counterclockwise From The Oil Inlet
C-进油口同侧 C - On The Same Side Of The Oil Inlet
D-从进油口顺时针90° D-90° Clockwise From The Oil Inlet

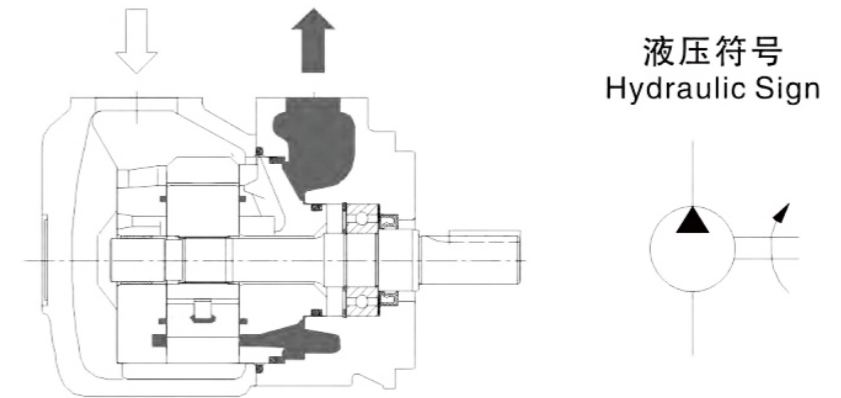
设计号 Design Number

30	20
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旋转方向 (从泵的轴端看) Rotation Direction (viewed From The Shaft End Of The Pump)

L-逆时针旋转 L-counterclockwise Rotation
R-顺时针旋转 R-clockwise Rotation

机能, 剖面 Function Profile



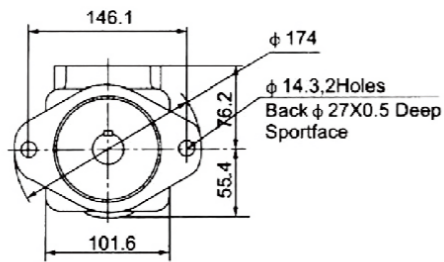
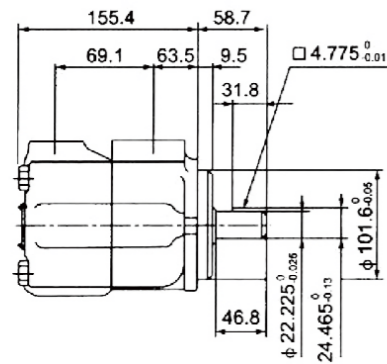
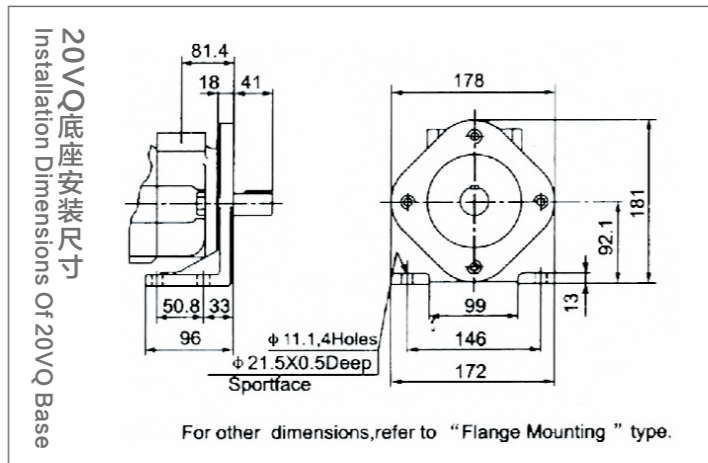
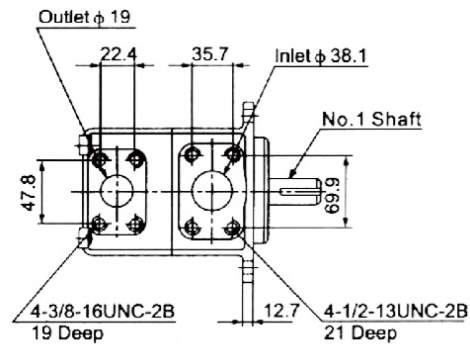
性能参数 Technical Data

系列号 Series Number	排量代号 Displacement Code (Usgpm)	理论排量 Theoretical Displacement mL/r(in <sup>3</sup> /r)	最高使用压力 Maximum Operating Pressure Mpa	最高转速 Maximum Speed r/min	最低转速 Minimum Speed r/min				
20VQ	2	7(0.43)	21	2700	600				
	3	10(0.61)							
	4	13(0.79)							
	5	16.5(1.01)							
	6	19(1.16)							
	7	22(1.40)							
	8	27(1.67)							
	9	30(1.85)							
	10	31.5(1.95)							
	11	35(2.14)							
	12	40(2.44)							
	14	45(2.78)							
	25VQ	10				32(1.95)	21	2700	600
		12				38(2.32)			
14		43.5(2.65)							
15		47(2.89)	2500						
17		54(3.30)							
19		60(3.66)							
35VQ	21	67(4.13)	21	2500	600				
	25	81(4.94)							
	30	95(5.80)							
	32	101(6.16)							
	35	109(6.65)		2400					
	38	1119(7.26)							
	45	143(8.72)							
45VQ	42	134(8.17)	17.5	2400	600				
	45	143(8.72)							
	50	159(9.70)		2200					
	57	181(11.05)							
	60	189(11.53)							
	66	210(12.81)							
	75	237(14.46)				14			



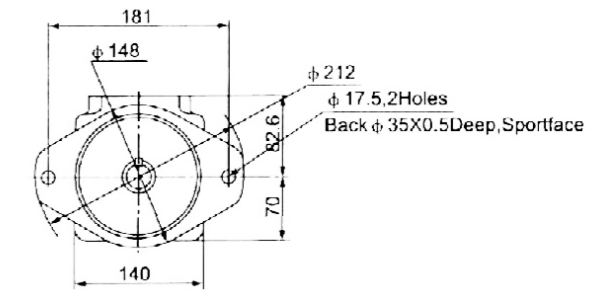
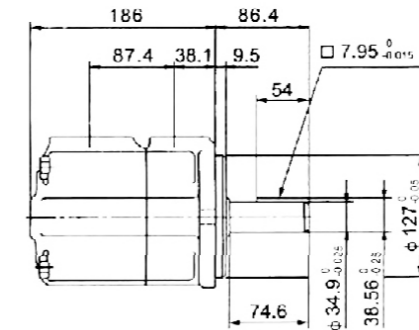
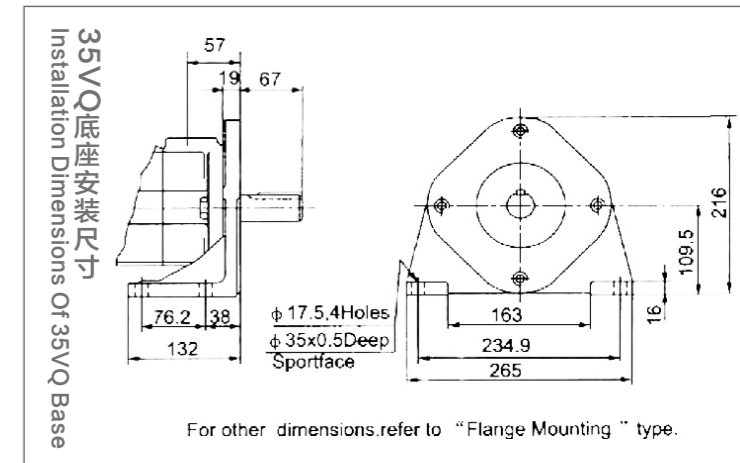
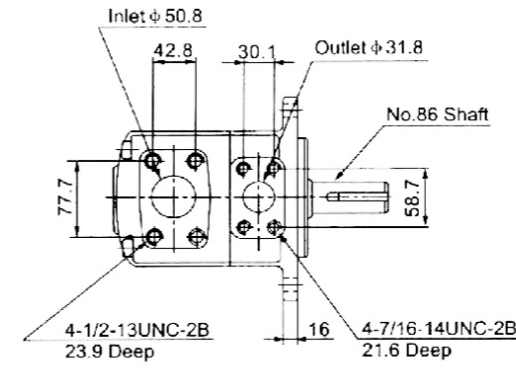
安装连接尺寸 Installation Dimensions

20VQ法兰安装尺寸  
Installation Dimensions Of 20VQ Flange

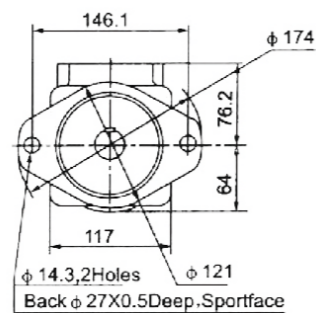
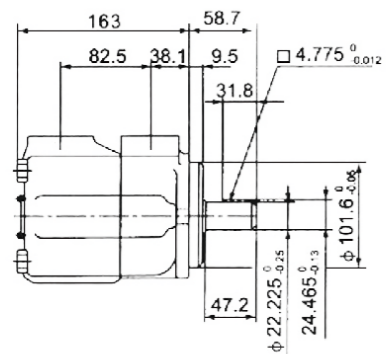
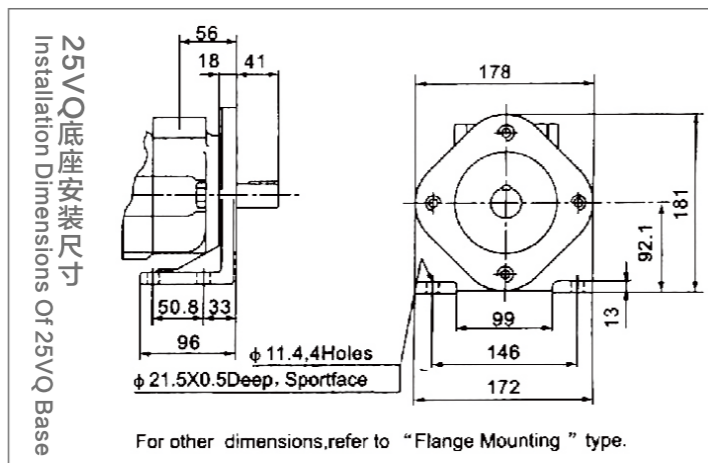
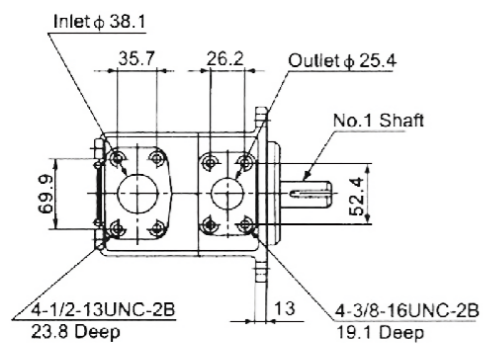


安装连接尺寸 Installation Dimensions

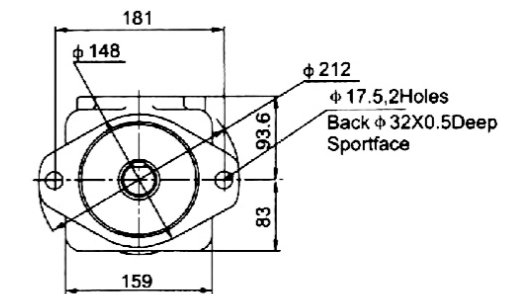
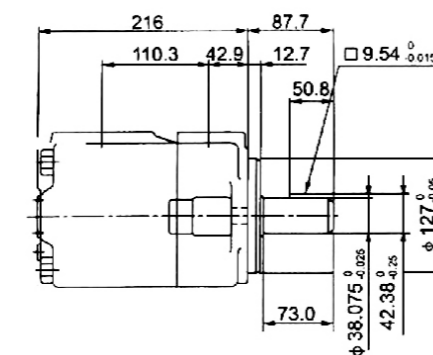
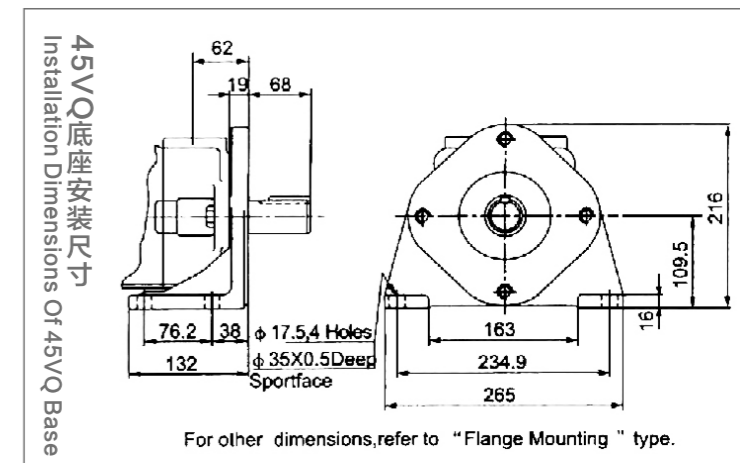
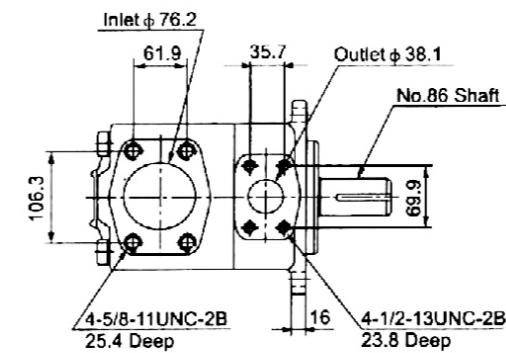
35VQ法兰安装尺寸  
Installation Dimensions Of 35VQ Flange



25VQ法兰安装尺寸  
Installation Dimensions Of 25VQ Flange



45VQ法兰安装尺寸  
Installation Dimensions Of 45VQ Flange

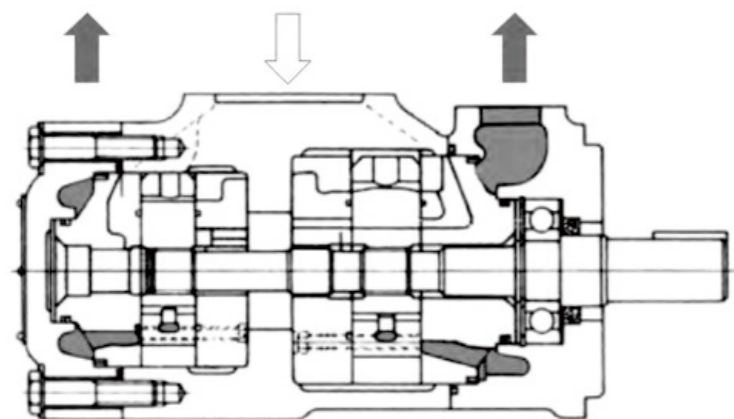


VQ系列双联泵 VQ Series Double Pump

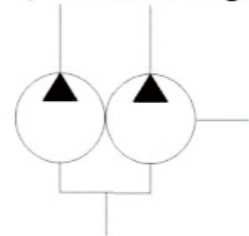
产品外观 Product Appearance



机能，剖面 Function Profile



液压符号  
Hydraulic Sign



型号说明 Model Designation

(F3-) 3525VQ 38 A 17 (F) -1 AB 20 R

前注 Preface

无标记 Unmarked
石油系列 Petroleum Series
乳化液 Emulsion
水-乙二醇 Water Ethylene Glycol
F3: 磷酸酯液 F3: Phosphate Ester Solution

系列号 Series Number

2520VQ
3520VQ
3525VQ
4520VQ
4525VQ
4535VQ

轴端泵排量代号 Shaft End Pump Displacement Code

10	12	14	15	17	19	21	25
21	25	30	32	35	38	45	
21	25	30	32	35	38	45	
42	45	50	57	60	66	75	
42	45	50	57	60	66	75	
42	45	50	57	60	66	75	

油口连接 Oil Port Connection

A- SAE 4螺栓法兰 A-sae 4 Bolt Flange
----------------------------------

盖端泵排量代号 Cap End Pump Displacement Code

2	3	4	5	6	7	8	9	10	11	12	14
2	3	4	5	6	7	8	9	10	11	12	14
10	12	14	15	17	19	21	25				
2	3	4	5	6	7	8	9	10	11	12	14
10	12	14	15	17	19	21	25				
21	25	30	32	35	38	45					

安装形式 Installation Form

无标记-法兰安装型 Unmarked - Flange Mounted Type
F-脚座安装型 F-foot Mount Type

轴伸形式 Axial extension form

1-平键轴 1-Flat Key Shaft	151-花键轴 151-Spline Shaft	
1-平键轴 1-Flat Key Shaft	86-重型平键轴 86- Heavy Duty Flat Key Shaft	11-花键轴 11-Spline Shaft

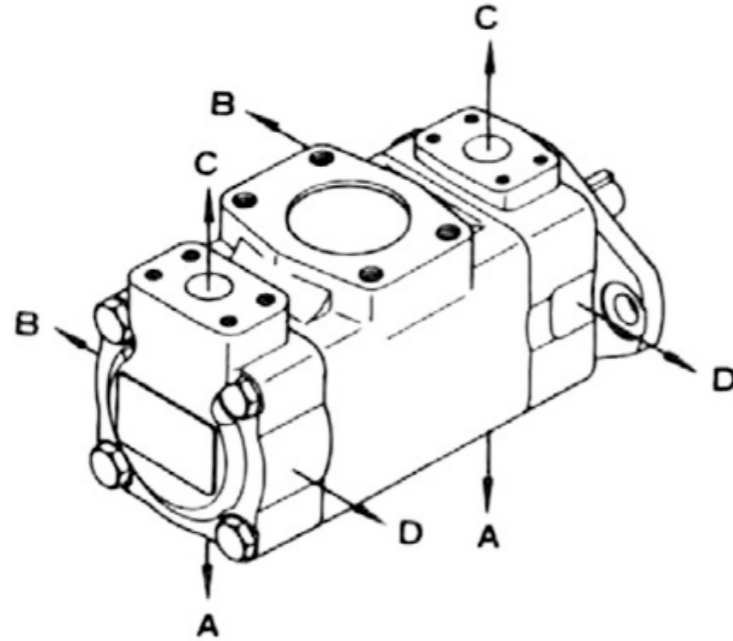
设计号  
Design  
Number  
22

出油口位置  
Oil Outlet Position  
见下表  
See The Table Below

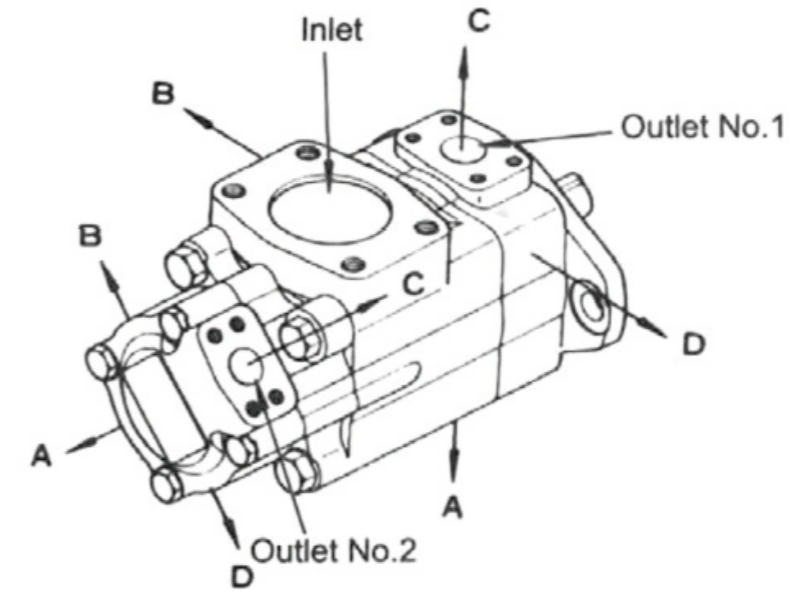
旋转方向  
(从泵的轴端看)  
Rotation Direction  
(Viewed From The Shaft  
End Of The Pump)

R-顺时针旋转  
R-clockwise Rotation  
L-逆时针旋转  
L-counterclockwise Rotation

出油口位置 (从泵的盖端看) Oil Outlet Position (From the cover end of the pump)



出油口位置 (从泵的盖端看) Oil Outlet Position (From the cover end of the pump)



出油口位置 Oil Outlet Position		除4535V外的所有系列 All Series Except For 4535v	4535V
第一出油口 在进油口对面 The First Oil Outlet Is Opposite The Oil Inlet	AA	第二出油口在进油口逆时针转135° Turn The Second Oil Outlet Counterclockwise By 135° at The Oil Inlet	第二出油口在进油口对面 The Second Oil Outlet Is Opposite The Oil Inlet
	AB	第二出油口在进油口逆时针转45° Turn The Second Oil Outlet Counterclockwise By 45° at The Oil Inlet	第二出油口在进油口逆时针转90° Turn The Second Oil Outlet Counterclockwise By 90° at The Oil Inlet
	AC	第二出油口在进油口顺时针转45° Turn The Second Oil Outlet 45° Clockwise At The Oil Inlet	第二出油口在进油口同侧 The Second Oil Outlet Is On The Same Side As The Oil Inlet
	AD	第二出油口在进油口顺时针转135° Turn The Second Oil Outlet 135° Clockwise At The Oil Inlet	第二出油口在进油口顺时针转90° Turn The Second Oil Outlet 90° Clockwise At The Oil Inlet
第一出油口 从进油口逆时针转90° Rotate The First Oil Outlet 90° Counterclockwise From The Oil Inlet	BA	第二出油口在进油口逆时针转135° Turn The Second Oil Outlet Counterclockwise By 135° at The Oil Inlet	第二出油口在进油口对面 The Second Oil Outlet Is Opposite The Oil Inlet
	BB	第二出油口在进油口逆时针转45° Turn The Second Oil Outlet Counterclockwise By 45° at The Oil Inlet	第二出油口在进油口逆时针转90° Turn The Second Oil Outlet Counterclockwise By 90° at The Oil Inlet
	BC	第二出油口在进油口顺时针转45° Turn The Second Oil Outlet 45° Clockwise At The Oil Inlet	第二出油口在进油口同侧 The Second Oil Outlet Is On The Same Side As The Oil Inlet
	BD	第二出油口在进油口顺时针转135° Turn The Second Oil Outlet 135° Clockwise At The Oil Inlet	第二出油口在进油口顺时针转90° Turn The Second Oil Outlet 90° Clockwise At The Oil Inlet

出油口位置 Oil Outlet Position		除4535V外的所有系列 All Series Except For 4535v	4535V
第一出油口 在进油口对面 The First Oil Outlet Is Opposite The Oil Inlet	CA	第二出油口在进油口逆时针转135° Turn The Second Oil Outlet Counterclockwise By 135° at The Oil Inlet	第二出油口在进油口对面 The Second Oil Outlet Is Opposite The Oil Inlet
	CB	第二出油口在进油口逆时针转45° Turn The Second Oil Outlet Counterclockwise By 45° at The Oil Inlet	第二出油口在进油口逆时针转90° Turn The Second Oil Outlet Counterclockwise By 90° at The Oil Inlet
	CC	第二出油口在进油口顺时针转45° Turn The Second Oil Outlet 45° Clockwise At The Oil Inlet	第二出油口在进油口同侧 The Second Oil Outlet Is On The Same Side As The Oil Inlet
	CD	第二出油口在进油口顺时针转135° Turn The Second Oil Outlet 135° Clockwise At The Oil Inlet	第二出油口在进油口顺时针转90° Turn The Second Oil Outlet 90° Clockwise At The Oil Inlet
第一出油口 从进油口逆时针转90° Rotate The First Oil Outlet 90° Counterclockwise From The Oil Inlet	DA	第二出油口在进油口逆时针转135° Turn The Second Oil Outlet Counterclockwise By 135° at The Oil Inlet	第二出油口在进油口对面 The Second Oil Outlet Is Opposite The Oil Inlet
	DB	第二出油口在进油口逆时针转45° Turn The Second Oil Outlet Counterclockwise By 45° at The Oil Inlet	第二出油口在进油口逆时针转90° Turn The Second Oil Outlet Counterclockwise By 90° at The Oil Inlet
	DC	第二出油口在进油口顺时针转45° Turn The Second Oil Outlet 45° Clockwise At The Oil Inlet	第二出油口在进油口同侧 The Second Oil Outlet Is On The Same Side As The Oil Inlet
	DD	第二出油口在进油口顺时针转135° Turn The Second Oil Outlet 135° Clockwise At The Oil Inlet	第二出油口在进油口顺时针转90° Turn The Second Oil Outlet 90° Clockwise At The Oil Inlet

产品重量 Product Weight

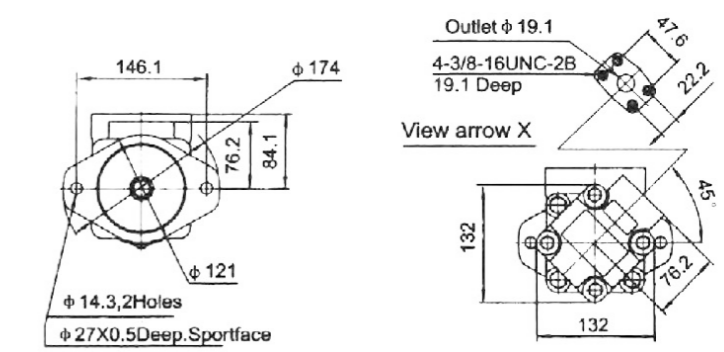
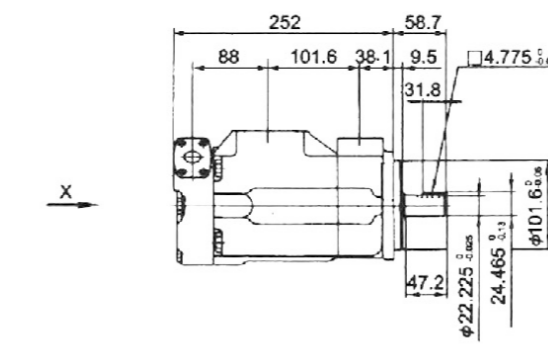
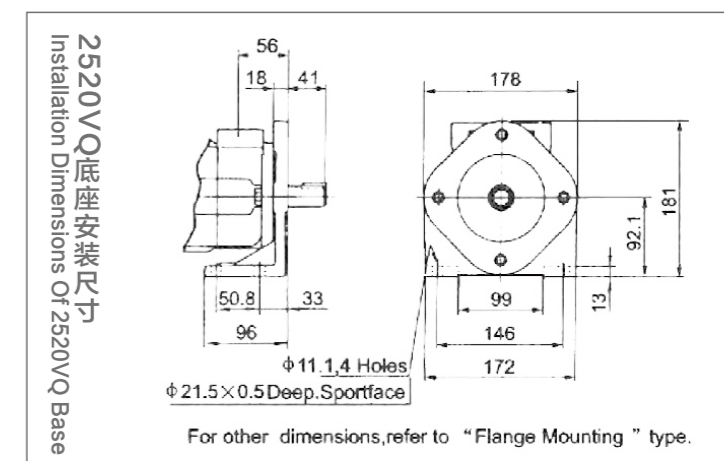
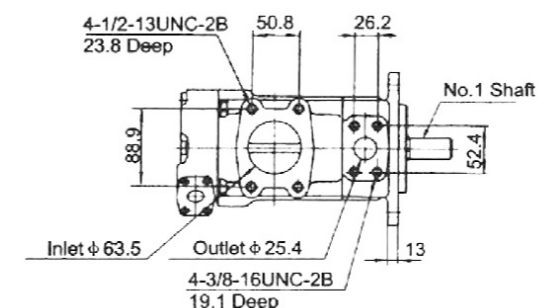
泵芯 Pump Cartridge	
泵型号 Pump Model	重量 Weight Kg
20V, 20VQ, SQP1	3.0
25V, 25VQ, SQP2	4.0
35V, 35VQ, SQP3	7.0
45V, 45VQ, SQP4	11.0
T6C, T6CC	4.1
T6D	8.3
T6E	12.8

单泵 Single Pumps			
泵型号 Pump Model	重量 Weight Kg	泵型号 Pump Model	重量 Weight Kg
20V, 20VQ	13.0	SQP1	16.7
25V, 25VQ	15.0	SQP2	28.0
35V, 35VQ	24.0	SQP3	38.0
45V, 45VQ	37.0	SQP4	65.0
T6C	15.7	PV2R1	9.0
T6D	24.0	PV2R2	17.0
T6E	43.0	PV2R3	33.0

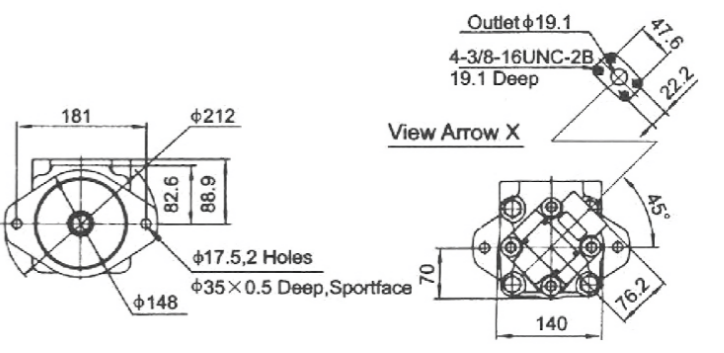
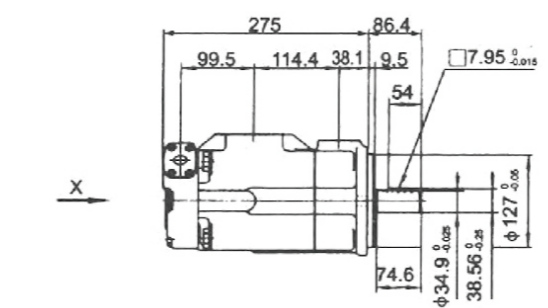
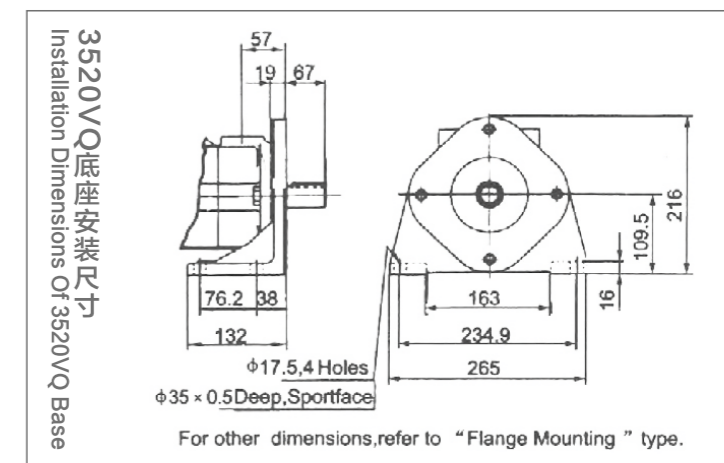
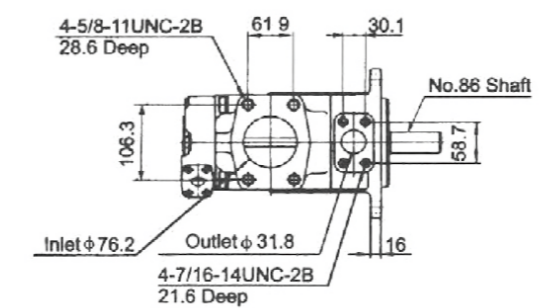
双联泵 Double Pump					
泵型号 Pump Model	重量 Weight Kg	泵型号 Pump Model	重量 Weight Kg	泵型号 Pump Model	重量 Weight Kg
2520V, 2520VQ	23.0	SQP21	34.0	T6CC	26.0
3520V, 3520VQ	33.0	SQP31	48.0	T6DC	36.6
3525V, 3525VQ	35.0	SQP32	50.0	T6EC	55.0
4520V, 4520VQ	46.0	SQP41	80.0	T6ED	66.0
4525V, 4525VQ	48.0	SQP42	85.0	PV2R21	23.0
4535V, 4535VQ	58.0	SQP43	95.0	PV2R31	41.0
				PV2R32	45.0

安装连接尺寸 Installation Dimensions

2520VQ法兰安装尺寸  
Installation Dimensions Of 2520VQ Flange

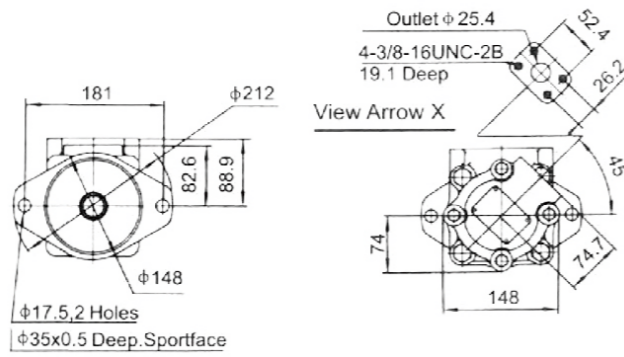
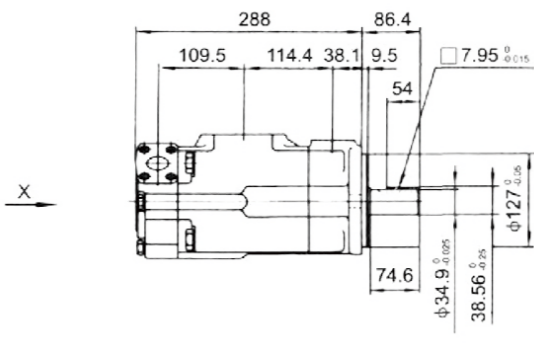
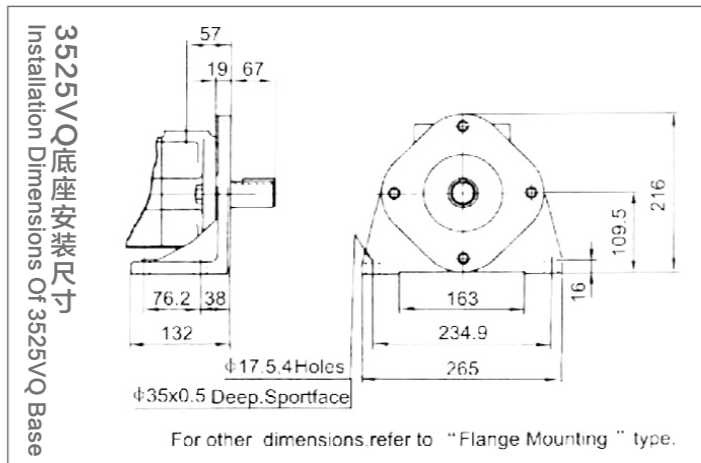
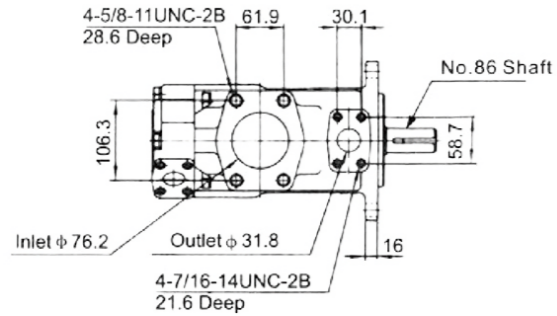


3520VQ法兰安装尺寸  
Installation Dimensions Of 3520VQ Flange



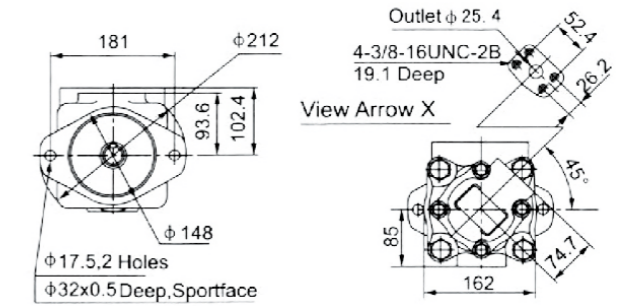
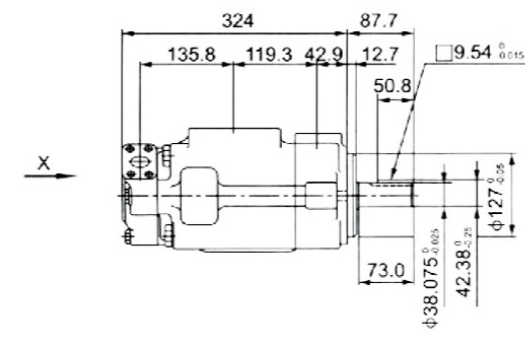
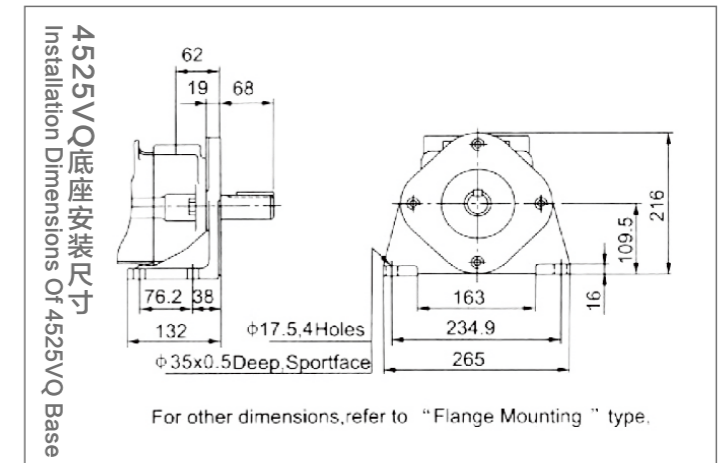
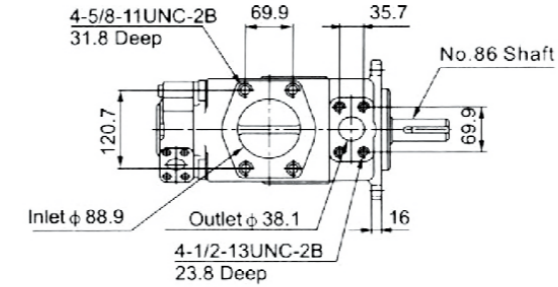
安装连接尺寸 Installation Dimensions

3525VQ法兰安装尺寸  
Installation Dimensions Of 3525VQ Flange

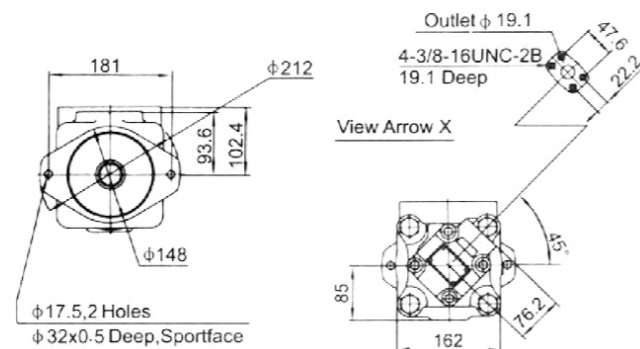
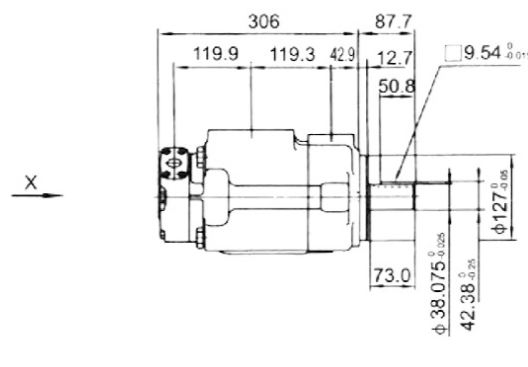
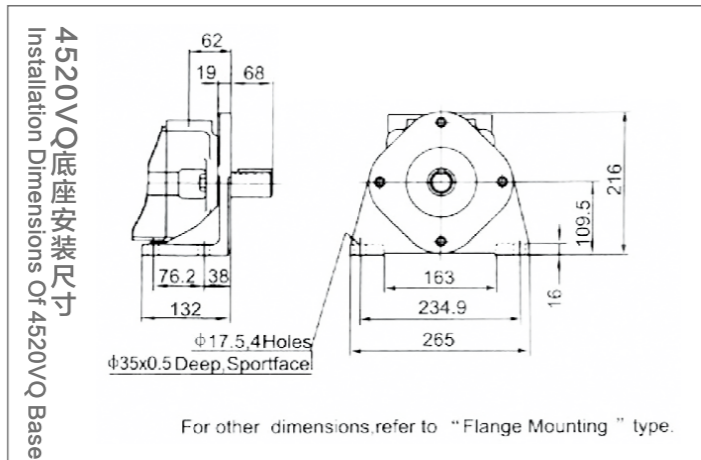
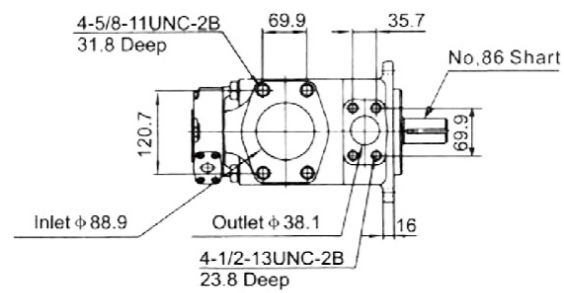


安装连接尺寸 Installation Dimensions

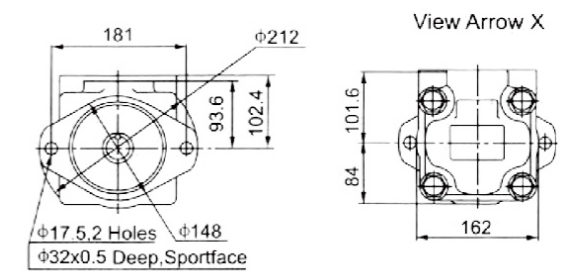
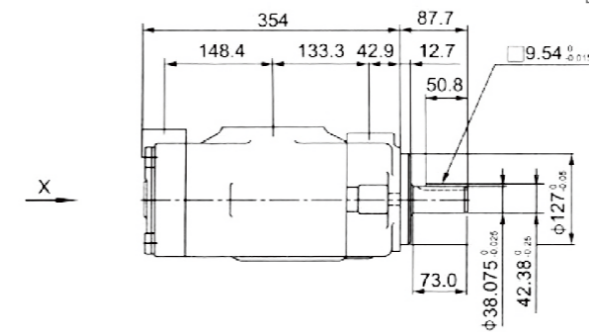
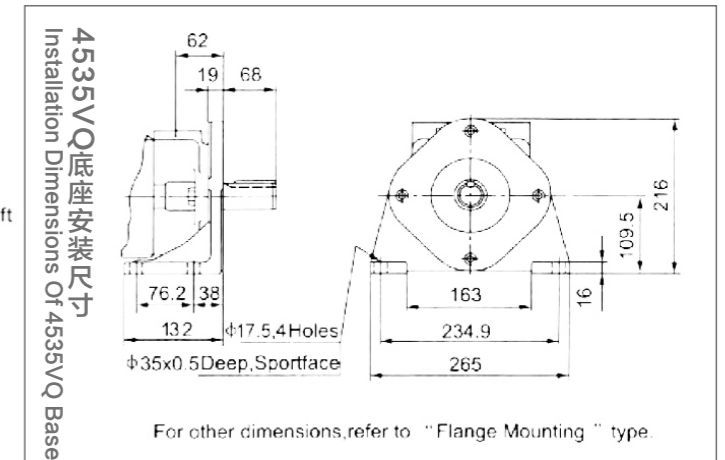
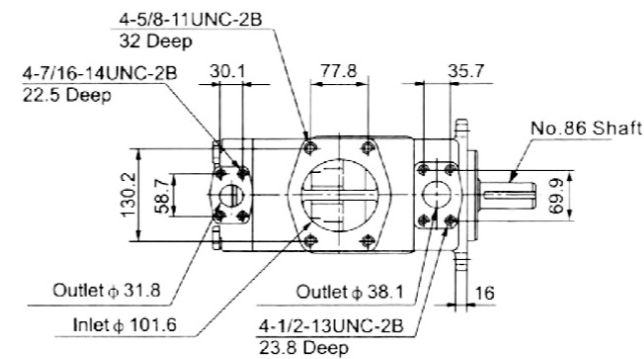
4525VQ法兰安装尺寸  
Installation Dimensions Of 4525VQ Flange



4520VQ法兰安装尺寸  
Installation Dimensions Of 4520VQ Flange

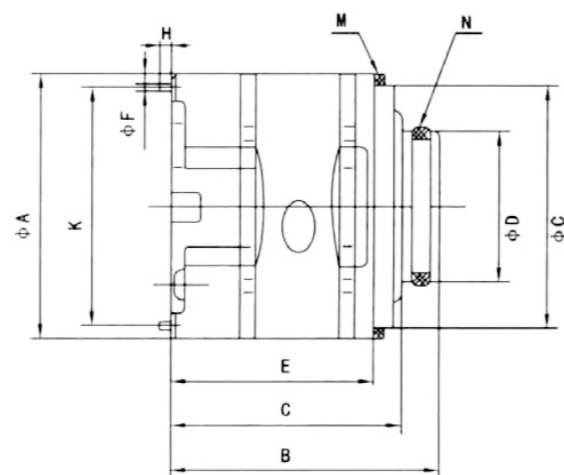


4535VQ法兰安装尺寸  
Installation Dimensions Of 4535VQ Flange



## VQ系列泵芯

### 产品外观 Product Appearance



### 性能参数 Technical Data

系列号 Series Number	ΦA	B	C	ΦD	E	ΦF	ΦG	H	K	M (档圈) M (Retainer Ring)	N (O形圈) N (O-Ring)
20VQ	82.55	81.5	70.1	47	61.5	4.8	76.2	7	73.6	82.76×76.26×3.5	40×3.55
25VQ	96.8	98.8	87	52.2	71.2	4.8	90.5	7	88.19	97×91×3.5	44×3.53
35VQ	114.3	117.7	105	72.2	90.3	6.4	108	7	103.94	114.5×108.5×3.5	63.09×3.53
45VQ	133.35	141.1	129.6	80.2	105.5	6.4	127	11	123.8	133.6×127.6×3.5	71×3.55

系列号 Series Number	转子内花键齿廊参数 Parameters Of Rotor Internal Flower Tooth Profile				
	齿数 Number Of Teeth	径节 Diametral Pitch	压力角 Pressure Angle	大径 Major Diameter	小径 Pathway
20VQ	30	48/96	45°	16.617	15.56
25VQ	40	48/96	45°	21.9	20.86
35VQ	37	40/80	45°	24.38	23.10
45VQ	14	12/24	30°	32.59	27.6

### 型号说明 Model Designation

(F3-)	PC-	25VQ	19	R	10
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#### 前注 Preface

无标记 Unmarked
石油系列 Petroleum Series
乳化液 Emulsion
水-乙二醇 Water Ethylene Glycol
F3: 磷酸酯液 F3: Phosphate Ester Solution

#### 泵芯标志 Pump Core Marking

PC-单泵泵芯 Pc - Single Pump Core
双联泵轴端泵芯 Double Pump Shaft End Pump Core
PCT-双联泵盖端泵芯 PCT - Double pump cover end pump core

#### 系列号 Series Number

20VQ
25VQ
35VQ
45VQ

#### 排量代号 Displacement Code

2	3	4	5	6	7	8	9	10	11	12	14
10	12	14	15	17	19	21	25				
21	25	30	32	35	38	45					
42	45	50	57	60	66	75					

#### 旋转方向 (从泵的轴端看) Rotation Direction (viewed From The Shaft End Of The Pump)

R-顺时针旋转 R-clockwise Rotation
L-逆时针旋转 L-counterclockwise Rotation

#### 设计号 Design Number

10
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## V10、20系列叶片泵 V10, 20 Series Vane Pump

### 产品外观 Product Appearance



### 型号说明 Model Designation

(F3-) V10 -P 7 S -1 C 20 -L

#### 前注 Preface

Water-oil emulsions  
Water-glycol  
F3 phosphate ester fluid

#### 系列号 Series Number

V10  
V20

#### 油口连接 Oil port connection

P-1/2' NPT Thread  
S-0.750-16 Straight Thread, B-G1 Thread  
P-1/2' NPT Thread  
S-0.750-16 Straight Thread, B-G1 Thread

#### 排量代号 Displacement Code

1	2	3	4	5	6	7	
6	7	8	9	10	11	12	13

#### 油口连接 Oil Port Connection

P-1/2' NPT Thread  
S-0.750-16 Straight Thread, B-G1/2' Thread  
P-3/4' NPT Thread  
S-1.1875-12 Straight Thread, B-G1/4' Thread

#### 轴伸形式 Axial Extension Form

1-Key Straight Shaft  
11-Spline Shaft  
38-11 teeth-3/4' outside spline shaft  
62-spline shaft(only for V20)

#### 出口位置 (从泵的盖端看) Oil Outlet Position (Viewed From The Cover End Of The Pump)

A-进油口对侧 A - On The Opposite Side Of The Oil Inlet  
B-从进油口逆时针90° B -90° Counterclockwise From The Oil Inlet  
C-进油口同侧 C - On The Same Side Of The Oil Inlet  
D-从进油口顺时针90° D-90° Clockwise From The Oil Inlet

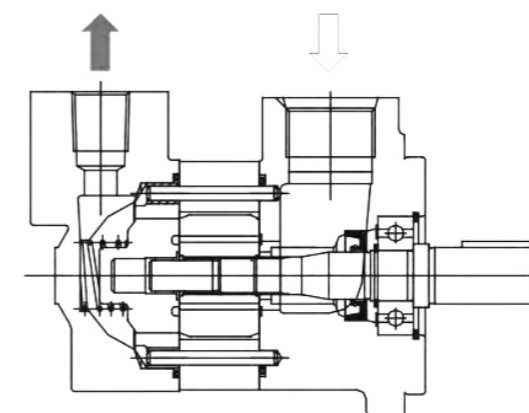
#### 设计号 Design Number

20  
10

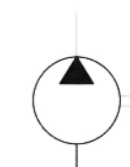
#### 旋转方向 (从泵的轴端看) Rotation Direction (viewed From The Shaft End Of The Pump)

R-顺时针旋转 R-clockwise Rotation  
L-逆时针旋转 L-counter-clockwise Rotation

### 机能, 剖面 Function Profile



#### 液压符号 Hydraulic Sign

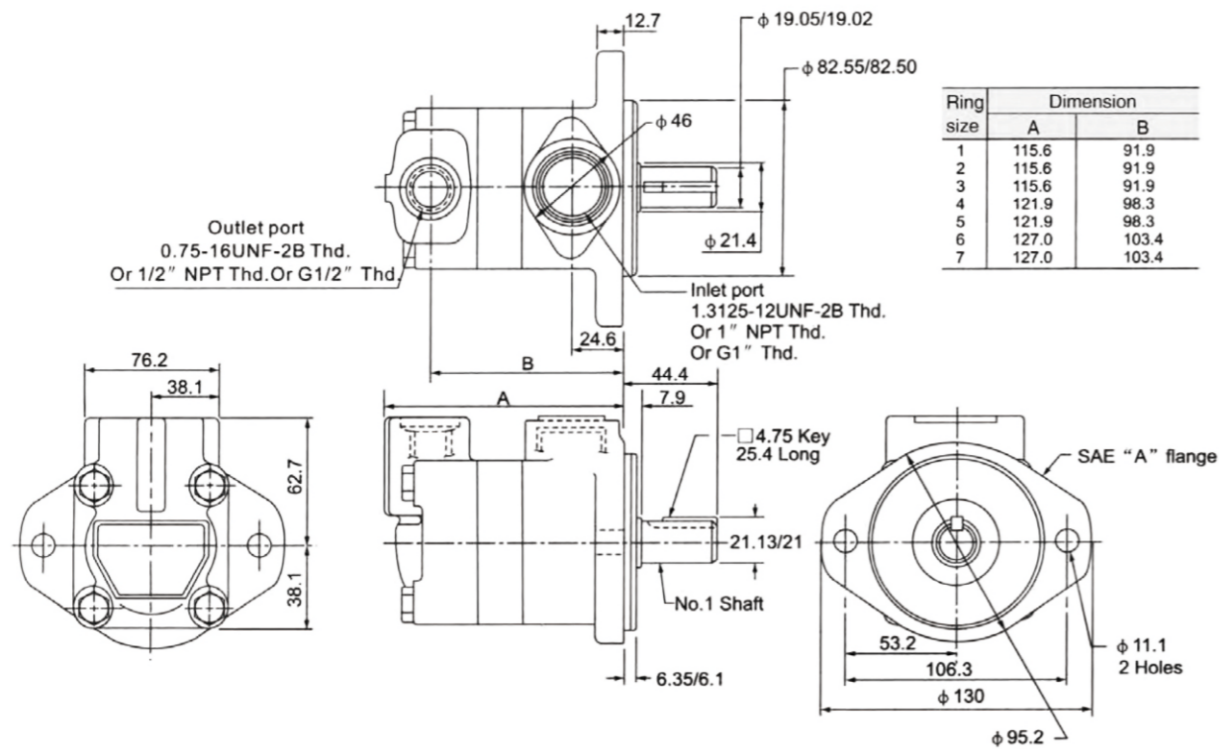


### 性能参数 Technical Data

系列号 Series Number	排量代号 Displacement Code (Usgpm)	几何排量 Geometric Displacement mL/r(in <sup>3</sup> /r)	使用抗磨液压油或磷酸酯 Use Anti Wear Hydraulic Oil Or Phosphate Ester		使用水-乙二醇 Using Water And Ethylene Glycol		使用油包水乳化液 Using Water In Oil Emulsion		
			最高使用压力 Maximum Operating Pressure Mpa	最高转速 Maximum Speed r/min	最高使用压力 Maximum Operating Pressure Mpa	最高转速 Maximum Speed r/min	最高使用压力 Maximum Operating Pressure Mpa	最高转速 Maximum Speed r/min	
V10	1	3.3	17.2	4800	12.4	1800	10.3	1800	
	2	6.6		4500					
	3	9.8		4000					
	4	13.1		3400					
	5	16.4		3200					
	6	19.5		3000					10.9
	7	22.8		2800					
V20	6	19.5	17.2	3400	12.4	1800	10.9	1800	
	7	22.8		3000					
	8	26.5		2800					
	9	29.7							
	10	30.0		2500					
	11	36.4							
	12	39							
	13	42.4		15.2					2400

安装连接尺寸 Installation Dimensions

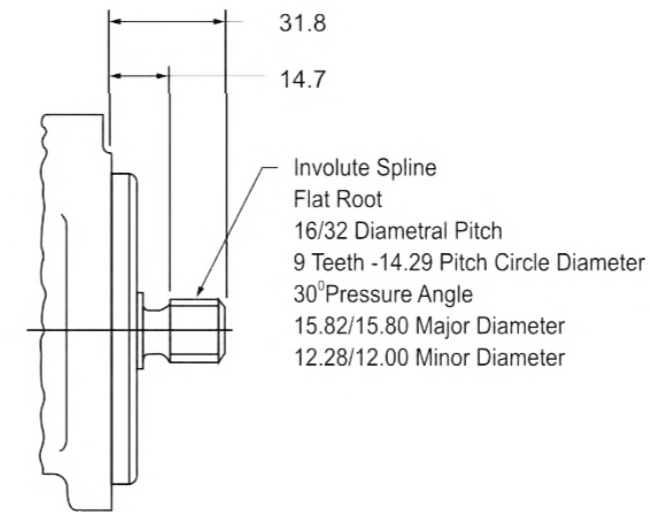
V10



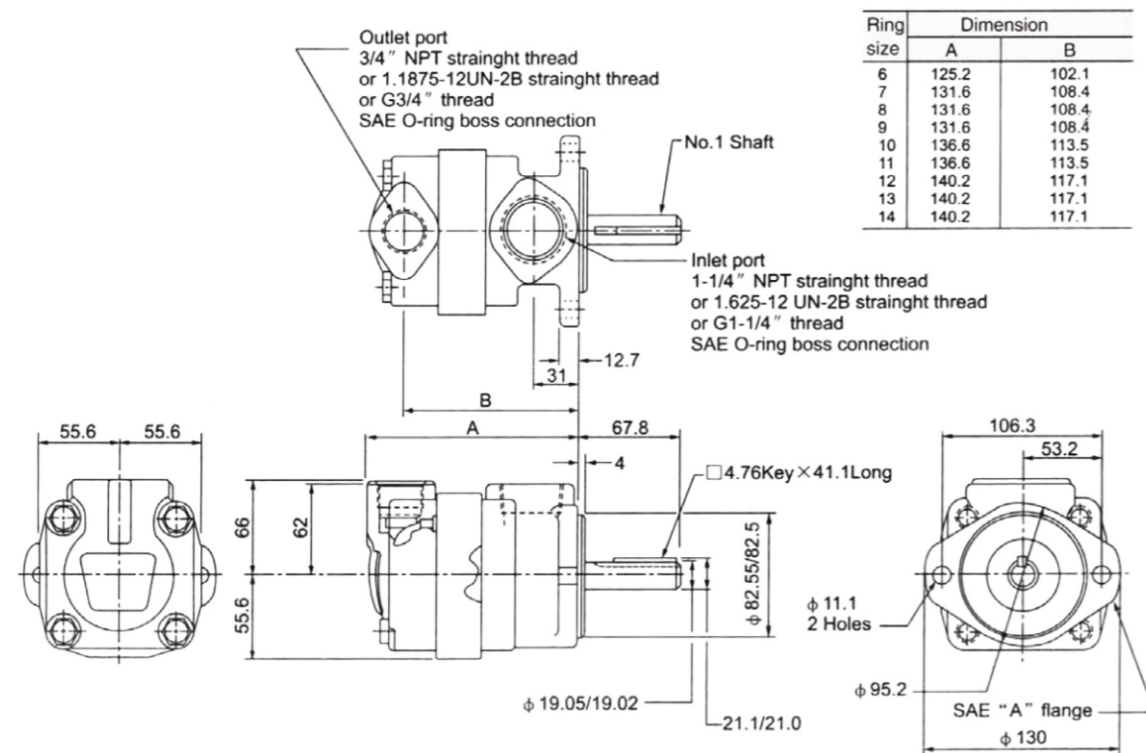
安装连接尺寸 Installation Dimensions

V10 Series Spline Shaft Type

11 Type Spline Shaft

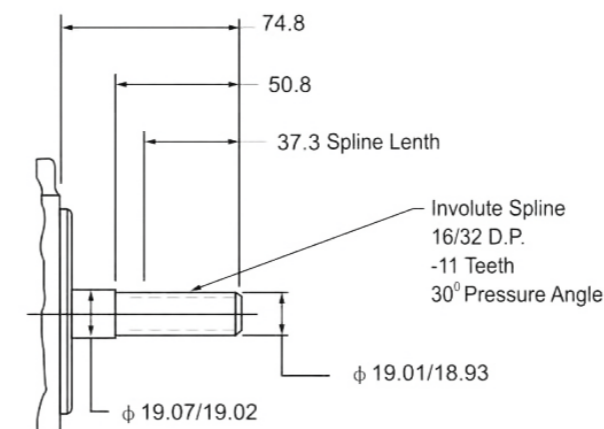


V20



V20 Series Spline Shaft Type

11 Type Spline Shaft



62 Type Spline Shaft

