PV2R Series Single Pump

Product appearance and introduction

This series of pumps are high-pressure high-performance vane pumps specially developed for lownoise work. Unique design,high-precision machining and reasonable selection of materials ensure,It has proved its advantages of high reliability and strong adaptability,and is most suitable for the needs of modern hydraulic systems. In applications such as injection molding machines,pressure die casting machines,metal cutting machine tools,construction machinery and other types of hydraulic systems have been widely used.

Its main features:

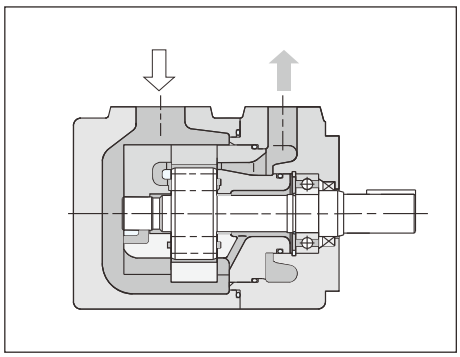
1.The arc blades with reasonable design and precision machining reduce the compressive stress of the blades on the inner curve of the stator and inprove the service life of the stator and blades;

2.The stator adopts advanced hihg-power non-impact transition curve,so that the blade has a good movement and stress state,ensuring the connection between the blade and the stator.Good contact and minimize flow loss, pressure and flow pulsation,lower noise and longer life.

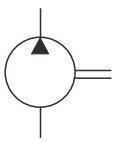
3.The side plate adopts hydraulic balance to obtain better volumetric efficiency;

4.The key parts are made of high-quality materials and advanced heat treatment technology,and the overall reliability of the oil pump is further improved;

5.The plug-in structure is adopted,and the main internal organs are made into components.The replacement of the pump core can be completed within a few minutes,with good interchangeability and convenient maintenance.



Sybool



Model Code

PV2R	1	-17	-F	-1	R	-U	-10
Product code	Series	Geometric displacement	Mounting	Shaft	Rotation	Outlet positions	Design
PV2R1		6,8,10,12,14,17,19, 23,25,28,31	F-Flange mounting	1-Str.key (standard) 2-Str.key	(Viewed from shaft end) R-Right hand for clockwise L-Left hand for counter-clockwise	U-up D-down R-right L-left	10
PV2R2		26,33,41,47,53,59, 65,75					
PV2R3		52,60,66,76,85,94, 116,125,136,153					

Note:1.For options other than listed above, i.e shafts, ports, displacement, and mountings, please contact us.
2.Inlet port is set to be on the upper side

Specifications

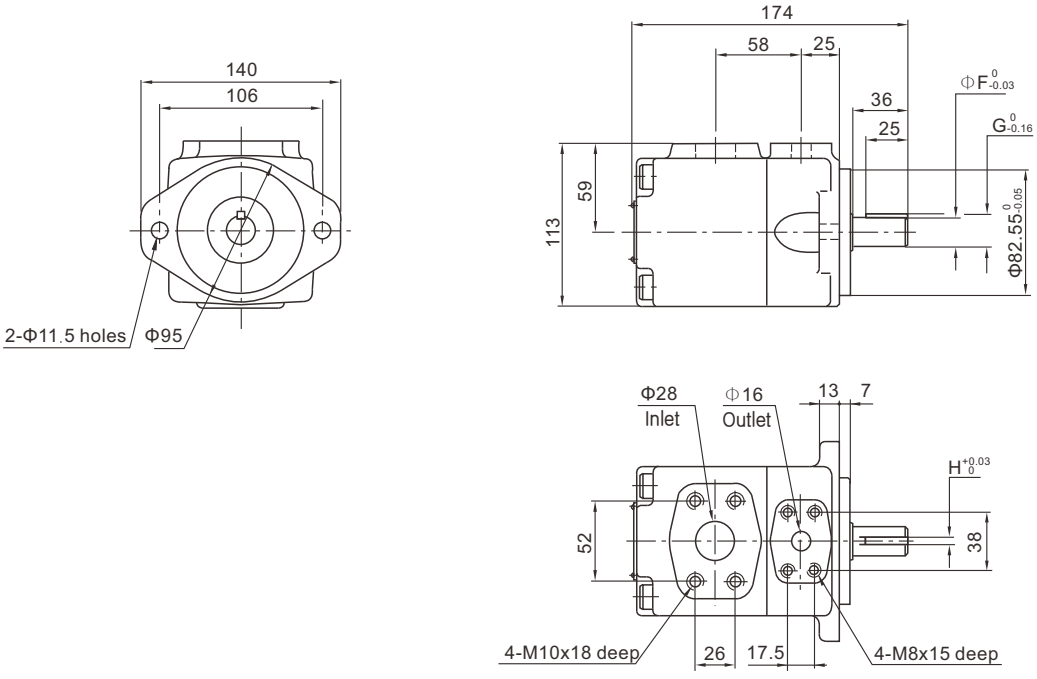
Model	Displacement mL/r	Max.pressure.MPa						Speed r/min		Weight kg
		Peroleum base hydraulic oil		Water hydraulic oil			Synthetic hydraulic oii	Min.	Max.	
		Anti-wear hydraulic oil	Ordinary hydraulic oil	Anti-wear water glycol liquid	Water glycol liquid	Water-in-oil emulsion	Phosphate ester liquid			
PV2R1-6	5.8	21	16	16	7	7	16	750	1800 (1200)	8
PV2R1-8	8.0									
PV2R1-10	9.4									
PV2R1-12	12.2									
PV2R1-14	13.7									
PV2R1-17	16.6									
PV2R1-19	18.6									
PV2R1-23	22.7									
PV2R1-25	25.3									
PV2R1-28	28.1									
PV2R1-31	31.0	16								
PV2R2-26	26.6	21	16	16	7	7	14	600	1800 (1200)	16
PV2R2-33	33.3									
PV2R2-41	41.3									
PV2R2-47	47.2									
PV2R2-53	52.5									
PV2R2-59	58.2									
PV2R2-65	64.7									
PV2R2-75	74.6									
PV2R3-52	52.2	21	16	16	7	7	14	600	1800 (1200)	32
PV2R3-60	59.6									
PV2R3-66	66.3									
PV2R3-76	76.4									
PV2R3-85	85									
PV2R3-94	93.6									
PV2R3-116	115.6	17.5							1200	
PV2R3-125	122.2									
PV2R3-136	136			14						
PV2R3-153	153									

Note:

1. For pumps with nominal displacement of "6" and "8", when the pressure is higher than 16MPa, the speed should be increased to be higher than 1450r/min, while for pumps with nominal displacement of "31" and "116", the maximum working pressure should be limited to 16MPa within;
2. When using water-containing hydraulic fluid and synthetic hydraulic fluid, the maximum speed is limited to 1200r/min;
3. For occasions that strictly require low noise, the recommended working speed is 1000r/min and the maximum working pressure is 12-14MPa;
4. When the working speed is n≠1500r/min, the output flow and driving power can be calculated according to the approximate formula: "value in the table × n/1500".

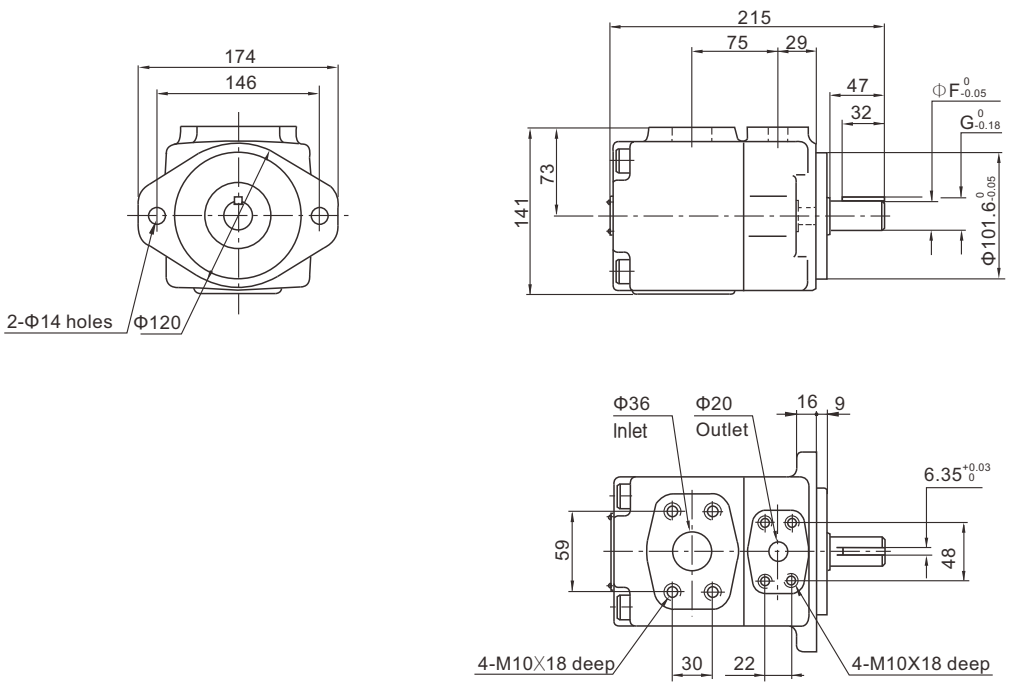
Installation Dimensions

PV2R1-※-F-※-U-10



Shaft form	F	G	H
1	19.05	21.24	4.76
2	15.88	17.68	3.97

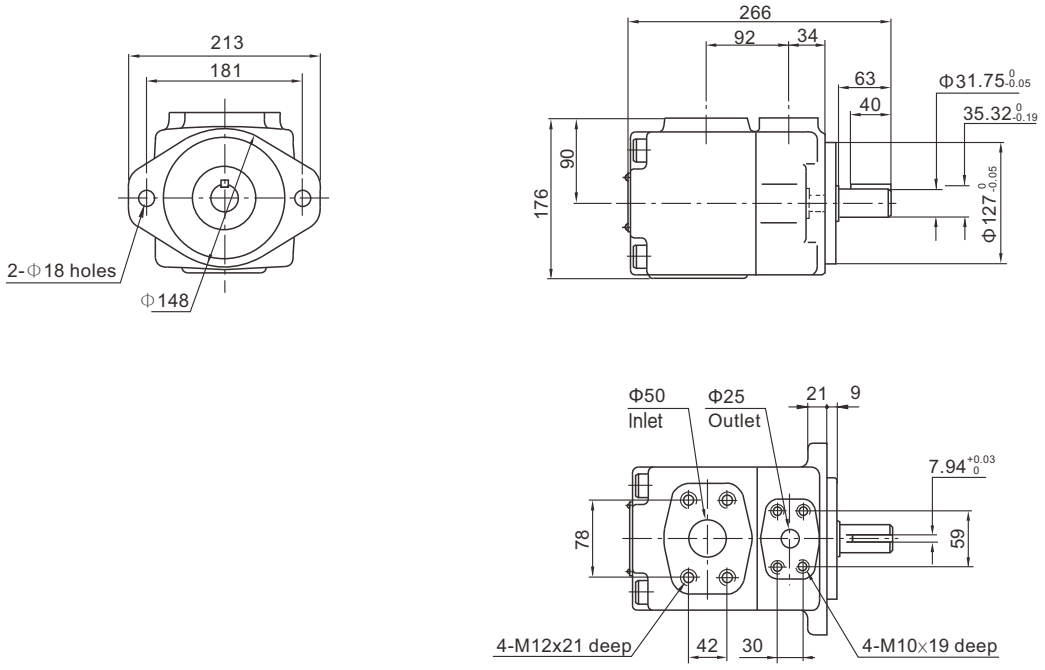
PV2R2-※-F-※-U-10



Shaft form	F	G
1	25.4	28.18
2	22.23	25.01

Installation Dimensions

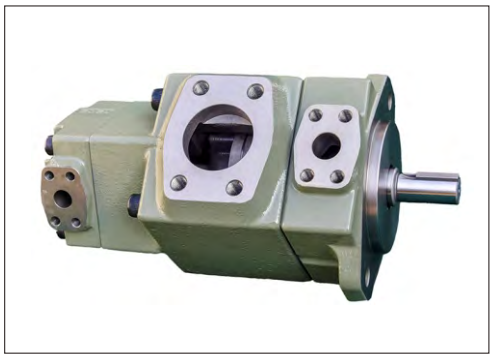
PV2R3-※-F-※－U－10

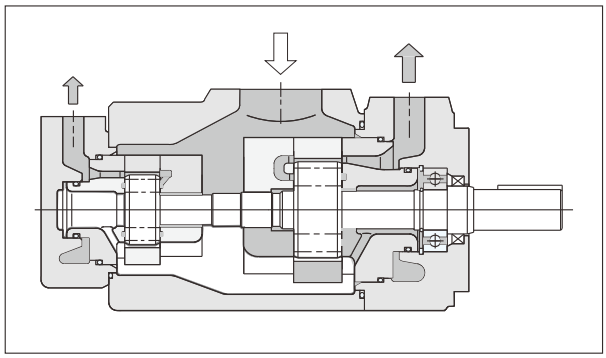


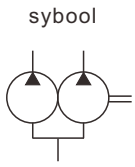
PV2R Series Double Pump

Product appearance and introduction

This series of pumps composed of two PV2R series single pumps driven by the same shaft and assembled in the same casing in parallel.Outlet to two separate circuits.According to the series combination of the two pumps,a variety of flow rates can be obtained.







Model Code

PV2R	13	-6	-76	-F	-1	R	-U	-U	-10
Product code	Series	Geometric displacement		Mounting	Shaft	Rotation	Outlet positions		Design
		Cover end	Shaft end				Cover end	Shaft end	
PV2R12		6, 8, 10, 12, 14, 17, 19,23, 25, 28,31	26,33,41, 47,53,59, 65,75	F-Flange mounting	1-Str.key (standard) 2-Str.key	(Viewed from shaft end) R-Right hand for clockwise L-Left hand for counter-clockwise	(Viewed from shaft end) U:Left-up 45° D:Right-down45° R:Right-up 45° L:Left-down 45°	(Viewed from shaft end) U:Up D:Down R:Right L:Left	10
PV2R13		6,8,10, 12,14,17, 19,23,25, 28,31	52,60,66, 76,85,94, 116,125, 136,153				U:Up D:Down R:Right L:Left		
PV2R23		26,33,41, 47,53,59, 65,75	52,60,66, 76,85,94, 116,125, 136,153				U:Left-up 45° D:Right-down45° R:Right-up 45° L:Left-down 45°		

Note:1.For options other than listed above, i.e shafts, ports, displacement, and mountings, please contact us.
2.Inlet port is set to be on the upper side

Specifications

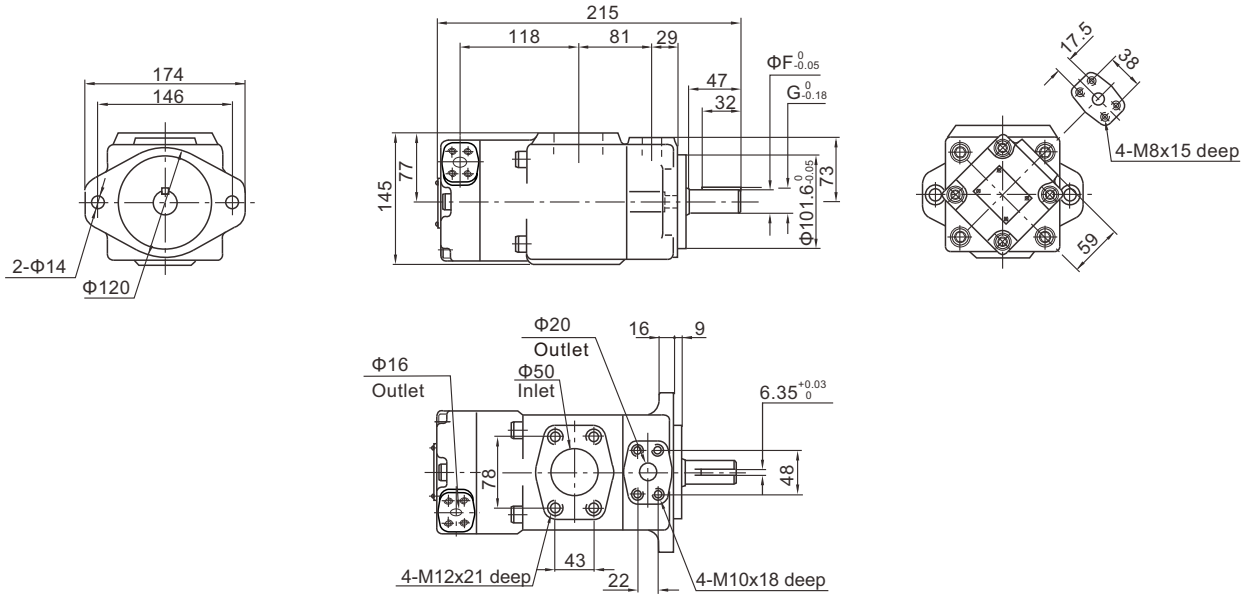
Model	Outlet	Displacement mL/r	Max.pressure.MPa						Speed r/min		Weight kg
			Peroleum base hydraulic oil		Water hydraulic oil			Synthetic hydraulic oil			
			Anti-wear hydraulic oil	Ordinary hydraulic oil	Anti-wear water glycol liquid	Water glycol liquid	Water-in-oil emulsion	Phosphate ester liquid	Min.	Max.	
PV2R12	Shaft end	26	21	16	16	7	7	14	750	1800 (1200)	22.5
		33									
		41									
		47									
		53									
		59									
		65									
		75									
	Cover end	6	21	16	16	7	7	16			
		8									
		10									
		12									
		14									
		17									
		19									
		23									
		25									
		28									
		31	16								
PV2R13	Shaft end	52	21	16	16	7	7	14	750	1800 (1200)	37.5
		60									
		66									
		76									
		85									
		94									
		116	17.5							1200	
		125									
		136		14	14						
		153									
	Cover end	6	21	16	16	7	7	16		1800 (1200)	
		8									
		10									
		12									
		14									
		17									
		19									
		23									
		25									
		28									
		31	16								
PV2R23	Shaft end	52	21	16	16	7	7	14	600	1800 (1200)	45
		60									
		66									
		76									
		85									
		94									
		116	17.5							1200	
		125									
		136		14	14						
		153									
	Cover end	26	21	16	16	7	7	14		1800 (1200)	
		33									
		41									
		47									
		53									
		59									
		65									
		75									

Description:1.The same sa the description of the “working parameters” of the single pump (see page 2).

2.The total driving power of the double pump=the driving power of the shaft end pump+the driving power of the cover end pump.

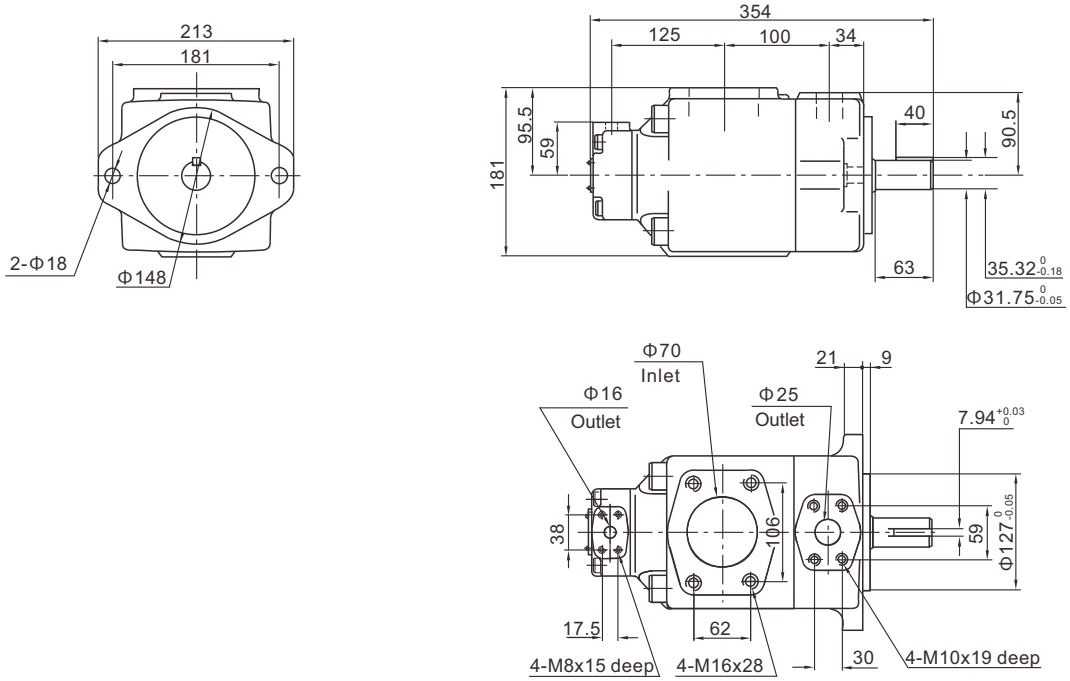
Installation Dimensions

PV2R12-※-※-F-※－UU



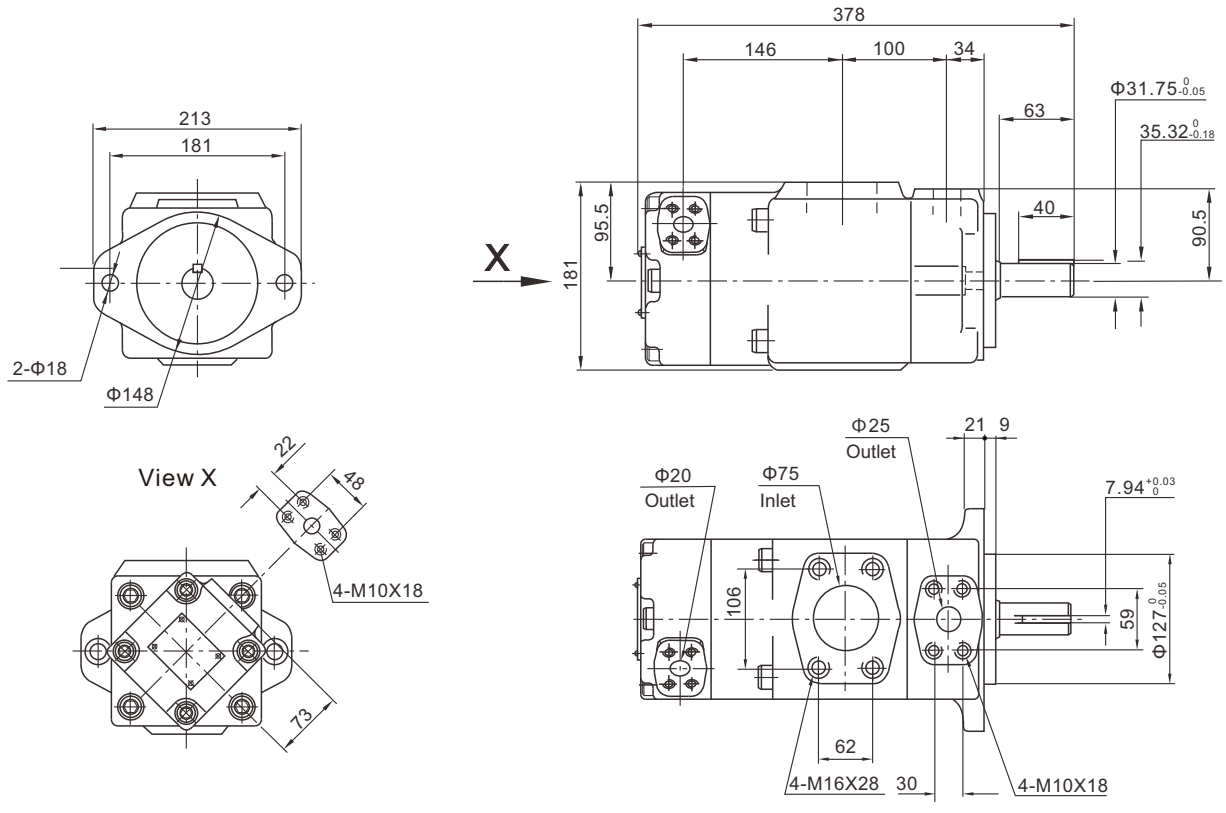
Shaft form	F	G
1	25.4	28.18
2	22.23	25.01

PV2R13-※-※-F-※－UU



Installation Dimensions

PV2R23-※-F-※－UU



PV2R Series Cartridge Kits

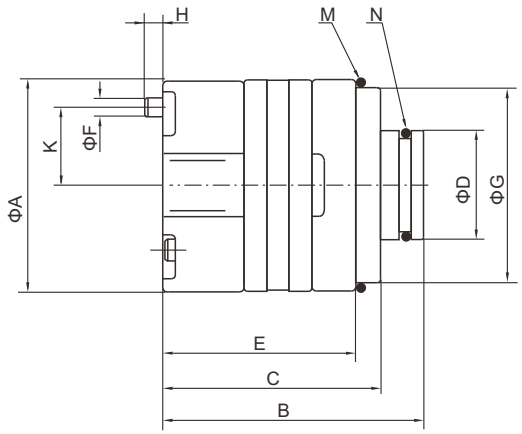
Product Introduction

The pump core is the heart of the oil pump.It can be said that the performance and life of the oil pump are determined by the design and manufacturing level of the pump core.Provide PV2R series pump core components to your sattisfaction, The pump core of PV2R series vane pump is mainly composed of stator,rotor,vane,pressure side plate,side plate and seals etc.composition.Its main performance parameters are consistent with the performance parameters of the corresponding series and speifications of the oil pump.

Model Code

PC-	PV2R1	-23	-R
Cartridge kit mark	Series	Geometric Displacement	Rotation
PC-Single pump cartridge kits Double pump shaft end pump cartridge kits PCT-Double pump cover end pump cartridge kits	PV2R1	6, 8, 10, 12, 14, 17, 19, 23, 25, 28, 31	(Viewed from shaft end) R-Right hand for clockwise L-Left hand for counter clockwise
	PV2R2	26, 33, 41, 47, 53, 59, 65, 75	
	PV2R3	52, 60, 66, 76, 85, 94, 116, 125, 136, 153	

Installation Dimensions

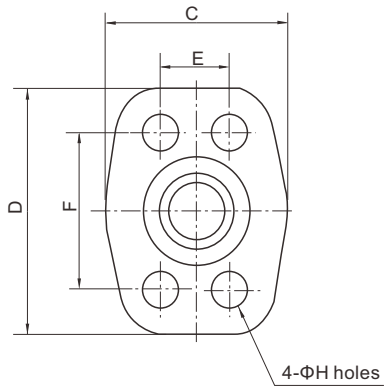


Series	A	B	C	D	E	F	G	H	K	M	N
PV2R1	68	84	70	45	62	6	62.7	5	R25	59.4 3.1	29.4 3.1
PV2R2	90	109	93	52	82	6	84.7	5	R36	84.4 3.1	45.7×3.5
PV2R3	120.5	127.5	106	72	94	8	115	8	R48	114.4×3.1	65.0×3.5

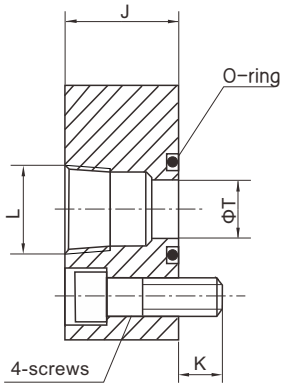
Series	Inner splines dentiform parameter of rotor					
	Modulus	No.of teeth	Pressure angle	Major Dia	Minor Dia	Space width
PV2R1	0.75	24	45°	19.050	17.550	1.328
PV2R2	1.0	24	45°	25.400	23.400	1.771
PV2R3	1.0	28	45°	29.400	27.400	1.771

Flange Connection Assembly

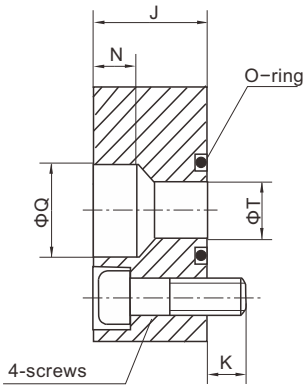
Installation Dimensions



F※-A(Rc thread)



F※-B(welding type)



flange model	Corres-ponding tube specifi-cations	Dimension mm											O-ring GB/T34521	Screws	Screw tightening torque N.m	Corresponding oil pump port
		C	D	E	F	H	J	K	L	N	Q	T				
F04-A	1/2″	43	59.0	17.5	38.1	9.0	28.0	11	1/2″	——	——	13	21.2×2.65	M8×30	35	PV2R1 outlet, PV2R12,PV2R13 cover end punp outlet
F04-B									——	11	22.5					
F06-A	3/4″	53.2	71.6	22.2	47.6	11.2	30.0	11	3/4″	——	——	19	30×3.55	M10×30	68.5	PV2R2, PV2R12 shaft end pump outlet. PV2R23 cover end pump outlet
F06-B									——	12	28.5					
F08-A	1″	58.0	76.4	26.2	52.4	11.2	30.0	16	1″	——	——	26	34.5×3.55	M10×35	68.5	PV2R1 inlet
F08-B									——	14	34.5					
F10-A	1-1/4″	57.7	84.7	30.2	58.7	12.0	40.0	16	1-1/4″	——	——	32	40×3.55	M10×45	68.5	PV2R2 inlet PV2R3 outlet, PV2R13 PV2R23 shaft end pump outlet
F10-B									——	16	43.0					
F12-A	1-1/2″	70.0	96.0	35.7	69.9	13.8	40.0	18	1-1/2″	——	——	38	50×3.55	——	118	——
F12-B									——	18	49.1					
F16-A	2″	87.0	105.0	42.9	77.8	13.8	40.0	18	2″	——	——	51	65×3.55	M12×45	118	PV2R3, PV2R12 inlet
F16-B									——	20	61.0					
F20-A	2-1/2″	96.0	116.0	50.8	88.9	13.8	45.0	18	2-1/2″	——	——	63	75×3.55	——	118	——
F20-B									——	22	77.1					
F24-A	3″	121.0	141.4	61.9	106.4	17.0	45.0	17	3″	——	——	76	85×3.55	M16×45	287	PV2R13, PV2R23 inlet
F24-B									——	25	90.0					
F28-A	3-1/2″	136.0	155.0	69.9	120.7	17.0	50.0	17	3-1/2″	——	——	89	100×3.55	M16×40	287	——
F28-B									——	28	102.8			M16×50		
F32-A	4″	145.0	162.0	77.8	130.2	17.0	50.0	17	4″	——	——	102	115×3.55	M16×40	287	——
F32-B									——	28	115.5			M16×50		