




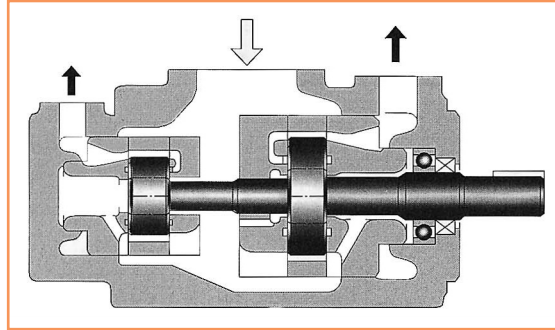
B

VANE PUMPS

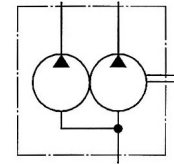
Pump Type		KS Graphic Symbol	Output Flow L/min(1200r/min{rpm}, no-load)										Maximum Operation Pressure MPa {kgf/cm ² }	Page
			1	2	5	10	20	50	100	200	500	1000		
Fixed	Single Pumps							50T	150T				7 {71.4}	B-4
	PV2R Series Single Pumps							PV2R1	PV2R2	PV2R3			21 {214}	B-10
	PV2R Series Double Pump						Small Volume	(PV2R1)	(PV2R2)				21 {214}	B-21
								Large Volume	(PV2R2)	(PV2R3)				

■ “PV2R” Series Double Vane Pumps

These double pumps consist of two PV2R series single pumps combined in tandem within a single housing and driven by a common shaft. Output flow the two separate can be either supplied or common circuits.



KS Graphic Symbol



■ Model Number Designation

PV2R13	-6	-76	-L	-R	A	A	A	-40	
Series Number	Small Volume Pump Nominal Displacement cm³/rev	Large Volumn Pump Nominal Displacement cm³/rev	Mounting	Direction of Rotation	Small Volume Pump Discharges Port Position	Large Volume Pump Discharge Port Position	Suction Port Position	Design Number	
PV2R12	6, 8 10,12 14,17,19	26, 33 41, 47 53, 59	L: Foot Mounting	(Viewed from Shaft End)	(Viewed from Shaft End)				41
	23,25,31	65			E: Left 45° Upwards (Normal)	(Viewed from Shaft End)	(Viewed from Shaft End)	41	
PV2R13	6, 8 10,12 14,17,19	76, 94	F: Flange Mtg.	(Viewed from Shaft End)	A:				41
	23,25,31	116			Upwards (Normal)	A:	A:	41	
PV2R23	41, 47 53, 59 65	52, 60 66, 76 94, 116		R: ★1 Clockwise (Normal)	E: Left 45° Upwards (Normal)	Upwards (Normal)	Upwards (Normal)		41

★1. Available to supply pump with anti-clockwise rotation. Consult SEWON for details.

★2. Special seals(viton seals) are required when phosphate ester type fluid are used.

(Put "F-" before model code of pipe flange when ordering.)

■ Ratings

● Maximum Operating Pressure

Model Numbers		Maximum Operating Pressure MPa{kgf/cm ² }					
		Petroleum Base Oils		Water Containing Fluids			Synthetic Fluids
		Anti-Wear Type	R&O Type	Anti-Wear ^{★1} Type Water Glycols	Water Glycols	Water in Oil Emulsions	Phosphate Esters
PV2R12 ^{★4}	Small volume pump	21{214} ^{★2}	16{163}	16{163}	7{71.4}	7{71.4}	16{163}
	Large volume pump	21{214}	14{143}	16{163}	7{71.4}	7{71.4}	14{143}
PV2R13	Small volume pump	21{214} ^{★2}	16{163}	16{163}	7{71.4}	7{71.4}	16{163}
	Large volume pump	21{214} ^{★3}	14{143}	16{163}	7{71.4}	7{71.4}	14{143}
PV2R23	Small volume pump	21{214}	14{143}	16{163}	7{71.4}	7{71.4}	14{143}
	Large volume pump	21{214} ^{★3}	14{143}	16{163}	7{71.4}	7{71.4}	14{143}

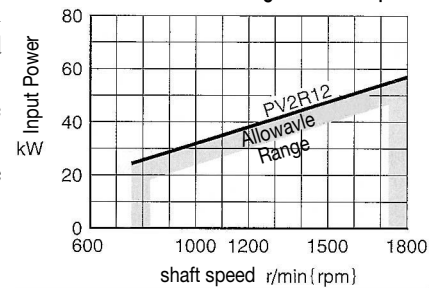
★1. For the brand of antiwear water-glycols, see Hydraulic Fluids on page B-2

★2. With pressure above 16MPa (163kgf/cm²), raise the speed over 1450 r/min(rpm). (Normal displacement "6","8". PV2R13 series) If nominal displacement "31", with the PV2R12 and PV2R13 series is selected, (the maximum operating pressure is limited to 16MPa (163kgf/cm²))

★3. If nominal displacement "116", with the PV2R13 and PV2R23 series, is selected, the maximum operating pressure is limited to 16MPa

★4. With PV2R12 series, the sum of the input powers to small volume pump and large volume pump is limited against shaft speed as follows.

● PV2R12 series is limited against shaft speed as follows.



● Shaft Speed Range, Output Flow & Input Power

Model Numbers	Shaft Speed Range r/min{rpm}				Output Flow & Input Power		Mass kg	
	Petroleum Base Oils		Water Containing Fluies Phosphate Esters					
	Max.	Min. ^{★1}	Max.	Min. ^{★2}	Small Volume Pump	Large Volume Pump	Flange Mtg.	Foot Mtg.
PV2R12	1800	750	1200	750	Same as single pump "PV2R1", refer to page 43-45	Same as single pump "PV2R2", refer to page 45 to 46 However, as for displacement of "26" and "33", refer to page 53	25	29.3
PV2R13 ^{★1}	1800	750	1200	750	Same as single pump "PV2R1", refer to page 43-45	Same as single pump "PV2R3", refer to page 46 to 47	45.6	55.6
PV2R23 ^{★1}	1800	600	1200	600	Same as single pump "PV2R2", refer to page 45-46	Same as single pump "PV2R3", refer to page 46 to 47 However, as for displacement of "52" and "60", & "66", refer to page 53 to 54	51	61

★1. With the models listed below, the minimum suction pressures are limited in accordance with speeds.

Model Numbers	Min. Suction Pres.	
	Less than 1700r/min{rpm}	1700~1800r/min{rpm}
PV2R13-※-116 PV2R23-※-116	-20 kPa{-150 mmHg}	0 kPa{0 mmHg}
PV2R23-※-76 PV2R23-※-94	-20 kPa{-150 mmHg}	-7 kPa{-52.5 mmHg}

★2. For starting as low speed, the maximum viscosity is limited. For details, see Hydraulic Fluids on page 30.

■ Pipe Flange Kits

Pipe flange kits are available. When ordering, specify kits from the table below.

Pump Model Numbers	Pipe Flange Kit Numbers		
	Suction Port	Large Discharge Port	Small Discharge Port
PV2R12	F5-16-※-10	F5-06-※-10	F5-04-※-10
PV2R13	F5-24-※-10	F5-10-※-10	F5-04-※-10
PV2R23	F5-24-※-10	F5-10-※-10	F5-06-※-10

● About Flange kit model number

F5-06-※-10

└ Pipe Type

A : Threaded Connection

B : Socket Welding

C : Butt Welding

└ Flange Size

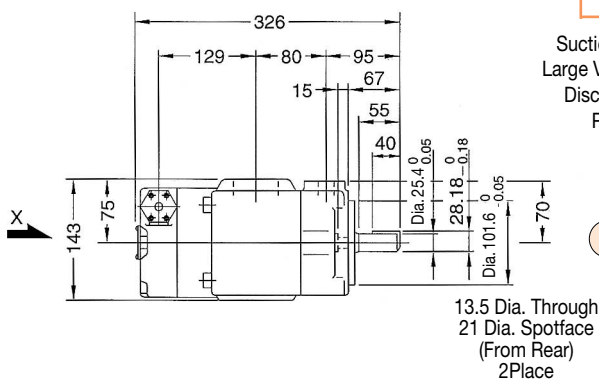
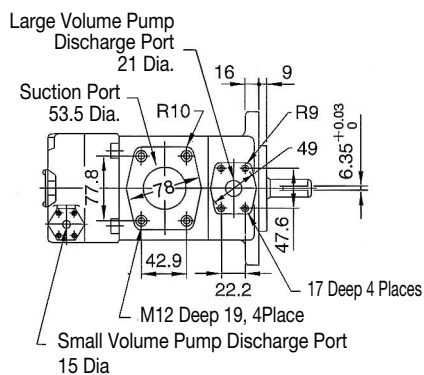
Note) 1. When choosing flange type, please specify the type as shown right.

2. In case of using socket welding flanges, there is a case where the operating pressure should be set lower than the normal because of strength of the flanges.

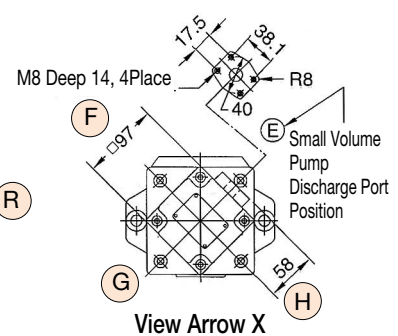
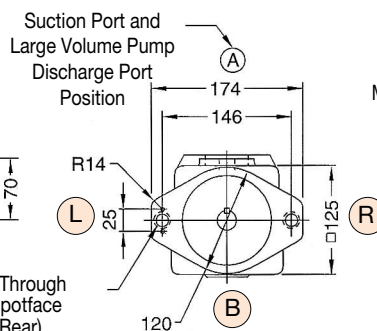
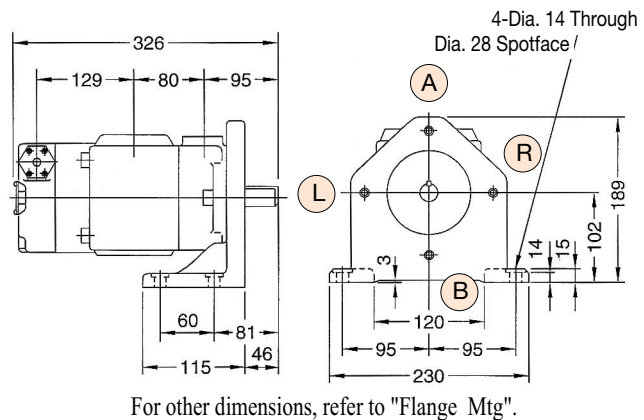
Therefore, please pay cautions attention to the operating pressure when the socket welding flanges are used.

3. Put (F-) before model code of pipe flange when phosphate ester type fluids are used.

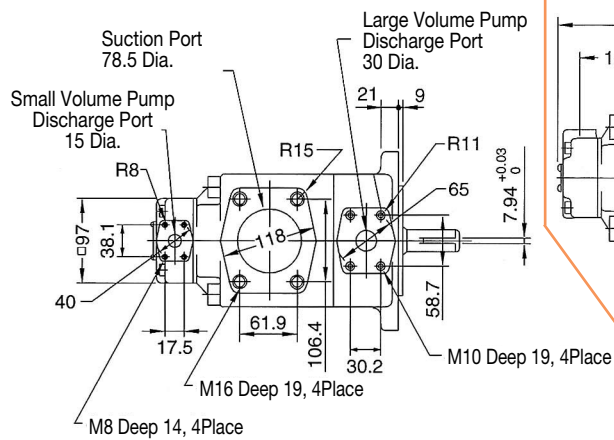
PV2R12-※-※-F(Flange Mtg.)



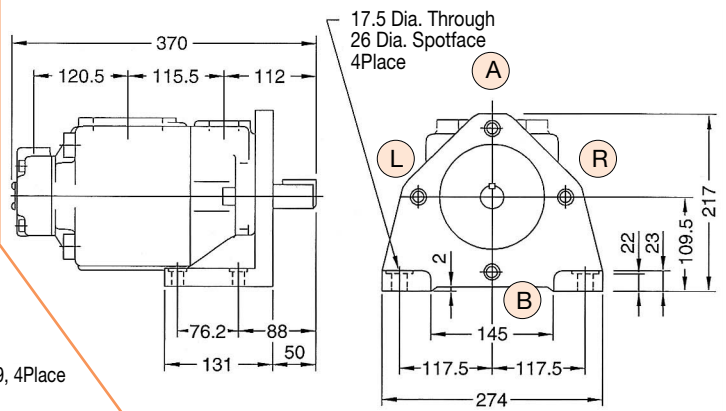
PV2R12-※-※-L(Foot Mtg.)



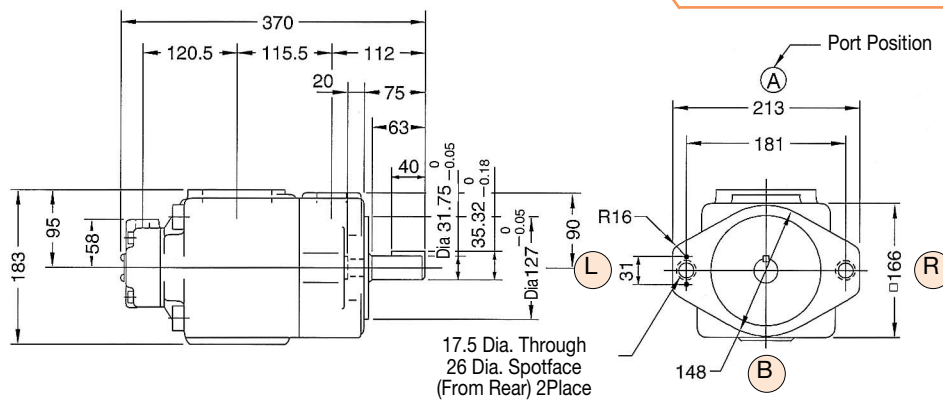
PV2R13-※-※-F(Flange Mtg.)



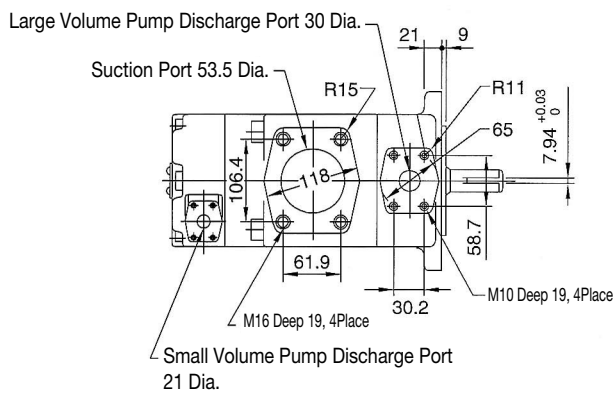
PV2R13-※-※-L(Foot Mtg.)



For other dimensions, refer to "Flange Mtg".

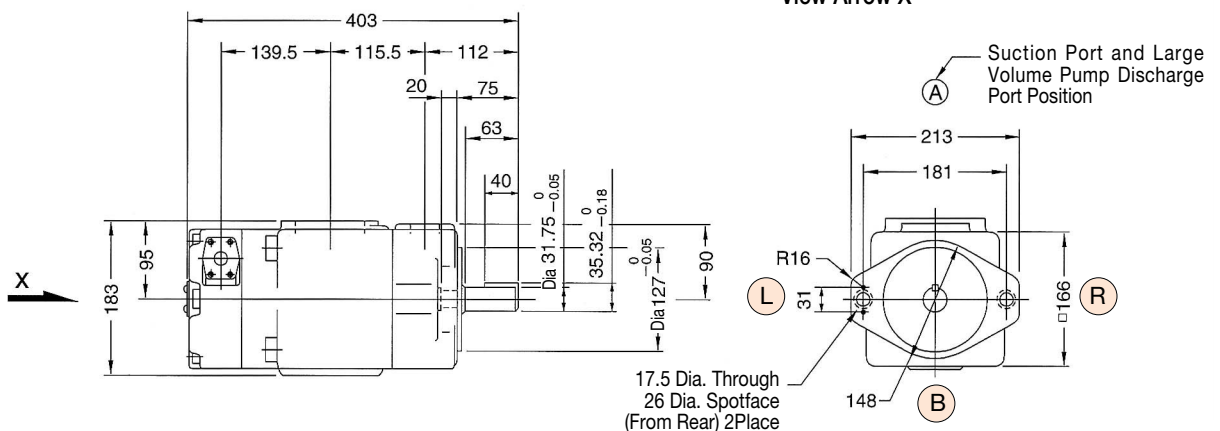
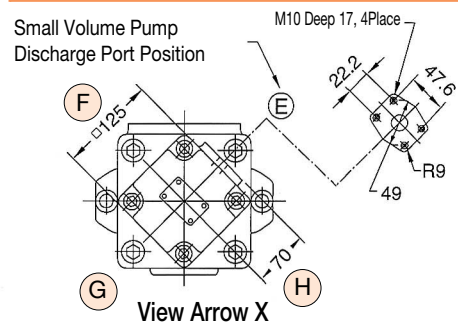


PV2R23-※-※-F(Flange Mtg.)



PV2R23-※-※-L(Foot Mtg.)

For bracket dimensions, refer to "PV2R13" series.



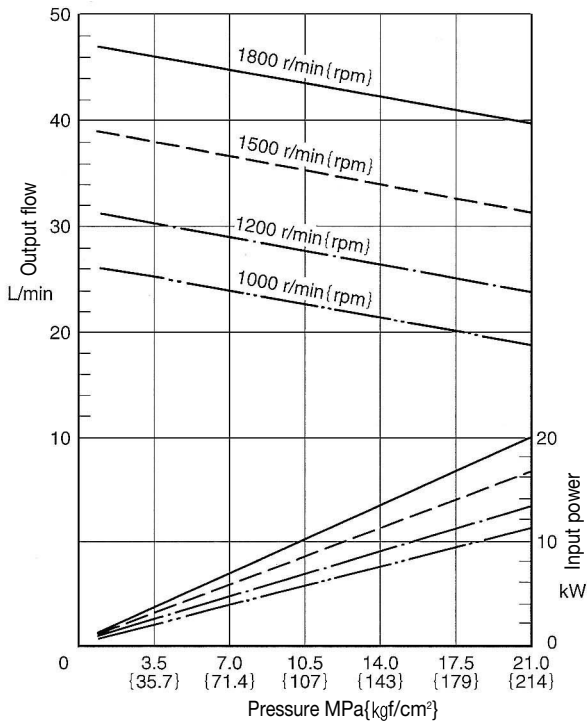
Characteristics

Typical performance characteristics at viscosity 32mm²/s(ISO VG 32 Oil, 50°C)

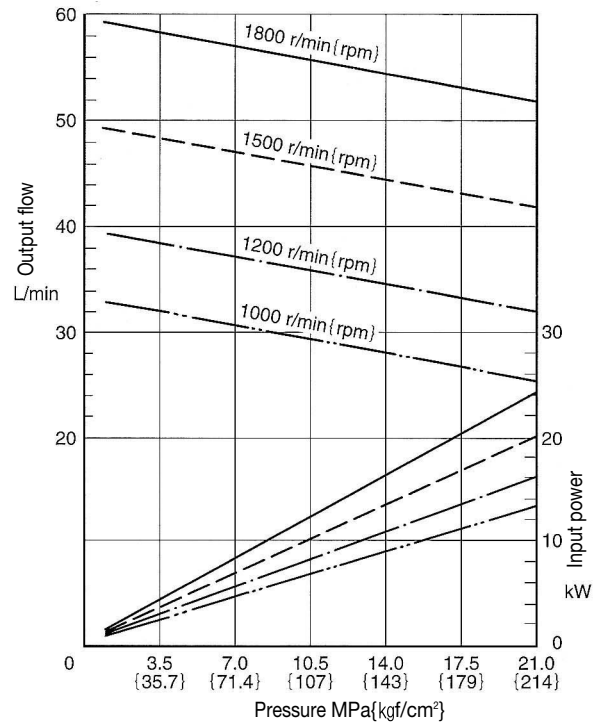
B

PV2R Series
Double Pumps

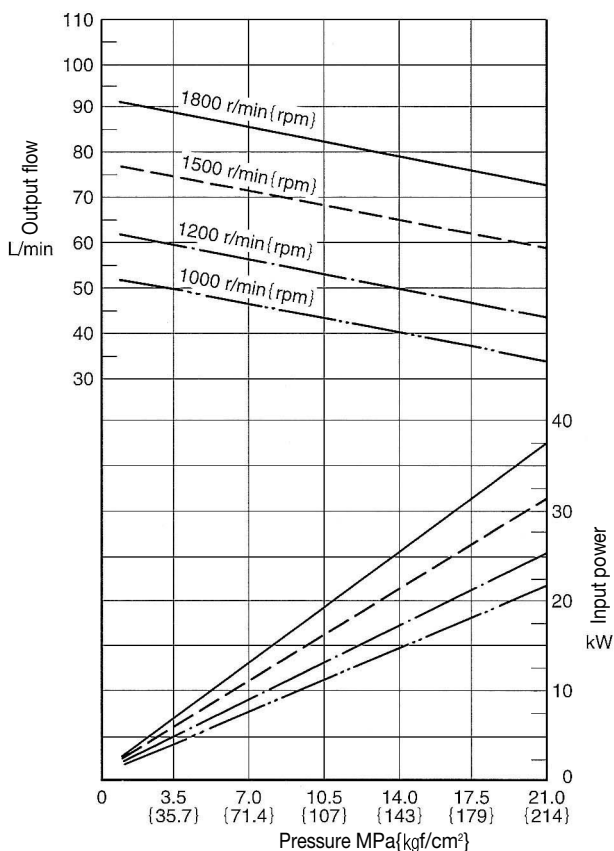
● PV2R12-※-26



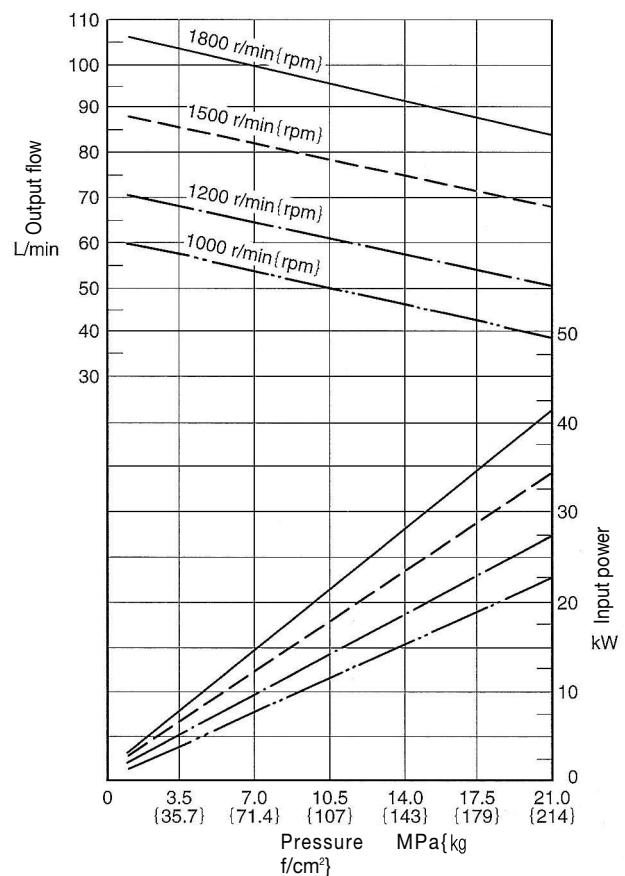
● PV2R12-※-33



● PV2R23-※-52

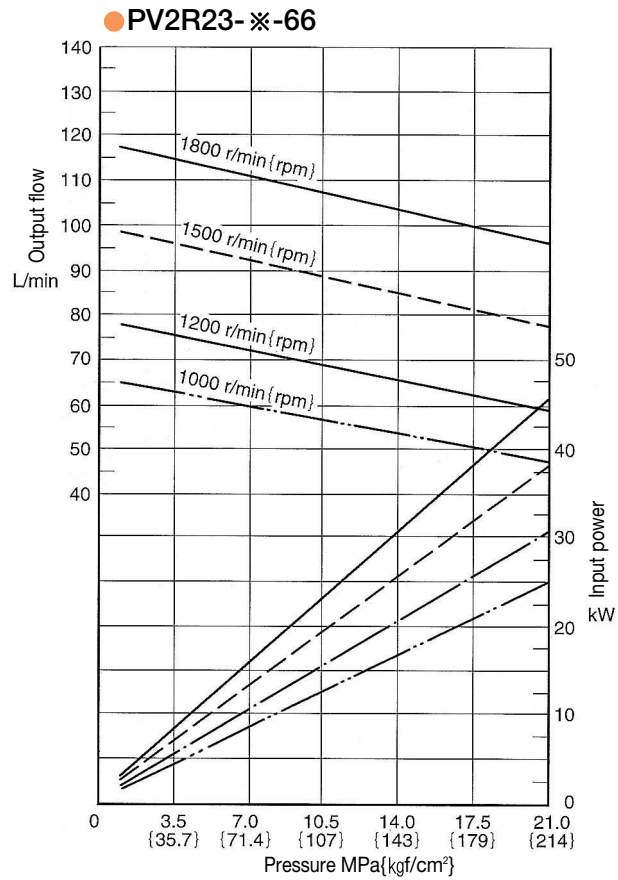


● PV2R23-※-60



Characteristics

Typical performance characteristics at viscosity 32mm²/s(ISO VG 32 Oil, 50°C)

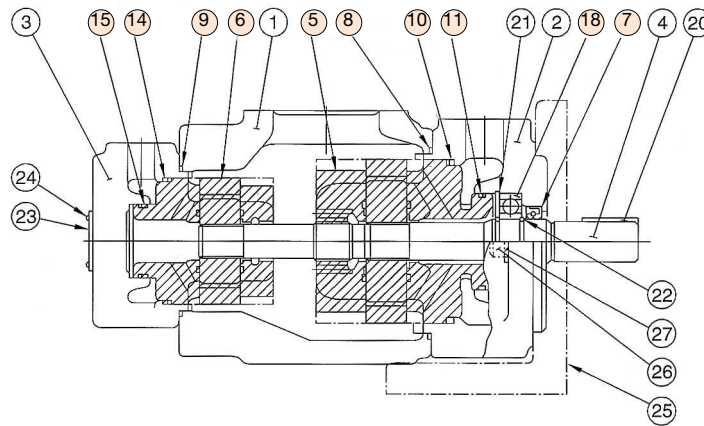




When making replacement of seals, please do it carefully after reading through the relevant instructions in the Operator's Manual.

List of Cartridge Kits, Seals & Bearings

PV2R12
PV2R13
PV2R23



Cartridge Kits

Model Numbers	⑥ Small Volume Pump	⑤ Large Volume Pump	Model Numbers	⑥ Small Volume Pump	⑤ Large Volume Pump
PV2R12- 6-★-※-REAA-41	CPV2R13- 6-L-41	CPV2R2 -★-R-41	PV2R13- 6-★-※-RAAA-41	CPV2R13- 6-L-41	CPV2R3 -★-R-31
PV2R12- 8-★-※-REAA-41	CPV2R13- 8-L-41		PV2R13- 8-★-※-RAAA-41	CPV2R13- 8-L-41	
PV2R12-10-★-※-REAA-41	CPV2R13-10-L-41		PV2R13-10-★-※-RAAA-41	CPV2R13- 10-L-41	
PV2R12-12-★-※-REAA-41	CPV2R13-12-L-41		PV2R13-12-★-※-RAAA-41	CPV2R13- 12-L-41	
PV2R12-14-★-※-REAA-41	CPV2R13-14-L-41		PV2R13-14-★-※-RAAA-41	CPV2R13- 14-L-41	
PV2R12-17-★-※-REAA-41	CPV2R13-17-L-41		PV2R13-17-★-※-RAAA-41	CPV2R13- 17-L-41	
PV2R12-19-★-※-REAA-41	CPV2R13-19-L-41		PV2R13-19-★-※-RAAA-41	CPV2R13- 19-L-41	
PV2R12-23-★-※-REAA-4122	CPV2R13-23-L-4222		PV2R13-23-★-※-RAAA-4122	CPV2R13- 23-L-4222	
PV2R12-25-★-※-REAA-4122	CPV2R13-25-L-4222		PV2R13-25-★-※-RAAA-4122	CPV2R13- 25-L-4222	
PV2R12-31-★-※-REAA-4122	CPV2R13-31-L-4222		PV2R13-31-★-※-RAAA-4122	CPV2R13- 31-L-4222	
PV2R23-41-★-※-REAA-41	CPV2R23-41-L-41	CPV2R3 -★-R-31			
PV2R23-47-★-※-REAA-41	CPV2R23-47-L-41				
PV2R23-53-★-※-REAA-41	CPV2R23-53-L-41				
PV2R23-59-★-※-REAA-41	CPV2R23-59-L-41				
PV2R23-65-★-※-REAA-41	CPV2R23-65-L-41				

Note: Each ★ above is a space for large volume pump nominal displacement. Referring to the model No. designation on page 49, write the correct nominal displacement figures.

Seals & Bearings

Item	Name of Parts	Part Numbers			Qty.
		PV2R12	PV2R13	PV2R23	
7	Oil Seal	ISD 30 42 8	ISD 35 55 11	ISD 35 55 11	1
8	O-Ring	JIS B 2401-1B-G105	JIS B 2401-1B-G135	JIS B 2401-1B-G135	1
9	O-Ring	JIS B 2401-1B-G80	JIS B 2401-1B-G80	JIS B 2401-1B-G105	1
10	O-Ring	JIS B 2401-1B-G85	JIS B 2401-1B-G115	JIS B 2401-1B-G115	1
11	O-Ring	JIS B 2401-1B-P46	AS 568-231 (NBR, Hs90)	AS 568-231 (NBR, Hs90)	1
14	O-Ring	JIS B 2401-1B-G60	JIS B 2401-1B-G60	JIS B 2401-1B-G85	1
15	O-Ring	JIS B 2401-1B-G30	JIS B 2401-1B-G30	JIS B 2401-1B-P46	1
18	Bearing	6205	6207	6207	1

Note) 1. No. 10 and 11(O-Ring) are included in the large volume pump cartridge kit and those under item.

No. 14 and 14(O-Ring) in the small volume pump cartridge kit.

2. For pumps for phosphate ester type hydraulic fluids, different part Nos, are used. Please contact us.