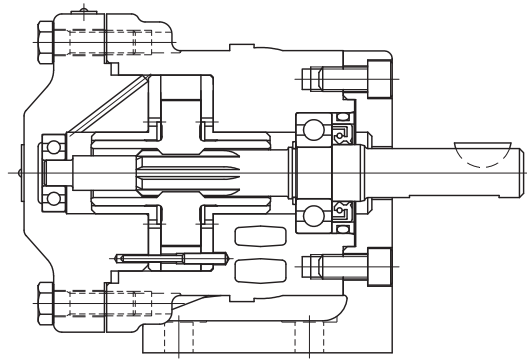
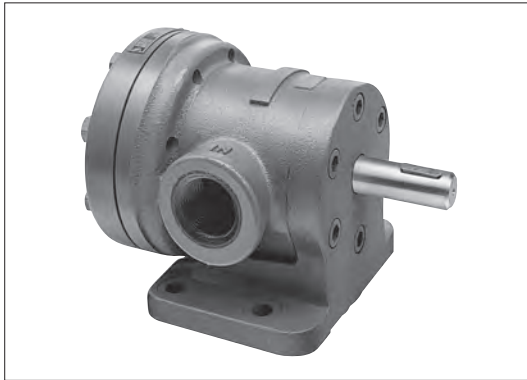


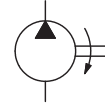
Fixed displacement vane pumps V-104, 124, 134, 144 series

B
7-1

Fixed Displacement Vane Pumps



Functional Symbol



Model Code

(F3)-V-104-Y-10-(LH)-(S)-JA-(S36)-J

1 2 3 4 5 6 7

(F3)-V-134U-20-(LH)-(S)-JA-(S36)-J

1 2 3 4 5 6 7

1 Hydraulic fluid

Omit: mineral oil, water glycol (S36)
F3: Phosphate ester fluid

2 Fixed displacement vane pumps

V-104 Series, V-124 Series
V-135 Series, V-144 Series

Series	Pump mounting	
	Foot Mount	Flange Mount
V-104	V-104	V-105
V-124	V-124	V-125
V-134	V-134	V-135
V-144	V-144	V-145

3 Pump displacement code

Series	Displacement Code
V-104	Y, E, G, A, C, D
V-124	Omitted
V-134	Omitted, U, X
V-144	Omitted

4 Design no.

10: V-104 Series
20: V-124, 134, 144 Series

5 Rotation (viewed from shaft end)

Omit: CW
LH: CCW

6 Port connection position (for foot mounting)

Omit: viewed from shaft end - suction port on left side, delivery port on right side (standard)
S: viewed from shaft end - suction port on right side, delivery port on left side

7 Special feature

S36: For Water glycol based fluid

Specifications

Model Code	Displacement Code	Del. at 1000 min ⁻¹ 0.7 Mpa L/min	Mineral Oil Based Fluid (anti-wear oil)		Phosphate Ester Fluid		Water Glycol Fluid		Min. Speed min ⁻¹	Weight Foot Mounting kg
			Max. Speed min ⁻¹	Max. Working Pressure MPa	Max. Speed min ⁻¹	Max. Working Pressure MPa	Max. Speed min ⁻¹	Max. Working Pressure MPa		
V-104	Y	5.7	1800	7	1200	7	1200	7	600	9.5
	E	8.5								
	G	11.7								
	A	16.8	1500	1200*	5.5					
	C	25.8		—		—				
D	36.3	1200	—	—						
V-124	—	48.6	1500	7	1200	7	1200	5.5	600	23.6
V-134	—	61.5								
	U	72.6								
V-144	X	94.2	1200	—	—	—	—	—	—	—
	—	119								

Note: * marked figure may differ depending on specific gravity of fluid. Use those below 1.2 specific gravity.

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Delivery, Shaft Input Power (at 20 mm²/s) (typical examples)

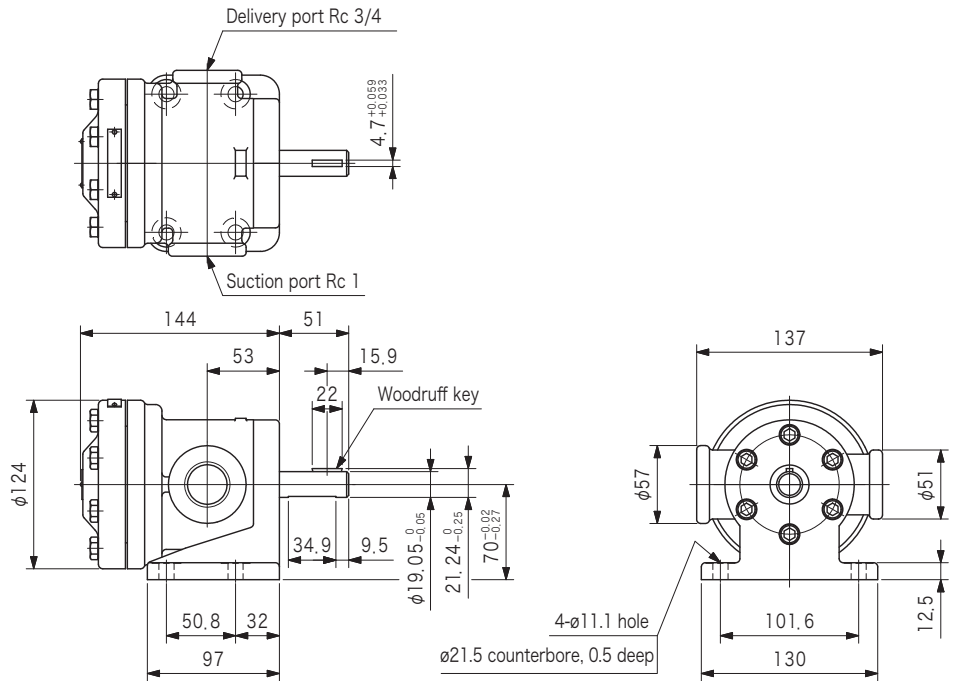
Model Code	Speed min ⁻¹	Delivery L/min			Shaft Input kW		
		0 MPa	3.5 MPa	7 MPa	0 MPa	3.5 MPa	7 MPa
V-104-Y-10	1000	5.7	4.6	3.1	0.2	0.6	1.0
	1200	6.8	5.7	4.2	0.2	0.7	1.2
V-104-E-10	1000	8.5	7.4	5.9	0.2	0.7	1.4
	1200	10.2	9.1	7.6	0.2	0.9	1.7
V-104-G-10	1000	11.7	10.6	9.1	0.2	0.9	1.7
	1200	14.0	12.9	11.4	0.2	1.1	2.0
V-104-A-10	1000	16.8	15.7	14.2	0.3	1.2	2.2
	1200	20.1	19.0	17.5	0.3	1.5	2.7
V-104-C-10	1000	25.8	24.7	23.2	0.3	1.7	3.2
	1200	31.0	29.9	28.4	0.3	2.1	3.9
V-104-D-10	1000	36.3	34.4	32.9	0.3	2.3	4.4
	1200	43.5	41.6	40.1	0.3	2.8	5.3
V-124-20	1000	48.6	45.2	41.8	0.5	3.7	6.8
	1200	58.3	54.9	51.5	0.6	4.4	8.2
V-134-20	1000	61.5	58.9	55.8	0.5	4.2	7.7
	1200	73.8	71.2	68.1	0.6	5.0	9.3
V-134U-20	1000	72.6	69.5	66.1	0.5	5.1	9.3
	1200	87.1	84.0	80.6	0.6	6.1	11.2
V-134X-20	1000	94.2	90.2	86.2	0.7	6.1	11.7
	1200	113	109	105	0.8	7.3	14.1
V-144-20	1000	119	114	108	0.7	8.4	15.0
	1200	143	138	132	0.9	10.1	18.0

Notes on Operation

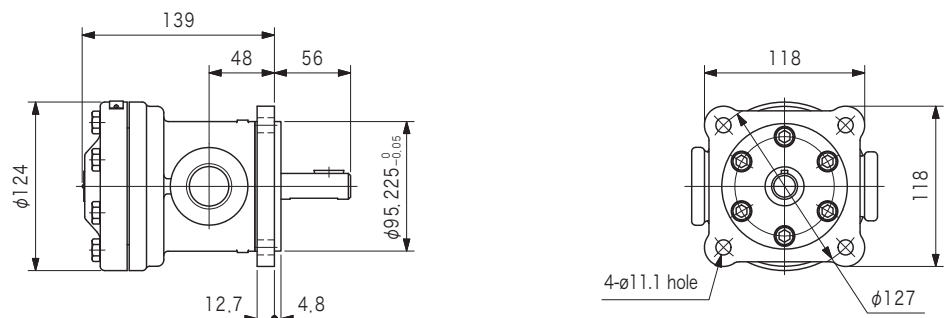
● See page B0-4 for Notes on Using Vane Pumps.

Dimensions

V-104 (Foot mounting)

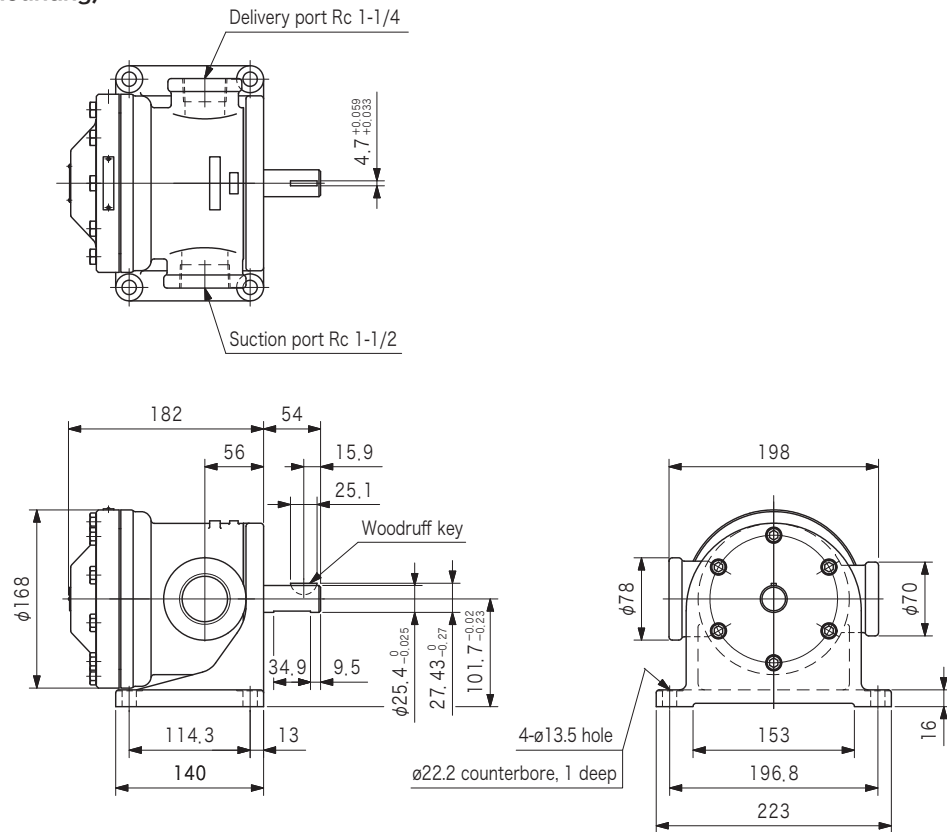


V-105 (Flange mounting)

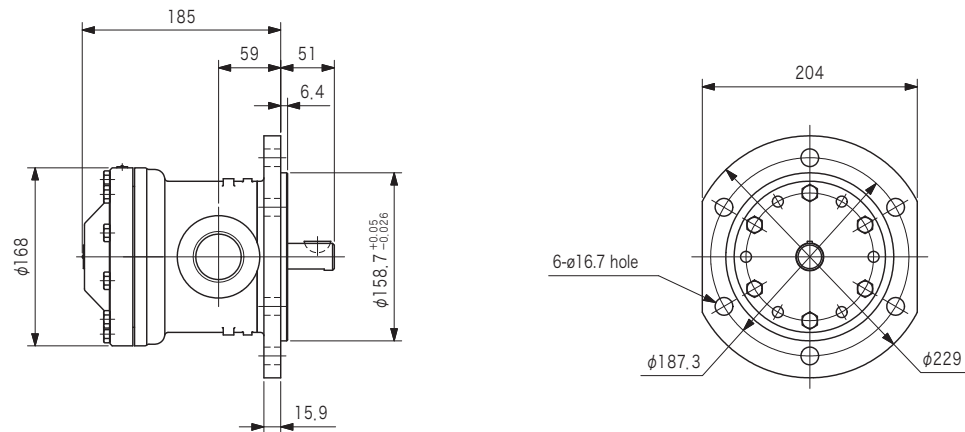


Dimensions

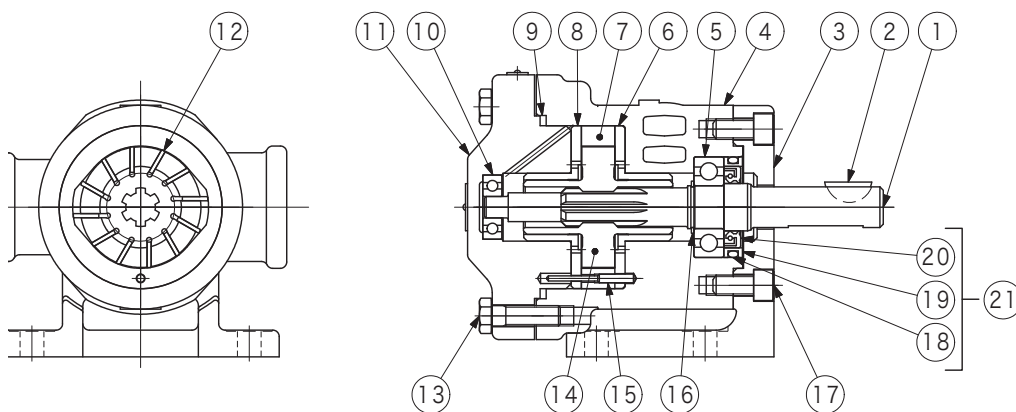
V-124, 134, 144 (Flange mounting)



V-125, 135, 145 (Flange mounting)



Construction

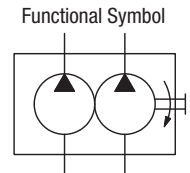
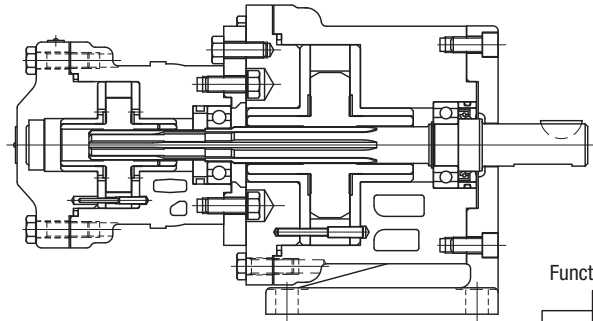
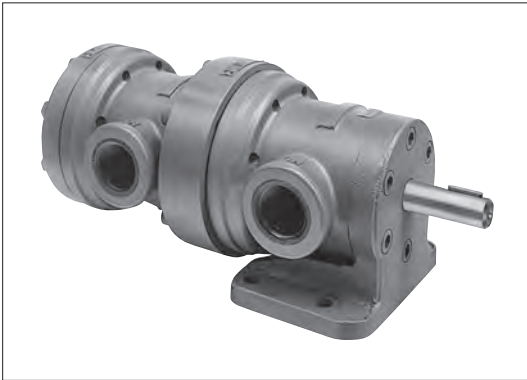


Seal, Bearing P/N Table

Series	(21) Oil Seal Subassembly	(20) Shaft Seal	(18) O-ring	(9) Seal Ring	(5) Bearing (I)	(10) Bearing (II)
V-104	VA0759A	VP188323	007922317	VP2021	007062041	007062001
V-124,134,144	VA8109A	VP190142	007913417	VP2052	007062051	007062031

Note: (18) O-ring, (20) shaft seal included in (21) oil seal subassembly.

Double fixed displacement vane pumps V-108, 128, 138, 148 series



Model Code

(F3)-V-108-YE-10-(LH)-JA-(S36)-J

1 2 3 4 5 6 7

(F3)-V-138U-E-20-(LH)-JA-(S36)-J

1 2 3 4 5 6 7

1 Hydraulic fluid

Omit: mineral oil, water glycol (S36)
F3: Phosphate ester fluid

2 Double fixed displacement vane pumps

V-108 Series, V-128 Series
V-138 Series, V-148 Series

Series	Pump Mounting	
	Foot Mount	Flange Mount
V-108	V-108	V-109
V-128	V-128	V-129
V-138	V-138	V-139
V-148	V-148	V-149

3 Shaft end pump displacement

Series	Displacement Code
V-108	Y, E, G, A, C, D
V-128	Omitted
V-138	Omitted, U, X
V-148	Omitted

4 Cover end pump displacement

Series	Displacement Code
V-108	Y, E, G, A, C, D
V-128	
V-138	
V-148	

5 Design no.

10: V-108 Series
20: V-128, 138, 148 Series

6 Rotation (viewed from shaft end)

Omit: CW
LH: CCW

7 Special feature

S36: For Water glycol based fluid

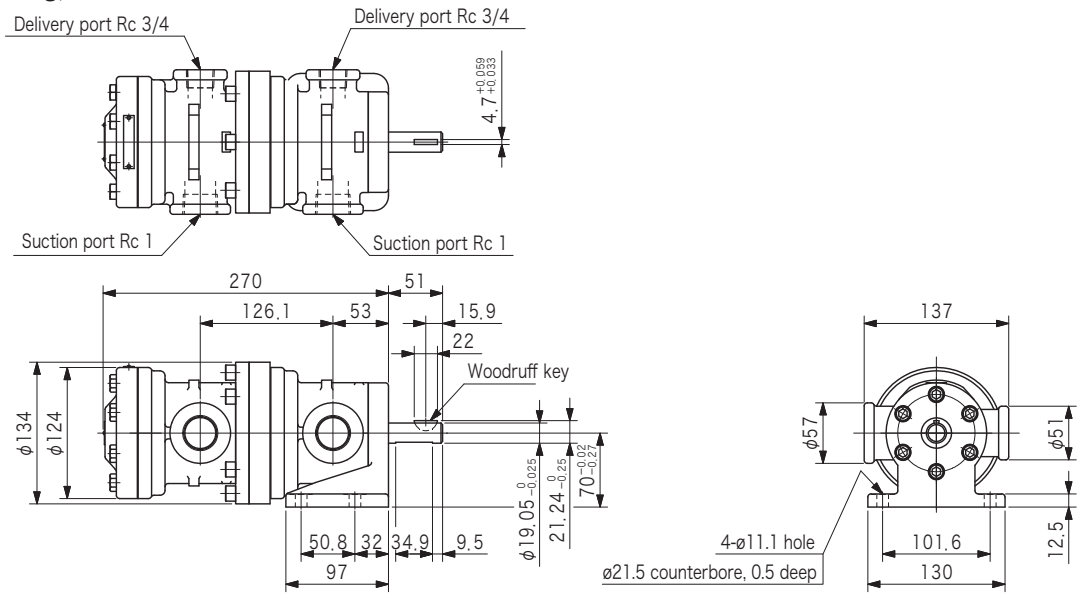
Specifications

Model Code	Shaft End Pump	Cover End Pump	Foot Mounting Weight kg
V-108-*Y	V-104-Y	V-104-Y V-104-E V-104-G V-104-A V-104-C V-104-D	17.3
V-108-*E	V-104-E		
V-108-*G	V-104-G		
V-108-*A	V-104-A		
V-108-*C	V-104-C		
V-108-*D	V-104-D		
V-128-*	V-124	Same as pump	31.7
V-138-*	V-134		
V-138U-*	V-134U		
V-138X-*	V-134X		
V-148-*	V-144		

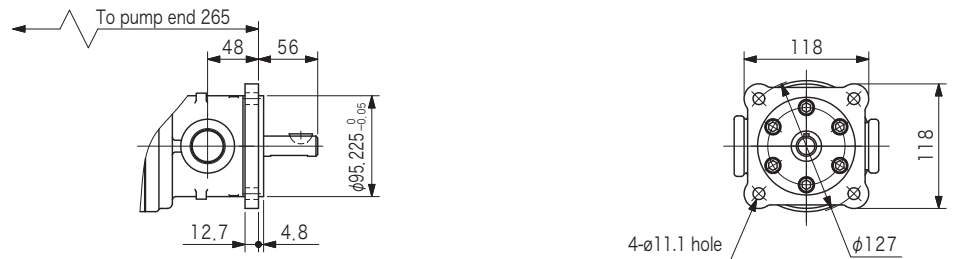
Note: • Max. speed is speed of shaft end pump.
• For V-108 Series, shaft end pump is the larger delivery pump.

Dimensions

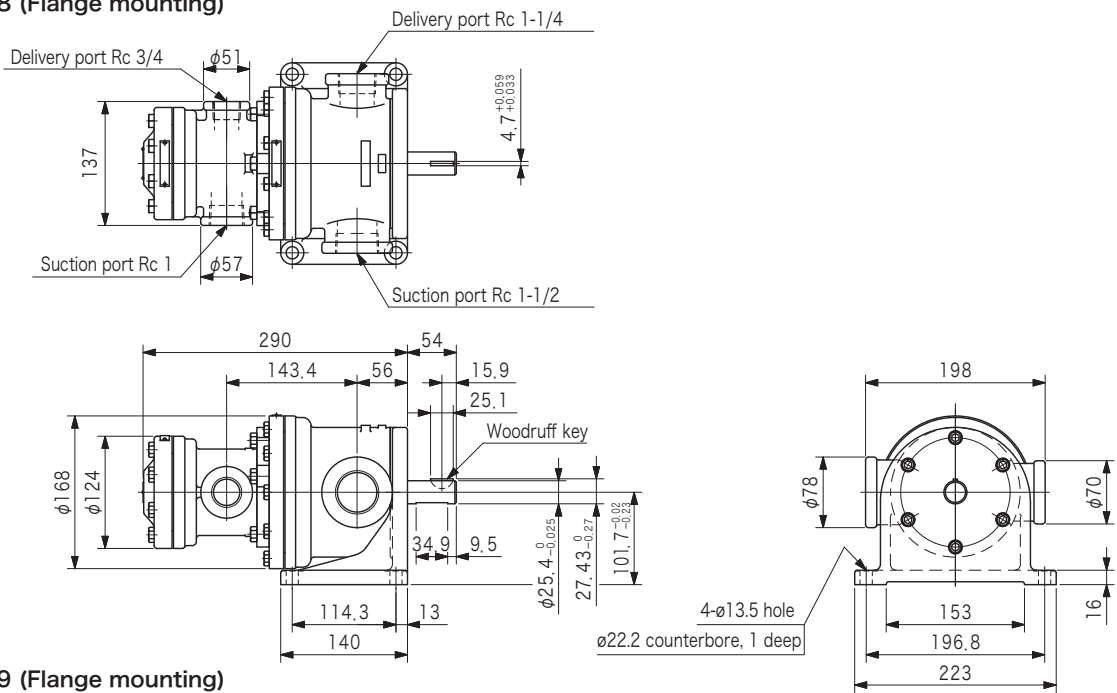
V-108 (Foot mounting)



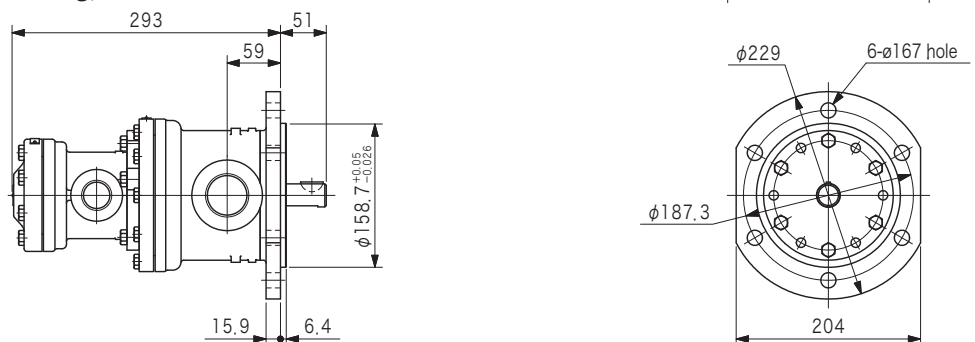
V-109 (Flange mounting)

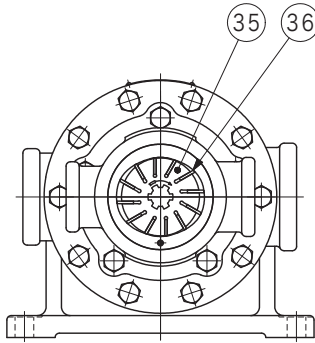
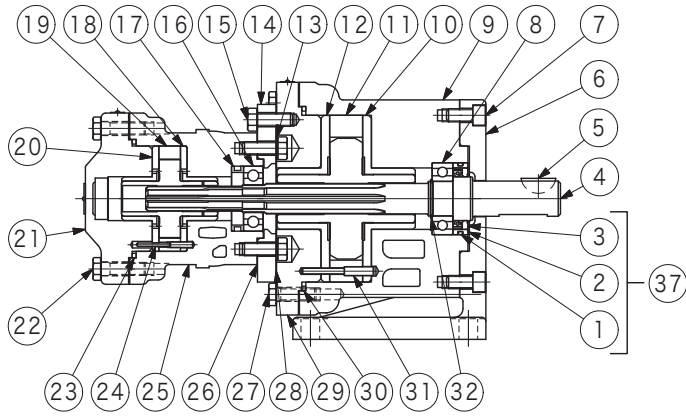
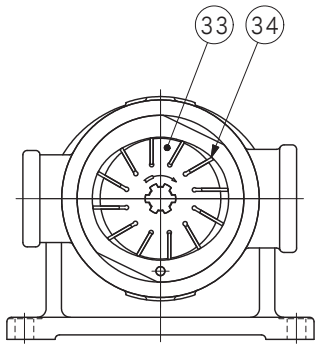


V-128, 138, 148 (Flange mounting)



V-129, 139, 149 (Flange mounting)





Seal, Bearing P/N Table

Series	(37) Oil Seal Subassembly	(3) Shaft Seal	(1) O-ring	(30) Seal Ring	(28) Packing	(23) Seal Ring
V-108	VA0759A	VP188323	007922317	VP2021	VP2240	VP2021
V-128, 138, 148	VA8109A	VP190142	007913417	VP2052	VP2547	VP2021

Series	(26) Packing	(8) Bearing	(16) Bearing
V-108	VP2546	007062041	007062001
V-128, 138, 148	VP2546	007062051	007062041

Note: (1) O-ring, (3) shaft seal included in (37) oil seal subassembly.