

Service Data

**Vickers<sup>®</sup>**

# Vane Pumps

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## Double Vane Type Pump

V2020 and V2020F-20 Design

V2020P-20 Design

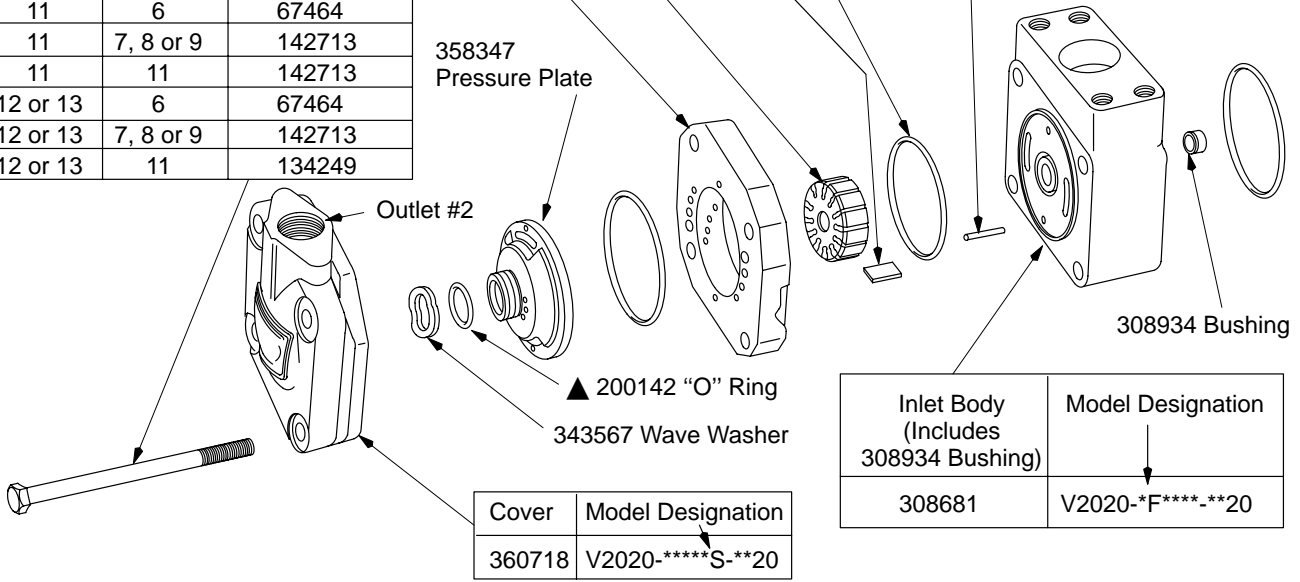


Revised 10-01-89

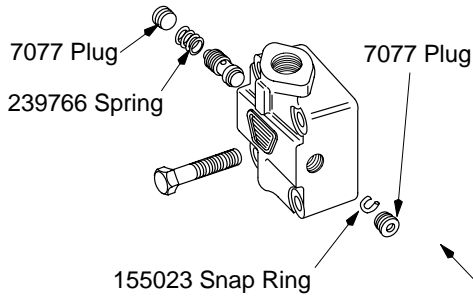
M-2252-S

Model Designation	Ring	Rotor	Vane Kit (12 Vanes)	"O" Ring (2 req'd)	Cartridge Kit	Pin (2 req'd)
Serviced in Cartridge Kit						
V2020-****6**20	328150	502255	923485	▲ 154090	923480	2456
V2020-****7**20	328152	502256	923493		923481	16662
V2020-****8**20	331791				923483	
V2020-****9**20	331789				923484	
V2020-****11**20	328156	502257	923478	923482	179341	

Ring Combinations		Screw (4 req'd) Torque to 75-85 lb. ft.
Shaft End	Cover End	
7, 8 or 9	6	189378
7, 8 or 9	7, 8 or 9	67464
11	6	67464
11	7, 8 or 9	142713
11	11	142713
12 or 13	6	67464
12 or 13	7, 8 or 9	142713
12 or 13	11	134249



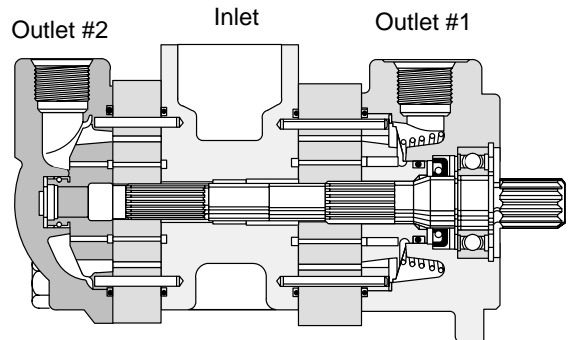
**V2020F-\*\*\*\*\*-\*\*\*\* 20 Flow Control Cover**



Flow Rate/Cover	Cover
V2020F-****P-**2*20	369927
V2020F-****S-**2*20	363307
V2020F-****T-**2*20	363293

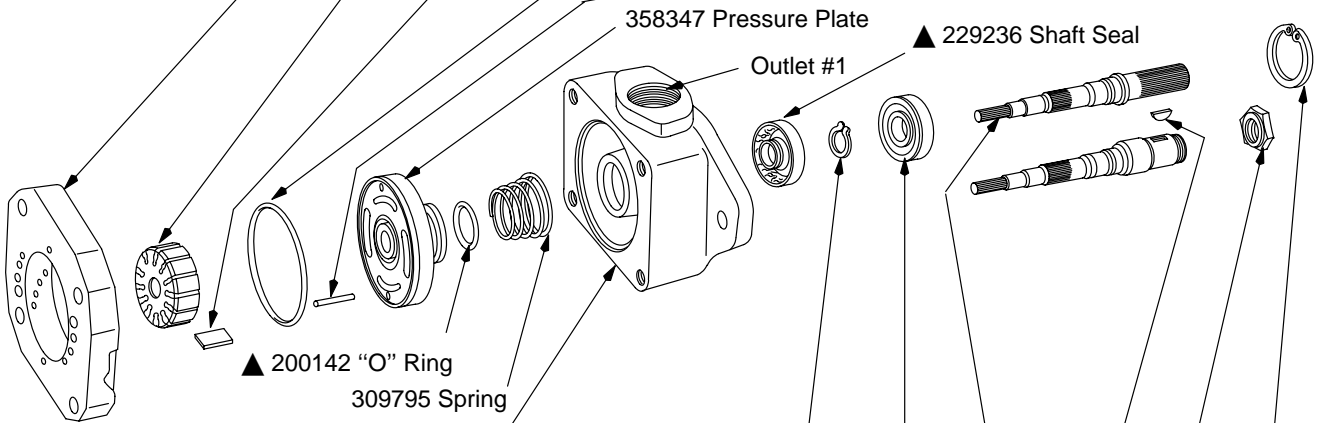
Ring Combinations		Screw (4 req'd) Torque to 75-85 lb. ft.
Shaft End	Cover End	
7, 8 or 9	6	142713
7, 8 or 9	7, 8 or 9	134249
11	6	134249
11	7, 8 or 9	36048
11	11	73074
12 or 13	6	36048
12 or 13	7, 8 or 9	73074
12 or 13	11	73074

Model Designation	Pressure Setting (PSI)	Control Valve S/A
V2020F-*****A20	250	229613
V2020F-*****B20	500	233018
V2020F-*****C20	750	232794
V2020F-*****D20	1000	232795
V2020F-*****E20	1250	232796
V2020F-*****F20	1500	232797
V2020F-*****G20	1750	232798
V2020F-*****H20	2000	232799
V2020F-*****J20	2250	233019
V2020F-*****K20	2500	233020



**Assembly View**

Model Designation	Ring	Rotor	Vane Kit (12 Vanes)	"O" Ring (2 req'd)	Cartridge Kit	Pin (2 req'd)
Serviced in Cartridge Kit						
V2020-****7**20	328152	358335	923493	▲ 154090	923494	16662
V2020-****8**20	331791				923495	
V2020-****9**20	331789				923462	
V2020-****11**20	328156	358336	923478		923475	179341
V2020-****12**20	331806	358337	923479		923476	7688
V2020-****13**20	331807			923477		



F3 Equivalent Seal Kit 919786

Foot Bracket Model FB-B-10 Includes Screws

▲ Included in 923174 Seal Kit

Outlet Body	Model Designation
315120	V2020-1**S**-**20

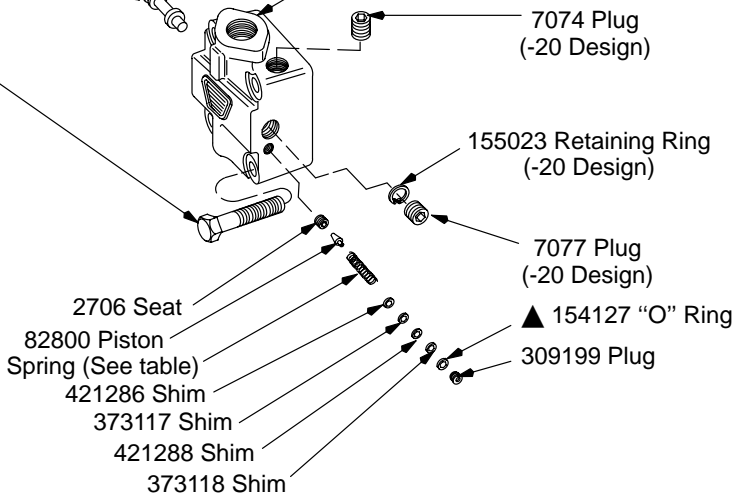
Model Designation	Retaining Ring	Bearing	Shaft	Key	Nut	Retaining Ring
V2020-*****-1*20	160686	82938	308686	9955	—	140356
V2020-*****-3*20			308925	1617	18755	
V2020-*****-11*20			308926	—	—	

Design	Piston	Spring	Plug
-20	257063	256961	7077

Flow Rate/Cover	-20 Cover
V2020P-****T-***2*-2*	362601

Ring Combinations		Screw (4 req'd) Torque to 75-85 lb. ft.
Shaft End	Cover End	
7, 8 or 9	6	142713
7, 8 or 9	7, 8 or 9	134249
11	6	134249
11	7, 8 or 9	36048
11	11	73074
12 or 13	6	36048
12 or 13	7, 8 or 9	73074
12 or 13	11	73074

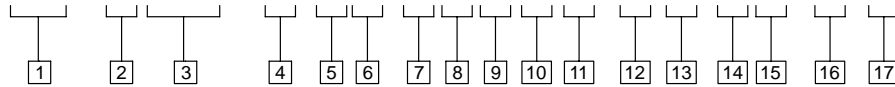
Model Designation	Pressure Setting (PSI)	Spring -20
V2020P-*****-***A	250	252886
V2020P-*****-***B	500	2280
V2020P-*****-***C	750	
V2020P-*****-***D	1000	2282
V2020P-*****-***E	1250	
V2020P-*****-***F	1500	2281
V2020P-*****-***G	1750	
V2020P-*****-***H	2000	
V2020P-*****-***J	2250	
V2020P-*****-***K	2500	



# Model Code

## Model Code

**(F3) - V 2020 - (\*) \* (\*) F \* S \* S - 1 \*\* - \* \* - 20 (L)**



### 1 Viton Seals

(Omit if not required.)

### 2 Vane Pump

### 3 Series

### 4 Cover Type

F - Flow control cover  
P - Priority valve cover  
Omit for standard cover.

### 5 Mounting

- 1 - Flange
- 2 - Foot bracket

### 6 Foot Bracket

Mounting position with respect to inlet port when viewed from shaft end. No code required for inlet port at 12 o'clock.

- 3 - Inlet port at 3 o'clock
  - 6 - Inlet port at 6 o'clock
  - 9 - Inlet port at 9 o'clock
- Omitted for flange mounting.

### 7 Inlet Port

F - 4-bolt flange

### 8 Ring Capacity - Shaft End

(USgpm at 1200 rpm and 100 psi)

- 7 - 7 USgpm
- 8 - 8 USgpm
- 9 - 9 USgpm
- 11 - 11 USgpm
- 12 - 12 USgpm
- 13 - 13 USgpm

### 9 No. 1 Outlet Port (Shaft End)

S - 1.062-12 UN-2B thread

### 10 Ring Capacity - Cover End

(USgpm at 1200 rpm and 100 psi)

- 6 - 6 USgpm
- 7 - 7 USgpm
- 8 - 8 USgpm
- 9 - 9 USgpm
- 11 - 11 USgpm

### 11 No. 2 Outlet Port Connections

(See table below.)

### 12 Shaft Type

1 - Straight thread

### 13 Outlet Positions

(Facing cover end of pump)

Outlet #1	Outlet #2	Position
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- |   |   |                    |
|---|---|--------------------|
| A | A | Opposite inlet     |
| B | B | 90° CCW from inlet |
| C | C | Inline with inlet  |
| D | D | 90° CW from inlet  |

Any combination of outlet positions may be used. See model code unit (i.e. V2020P\*\*\*AD-20).

- A - Opposite inlet (Outlet #1)
- D - 90° CCW from inlet (Outlet #2)

### 14 Flow Rate

(Thru orifice in cover USgpm)

### 15 Pressure Setting

- C - 750
- D - 1000
- E - 1250
- F - 1500
- G - 1750
- H - 2000
- J - 2250
- K - 2500

### 16 Design

### 17 Rotation

(Viewed from shaft end)

- L - Left hand (CCW rotation)
- Omitted for right hand rotation.

Outlet No. 2 Port Connections (Cover End)						
Code	Std. Cover	Flow Control Cover		Priority Valve Cover		
		Pressure	Tank	Primary Outlet	Secondary Outlet	Tank
P	—	.750-16 St. thd.	.500 NPT thd.	—	—	—
S	1.062-12 St. thd.	.750-16 St. thd.	1.062-12 St. thd.	—	—	—
T	—	.750-16 St. thd.	.750-16 St. thd.	.750-16 St. thd.	.875-14 St. thd.	.750-16 St. thd.

For satisfactory service life of these components, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or cleaner. Selections from pressure, return, and in-line filter series are recommended.