



Double Vane Type Pump

(F3)—V2020*—*(*)F*S*S—1**—**—30(L)

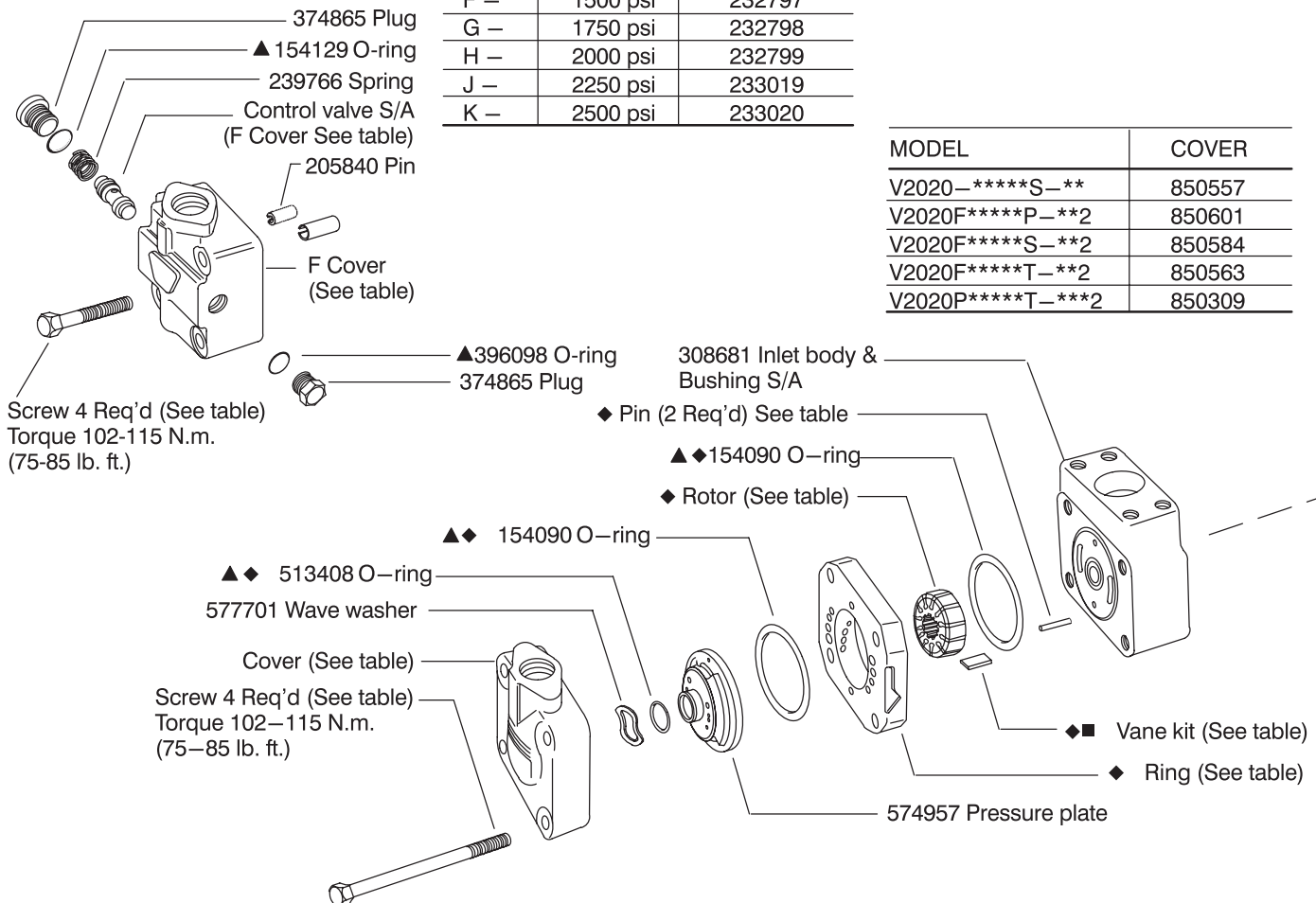
MODEL CODE	PRESSURE SETTING	CONTROL VALVE S/A (F Cover Only)
A —	250 psi	229613
B —	500 psi	233018
C —	750 psi	232794
D —	1000 psi	232795
E —	1250 psi	232796
F —	1500 psi	232797
G —	1750 psi	232798
H —	2000 psi	232799
J —	2250 psi	233019
K —	2500 psi	233020

NOTE

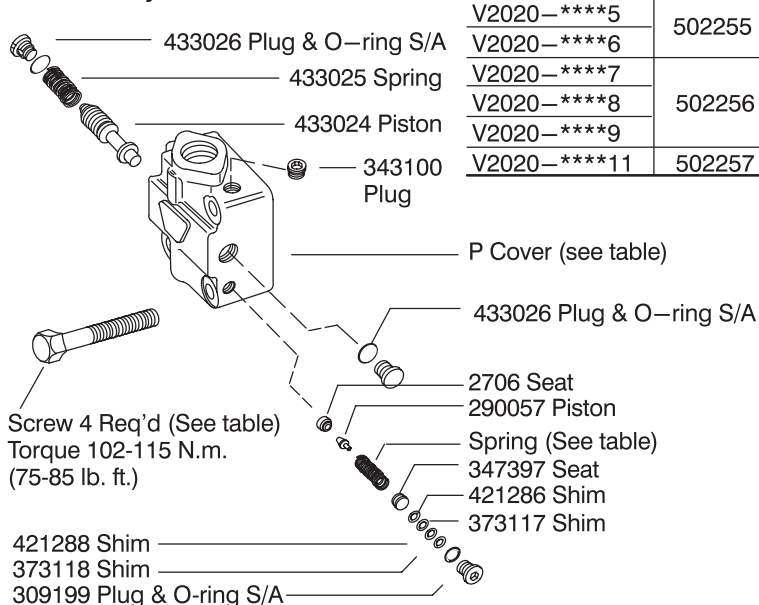
For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or cleaner. OFP, OFR, and OFRS series filters are recommended.

MODEL	COVER
V2020—*****S—**	850557
V2020F*****P—**2	850601
V2020F*****S—**2	850584
V2020F*****T—**2	850563
V2020P*****T—***2	850309

F — Flow Control



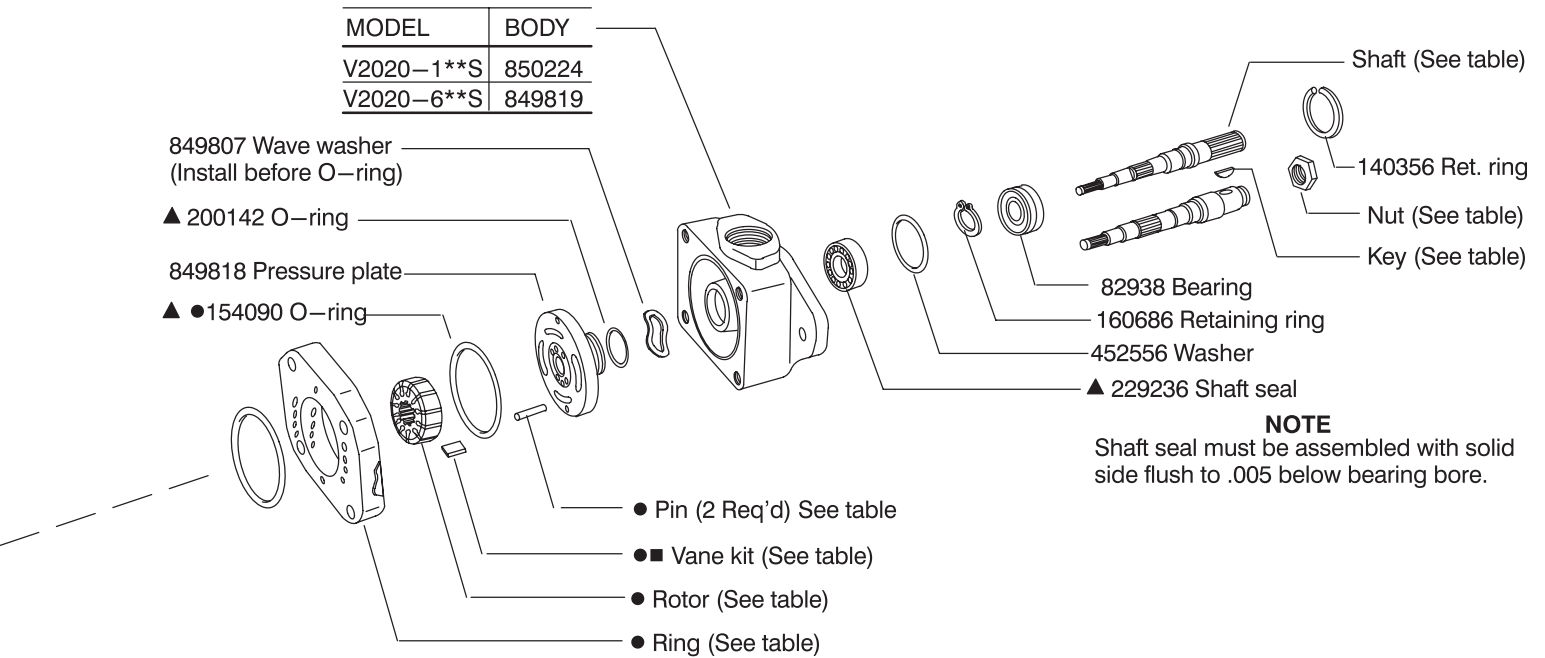
P — Priority Control



MODEL	◆ ROTOR	◆ VANE KIT	◆ PIN	◆ RING	◆ COVER END CART. KIT
V2020—****5	502255	923485	2456	388284	02—141747
V2020—****6				328150	923480
V2020—****7	502256	923493	16662	328152	923481
V2020—****8				331791	923483
V2020—****9				331789	923484
V2020—****11	502257	923478	179341	328156	923482

MODEL	PRESSURE SETTING	SPRING
V2020P—****—A	250 psi	252886
V2020P—****—B	500 psi	2280
V2020P—****—C	750 psi	
V2020P—****—D	1000 psi	435626
V2020P—****—E	1250 psi	
V2020P—****—F	1500 psi	2281
V2020P—****—G	1750 psi	
V2020P—****—H	2000 psi	
V2020P—****—J	2250 psi	
V2020P—****—K	2500 psi	

NO.	SHAFT	KEY	NUT	TYPE
1	308686	9955	—	Straight
3	308925	1617	18755	Threaded
11	308926	—	—	Splined



NOTE

Shaft seal must be assembled with solid side flush to .005 below bearing bore.

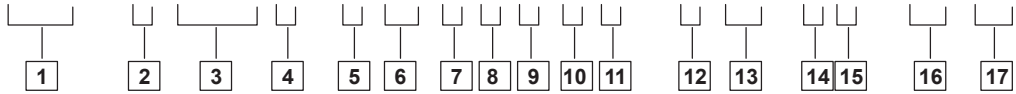
MODEL	● ROTOR	●■ VANE KIT	● PIN	● RING	● SHAFT END CART. KIT
V2020—**5**	388286	923485	2456	388284	02—141745
V2020—**6**				328150	02—141746
V2020—**7**	358335	923493	16662	328152	923494
V2020—**8**				331791	923495
V2020—**9**				331789	923462
V2020—**11**	358336	923478	179341	328156	923475
V2020—**12**	358337	923479	7688	331806	923476
V2020—**13**				331807	923477

RING COMBINATIONS		Screw	Cover	
Shaft End	Cover End			
5 & 6	7	189378	Std.	
7	5 & 6			
9	6			
8	7	67464		
8	8	142713		
11	11			
12	8			
13	9			
5 & 6	12 & 13	36048		F
10 & 11	7, 8 & 9			
12 & 13	5 & 6			
11	10 & 11	73074		
12 & 13	7, 8 & 9			
12 & 13	10 & 11			
5 & 6	10 & 11	134249		
7, 8 & 9	7, 8 & 9			
10 & 11	5 & 6			
5 & 6	7, 8 & 9	142713	P	
7, 8 & 9	5 & 6			
10 & 11	7, 8 & 9	36048		
12 & 13	6			
10 & 11	11			73074
12 & 13	7, 8 & 9			
12 & 13	11			
7, 8 & 9	7, 8 & 9	134249		
10 & 11	6			
7, 8 & 9	6	142713		

- ▲ Included in seal kit 02-143191
F3 equivalent seal kit 02-143192
- Shaft end cartridge kit (See table)
- ◆ Cover end cartridge kit (See table)
- Vane kit (includes 12 vanes) See table

Model Code

(F3) - V 2020 * - * (*) F * S * S - 1 ** - ** - 30 (L)



1 Special seals

F3 - For mineral oil & fire resistant fluids
(Omit if not required)

2 Vane pump

3 Series designation

4 Cover type

F - Flow control cover
P - Priority valve cover
Omit - Standard cover

5 Mounting

1 - Flange, 2 bolt SAE B size
2 - Foot bracket
6 - Flange, 2 bolt SAE A size

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)

(Rated capacity (USgpm) at 1200 rpm, 6.9 bar (100 psi))

5 - 5 USgpm **9** - 9 USgpm
6 - 6 USgpm **11** - 11 USgpm
7 - 7 USgpm **12** - 12 USgpm
8 - 8 USgpm **13** - 13 USgpm

9 No. 1 outlet port (Shaft end)

S - 1.062 - 12 UN-2B thread

10 Ring capacity (Cover end)

(Rated capacity (USgpm) at 1200 rpm, 6.9 bar (100 psi))

5 - 5 USgpm **8** - 8 USgpm
6 - 6 USgpm **9** - 9 USgpm
7 - 7 USgpm **11** - 11 USgpm

11 No. 2 outlet port (Cover end)

Code	Std. cover	Flow control cover	
		Pressure	Tank
P	—	3/4-16 St.Thd.	1/2 NPT Thd.
S	1.062-12 St.Thd.	3/4-16 St.Thd.	1.062-12 St.Thd.
T	St.Thd.	3/4-16 St.Thd.	3/4-16 St.Thd.

Priority valve cover

Code	Primary outlet	Secondary outlet	Tank
T	3/4-16 St.Thd.	7/8-14 St.Thd.	3/4-16 St.Thd.

12 Shaft type

1 - Straight thread
3 - Threaded
11 - Splined

13 Outlet port orientation

(Viewed from cover end of pump)

With no. 1 outlet opposite inlet

AA - No. 2 outlet opposite inlet
AB - No. 2 outlet 90° CCW from inlet
AC - No. 2 outlet inline with inlet
AD - No. 2 outlet 90° CW from inlet

With no. 1 outlet 90° CCW from inlet

BA - No. 2 outlet opposite inlet
BB - No. 2 outlet 90° CCW from inlet
BC - No. 2 outlet inline with inlet
BD - No. 2 outlet 90° CW from inlet

With no. 1 outlet inline with inlet

CA - No. 2 outlet opposite inlet
CB - No. 2 outlet 90° CCW from inlet
CC - No. 2 outlet inline with inlet
CD - No. 2 outlet 90° CW from inlet

With no. 1 outlet 90° CW from inlet

DA - No. 2 outlet opposite inlet
DB - No. 2 outlet 90° CCW from inlet
DC - No. 2 outlet inline with inlet
DD - No. 2 outlet 90° CW from inlet

14 Flow rate

(Thru orifice in cover USgpm)

15 Pressure setting

A - 250 psi **F** - 1500 psi
B - 500 psi **G** - 1750 psi
C - 750 psi **H** - 2000 psi
D - 1000 psi **J** - 2250 psi
E - 1250 psi **K** - 2500 psi

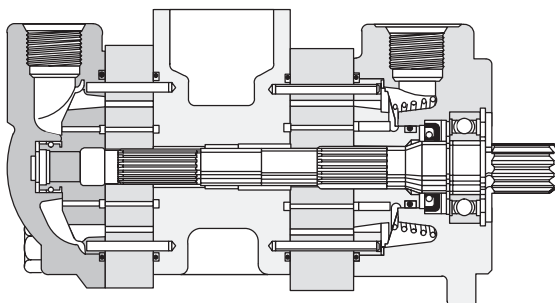
16 Design

17 Rotation

(Viewed from shaft end of pump)

L - Left hand (counterclockwise)
Omit - Right hand (clockwise)

Typical Sectional View



Products we offer:

- Cartridge valves
- DCV directional control valves
- Electric converters
- Electric machines
- Electric motors
- Gear motors
- Gear pumps
- Hydraulic integrated circuits (HICs)
- Hydrostatic motors
- Hydrostatic pumps
- Orbital motors
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- PLUS+1® software
- PLUS+1® software services, support and training
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- PVG proportional valves
- Steering components and systems
- Telematics

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