

# DIRECTIONAL CONTROL VALVES

## SV-25 SERIES

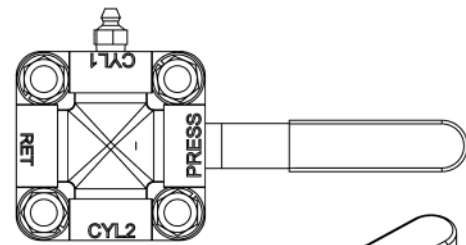
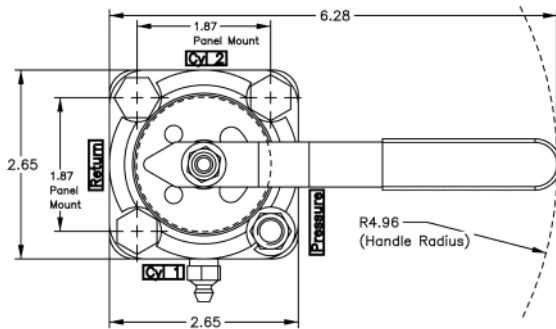


PacSeal Hydraulics rotary SV-25 series directional control valves direct fluid flow to desired ports, with optional configurations utilizing one or two cylinder ports.

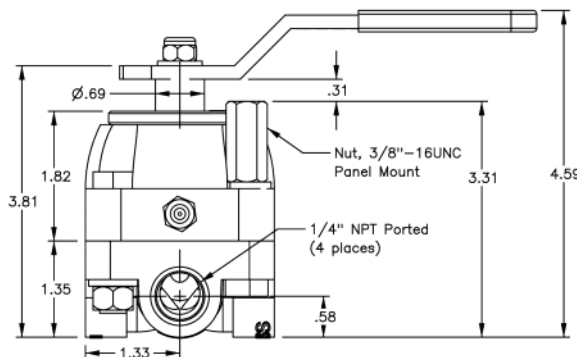
Standard rotor configurations allow for interflow when shifting to be drained to tank through the constantly open return port. The block center rotor requires an additional case drain port on the housing since the return port is blocked in center position.

- ShearFlo® sealing technology ensures high cycle life for critical service applications even with contaminated fluids.

- Hardened stainless steel sealing elements are lapped and polished to exacting standards of finish and flatness which produces a leak proof, contaminant resistant metal-to-metal seal.
- The sealing elements are spring preloaded and pressure energized which maintains contact between the two sealing surfaces causing continuous lapping during use which eliminates small scratches.



Bottom view  
(Port locations)



SV-25 Inline / Side Ported Assembly

(Continued from page 1)

**OPTIONS AVAILABLE**

**Manual Operation**

Detent positioned or spring centered

**Pneumatic or Hydraulic Actuator Cylinder Operation**

Installed on a standard manual valve or SVX integral actuator providing remote control with manual override operation. 2 and 3 position actuators available.

**Body Porting Options**

Inline/Side and bottom ported are threaded NPT or SAE.

Subplate & manifold mounted configurations have O-ring face seals for interfacing with manifold.



**Rotor Flow Pattern**

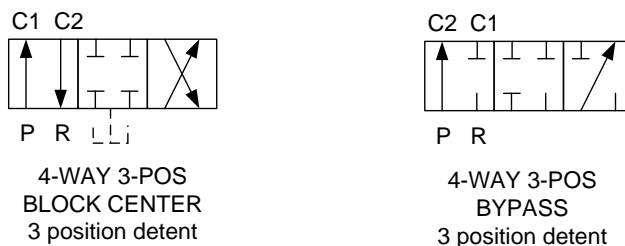
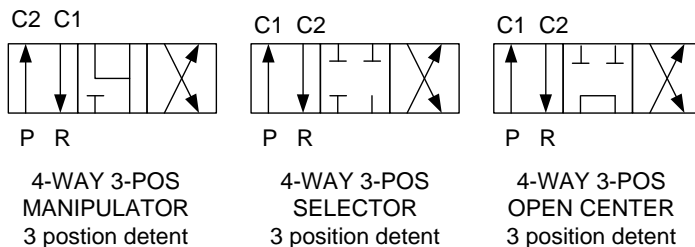
Selector—either position operates a cylinder port with the opposite port drained to tank, center position pressure and cylinder ports blocked

Manipulator—either position operates a cylinder port with the opposite port drained to tank, center position cylinders drain to tank and pressure port blocked

Bypass—either position pressurizes a cylinder port with the opposite port blocked, center position pressure and cylinder ports blocked

Open Center—either position operates a cylinder port with the opposite port drained to tank, center position pressure port to tank, cylinder ports blocked.

Block Center- either position operates a cylinder port with the opposite port drained to tank, all ports blocked in center position

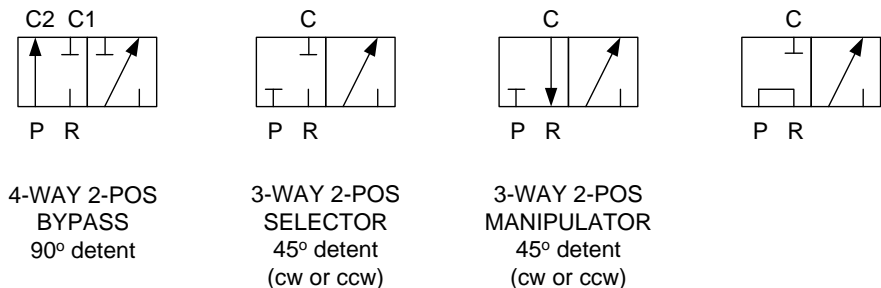


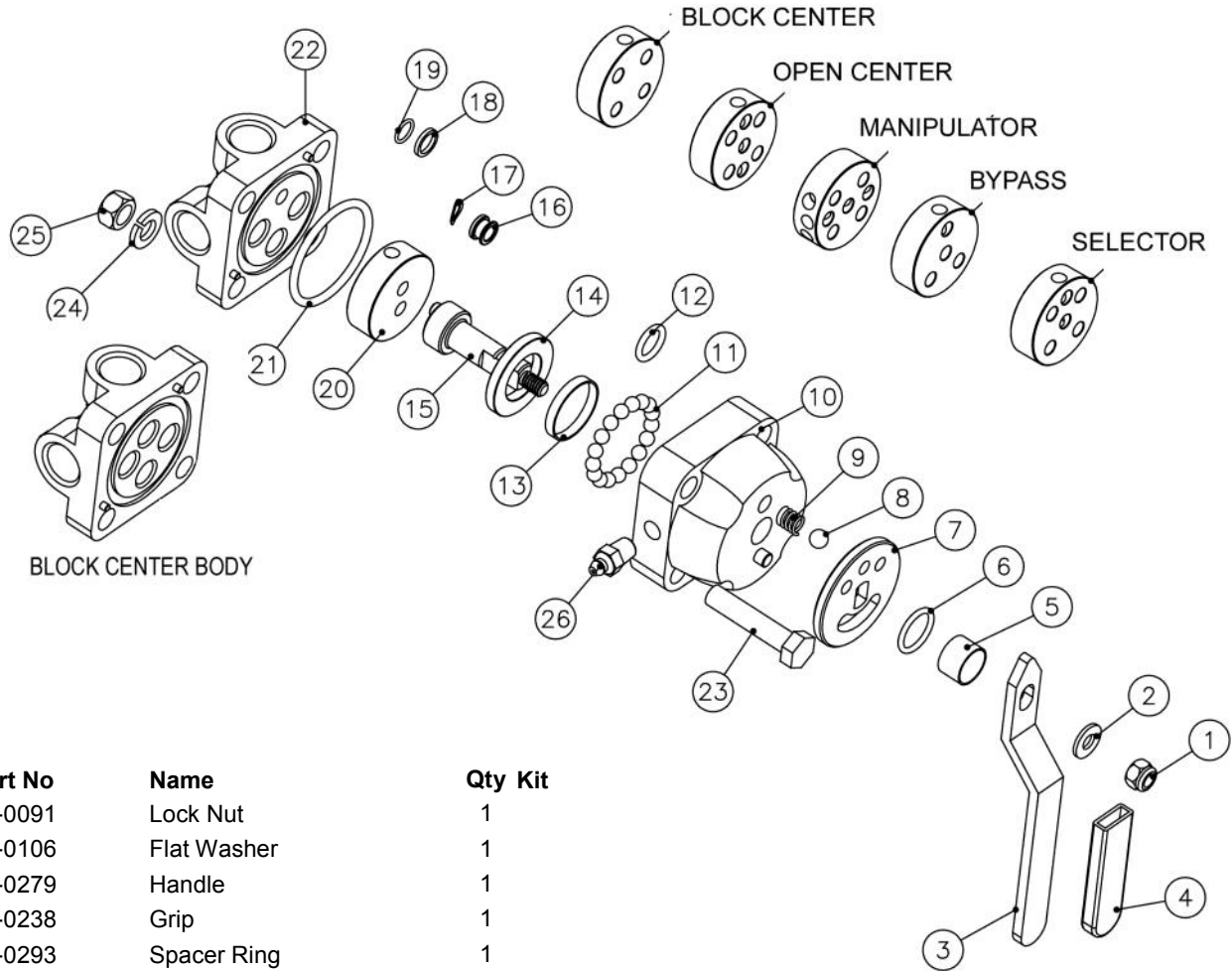
**Detent Pattern**

3-Position: Selector, Manipulator, Bypass, Open-Center

2-Position: Bypass, 90° (4 way)

2-Position: 45° Right (CW) or Left (CCW) (3 way)





Id	Part No	Name	Qty	Kit
1	50-0091	Lock Nut	1	
2	50-0106	Flat Washer	1	
3	40-0279	Handle	1	
4	40-0238	Grip	1	
5	40-0293	Spacer Ring	1	
6	40-0290	Retaining Ring	1	
7	40-0287	Detent Disc	1	
8	40-0259	Detent Ball	1	
9	40-0297	Detent Spring	1	
10	40-0352	Housing	1	
11	40-0259	Ball Bearing	17	d
12	23-1337	O-Ring	1	a
13	40-0294	Ball Retainer Ring	1	d
14	40-0227	Thrust Washer	1	d
15	40-0274	Shaft	1	
16	40-0001	Seal Ring	3	b
17	40-0028	Wave Spring	3	b
18	23-1339	Back-Up Ring	3	a
19	23-1338	O-Ring	3	a
20	Tabulated	Rotor	1	c
21	23-1330	O-Ring	1	a
22	40-0255	Body	1	
23	50-0097	Bolt	4	
24	50-0103	Lock Washer	4	
25	50-0109	Hex Nut	4	
26	50-0176	Grease Fitting	1	

Kit contents:

- a: O-ring Kit
- b: Seal Kit, includes O-ring Kit
- c: Minor Repair Kit, includes Seal Kit
- d: Major Repair Kit, includes Minor Repair Kit

Part No.	Description
40-0002	Rotor, Selector
40-0371	Rotor, Bypass
40-0263	Rotor, Manipulator
40-0372	Rotor, Open Center
40-1313	Rotor, Block Center

**Model Number Scheme**

Basic Size	Port Size	Type of Ports	Pressure Rating	Port Location	Bolts
<b>SV-25</b>	2 1/4"	<b>N</b> NPT	<b>3</b> 3000 psi	<b>I</b> Inline/Side <b>B</b> Bottom	<b>S</b> Standard/Short
		<b>S</b> SAE			<b>6</b> 6000 psi
		<b>M</b> Manifold			<b>P</b> Panel Mount
		<b>B</b> Subplate			

Rotor Flow Pattern		Detent Shift Pattern		Handle	O-Ring Temp Rating
<b>S</b>	Selector	<b>1</b>	3 position	<b>M</b> Standard manual <b>R</b> Actuator Cylinder <b>S</b> Spring centered	<b>N</b> BUNA-N -30/+250 °F <b>V</b> Viton -15/+400 °F <b>E</b> EPR -70/+250 °F
<b>O</b>	Open Center	<b>2</b>	2 position 90°		
<b>A</b>	Block Center	<b>3</b>	2 position 45° cw		
<b>M</b>	Manipulator	<b>4</b>	2 position 45°ccw		
<b>B</b>	Bypass				

Example: SV25 1/4" NPT Selector (40-1529) Model Number :

<b>SV25</b>	<b>2</b>	<b>N</b>	<b>3</b>	<b>I</b>	<b>S</b>	<b>S</b>	<b>1</b>	<b>M</b>	<b>N</b>
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PRODUCT	SV-25	SV-25/6K
<b>O-RING KIT</b>	40-1850	
<b>SEAL KIT</b>	40-1515	
<b>MINOR REPAIR KIT</b>		
<b>SELECTOR</b>	40-1514	
<b>MANIPULATOR</b>	40-1622	
<b>BYPASS</b>	40-1778	
<b>MAJOR REPAIR KIT</b>		
<b>SELECTOR</b>	40-1513	
<b>MANIPULATOR</b>	40-1542	
<b>BYPASS</b>	40-1779	
<b>VALVE ASSEMBLY (INLINE)</b>		
<b>SELECTOR</b>	40-1529	40-1925
<b>MANIPULATOR</b>	40-1790	40-1898
<b>BYPASS (2-POS)</b>	40-1780	N/A
<b>SELECTOR (SPRING CTR)</b>	40-1761	N/A
<b>MANIPULATOR (SPRING CTR)</b>	40-1756	N/A

<b>RATINGS</b>	
<b>Standard Valve</b>	
Port Size:	1/4"
Rated Flow:	10 gpm / 38 lpm
Cv:	.95
Rated Pressure:	3000 / 6000 psi Liquid 207 / 414 bar Liquid 2000 / 4000 psi Gas 138 / 276 bar
Weight:	4.5 lb / 2 kg
<b>Spring Centered Valve</b>	
Port Size:	1/4"
Rated Flow:	10 gpm / 38 lpm
Cv:	.95
Rated Pressure:	3000 / 5000 psi Liquid 207 / 345 bar Liquid 2000 / 4000 psi Gas 138 / 276 bar
Weight:	4.5 lb / 2 kg

Standard configurations shown here; contact factory for other models and part numbers.