



The Right Connection®

SSV Series Single Seat Valves

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Customer Service
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Simple Design - Solid Construction - Superior Cleanability

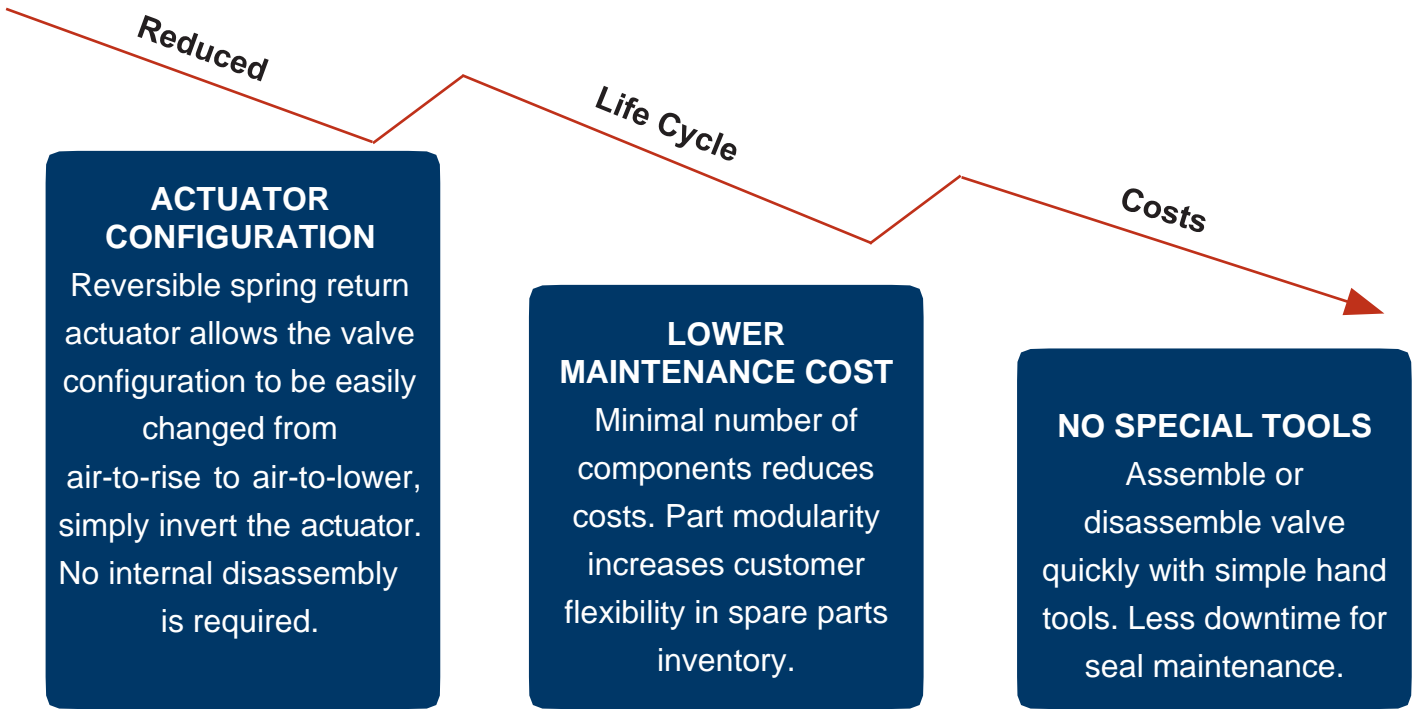


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Safety Information

General Guidelines

- The owner must comply exclusively with these operating instructions and the authorized use of the valve. Should problems arise that cannot be solved using these operating instructions, please contact the manufacturer. We will be happy to provide further assistance.
- If any modification work is performed on the valve by the owner themselves, Dixon shall no longer be considered the manufacturer of the device. In such cases, all components must be subjected to a new CE certification & 3A approval process. Unless agreed to in writing by the manufacturer, liability, warranties and guarantees shall immediately be deemed null and void as soon as you:
 - Perform modifications/conversion work on the valve.
 - Use the valve for unauthorized purposes.
 - Remove or disable safety elements.
 - Use the product supply (e.g. line pressure) in a way other than that described and authorized in the manual.
 - Process products whose material, form and size do not correspond exactly to the description.
 - Make alterations to the original state of the device.
- The operating instructions are regarded as part of the valve.
- The operating and maintenance personnel must be able to access the operating instructions at all times.
- The safety instructions provided in the operating instructions must be observed.
- The operating instructions shall be valid for the entirety of the devices lifespan.
- The operating instructions must be maintained and updated as necessary.
- The operating instructions must be passed on to any subsequent owners or operators of the device.

Owner Must Ensure

- The valve is only used as authorized.
- The valve is only used when it is fault-free, in fully functional condition and in particular that the safety equipment is regularly checked to ensure that it is fully functional.
- The valve is only operated, maintained and repaired by personnel with the appropriate qualifications and authorization.
- Checks are made before the valve is operated to ensure that only the authorized person is in the valve work area and no one is in danger of being injured if the valve is operated.
- The valve is checked for visual damage prior to commissioning in order to ensure that it is only operated when free of faults.
- Any defects are reported immediately to the line manager.
- All safety and warning notices attached to the valve are legible and none are removed.
- The operating instructions are always kept close to the valve operation site, in a legible and complete state.
- Personnel are regularly instructed on all occupational safety and environmental protection issues and that they are familiar with and observe the operating instructions, especially the safety instructions contained herein.
- Personnel are trained and supervised to ensure that they follow safety measures, including the obligatory use of personal protective equipment.
- The valve is only connected to pipelines that are depressurized at the time of connection.
- All pneumatic connections are air-tight.
- There is no tensile or compressive stress at the housing pipeline connections.
- Continuous risk assessment is carried out at the work stations, including checks on the temperature conditions of the medium and the operation site (crash). The measures must be defined in the operating instructions and communicated to the personnel (plant construction firm/owner).
- There is no residual risk at any point where high pressure could occur. High pressure can cause sudden failure in or damage to the lines and connections.
- Fire safety equipment, e.g. the prescribed number and size of suitable hand fire extinguishers, is attached within easy reach, and employees are trained in fire safety.
- Warning notices in the documentation for supplier modules are observed and integrated into the risk assessments in the workplace.

Care of Stainless Steel

The stainless steel components in Dixon Sanitary equipment are machined, welded and assembled by skilled craftsmen using manufacturing methods that preserve the corrosion-resistant quality of the stainless steel. Retention of corrosion-resistant qualities under processing conditions requires regular attention to the precautions listed below.

1. Regularly check all electrical devices connected to the equipment for stray currents caused by improper grounding, damaged insulation or other defects. Corrosion: Pitting often occurs when stray currents come in contact with moist stainless steel.
2. Never leave rubber mats, fittings, wrenches, etc. in contact with stainless steel. Corrosion: Pitting or galvanic action. Objects retard complete drying, preventing air from reforming the protective oxide film. Galvanic corrosion occurs when two dissimilar metals touch when wet.
3. Immediately rinse equipment after use with warm water until the rinse water is clear. Clean the equipment (manual or CIP) as soon as possible after rinsing. Corrosion: discoloration, deposits, pitting. Product deposits often cause pitting beneath the particles.
4. Use only recommended cleaning compounds. Purchase chemicals from reputable and responsible chemical manufacturers familiar with stainless steel processing equipment, they continuously check the effects of their products on stainless steel.
5. Use cleaning chemicals exactly as specified by the manufacturer. Do not use excessive concentrations, temperatures or exposure times. Corrosion: Pitting, discoloration, stress cracks. Permanent damage often occurs from excessive chemical concentrations, temperatures or exposure times.
6. For manual cleaning, use only soft non-metallic brushes, sponges or pads. Brush with the grain on polished surfaces, avoid scratching the surface. Corrosion: Pitting, scratches. Metal brushes or sponges will scratch the surface and promote corrosion over a period of time. Metal particles allowed to remain on a stainless steel surface will cause pitting.
7. Use chemical bactericides exactly as prescribed by the chemical manufacturer in concurrence with local health authority. Use the lowest permissible concentration, temperature and exposure time possible. Flush immediately after bacterial treatment. In no case should the solution be in contact with stainless steel more than 20 minutes. Corrosion: Protective film destroyed. Chlorine and other halogen bactericides can destroy the protective film. A few degrees increase in temperature greatly increases chemical activity and accelerates corrosion.
8. Regularly inspect the joints in pipelines. Be sure all connections are tight fitting without binding. Corrosion: Crevice corrosion. Small crevices caused by improperly seated gaskets will promote crevice corrosion. Stainless steel under stress will develop stress cracking especially in the presence of bactericides containing chlorine.
9. Regularly inspect equipment for surface corrosion (i.e. pitting deposits, stress cracks, etc.). If deposit or color corrosion is detected, remove it immediately using mild scouring powder and detergents. Rinse thoroughly and allow to air dry. Review production and cleaning procedures to determine the cause. Note: If corrosion is not removed, the protective film cannot be restored and corrosion will continue at an accelerated rate.

Introduction

This manual contains installation, safety, operation, cleaning, repair instructions, model numbering structure and parts list for the SSV Series line of sanitary single seat valves.

The SSV Series single seat valve features precision designed and manufactured components to meet the most demanding sanitary applications. The SSV Series valve is the valve of choice for liquid processing applications that require reliability and hygienic design. The valves modular design allows for use in applications requiring stop valve or diversion valve functionality. The SSV Series single seat valve is designed with superior cleanability in mind; the valve is 3A certified to be cleaned-in-place and is constructed from FDA approved materials.

Technical Specifications

Stainless steel technical data

- product contact components: 1.4404 (AISI 316L)
- non-product contact components: 1.4301 (AISI 304)

Sealing materials technical data

- product contact components: EDPM (FDA), FKM (FDA) or PTFE (FDA)
- non-product contact components: refer to valve BOM for other specific components

Line pressure technical data

- product pressure on lines: max **87 PSI (6 bar)**

Product temperature technical data

- max operating temperature: **266°F (130°C)**
- max sterilization temperature (20 min max): **275°F (135°C)**
- max ambient temperature: **140°F (60°C)**

Surface finish technical data

- product contact components: $R_a \leq 32$
- optional finish: electro-polished
- non-product contact components: $R_a \leq 63$ polished

Pneumatic connections data

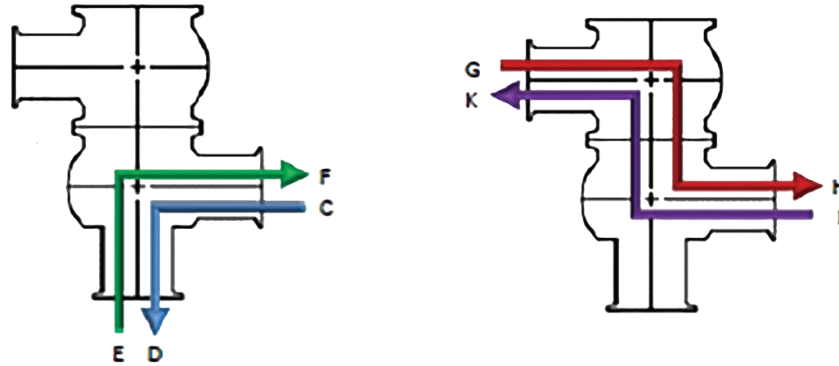
- threaded air fitting: 1/8" NPT with 1/4" tube push-in connection
- control air pressure:
- spring return: max **80 PSI (5.5 bar)**, double acting: max **45 PSI (3.1 bar)**
- max temperature: **176°F (80°C)**
- solids content in control air
- particle size: max 5µm
- particle density: max 5mg/m³
- oil content: max 25mg/m³ oil (oil-free quality class 3)

Noise emission

- device sound emission level: ≤ 70 dB(A)

Pressure Drop Charts

Single Seat - Divert

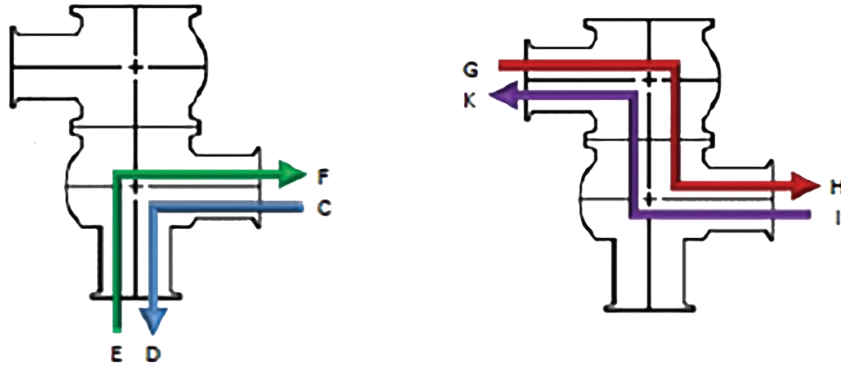


Ap [psi]	Valve Size							
	1"				1½"			
	C-D	E-F	G-H	I-K	C-D	E-F	G-H	I-K
	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]
3.6	26.40	25.52	27.10	26.84	65.34	63.27	67.19	66.44
7.3	37.40	36.08	38.28	38.02	92.40	89.50	95.04	94.16
14.5	52.67	51.04	54.16	53.77	130.68	126.54	134.77	133.32
21.8	64.68	62.48	66.44	65.82	160.16	155.01	164.56	163.24
29.0	74.49	72.16	76.56	76.03	184.80	179.08	190.08	188.54
36.3	83.29	80.70	85.67	84.92	206.62	200.20	212.52	210.76
43.5	91.21	88.44	93.85	93.10	226.34	219.16	232.76	231.00
50.8	98.56	95.48	101.20	100.58	244.51	236.72	251.24	249.48
58.0	105.34	102.08	107.49	107.36	261.36	253.09	268.40	266.64
65.3	111.76	108.24	114.84	113.96	277.20	268.40	285.12	282.92
72.5	117.74	114.14	121.18	120.12	292.16	282.92	300.52	298.32

Ap [psi]	Valve Size							
	2"				2½"			
	C-D	E-F	G-H	I-K	C-D	E-F	G-H	I-K
	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]
3.6	121.66	117.92	125.18	124.08	195.36	189.42	201.08	199.76
7.3	172.04	166.76	176.88	175.56	276.32	267.87	284.24	282.04
14.5	243.32	235.84	250.36	248.16	390.72	378.84	402.16	399.08
21.8	298.01	288.86	306.68	304.04	478.54	464.20	492.36	488.84
29.0	344.08	333.52	354.20	351.12	552.55	535.92	568.92	564.52
36.3	384.74	372.90	396.00	392.48	617.76	599.02	635.80	630.96
43.5	421.52	408.50	433.84	429.88	676.72	656.17	696.52	691.24
50.8	455.40	441.32	468.60	464.20	730.97	708.84	752.40	746.68
58.0	486.64	471.68	500.72	496.32	781.44	757.68	804.32	798.16
65.3	516.12	500.28	531.08	526.24	828.96	803.66	853.16	846.56
72.5	544.28	527.56	559.68	554.84	873.84	847.13	899.36	892.32

Pressure Drop Charts

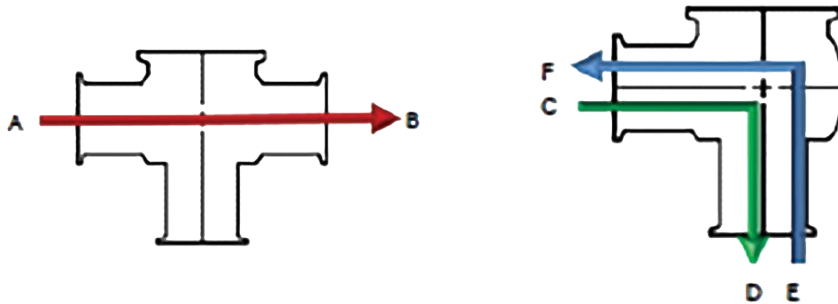
Single Seat - Divert



Δp [psi]	Valve Size							
	3"				4"			
	C-D	E-F	G-H	I-K	C-D	E-F	G-H	I-K
	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]
3.6	286.53	277.68	294.80	292.60	511.28	495.53	525.80	521.84
7.3	404.80	392.70	416.90	413.60	723.05	700.74	743.60	737.88
14.5	573.01	555.37	589.60	585.20	1022.56	991.01	1051.60	1043.68
21.8	701.80	680.24	722.04	717.20	1252.37	1213.74	1287.88	1278.20
29.0	810.48	785.40	833.80	827.64	1446.10	1401.49	1487.20	1476.20
36.3	906.05	878.24	932.80	925.32	1617.00	1567.28	1663.20	1650.00
43.5	992.51	961.93	1021.24	1013.76	1771.13	1716.44	1821.60	1808.40
50.8	1072.02	1039.02	1103.08	1094.72	1913.12	1854.16	1967.24	1953.60
58.0	1146.02	1110.74	1179.20	1170.40	2045.12	1982.02	2103.20	2087.36
65.3	1215.54	1178.10	1250.92	1241.24	2169.20	2102.23	2230.80	2214.08
72.5	1281.28	1241.86	1318.24	1308.56	2286.68	2215.97	2351.36	2333.76

Pressure Drop Charts

Single Seat - Shut-Off

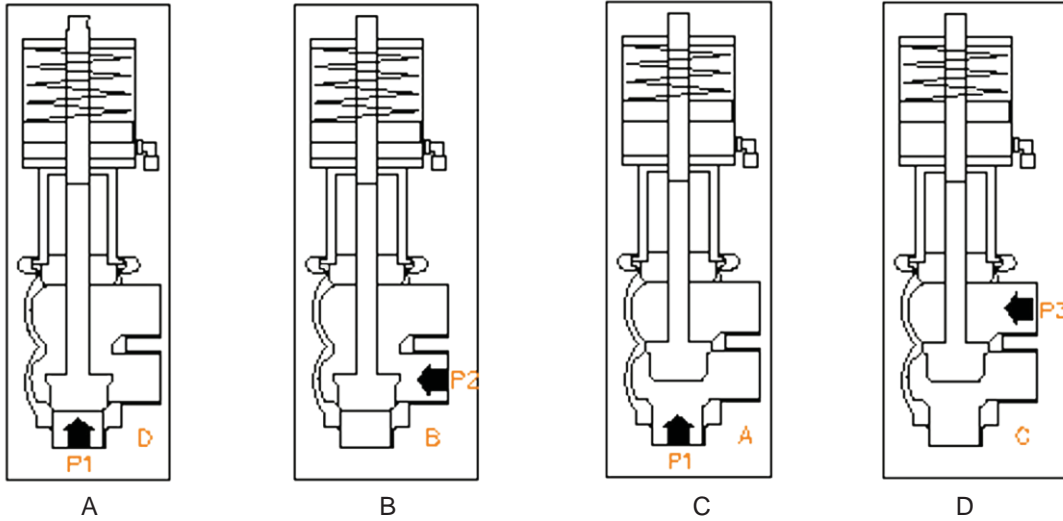


Ap [psi]	Valve Size								
	1"			1½"			2"		
	A-B	C-D	E-F	A-B	C-D	E-F	A-B	C-D	E-F
	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]
3.6	26.75	26.40	25.52	66.35	65.34	63.27	123.64	121.66	117.92
7.3	37.84	37.40	36.08	93.85	92.40	89.50	166.06	172.04	166.76
14.5	53.52	52.67	51.04	132.70	130.68	126.54	247.28	243.32	235.84
21.8	65.56	64.68	62.48	162.54	160.16	155.01	302.85	298.01	288.86
29.0	75.68	74.49	72.16	187.66	184.80	179.08	349.80	344.08	333.52
36.3	84.61	83.29	80.70	209.88	206.62	200.20	390.98	384.74	372.90
43.5	92.84	91.21	88.44	229.86	226.34	219.16	428.30	421.52	408.50
50.8	100.14	98.56	95.48	248.29	244.51	236.72	462.62	455.40	441.32
58.0	107.05	105.34	102.08	265.32	261.36	253.09	494.56	486.64	471.68
65.3	113.52	111.76	108.24	281.60	277.20	268.40	524.57	516.12	500.28
72.5	119.68	117.74	114.14	296.74	292.16	282.92	553.08	544.28	527.56

Ap [psi]	Valve Size								
	2½"			3"			4"		
	A-B	C-D	E-F	A-B	C-D	E-F	A-B	C-D	E-F
	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]	Q[GPM]
3.6	198.57	195.36	189.42	291.28	286.53	277.68	519.64	511.28	495.53
7.3	280.81	276.32	267.87	411.93	404.80	392.70	734.80	723.05	700.74
14.5	397.14	390.72	378.84	582.56	573.01	555.37	1039.28	1022.56	991.01
21.8	486.42	478.54	464.20	713.50	701.80	680.24	1272.92	1252.37	1213.74
29.0	561.66	552.55	535.92	823.86	810.48	785.40	1469.78	1446.10	1401.49
36.3	627.92	617.76	599.02	921.10	906.05	878.24	1643.27	1617.00	1567.28
43.5	687.90	676.72	656.17	1009.05	992.51	961.93	1800.04	1771.13	1716.44
50.8	742.98	730.97	708.84	1089.88	1072.02	1039.02	1944.36	1913.12	1854.16
58.0	794.29	781.44	757.68	1165.12	1146.02	1110.74	2078.56	2045.12	1982.02
65.3	842.60	828.96	803.66	1235.96	1215.54	1178.10	2204.40	2169.20	2102.23
72.5	888.05	873.84	847.13	1302.40	1281.28	1241.86	2324.08	2286.68	2215.97

Holding Pressure

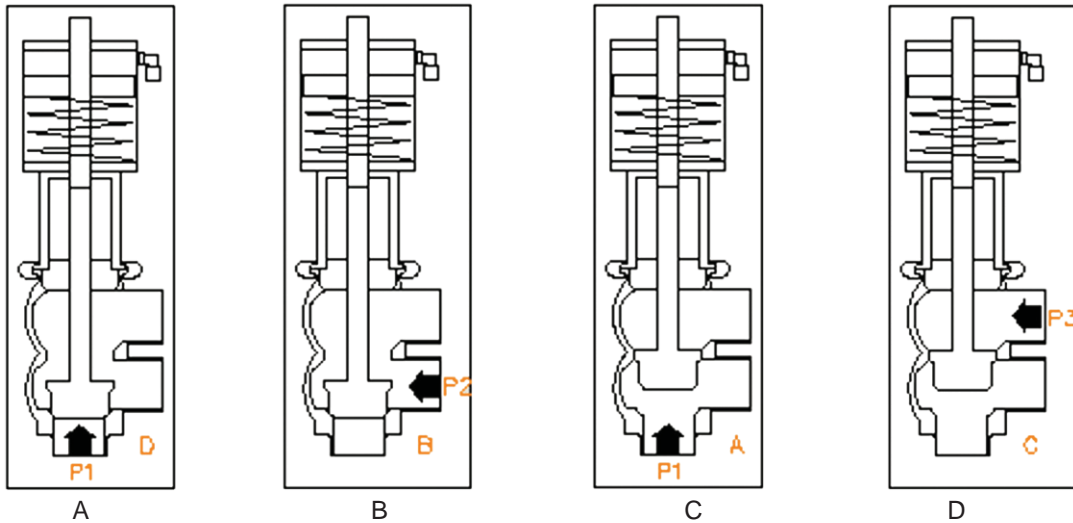
Spring Return (Air-to-Raise)



Plant Supply Air	Valve Size	Actuator Size	Seat Material	Spring Force vs. Product Pressure		Product Pressure vs. Air Pressure (Opening)		Product Pressure vs. Spring Force (Closing)		Air Pressure vs. Product Pressure		
				A		B		C		D		
				bar	PSI	bar	PSI	bar	PSI	bar	PSI	
80 PSI	1"	1"	Elastomer	12.3	178.4	16.0	232.0	6.8	98.6	16.0	232.0	
			PTFE	10.3	149.4	16.0	232.0	6.9	100.1	16.0	232.0	
	1½"	2"	Elastomer	17.3	251.1	16.0	232.0	12.1	175.5	16.0	232.0	
			PTFE	9.8	142.1	16.0	232.0	13.6	197.2	14.9	216.1	
	2"	2"	Elastomer	9.3	134.9	9.8	142.1	8.2	118.9	8.8	127.6	
			PTFE	10.6	153.7	10.3	149.4	7.6	110.2	9.8	142.1	
	2½"	3"	Elastomer	14.0	203.0	10.8	156.6	11.3	163.1	14.3	207.4	
			PTFE	10.1	146.0	15.2	220.4	12.9	187.1	13.6	197.2	
	3"	3"	Elastomer	9.5	137.8	9.3	134.9	8.3	120.4	8.8	127.6	
			PTFE	9.8	142.1	10.2	147.9	8.3	120.4	10.9	158.1	
	4"	3"	Elastomer	4.8	69.6	5.3	76.9	5.2	75.4	5.4	78.3	
			PTFE	5.0	72.5	5.6	81.2	5.5	79.8	5.9	85.6	
	45 PSI	1"	1"	Elastomer	80 PSI Required For Spring Return Actuators (Do Not Exceed 80 PSI)							
				PTFE								
1½"		2"	Elastomer									
			PTFE									
2"		2"	Elastomer									
			PTFE									
2½"		3"	Elastomer									
			PTFE									
3"		3"	Elastomer									
			PTFE									
4"		3"	Elastomer									
			PTFE									

Holding Pressure

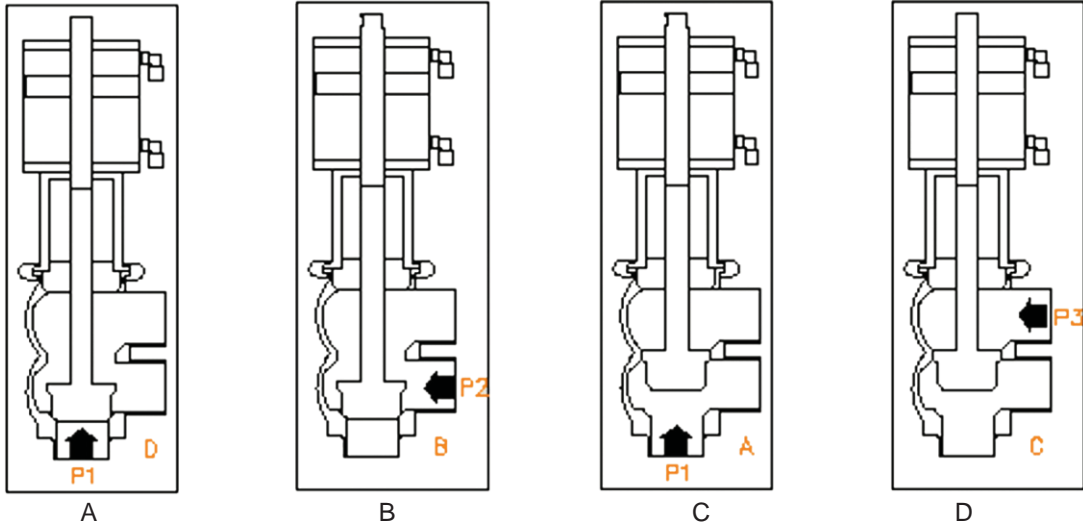
Spring Return (Air-to-Lower)



Plant Supply Air	Valve Size	Actuator Size	Seat Material	Air Pressure vs. Product Pressure		Product Pressure vs. Air Pressure (Opening)		Product Pressure vs. Spring Force (Closing)		Spring Force vs. Product Pressure	
				A		B		C		D	
				bar	PSI	bar	PSI	bar	PSI	bar	PSI
80 PSI	1"	1"	Elastomer	16.0	232.0	9.3	134.9	12.8	185.6	11.8	171.1
			PTFE	16.0	232.0	11.8	170.8	15.0	217.5	9.3	134.9
	1½"	2"	Elastomer	16.0	232.0	15.8	229.1	14.8	214.6	16.0	232.0
			PTFE	8.8	127.6	16.0	232.0	14.0	203.0	13.6	197.2
	2"	2"	Elastomer	10.1	146.5	9.2	133.4	8.1	117.5	9.5	137.8
			PTFE	8.1	117.5	10.1	146.5	8.4	121.8	9.2	133.4
	2½"	3"	Elastomer	15.8	229.1	12.8	185.6	11.0	159.5	12.9	187.1
			PTFE	9.7	140.7	14.8	214.6	13.4	194.3	11.8	171.1
	3"	3"	Elastomer	10.0	145.0	9.3	134.9	9.3	134.9	9.1	132.0
			PTFE	10.0	145.0	9.1	131.7	9.3	134.9	9.7	140.7
4"	3"	Elastomer	5.3	76.9	5.3	76.9	5.1	74.0	4.8	69.6	
		PTFE	4.4	63.8	5.6	81.2	5.8	84.1	4.4	63.8	
45 PSI	1"	1"	Elastomer	80 PSI Required For Spring Return Actuators (Do Not Exceed 80 PSI)							
			PTFE								
	1½"	2"	Elastomer								
			PTFE								
	2"	2"	Elastomer								
			PTFE								
	2½"	3"	Elastomer								
			PTFE								
	3"	3"	Elastomer								
			PTFE								
4"	3"	Elastomer									
		PTFE									

Holding Pressure

Double Acting Actuators

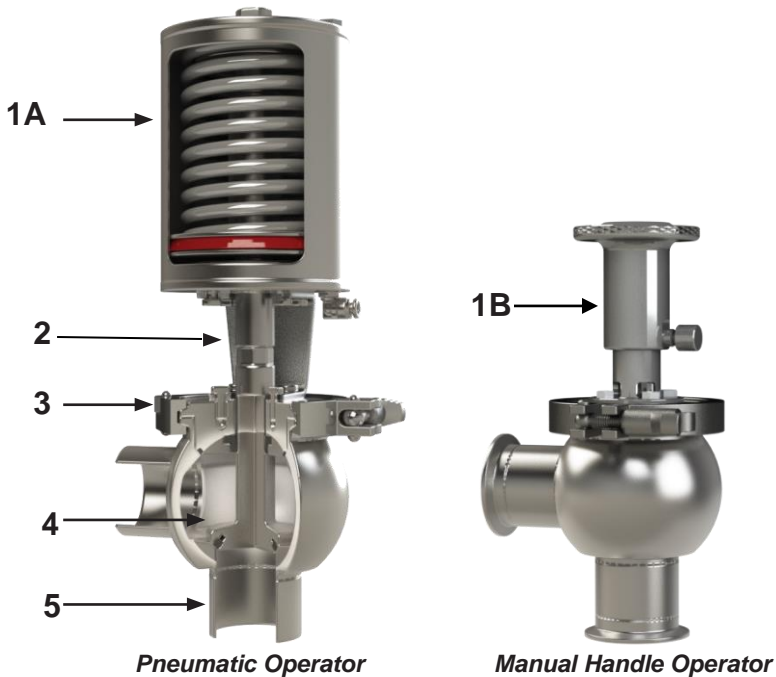


Plant Supply Air	Valve Size	Actuator Size	Seat Material	Air Pressure vs. Product Pressure							
				A		B		C		D	
				bar	PSI	bar	PSI	bar	PSI	bar	PSI
80 PSI	1"	1"	Elastomer	45 PSI Required For Double Acting Actuators (Do Not Exceed 45 PSI)							
			PTFE								
	1½"	2"	Elastomer								
			PTFE								
	2"	2"	Elastomer								
			PTFE								
	2½"	3"	Elastomer								
			PTFE								
3"	3"	Elastomer									
		PTFE									
4"	3"	Elastomer									
		PTFE									
120 PSI	1"	1"	Elastomer	12.3	178.4	16.0	232.0	6.8	98.6	16.0	232.0
			PTFE	10.3	149.4	16.0	232.0	6.9	100.1	16.0	232.0
	1½"	2"	Elastomer	17.3	251.1	16.0	232.0	12.1	175.5	16.0	232.0
			PTFE	9.8	142.1	16.0	232.0	13.6	197.2	14.9	216.1
	2"	2"	Elastomer	9.3	134.9	9.8	142.1	8.2	118.9	8.8	127.6
			PTFE	10.6	153.7	10.3	149.4	7.6	110.2	9.8	142.1
	2½"	3"	Elastomer	14.0	203.0	10.8	156.6	11.3	163.1	14.3	207.4
			PTFE	10.1	146.0	15.2	220.4	12.9	187.1	13.6	197.2
	3"	3"	Elastomer	9.5	137.8	9.3	134.9	8.3	120.4	8.8	127.6
			PTFE	9.8	142.1	10.2	147.9	8.3	120.4	10.9	158.1
	4"	3"	Elastomer	4.8	69.6	5.3	76.9	5.2	75.4	5.4	78.3
			PTFE	5.0	72.5	5.6	81.2	5.5	79.8	5.9	85.6

Installation & Start-Up

Unpacking

Carefully unpack all the parts of the single seat valve and inspect for any damage that may have occurred during shipment. Report any damage to the carrier immediately. The ports on the valve are protected with a plastic cover. If any covers are missing or damaged, inspect the ports on the valve thoroughly for any damage. The valve is shipped with all necessary certificates and manuals. Please add this paperwork to the plant maintenance files for future use and reference. Additional information for the valve can be found at dixonvalve.com.



The valve consists of the following main components:

- 1A = pneumatic actuator (see part number key for types)
- 1B = manual handle operator
- 2 = actuator adapter bracket
- 3 = body clamp
- 4 = valve stem with o-ring seal or PTFE plug seal (see part number key for options)
- 5 = valve body (see part number key for configurations)

Tools Needed

The following tools will be required for any maintenance of the valve assembly.

- set of metric box wrenches
- O-ring pick tool soft mallet
- Food grade lubricating grease (compatible with seals)
- food grade thread locker

Guidelines

Welding:

- For valves that are delivered with weld end connections, the valve body **MUST** be removed from the actuator or valve handle assembly before welding. (See disassembly instructions for removing the actuator.)
- Weld the valve body in place being sure to follow and comply with any industry standard safety and welding procedures for equipment being used in the food, beverage and dairy applications. See 3A 00-01-2018 section E1.1.1.
- Re-install the actuator or valve handle assembly to the valve body. (See assembly instructions.)
- Check valve operation and perform leak test.

Installation & Start-Up

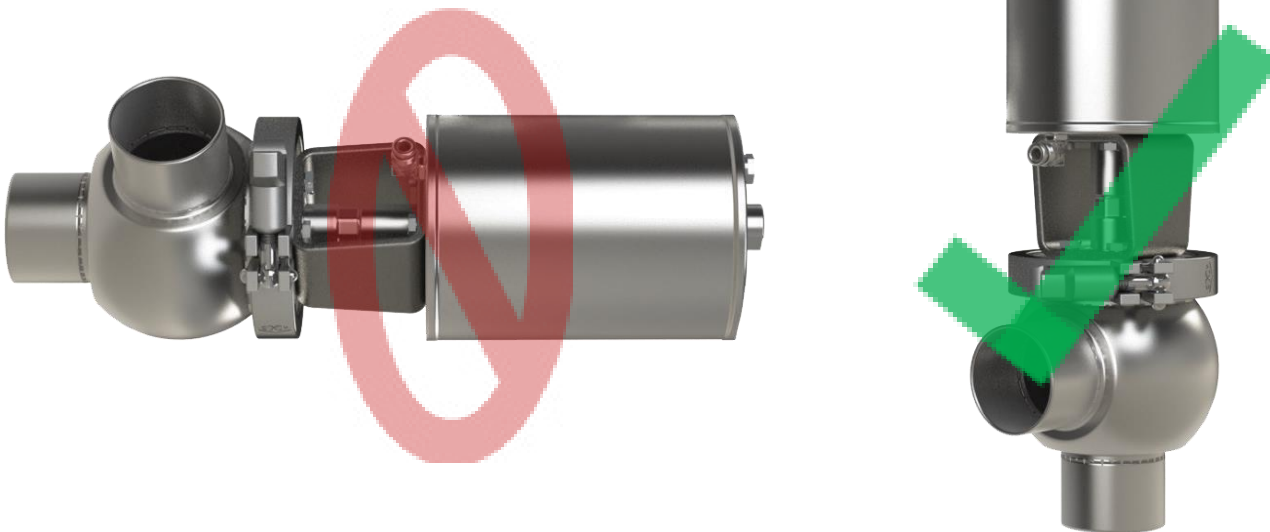
Guidelines (cont.)

Function Testing:

- Check visually to ensure that the valve is not leaking. Defective seals must be replaced.
- Check the valve body for damage. Check the actuator or handle assembly for damage.
- Are all the screw fittings fastened tightly?
- Are all the pneumatic hose connections free of leaks?
- Are the pipes and fittings permitted for use in the intended pressure range? Are electrical installations protected sufficiently against splashing water?
- Has the maximum pressure indicated on the valve body been complied with?

Valve Orientation:

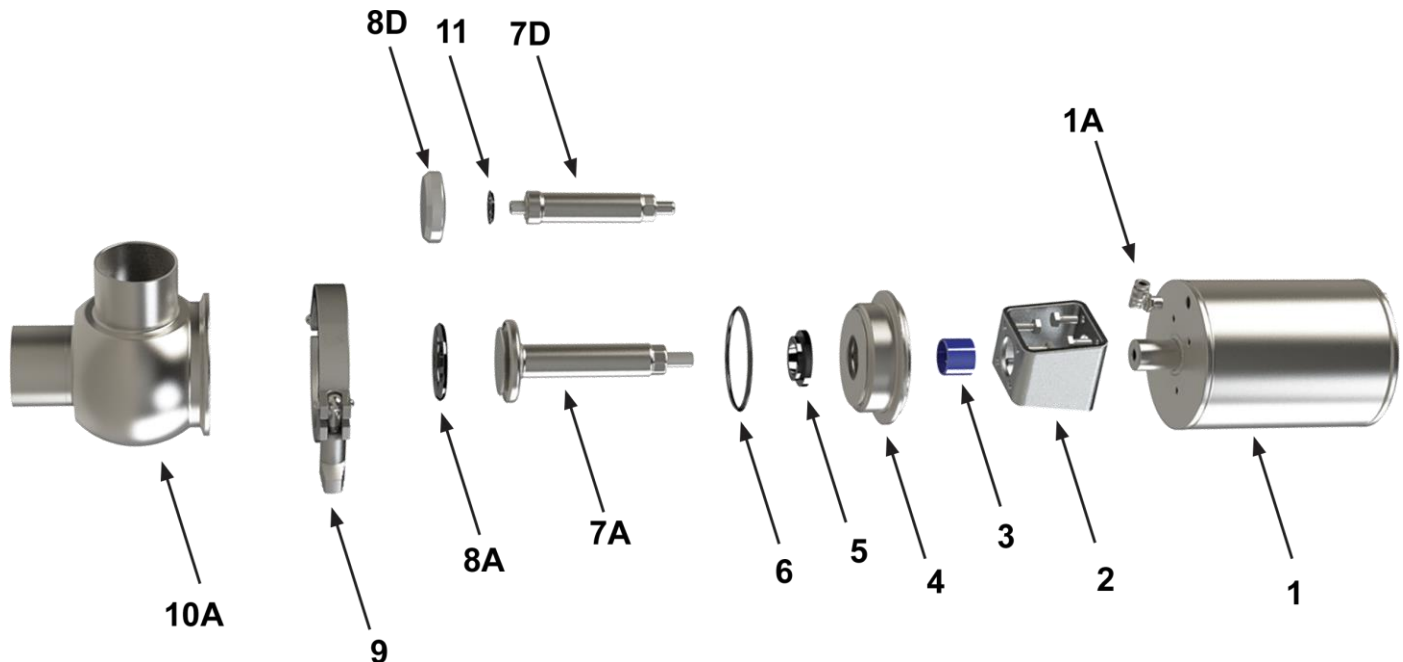
- Valves must be installed so that the body of the valve is drainable in its installed position. See diagram below as a reference example.



Disassembly

Shut-Off Valves (pneumatic actuator)

1. Depressurize the line system and the compressed air connection on the pneumatic actuator (item 1).
2. Drain the process line completely.
3. Refer to the exploded view and item numbers for the following disassembly steps.

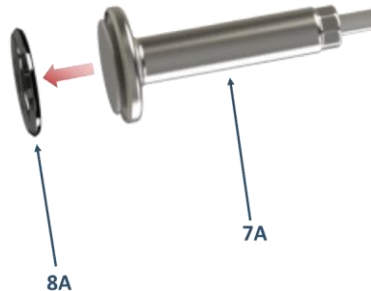


4. **For Air To Raise Actuators:** Connect air connection (item 1A) to an external air supply and turn on the air (see technical specifications for required air pressure); the valve position is now in the "Upper" Position. **DANGER:** Keep hands out of valve body ports when supplying air to the actuator, limbs can be crushed or severed.
For Air To Lower Actuators: DO NOT supply air to the air connection (item 1A). Proceed to step 5.
5. Remove the body clamp (item 9) from the valve body.
6. Pull the entire assembly (actuator & stem assembly items 1 - 8A) out of the valve body (item 10A).
7. If air is still being supplied to the actuator from Step 4, shut off air supply to air connection (item 1A) and allow the actuator to return to its fail state. **CAUTION:** The actuator will start to move once the air is removed. Be careful to keep fingers free of any pinch points.
8. Place all parts on a clean, soft and lint-free surface.
9. Check all visible seals (items 5, 6, 8A, 8D, 11) for any signs of damage and replace as necessary.
10. Using a metric box wrench (16mm – For Valve Sizes 1"-1½", 19mm – For Valve Sizes 2"-4"), hold the actuator (item 1) stationary by fixing the wrench on the machined flats on the top of the actuator stem.
11. Using an additional box wrench of the same size, fix the wrench on the machined flats on the valve stem (item 7A or 7D) and unscrew the valve stem from the actuator stem and remove.

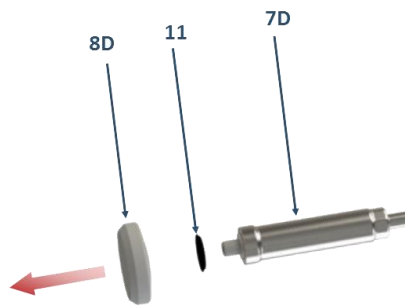
Disassembly

Shut-Off Valves (pneumatic actuator)

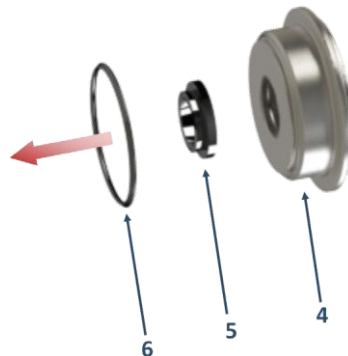
12. **Valves with O-Ring Stem Seal:** Using an O-Ring pick tool, remove the stem seal O-Ring (item 8A) from the valve stem (item 7A) being careful not to damage the valve stem and discard the O-Ring. You will need to pierce the O-Ring with the O-Ring pick tool to remove.



Valves with PTFE Stem Seal Plug: Using the same metric box wrenches as previously, fix the wrench on the machined flats at the end of the valve stem. Fix the PTFE plug seal (item 8D) in a hand vice and rotate the valve stem (item 7D) using the box wrench and remove the valve stem (item 7D) from the PTFE plug seal (item 8D). Discard the PTFE plug seal & the seal plug O-Ring (item 11).



13. Using an O-Ring pick tool, remove the adapter flange seal O-Ring (item 6) and the stem lip seal (item 5) from the adapter flange (item 4).

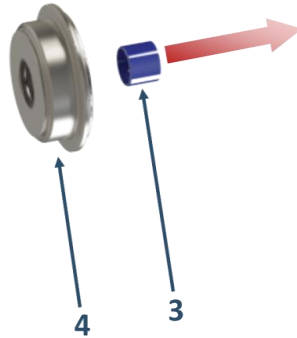


14. Using a metric box wrench (8mm for valve size 1in, and 10mm for valve sizes 1½"-4") remove the hex bolts connecting the actuator adapter bracket (item 2) to the adapter flange (item 4) and remove the adapter flange.

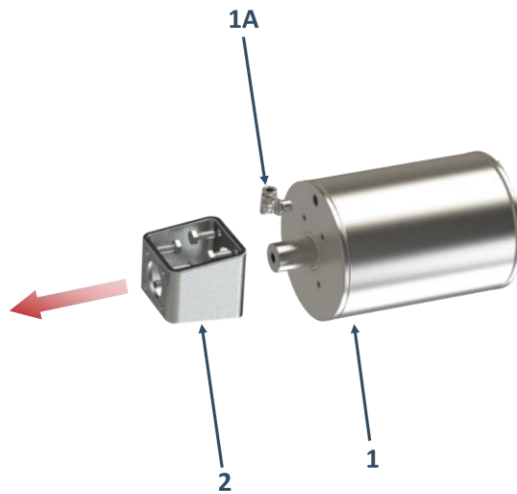
Disassembly

Shut-Off Valves (pneumatic actuator)

15. Remove the adapter flange slide bushing (item 3) from the adapter flange (item 4). Use a plastic dowel to assist with pressing the slide bushing out.



16. Using a metric box wrench (8mm for valve size 1", and 10mm for valve sizes 1½"-4") remove the hex bolts connecting the actuator adapter bracket (item 2) to the actuator (item 1) and remove the actuator adapter bracket.

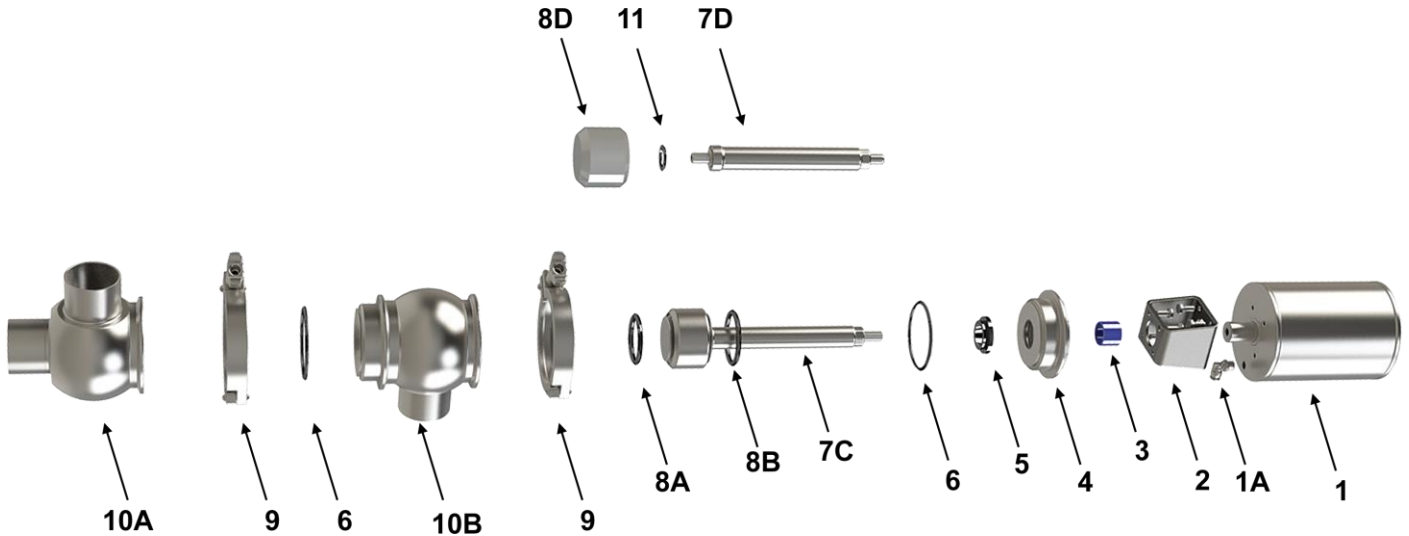


17. Using 13mm box wrench, remove the air fitting (item 1A) from the actuator (item 1).

Disassembly

Divert Valves (pneumatic actuator)

1. Depressurize the line system and the compressed air connection on the pneumatic actuator (item 1).
2. Drain the process line completely.
3. Refer to the exploded view and item numbers for the following disassembly steps.

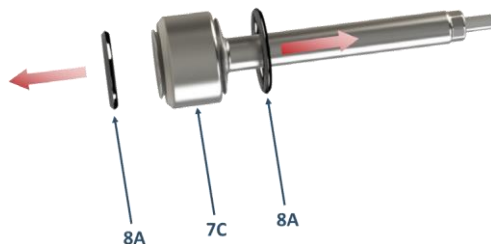


4. **For Air To Raise Actuators:** Connect air connection (item 1A) to an external air supply and turn on the air supply (see technical specifications for required air pressure); the valve position is now in the "Upper" Position. **DANGER:** Keep hands out of valve body ports when supplying air to the actuator, limbs can be crushed or severed.
For Air To Lower Actuators: DO NOT supply air to the air connection (item 1A). Proceed to step 5.
5. Remove the body clamp (item 9) from the lower valve body (item 10A) & upper valve body (item 10B). Now, remove the lower valve body (item 10A).
6. **For Air To Raise Actuators:** Shut off the air supply to the air connection (item 1A) and allow the actuator to return to its fail state. **CAUTION:** The actuator will start to move once the air is removed. Be careful to keep fingers free of any pinch points. Proceed to Step 7.
For Air To Lower Actuators: Connect air connection (item 1A) to an external air supply and turn on the air (see technical specifications for required air pressure); the valve stem is now in the lower position. Keep the air supply on until steps 7 & 8 are complete.
7. Using a metric box wrench (16mm – Valve Sizes 1"-1½", 19mm – Valve Sizes 2"-4"), hold the actuator (item 1) stationary by fixing the wrench on the machined flats on the top of the actuator stem. **CAUTION:** Be careful to keep fingers free of any pinch points.
8. Using an additional box wrench of the same size, fix the wrench on the machined flats on the valve stem (item 7C or 7D) and unscrew the valve stem from the actuator stem and remove. **CAUTION:** Be careful to keep fingers free of any pinch points.
9. Shut off air supply to actuator if air is being supplied. **DANGER:** The actuator will start to move once the air is removed. Be careful to keep fingers free of any pinch points.

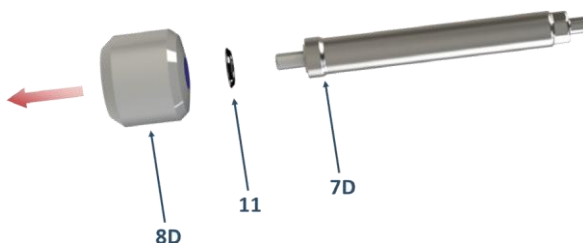
Disassembly

Divert Valves (pneumatic actuator)

10. **Valves with O-Ring Stem Seal:** Using an O-Ring pick tool, remove the stem seal O-Rings (item 8A & 8B) from the valve stem (item 7C) being careful to not damage the valve stem and discard the O-Rings. You will need to pierce the O-Rings with the O-Ring pick tool to remove.



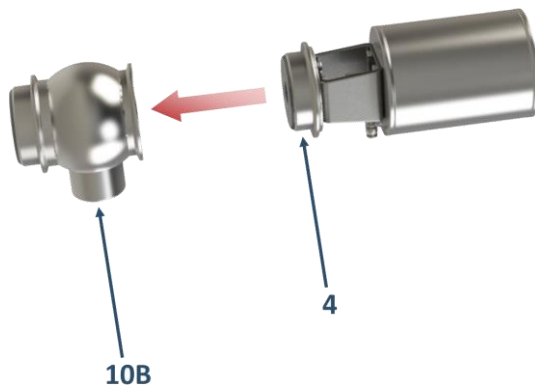
- Valves with PTFE Stem Seal Plug:** Using the same metric box wrenches as previously, fix the wrench on the machined flats at the end of the valve stem. Fix the PTFE plug seal (item 8D) in a hand vice and rotate the valve stem (item 7D) using the box wrench and remove the valve stem (item 7D) from the PTFE plug seal (item 8D). Discard the PTFE plug seal & the seal plug O-Ring (item 11).



11. Using an O-Ring pick tool, remove the adapter flange seal O-Ring (item 6) from the upper valve body (item 10B).



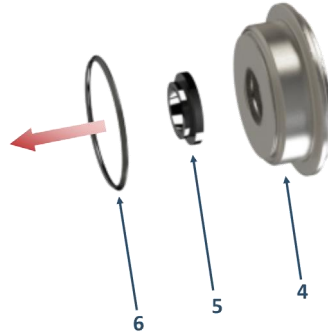
12. Remove upper valve body (item 10B) from the adapter flange (item 4) and place on a clean surface.



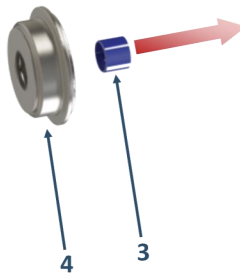
Disassembly

Divert Valves (pneumatic actuator)

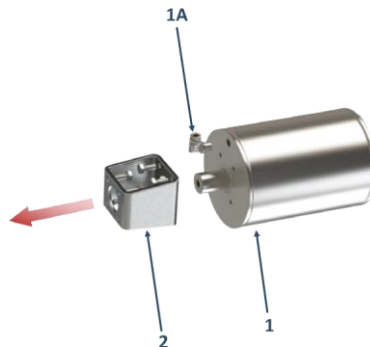
- Using an O-Ring pick tool, remove the adapter flange seal O-Ring (item 6) and the stem lip seal (item 5) from the adapter flange (item 4).



- Using a metric box wrench (8mm for valve size 1", and 10mm for valve sizes 1½"-4") remove the hex bolts connecting the actuator adapter bracket (item 2) to the adapter flange (item 4) and remove the adapter flange.
- Remove the adapter flange slide bushing (item 3) from the adapter flange (item 4). Use a plastic dowel to assist with pressing the slide bushing out.



- Using a metric box wrench (8mm for valve size 1", and 10mm for valve sizes 1½"-4") remove the hex bolts connecting the actuator adapter bracket (item 2) to the actuator (item 1) and remove the actuator adapter bracket.
- Using 13mm box wrench, remove the air fitting (item 1A) from the actuator (item 1).

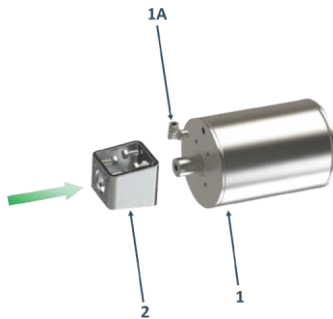


Assembly

Shut-Off Valves (pneumatic actuator)

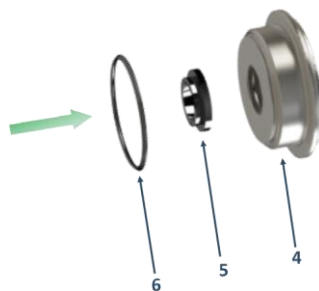
1. Apply PTFE tape to the threads on the air fitting (item 1A) and thread the air fitting into the actuator (item 1) in a clockwise rotation. Note: for spring return actuators, air fitting always goes on the side of the actuator with the longer stem protruding from the actuator body.
2. **For Air to Raise Actuators:** Actuator adapter bracket (item 2) must be attached to the side of the actuator (item 1) with the longer stem protruding from the actuator body. Attach the actuator adapter bracket (item 2) to the actuator (item 1) using the hex head bolts (see chart below for fastener sizes) and hand tighten. Make sure that the larger of the two actuator adapter bracket (item 2) faces is mated against the actuator. DO NOT tighten hex bolts completely until instructed to later in the assembly process.

For Air to Lower Actuators: Actuator adapter bracket (item 2) must be attached to the side of the actuator (item 1) with the shorter stem protruding from the actuator body. Attach the actuator adapter bracket (item 2) to the actuator (item 1) using the hex head bolts (see chart below for fastener sizes) and hand tighten. Make sure that the larger of the two actuator adapter bracket (item 2) faces is mated against the actuator. DO NOT tighten hex bolts completely until instructed to later in the assembly process.

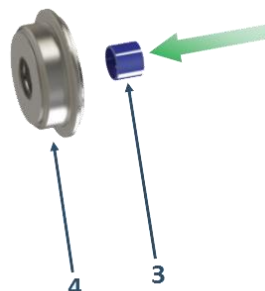


Hex Bolt Size	Valve Size	Torque
M5x10	1"	50 (in-lbs)
M6x14	1½" - 4"	80 (in-lbs)

3. Apply compatible food grade lubricant to the adapter flange O-Ring (item 6) and stem lip seal (item 5). Fit the O-Ring into the O-Ring groove on the adapter flange (item 4) taking care to not roll the O-Ring. Pinch the stem lip seal (item 5) and press it into the groove in the adapter flange (item 4).



4. Insert the adapter flange slide bushing (item 3) into the adapter flange (item 4) and tap in using a soft mallet. You may use a plastic dowel to aid in tapping the bushing into place.

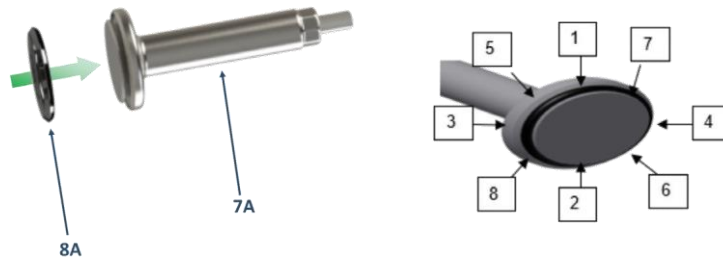


Assembly

Shut-Off Valves (pneumatic actuator)

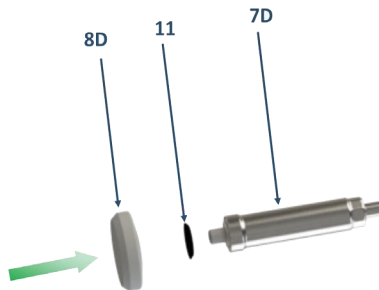
5. Valves with O-Ring Stem Seal:

- A. Apply compatible food grade lubricant to the stem seal O-ring (item 8A) and carefully press the O-Ring into the groove of the valve stem (item 7A) being sure not to overstretch or roll the stem seal O-Ring (item 8A) during installation.
- B. Follow the sequence numbered diagram (Press at points 1-2, 3-4 / Smooth at points 1-6, 5-2). If necessary, use a round object made of plastic or wood to aid in pressing the O-Ring into the groove of the valve stem (item 7A).

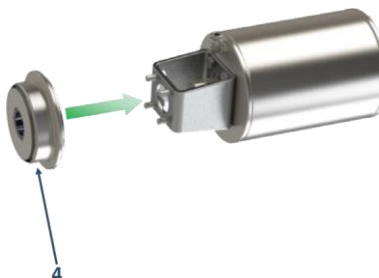


Valves with PTFE Stem Seal Plug:

- A. Apply compatible food grade lubricant to the stem seal plug O-Ring (item 11) and press the O-Ring into the groove of the valve stem (item 7D).
- B. Apply food grade liquid thread locker to the valve stem's (item 7D) threaded stud on the side of the stem that accepts the seal plug O-Ring (item 11).
- C. Thread the valve stem (item 7B) into the back of the PTFE stem seal plug (item 8C) and hand tighten until the valve stem (item 7B) shoulder bottoms out on the back of the PTFE stem seal plug (item 8C). Important: Use a towel or glove when handling the PTFE plug to prevent damage. NEVER compress the PTFE plug between any type of jaws as it will damage the plug.



6. Attach the adapter flange (item 4) to the actuator assembly using the four hex head bolts (see chart below for fastener sizes & tightening torque). Using a metric box wrench (8mm for valve size 1in, and 10mm for valve sizes 1½"-4") tighten the hex bolts connecting the actuator adapter bracket (item 2) to the adapter flange (item 4).

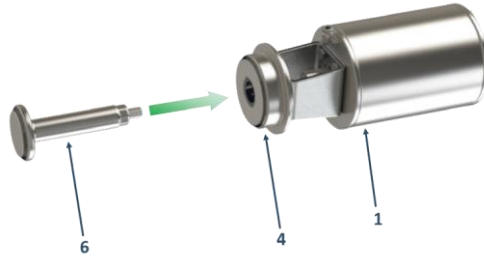


Hex Bolt Size	Valve Size	Torque
M5x10	1"	50 (in-lbs)
M6x14	1½" - 4"	80 (in-lbs)

Assembly

Shut-Off Valves (pneumatic actuator)

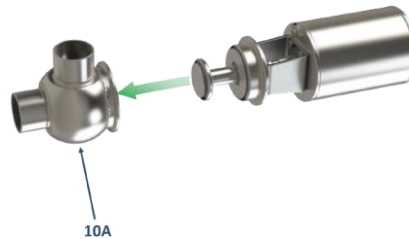
7. Insert the valve stem and seat assembly (item 6) through the adapter flange (item 4) and thread the valve stem and seat assembly into the stem of the actuator (item 1) and tighten completely. Note: Use liquid thread locker on valve stem (item 6) thread.



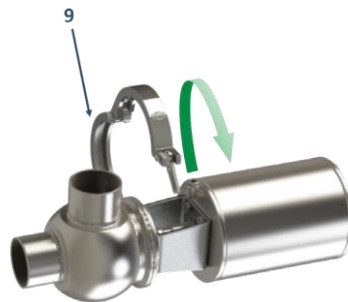
8. **For Air To Raise Actuators:** Connect air connection (item 1A) to an external air supply and turn on the air (see technical specifications for required air pressure); the valve position is now in the "Upper" Position. **DANGER:** keep hands out of valve body ports when supplying air to the actuator, limbs can be crushed or severed. Proceed to Step 9.

For Air To Lower Actuators: DO NOT supply air to the air connection (item 1A). Proceed to step 9.

9. Insert the valve stem and actuator assembly into the valve body (item 10A).



10. Attach the valve stem and actuator assembly to the valve body using the body clamp (item 9). Tighten the wing nut of the body clamp (item 9) to 25in-lbs.



11. **For Air To Raise Actuators:** Remove the air connection from (item 1A) and allow the actuator to return to its fail state. **DANGER:** The actuator will start to move once the air is removed. Be careful to keep fingers free of any pinch points. Proceed to Step 12.

For Air To Lower Actuators: Connect air connection (item 1A) to an external air supply and turn on the air (see technical specifications for required air pressure); the valve position is now in the "Lower" Position. **DANGER:** keep hands out of valve body ports when supplying air to the actuator, limbs can be crushed or severed. Proceed to Step 12.

12. Using a metric box wrench (8mm for valve size 1in, and 10mm for valve sizes 1½-4") tighten the hex bolts connecting the actuator adapter bracket (item 2) to the actuator (item 1) to the torque values listed in Step 2.

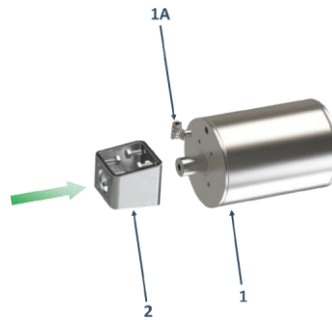
13. Shut off air supply to actuator if air is being supplied. **DANGER:** The actuator will start to move once the air is removed. Be careful to keep fingers free of any pinch points.

Assembly

Divert Valves (pneumatic actuator)

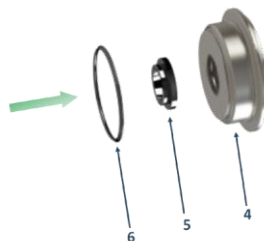
1. Apply PTFE tape to the threads on the air fitting (item 1A) and thread the air fitting into the actuator (item 1).
2. **For Air to Raise Actuators:** Actuator adapter bracket (item 2) must be attached to the side of the actuator (item 1) with the longer stem protruding from the actuator body. Attach the actuator adapter bracket (item 2) to the actuator (item 1) using the hex head bolts (see chart below for fastener sizes) and hand tighten. Make sure that the larger of the two actuator adapter bracket (item 2) faces is mated against the actuator. **DO NOT** tighten hex bolts completely until instructed to later in the assembly process.

For Air to Lower Actuators: Actuator adapter bracket (item 2) must be attached to the side of the actuator (item 1) with the shorter stem protruding from the actuator body. Attach the actuator adapter bracket (item 2) to the actuator (item 1) using the hex head bolts (see chart below for fastener sizes) and hand tighten. Make sure that the larger of the two actuator adapter bracket (item 2) faces is mated against the actuator. **DO NOT** tighten hex bolts completely until instructed to later in the assembly process.

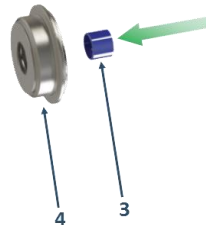


Hex Bolt Size	Valve Size	Torque
M5x10	1"	50 (in-lbs)
M6x14	1½" - 4"	80 (in-lbs)

3. Apply compatible food grade lubricant to the adapter flange O-Ring (item 6) and stem lip seal (item 5). Fit the O-Ring into the O-Ring groove on the adapter flange (item 4) taking care to not roll the O-Ring. Pinch the stem lip seal (item 5) and press it into the groove in the adapter flange (item 4).



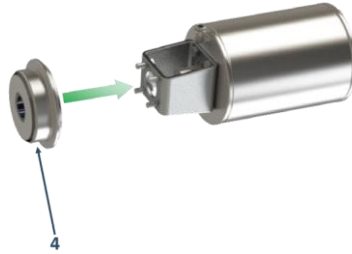
4. Insert the adapter flange slide bushing (item 3) into the adapter flange (item 4) and tap in using a soft mallet. You may use a plastic dowel to aid in tapping the bushing into place.



Assembly

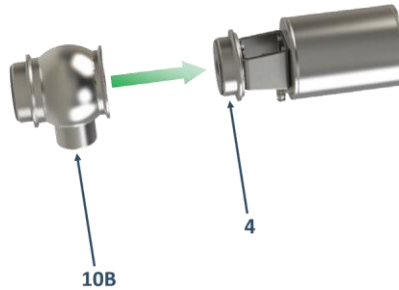
Divert Valves (pneumatic actuator)

5. Attach the adapter flange (item 4) to the actuator assembly using the four hex head bolts (see chart below for fastener sizes). Tighten the bolts using a box wrench according to the following chart below.



Hex Bolt Size	Valve Size	Torque
M5x10	1.0"	50 (in-lbs)
M6x14	1½" - 4.0"	80 (in-lbs)

6. Attach upper valve body (item 10B) to adapter flange (item 4).



7. Attach the body clamp (item 9) between the valve body (item 10B) and the adapter flange (item 4). Tighten the wing nut of the body clamp (item 9) to 25in-lbs.



8. Apply compatible food grade lubricant to the adapter flange O-Ring (item 6) and carefully fit it into the O-Ring groove in the bottom of the upper valve body taking care not to roll the O-Ring.

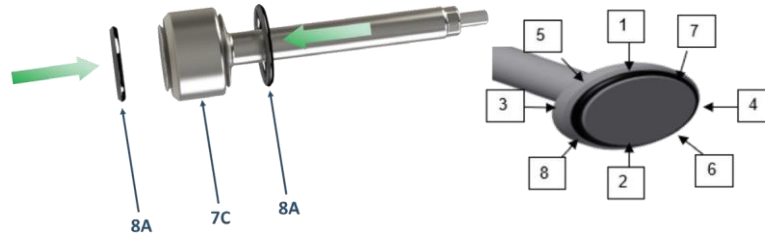


Assembly

Divert Valves (pneumatic actuator)

9. Valves With O-Ring Stem Seal

A. Apply compatible food grade lubricant to the stem seal O-rings (item 8A) and press the O-Rings carefully into the groove of the valve stem (item 7C) taking care not to overstretch or roll the stem seal O-Rings (item 8A) during installation.



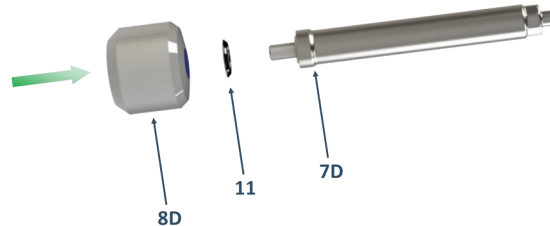
B. Follow the sequence numbered diagram (Press at points 1-2, 3-4 / Smooth at points 1-6, 5-2). If necessary, use a round object made of plastic to aid in pressing the O-Ring into the groove of the valve stem (item 7C).

Valves With PTFE Stem Seal Plug

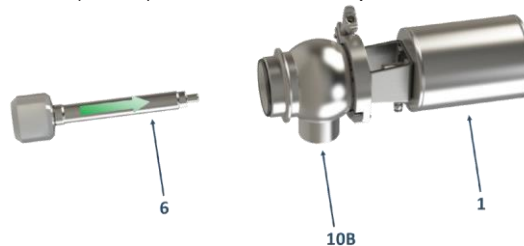
A. Apply compatible food grade lubricant to the stem seal plug O-Ring (item 11) and press the O-Ring into the groove of the valve stem (item 7D).

B. Apply liquid thread locker to the valve stem's (item 7D) threaded stud on the side of the stem that accepts the seal plug O-Ring (item 11).

C. Thread the valve stem (item 7D) into the back of the PTFE stem seal plug (item 8D) and tighten until the valve stem (item 7D) shoulder bottoms out on the back of the PTFE stem seal plug (item 8D). Important: Use a towel or glove when handling the PTFE plug to prevent damage. NEVER compress the PTFE plug between any type of jaws as it will damage the plug.



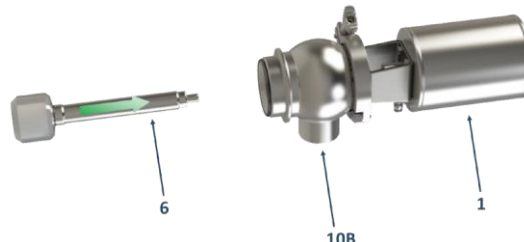
10. **For Air To Raise Actuators:** Insert the stem assembly (item 6) through the upper body (item 10B) and through the adapter flange (item 4) and thread into the actuator (item 1) stem. Note: Use liquid thread locker on valve stem (item 6) thread. Proceed to Step 12.



For Air To Lower Actuators:

A. Connect air connection (item 1A) to an external air supply and turn on the air (see technical specifications for required air pressure). **DANGER:** Keep hands out of valve body ports when supplying air to the actuator, limbs can be crushed or severed.

B. Insert the stem assembly (item 6) through the upper body (item 10B) and through the adapter flange (item 4) and thread into the actuator (item 1) stem and tighten completely. Note: Use liquid thread locker on valve stem (item 6) thread. Proceed to Step 11.



Assembly

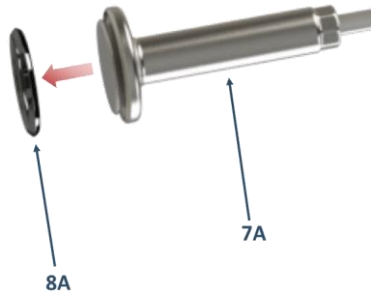
Divert Valves (pneumatic actuator)

11. Shut off air supply to actuator. **DANGER:** The actuator will start to move once the air is removed. Be careful to keep fingers free of any pinch points.
12. **For Air To Raise Actuators:** Connect air connection (item 1A) to an external air supply and turn on the air (see technical specifications for required air pressure); the valve position is now in the "Upper" Position.
DANGER: Keep hands out of valve body ports when supplying air to the actuator, limbs can be crushed or severed.
Proceed to Step 13.
For Air To Lower Actuators: DO NOT supply air to the air connection (item 1A). Proceed to Step 13.
13. Insert the lower valve body (item 10A) onto the upper valve body (item 10B) and clamp the bodies together with the body clamp (item 9). Tighten the wing nut to 25in-lbs.
14. **For Air To Raise Actuators:** Remove the air connection from (item 1A) and allow the actuator to return to its fail state.
DANGER: The actuator will start to move once the air is removed. Be careful to keep fingers free of any pinch points. Proceed to Step 15.
For Air To Lower Actuators: Connect air connection (item 1A) to an external air supply and turn on the air (see technical specifications for required air pressure); the valve position is now in the "Lower" Position. **DANGER:** keep hands out of valve body ports when supplying air to the actuator, limbs can be crushed or severed. Proceed to Step 15.
15. Using a metric box wrench (8mm for valve size 1", and 10mm for valve sizes 1½"-4") tighten the hex bolts connecting the actuator adapter bracket (item 2) to the actuator (item 1) to the torque values listed in Step 2.
16. Shut off air supply to actuator if air is being supplied. **DANGER:** The actuator will start to move once the air is removed. Be careful to keep fingers free of any pinch points.

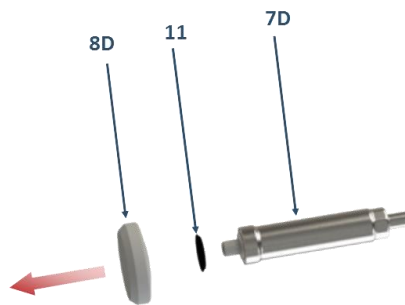
Disassembly

Shut-Off Valves (manual handle)

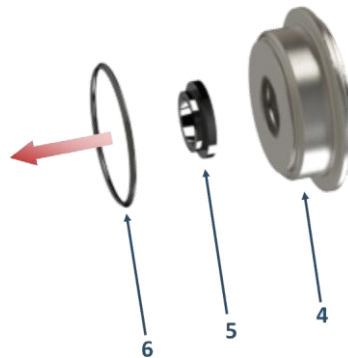
12. **Valves with O-Ring Stem Seal:** Using an O-Ring pick tool, remove the stem seal O-Ring (item 8A) from the valve stem (item 7A) being careful not to damage the valve stem and discard the O-Ring. You will need to pierce the O-Ring with the O-Ring pick tool to remove.



Valves with PTFE Stem Seal Plug: Using the same metric box wrenches as previously, fix the wrench on the machined flats at the end of the valve stem. Fix the PTFE plug seal (item 8D) in a hand vice and rotate the valve stem (item 7D) using the box wrench and remove the valve stem (item 7D) from the PTFE plug seal (item 8D). Discard the PTFE plug seal & the seal plug O-Ring (item 11).



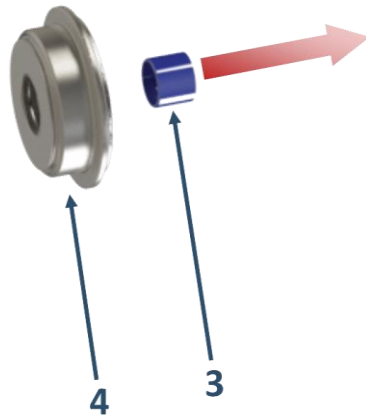
13. Using an O-Ring pick tool, remove the adapter flange seal O-Ring (item 6) and the stem lip seal (item 5) from the adapter flange (item 4).



Disassembly

Shut-Off Valves (manual handle)

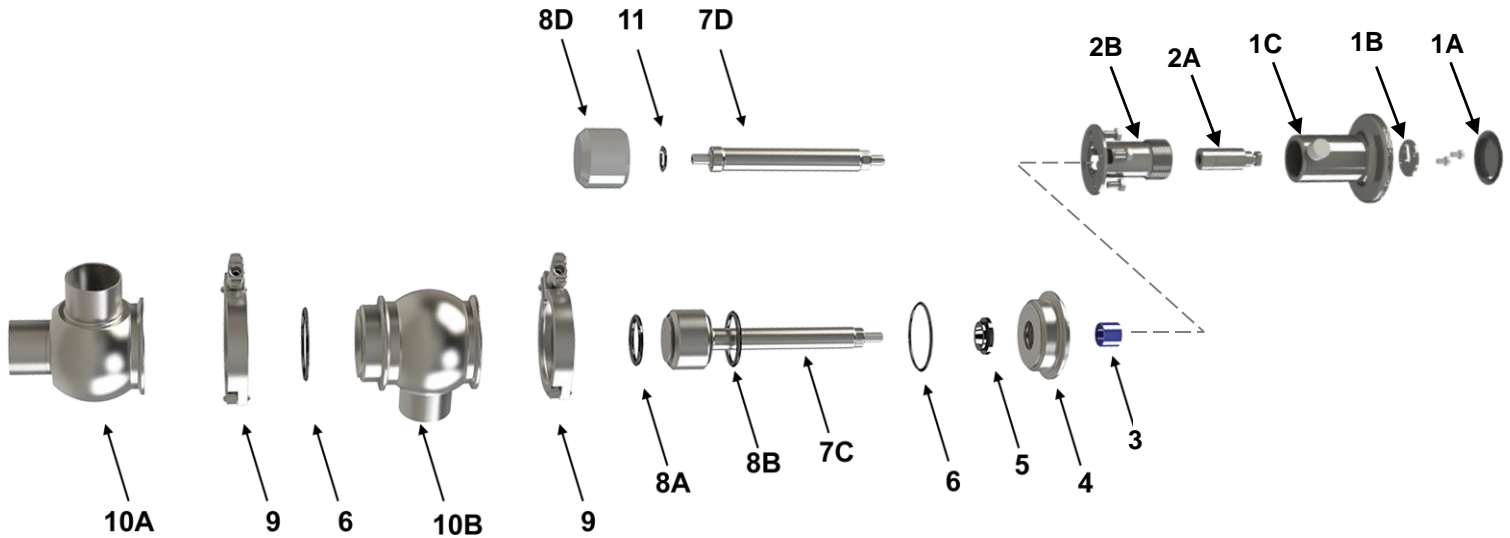
14. Remove the adapter flange slide bushing (item 3) from the adapter flange (item 4). Use a plastic dowel to assist with pressing the slide bushing out.



Disassembly

Divert Valves (manual handle)

1. Depressurize the line and system.
2. Drain the process line completely.
3. Refer to the exploded view and item numbers for the following disassembly steps.

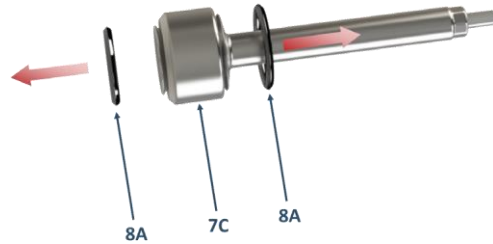


4. Remove the body clamp (item 9) from the lower valve body (item 10A) & upper valve body (item 10B). Now, remove the lower valve body (item 10A).
5. Using a flat head screw driver to pry up, remove the handle cap (item 1A) from the handle (item 1C).
6. Using an Allen wrench, remove the two screws securing the handle retainer (item 1B). Remove the handle retainer.
7. Rotate the handle (item 1C) counterclockwise until it disengages from the handle hub (item 2B).
8. Using a metric box wrench (8mm for valve size 1", and 10mm for valve sizes 1½"-4") remove the screws securing the handle hub (item 2B) to the adapter flange (item 4). Remove the handle hub.
9. Using a metric box wrench (16mm – Valve Sizes 1"-1½", 19mm – Valve Sizes 2"-4"), place the wrench on the machined flats of the handle stem (item 2A) and unthread the handle stem from the valve stem (item 7A or 7D).
10. Grab the valve stem (item 7C or 7D) by the plug end, and pull the valve stem out completely.
11. Remove the upper valve body (item 10B) from the adapter flange (item 4).

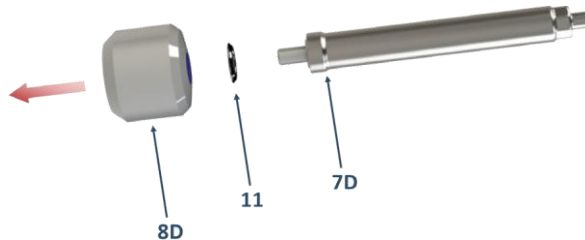
Disassembly

Divert Valves (manual handle)

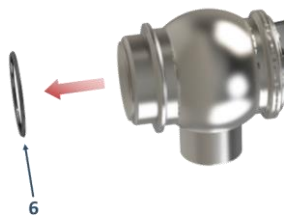
12. **Valves with O-Ring Stem Seal:** Using an O-Ring pick tool, remove the stem seal O-Rings (item 8A & 8B) from the valve stem (item 7C) being careful to not damage the valve stem and discard the O-Rings. You will need to pierce the O-Rings with the O-Ring pick tool to remove.



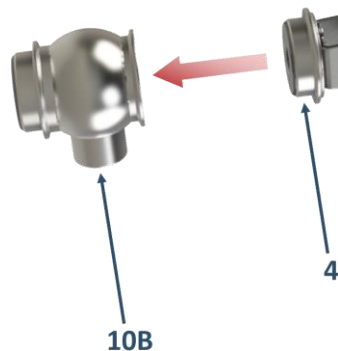
- Valves with PTFE Stem Seal Plug:** Using the same metric box wrenches as previously, fix the wrench on the machined flats at the end of the valve stem. Fix the PTFE plug seal (item 8D) in a hand vice and rotate the valve stem (item 7D) using the box wrench and remove the valve stem (item 7D) from the PTFE plug seal (item 8D). Discard the PTFE plug seal & the seal plug O-Ring (item 11).



13. Using an O-Ring pick tool, remove the adapter flange seal O-Ring (item 6) from the upper valve body (item 10B).



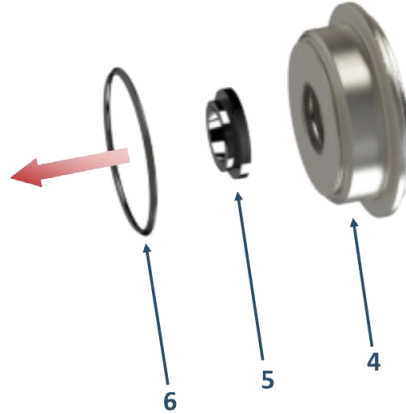
14. Remove upper valve body (item 10B) from the adapter flange (item 4) and place on a clean surface.



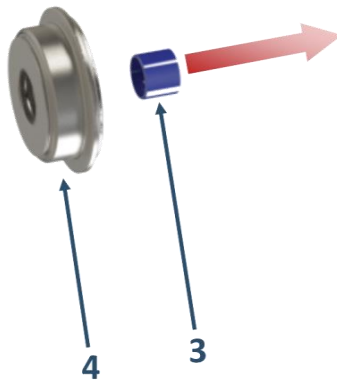
Disassembly

Divert Valves (manual handle)

- Using an O-Ring pick tool, remove the adapter flange seal O-Ring (item 6) and the stem lip seal (item 5) from the adapter flange (item 4).



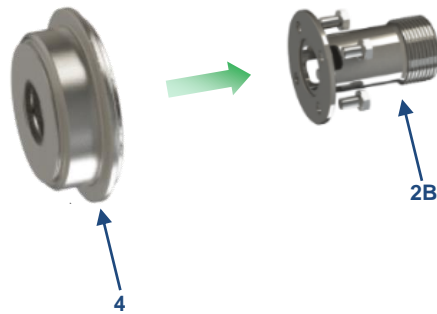
- Using a metric box wrench (8mm for valve size 1", and 10mm for valve sizes 1½"-4") remove the hex bolts connecting the actuator adapter bracket (item 2) to the adapter flange (item 4) and remove the adapter flange.
- Remove the adapter flange slide bushing (item 3) from the adapter flange (item 4). Use a plastic dowel to assist with pressing the slide bushing out.



Assembly

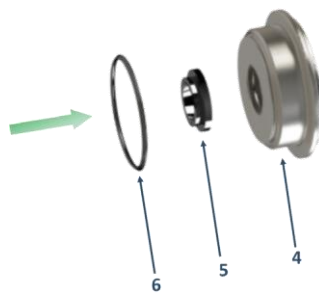
Shut-Off Valves (manual handle)

1. Apply food grade anti-seize to the threads on the handle hub (item 2B). Apply liquid thread locker to the handle hub hex screws.
2. Attach the handle hub (item 2B) to the adapter flange (item 4) using the hex head bolts (see chart below for fastener sizes) and hand tighten. Make sure that handle hub (item 2B) is sitting flush against the face of the adapter flange (item 4).
3. Tighten the hex screws completely to the torque values listed in the table below.

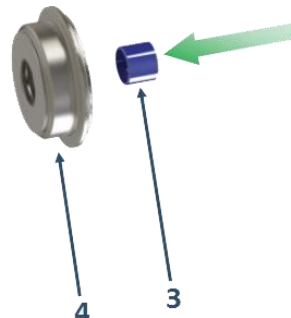


Hex Bolt Size	Valve Size	Torque
M5x10	1"	50 (in-lbs)
M6x14	1½" - 4"	80 (in-lbs)

4. Apply compatible food grade lubricant to the adapter flange O-Ring (item 6) and stem lip seal (item 5). Fit the O-Ring into the O-Ring groove on the adapter flange (item 4) taking care to not roll the O-Ring. Pinch the stem lip seal (item 5) and press it into the groove in the adapter flange (item 4).



5. Insert the adapter flange slide bushing (item 3) into the adapter flange (item 4) and tap in using a soft mallet. You may use a plastic dowel to aid in tapping the bushing into place.

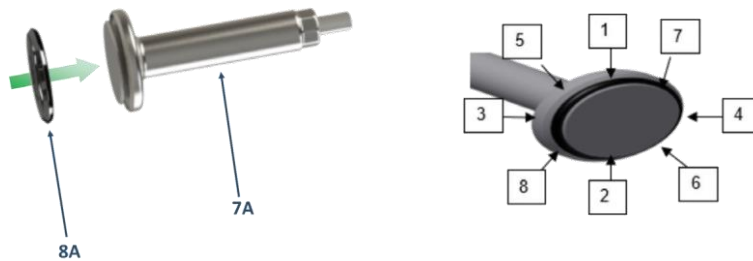


Assembly

Shut-Off Valves (manual handle)

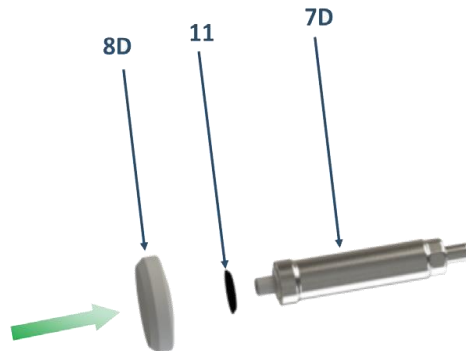
6. Valves with O-Ring Stem Seal:

- C. Apply compatible food grade lubricant to the stem seal O-ring (item 8A) and carefully press the O-Ring into the groove of the valve stem (item 7A) being sure not to overstretch or roll the stem seal O-Ring (item 8A) during installation.
- D. Follow the sequence numbered diagram (Press at points 1-2, 3-4 / Smooth at points 1-6, 5-2). If necessary, use a round object made of plastic or wood to aid in pressing the O-Ring into the groove of the valve stem (item 7A).



Valves with PTFE Stem Seal Plug:

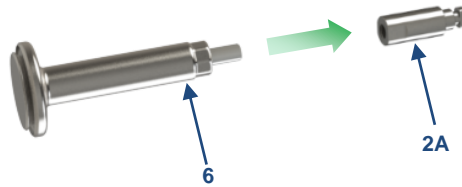
- D. Apply compatible food grade lubricant to the stem seal plug O-Ring (item 11) and press the O-Ring into the groove of the valve stem (item 7D).
- E. Apply food grade liquid thread locker to the valve stem's (item 7D) threaded stud on the side of the stem that accepts the seal plug O-Ring (item 11).
- F. Thread the valve stem (item 7B) into the back of the PTFE stem seal plug (item 8C) and hand tighten until the valve stem (item 7B) shoulder bottoms out on the back of the PTFE stem seal plug (item 8C). Important: Use a towel or glove when handling the PTFE plug to prevent damage. NEVER compress the PTFE plug between any type of jaws as it will damage the plug.



Assembly

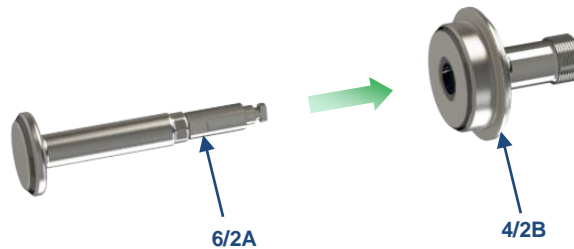
Shut-Off Valves (manual handle)

7. Thread the stem and seat assembly (item 6) into the handle stem (item 2A) and hand tighten the two stems together. Note: Use liquid thread locker on valve stem (item 6) thread.

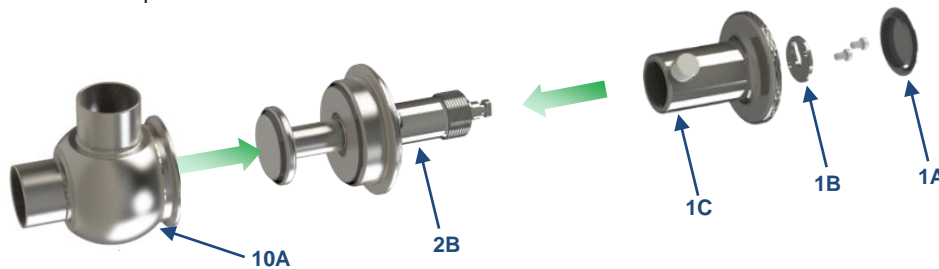


8. Using a metric box wrench (16mm – Valve Sizes 1"-1½", 19mm – Valve Sizes 2"-4"), place the wrench on the machined flats of the handle stem (item 2A) and the valve stem (item 6) and tighten together firmly.

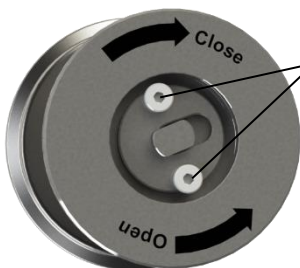
9. Insert the valve stem subassembly (items 6 & 2A) carefully through center of the adapter flange assembly (item 4 & 2B). CAUTION: use extreme care not damage the lip seal.



10. Thread the handle (item 1C) onto the handle hub (item 2B) until the valve stem assembly protrudes through the hole in the center of the top of the handle (item 1C). Continue to thread the handle clockwise until it begins driving the valve stem down as you turn the handle. Insert the valve body (item 10A) onto the subassembly and clamp the body to the adapter flange with the clamp (item 9). Tighten the nut of the clamp to 25 in-lbs.



11. Slide the handle retainer (item 1B) over the top of the stem. The top of the stem is machined so that the retainer must be oriented properly in order to fit over the stem. Position the retainer so that it engages into the groove of the stem and then rotate the retainer until the two through holes line up with the two tapped holes in the handle.

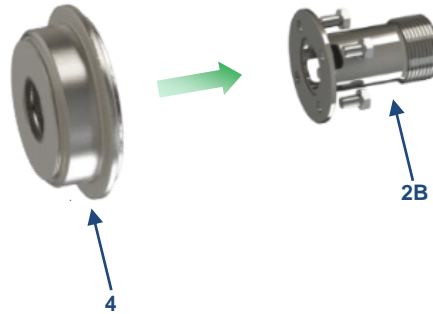


12. Apply liquid thread locker to the handle screws and tighten completely. Press on handle cover cap (item 1A) until it snaps securely into place.

Assembly

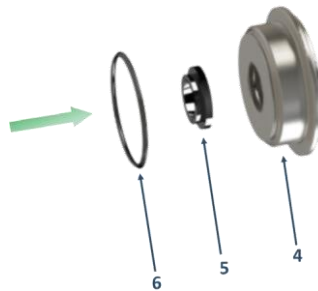
Divert (manual handle)

1. Apply food grade anti-seize to the threads on the handle hub (item 2B). Apply liquid thread locker to the handle hub hex screws.
2. Attach the handle hub (item 2B) to the adapter flange (item 4) using the hex head bolts (see chart below for fastener sizes) and hand tighten. Make sure that handle hub (item 2B) is sitting flush against the face of the adapter flange (item 4).
3. Tighten the hex screws completely to the torque values listed in the table below.

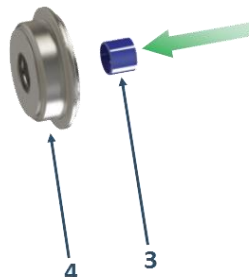


Hex Bolt Size	Valve Size	Torque
M5x10	1"	50 (in-lbs)
M6x14	1½" - 4"	80 (in-lbs)

4. Apply compatible food grade lubricant to the adapter flange O-Ring (item 6) and stem lip seal (item 5). Fit the O-Ring into the O-Ring groove on the adapter flange (item 4) taking care to not roll the O-Ring. Pinch the stem lip seal (item 5) and press it into the groove in the adapter flange (item 4).



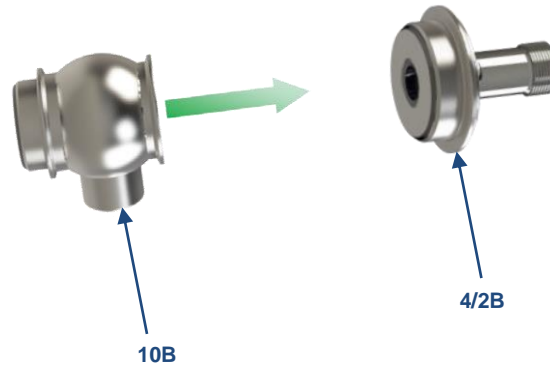
5. Insert the adapter flange slide bushing (item 3) into the adapter flange (item 4) and tap in using a soft mallet. You may use a plastic dowel to aid in tapping the bushing into place.



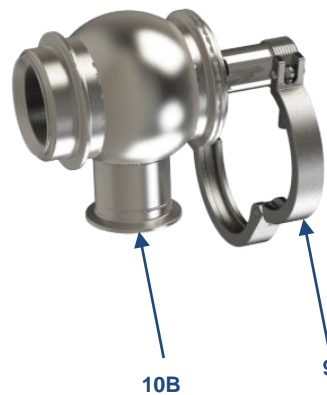
Assembly

Divert Valves (manual handle)

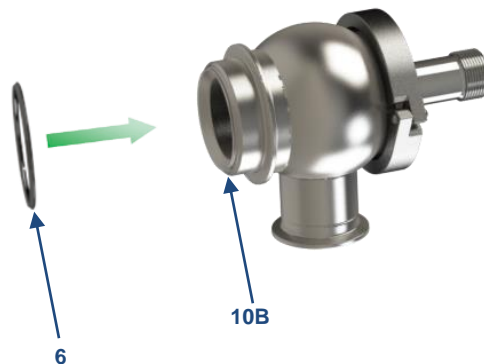
6. Attach upper valve body (item 10B) to adapter flange assembly (item 4/2B).



7. Attach the body clamp (item 9) between the valve body (item 10B) and the adapter flange (item 4). Tighten the wing nut of the body clamp (item 9) to 25in-lbs.



8. Apply compatible food grade lubricant to the adapter flange O-Ring (item 6) and carefully fit it into the O-Ring groove in the bottom of the upper valve body (item 10B) taking care not to roll the O-Ring.

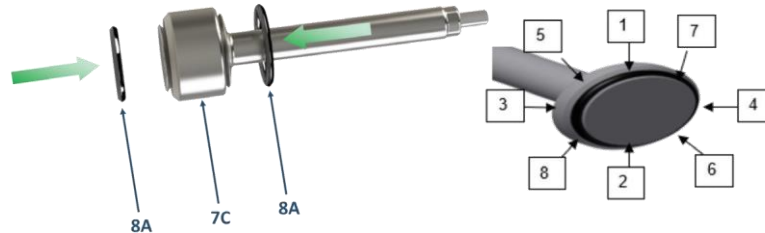


Assembly

Divert Valves (manual handle)

9. Valves With O-Ring Stem Seal

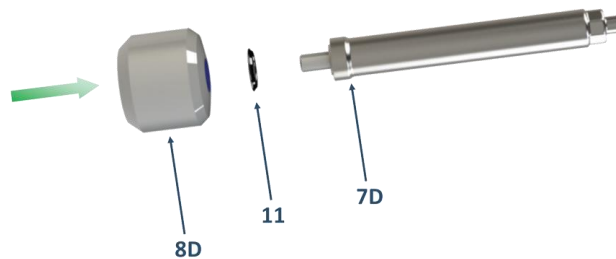
A. Apply compatible food grade lubricant to the stem seal O-rings (item 8A) and press the O-Rings carefully into the groove of the valve stem (item 7C) taking care not to overstretch or roll the stem seal O-Rings (item 8A) during installation.



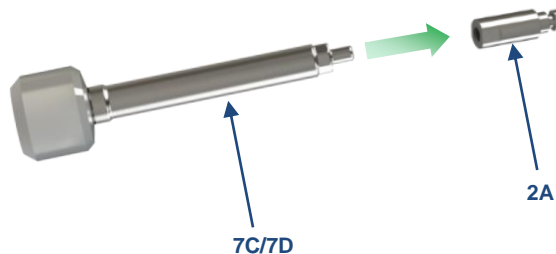
B. Follow the sequence numbered diagram (Press at points 1-2, 3-4 / Smooth at points 1-6, 5-2). If necessary, use a round object made of plastic to aid in pressing the O-Ring into the groove of the valve stem (item 7C).

Valves With PTFE Stem Seal Plug

- D. Apply compatible food grade lubricant to the stem seal plug O-Ring (item 11) and press the O-Ring into the groove of the valve stem (item 7D).
- E. Apply liquid thread locker to the valve stem's (item 7D) threaded stud on the side of the stem that accepts the seal plug O-Ring (item 11).
- F. Thread the valve stem (item 7D) into the back of the PTFE stem seal plug (item 8D) and tighten until the valve stem (item 7D) shoulder bottoms out on the back of the PTFE stem seal plug (item 8D). Important: Use a towel or glove when handling the PTFE plug to prevent damage. NEVER compress the PTFE plug between any type of jaws as it will damage the plug.



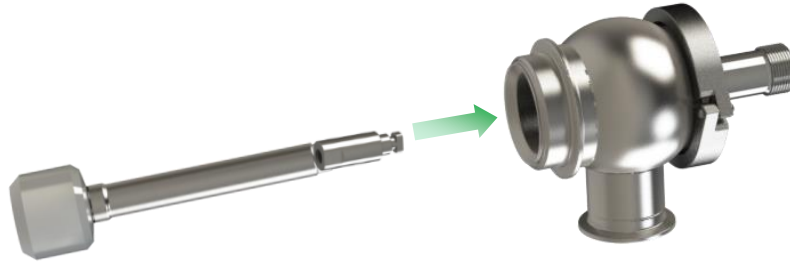
- 10. Thread the stem and seat assembly into the handle stem (item 2A) and hand tighten the two stems together. Note: Use liquid thread locker on valve stem (item 7C/7D) thread.



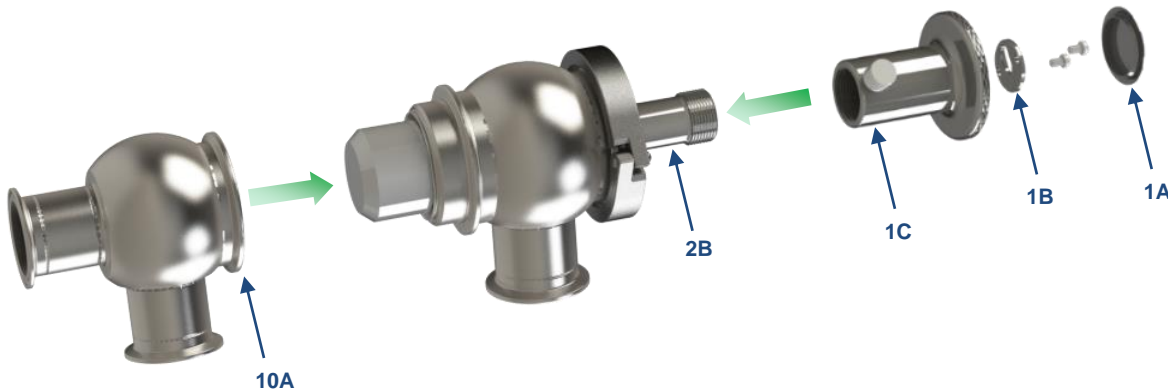
Assembly

Divert Valves (manual handle)

11. Insert the valve stem subassembly carefully through center of the upper body and adapter flange assembly. CAUTION: use extreme care not damage the lip seal when inserting the stem. Press the stem in until the stem plug contacts the upper body.



12. Thread the handle (item 1C) onto the handle hub (item 2B) until the valve stem assembly protrudes through the hole in the center of the top of the handle (item 1C). Continue to thread the handle clockwise until it begins driving the valve stem down as you turn the handle. Insert the valve body (item 10A) onto the subassembly.



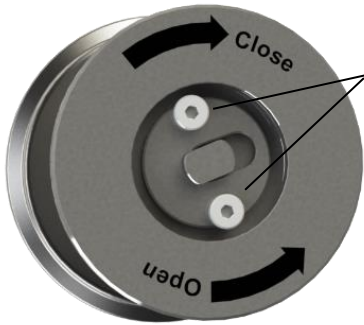
13. Clamp the body (item 10A) to the adapter flange with the clamp (item 9). Tighten the nut of the clamp to 25 in-lbs.



Assembly

Divert Valves (manual handle)

- Slide the handle retainer (item 1B) over the top of the stem. The top of the stem is machined so that the retainer must be oriented properly in order to fit over the stem. Position the retainer so that it engages into the groove of the stem and then rotate the retainer until the two through holes line up with the two tapped holes in the handle.



- Apply liquid thread locker to the handle screws and tighten completely. Press on handle cover cap (item 1A) until it snaps securely into place.

Maintenance & Servicing Intervals

To ensure proper operation of your Dixon SSV Series single seat valve, proper maintenance must be performed at regular intervals on the valve.

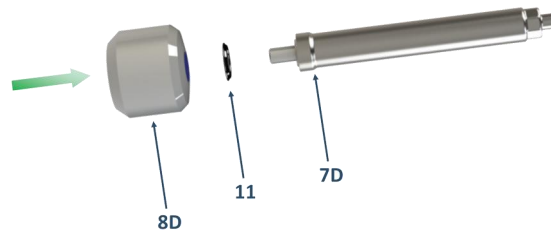
To prevent damage, check all valve clamp connections and screw connections for any loosening of the connections during valve operation.

Recommended interval for one shift operation would be 3 months.

Only the user/owner can determine the appropriate service intervals as the length between service intervals is dependent on the following parameters:

- Duration of use per day – number of cycles
- Type of product, temperature, viscosity
- Type of cleaning (CIP/SIP)
- We can offer as general guideline the following seal and slide bearing replacement intervals
 - For fluids with proportions and temperatures of **176°F (80°C) to 212°F (100°C)**: approximately 3-6 months
 - For fluids with proportions and temperatures of **140°F (60°C)**: approximately 12 months
 - These values are dependent on the chemical resistance of the seal material.

IMPORTANT: For valves with PTFE stem seal plug, disassemble PTFE stem plug according to the assembly/disassembly instructions and visually inspect the stem seal plug O-ring (Item 11) every three (3) months for sign of damage. Replace worn O-ring as necessary.



Greasing Schedule

Please use the following chart below for proper grease type for varying component materials.

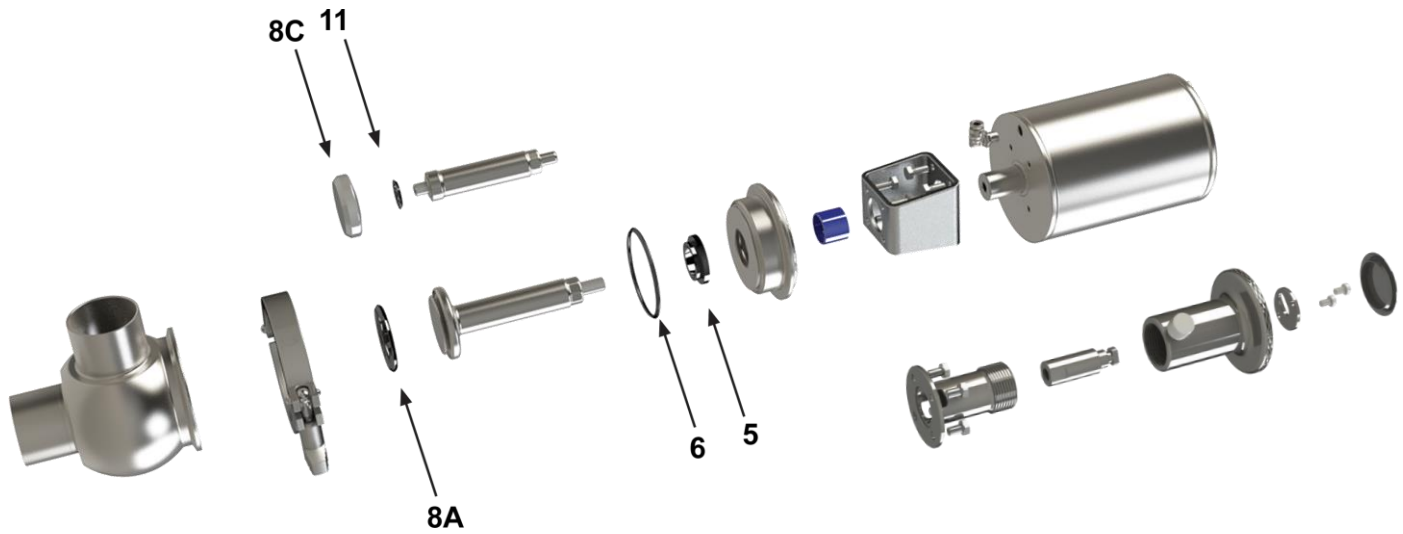
DO NOT use mineral or animal-product-based greases.

Check all visible seals for any signs of damage and replace as necessary. For sliding surfaces, use chemically compatible food grade grease. If a different grease is used other than what is specified in this manual, there is risk of damaging the seals. We recommend replacing the O-Rings and slide bearings with each maintenance cycle.

Seal Material	Grease Type
EPDM	Non-mineral/Non-animal based
FPM	Non-mineral/Non-animal based
HNBR	Non-mineral/Non-animal based
PTFE	Do Not Grease

Repair Kits

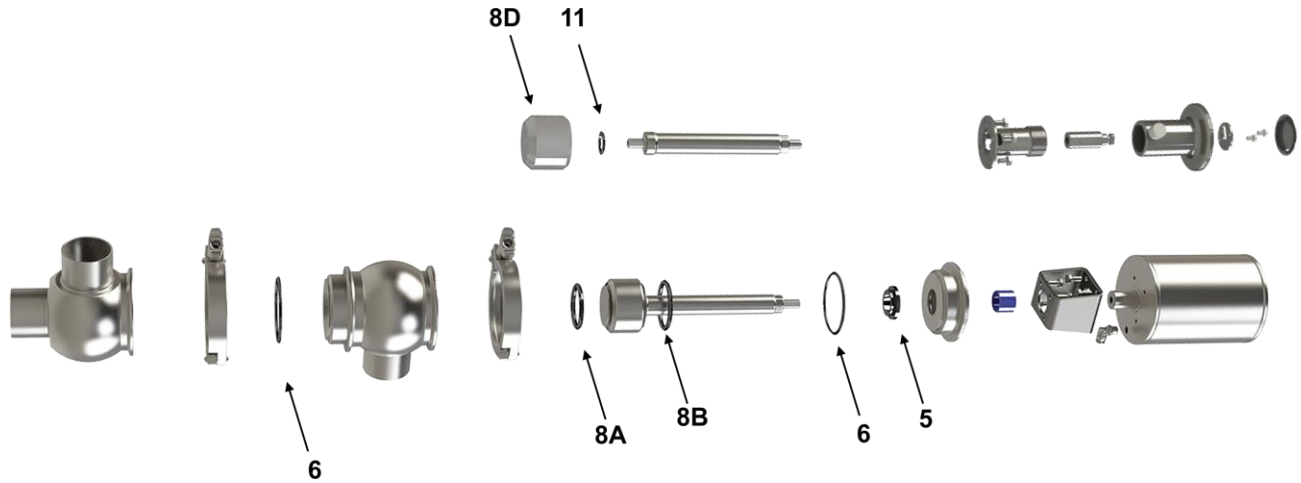
SSV Series Shut-Off Single Seat



Valve Size	Valve Type	Stem Seat Material	Body Seal Material	Kit Part Number	Kit Includes
1"	Shut-Off	FKM	FKM	SSV-RKS-10-V	Items 5, 6, 8A
1½"	Shut-Off	FKM	FKM	SSV-RKS-15-V	Items 5, 6, 8A
2"	Shut-Off	FKM	FKM	SSV-RKS-20-V	Items 5, 6, 8A
2½"	Shut-Off	FKM	FKM	SSV-RKS-25-V	Items 5, 6, 8A
3"	Shut-Off	FKM	FKM	SSV-RKS-30-V	Items 5, 6, 8A
4"	Shut-Off	FKM	FKM	SSV-RKS-40-V	Items 5, 6, 8A
1"	Shut-Off	EPDM	EDPM	SSV-RKS-10-E	Items 5, 6, 8A
1½"	Shut-Off	EPDM	EDPM	SSV-RKS-15-E	Items 5, 6, 8A
2"	Shut-Off	EPDM	EDPM	SSV-RKS-20-E	Items 5, 6, 8A
2½"	Shut-Off	EPDM	EDPM	SSV-RKS-25-E	Items 5, 6, 8A
3"	Shut-Off	EPDM	EDPM	SSV-RKS-30-E	Items 5, 6, 8A
4"	Shut-Off	EPDM	EDPM	SSV-RKS-40-E	Items 5, 6, 8A
1"	Shut-Off	PTFE	FKM	SSV-RKS-10-PV	Items 5, 6, 8C, 11
1½"	Shut-Off	PTFE	FKM	SSV-RKS-15-PV	Items 5, 6, 8C, 11
2"	Shut-Off	PTFE	FKM	SSV-RKS-20-PV	Items 5, 6, 8C, 11
2½"	Shut-Off	PTFE	FKM	SSV-RKS-25-PV	Items 5, 6, 8C, 11
3"	Shut-Off	PTFE	FKM	SSV-RKS-30-PV	Items 5, 6, 8C, 11
4"	Shut-Off	PTFE	FKM	SSV-RKS-40-PV	Items 5, 6, 8C, 11
1"	Shut-Off	PTFE	EPDM	SSV-RKS-10-PE	Items 5, 6, 8C, 11
1½"	Shut-Off	PTFE	EPDM	SSV-RKS-15-PE	Items 5, 6, 8C, 11
2"	Shut-Off	PTFE	EPDM	SSV-RKS-20-PE	Items 5, 6, 8C, 11
2½"	Shut-Off	PTFE	EPDM	SSV-RKS-25-PE	Items 5, 6, 8C, 11
3"	Shut-Off	PTFE	EPDM	SSV-RKS-30-PE	Items 5, 6, 8C, 11
4"	Shut-Off	PTFE	EPDM	SSV-RKS-40-PE	Items 5, 6, 8C, 11

Repair Kits

SSV Series Divert Single Seat



Valve Size	Valve Type	Stem Seat Material	Body Seal Material	Kit Part Number	Kit Includes
1"	Divert	FKM	FKM	SSV-RKD-10-V	Items 5, 6, 8A, 8B
1½"	Divert	FKM	FKM	SSV-RKD-15-V	Items 5, 6, 8A, 8B
2"	Divert	FKM	FKM	SSV-RKD-20-V	Items 5, 6, 8A, 8B
2½"	Divert	FKM	FKM	SSV-RKD-25-V	Items 5, 6, 8A, 8B
3"	Divert	FKM	FKM	SSV-RKD-30-V	Items 5, 6, 8A, 8B
4"	Divert	FKM	FKM	SSV-RKD-40-V	Items 5, 6, 8A, 8B
1"	Divert	EPDM	EDPM	SSV-RKD-10-E	Items 5, 6, 8A, 8B
1½"	Divert	EPDM	EDPM	SSV-RKD-15-E	Items 5, 6, 8A, 8B
2"	Divert	EPDM	EDPM	SSV-RKD-20-E	Items 5, 6, 8A, 8B
2½"	Divert	EPDM	EDPM	SSV-RKD-25-E	Items 5, 6, 8A, 8B
3"	Divert	EPDM	EDPM	SSV-RKD-30-E	Items 5, 6, 8A, 8B
4"	Divert	EPDM	EDPM	SSV-RKD-40-E	Items 5, 6, 8A, 8B
1"	Divert	PTFE	FKM	SSV-RKD-10-PV	Items 5, 6, 8D, 11
1½"	Divert	PTFE	FKM	SSV-RKD-15-PV	Items 5, 6, 8D, 11
2"	Divert	PTFE	FKM	SSV-RKD-20-PV	Items 5, 6, 8D, 11
2½"	Divert	PTFE	FKM	SSV-RKD-25-PV	Items 5, 6, 8D, 11
3"	Divert	PTFE	FKM	SSV-RKD-30-PV	Items 5, 6, 8D, 11
4"	Divert	PTFE	FKM	SSV-RKD-40-PV	Items 5, 6, 8D, 11
1"	Divert	PTFE	EPDM	SSV-RKD-10-PE	Items 5, 6, 8D, 11
1½"	Divert	PTFE	EPDM	SSV-RKD-15-PE	Items 5, 6, 8D, 11
2"	Divert	PTFE	EPDM	SSV-RKD-20-PE	Items 5, 6, 8D, 11
2½"	Divert	PTFE	EPDM	SSV-RKD-25-PE	Items 5, 6, 8D, 11
3"	Divert	PTFE	EPDM	SSV-RKD-30-PE	Items 5, 6, 8D, 11
4"	Divert	PTFE	EPDM	SSV-RKD-40-PE	Items 5, 6, 8D, 11

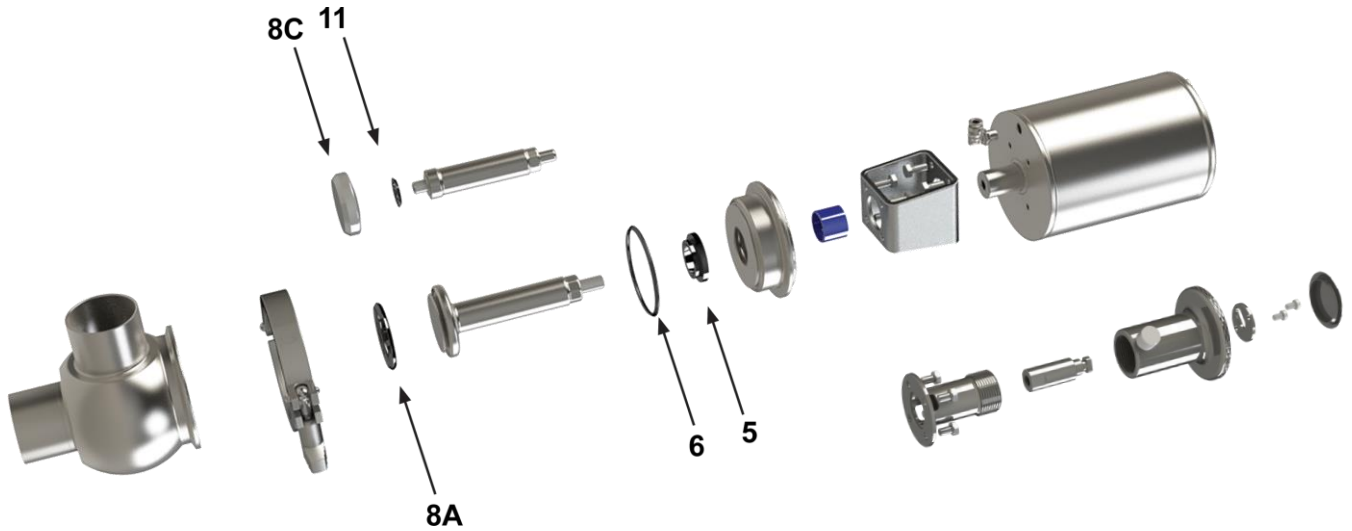
Cleaning

IMPORTANT: Before installing your SSV Series seat valve for operation and after installation, please follow the guidelines listed below to ensure your valve is clean and ready for service.

- Ensure that the valve is installed in a proper orientation to allow the valve to be cleaned and drain properly. Reference the installation and startup section of the manual for orientation guideline.
- Flush the valve with an appropriate cleaning agent to remove any residue that may be on the valve from shipping. **IMPORTANT: DO NOT** use cleaning agents that will attack stainless steel or the elastomers that were supplied with the valve. If you are unsure what elastomer is used in the valve, reference the part number key in this manual to make the determination.
- Follow any MSDS instructions for proper use or handling of cleaning agents.
- Flush valve sufficiently to remove any soiling from the product contact components. Depending on the process, there may be varying amounts of soiling. Cleaning times and cleaning agent concentrations will vary depending on the product being processed. It is the responsibility of the operator to determine and adjust these cleaning specifications as necessary.
IMPORTANT: FOR VALVES WITH PTFE PLUG STEM SEAL, WHEN THE PTFE PLUG AND O-RING ARE REPLACED, BE SURE TO CLEAN THE THREADS ON THE VALVE STEM. Clean all surfaces of the product contact components by manually brushing in a bath of cleaning solution (acid detergents or simple alkaline soda type detergents).
- Valve should not be allowed to sit with product present in the valve body chambers for extended periods of time. Valve should be cleaned immediately after processing is complete.
- Cleaning flow velocities of 5-6 ft/s should be maintained for proper cleaning of the equipment.

Recommended Spare Parts

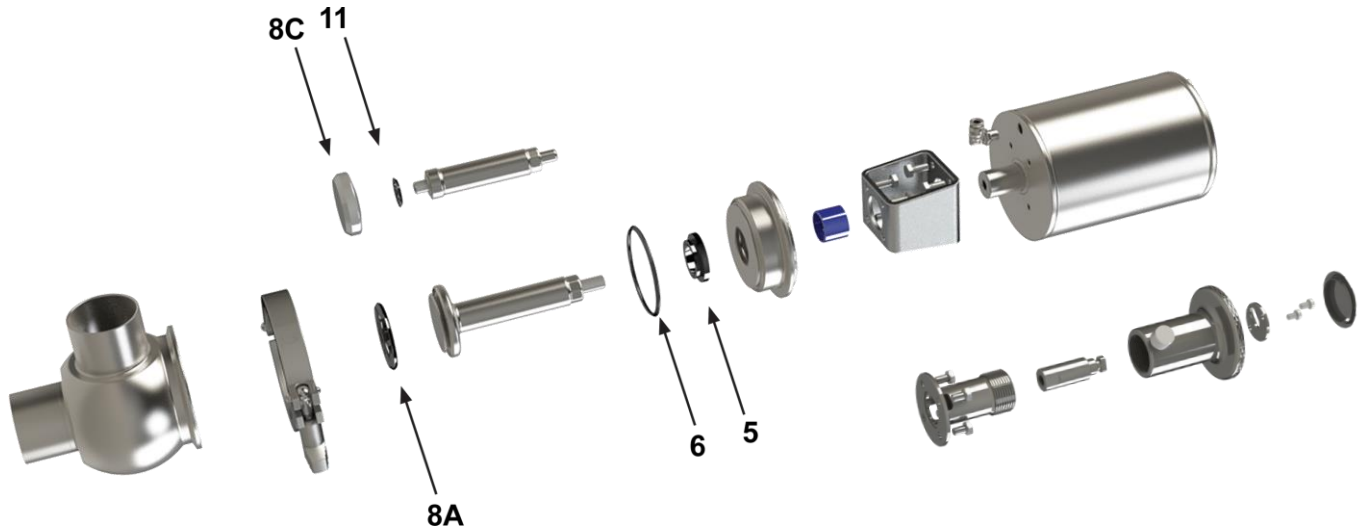
SSV Series Shut-Off Single Seat



Valve Size	Part Number	Item #	Material	Description	Qty
1"	<i>SSV-LSOR-E-10</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-10</i>		FKM		
	<i>SSV-SBSP-P-10</i>	8C	PTFE	stem seal plug	1
	<i>SSV-SPOR-V-1015</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-E-1015</i>		FKM		
	<i>SSV-AFSO-E-10</i>	6	EPDM	adapter flange seal o-ring	1
	<i>SSV-AFSO-V-10</i>		FKM		
	<i>SSV-LSE-10</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-10</i>	FKM				
1½"	<i>SSV-LSOR-E-15</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-15</i>		FKM		
	<i>SSV-SBSP-P-15</i>	8C	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-1015</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-1015</i>		FKM		
	<i>SSV-AFSO-E-15</i>	6	EPDM	adapter flange seal o-ring	1
	<i>SSV-AFSO-V-15</i>		FKM		
	<i>SSV-LSE-15</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-15</i>	FKM				
2"	<i>SSV-LSOR-E-20</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-20</i>		FKM		
	<i>SSV-SBSP-P-20</i>	8C	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-2040</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-2040</i>		FKM		
	<i>SSV-AFSO-E-20</i>	6	EPDM	adapter flange seal o-ring	1
	<i>SSV-AFSO-V-20</i>		FKM		
	<i>SSV-LSE-20</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-20</i>	FKM				

Recommended Spare Parts

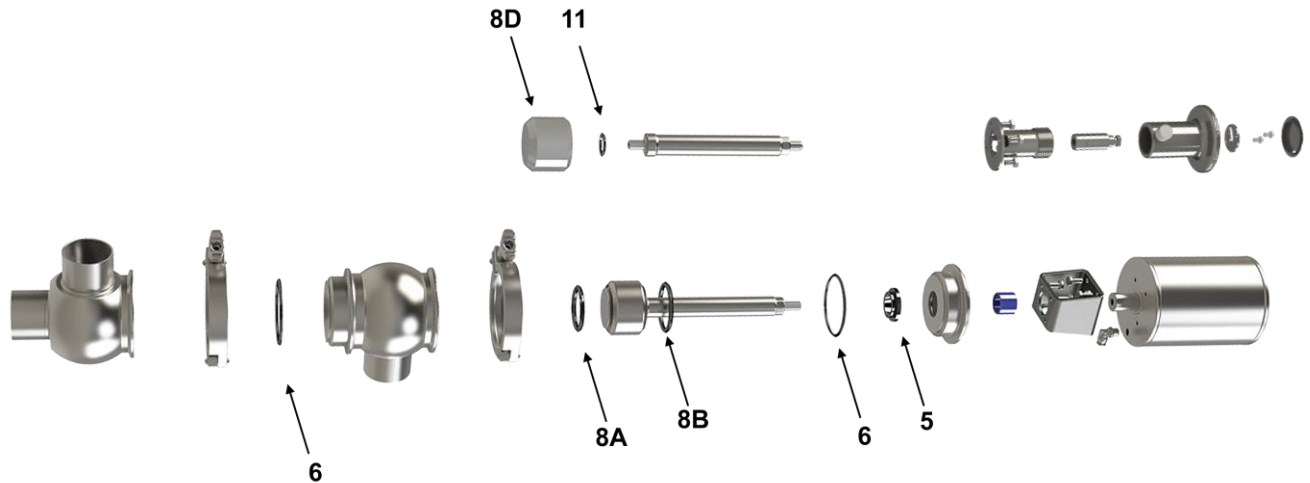
SSV Series Shut-Off Single Seat (continued)



Valve Size	Part Number	Item #	Material	Description	Qty
2½"	<i>SSV-LSOR-E-25</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-25</i>		FKM		
	<i>SSV-SBSP-P-25</i>	8C	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-2040</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-2040</i>		FKM		
	<i>SSV-AFSO-E-25</i>	6	EPDM	adapter flange seal o-ring	1
	<i>SSV-AFSO-V-25</i>		FKM		
	<i>SSV-LSE-25</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-25</i>	FKM				
3"	<i>SSV-LSOR-E-30</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-30</i>		FKM		
	<i>SSV-SBSP-P-30</i>	8C	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-2040</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-2040</i>		FKM		
	<i>SSV-AFSO-E-30</i>	6	EPDM	adapter flange seal o-ring	1
	<i>SSV-AFSO-V-30</i>		FKM		
	<i>SSV-LSE-30</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-30</i>	FKM				
4"	<i>SSV-LSOR-E-40</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-40</i>		FKM		
	<i>SSV-SBSP-P-40</i>	8C	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-2040</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-2040</i>		FKM		
	<i>SSV-AFSO-E-40</i>	6	EPDM	adapter flange seal o-ring	1
	<i>SSV-AFSO-V-40</i>		FKM		
	<i>SSV-LSE-40</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-40</i>	FKM				

Recommended Spare Parts

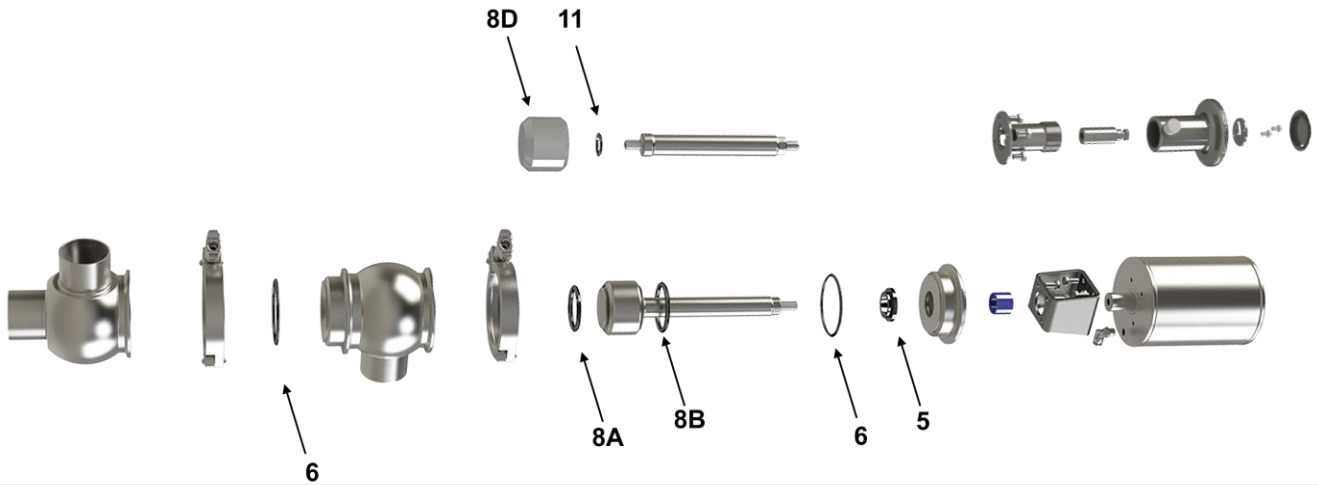
SSV Series Divert Single Seat



Valve Size	Part Number	Item #	Material	Description	Qty
1"	<i>SSV-LSOR-E-10</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-10</i>		FKM		
	<i>SSV-USOR-E-10</i>	8B	EPDM	upper stem seal o-ring	1
	<i>SSV-USOR-V-10</i>		FKM		
	<i>SSV-DBSP-P-10</i>	8D	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-1015</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-1015</i>		FKM		
	<i>SSV-AFSO-E-10</i>	6	EPDM	adapter flange seal o-ring	2
	<i>SSV-AFSO-V-10</i>		FKM		
	<i>SSV-LSE-10</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-10</i>	FKM				
1½"	<i>SSV-LSOR-E-15</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-15</i>		FKM		
	<i>SSV-USOR-E-15</i>	8B	EPDM	upper stem seal o-ring	1
	<i>SSV-USOR-V-15</i>		FKM		
	<i>SSV-DBSP-P-15</i>	8D	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-1015</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-1015</i>		FKM		
	<i>SSV-AFSO-E-15</i>	6	EPDM	adapter flange seal o-ring	2
	<i>SSV-AFSO-V-15</i>		FKM		
	<i>SSV-LSE-15</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-15</i>	FKM				
2"	<i>SSV-LSOR-E-20</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-20</i>		FKM		
	<i>SSV-USOR-E-20</i>	8B	EPDM	upper stem seal o-ring	1
	<i>SSV-USOR-V-20</i>		FKM		
	<i>SSV-DBSP-P-20</i>	8D	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-2040</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-2040</i>		FKM		
	<i>SSV-AFSO-E-20</i>	6	EPDM	adapter flange seal o-ring	2
	<i>SSV-AFSO-V-20</i>		FKM		
	<i>SSV-LSE-20</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-20</i>	FKM				

Recommended Spare Parts

SSV Series Divert Single Seat (continued)



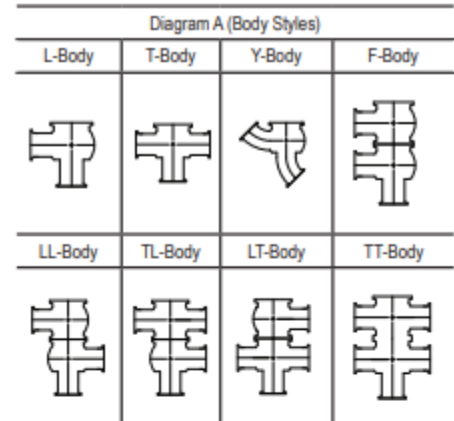
Valve Size	Part Number	Item #	Material	Description	Qty
2½"	<i>SSV-LSOR-E-25</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-25</i>		FKM		
	<i>SSV-USOR-E-25</i>	8B	EPDM	upper stem seal o-ring	1
	<i>SSV-USOR-V-25</i>		FKM		
	<i>SSV-DBSP-P-25</i>	8D	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-2040</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-2040</i>		FKM		
	<i>SSV-AFSO-E-25</i>	6	EPDM	adapter flange seal o-ring	2
	<i>SSV-AFSO-V-25</i>		FKM		
	<i>SSV-LSE-25</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-25</i>	FKM				
3"	<i>SSV-LSOR-E-30</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-30</i>		FKM		
	<i>SSV-USOR-E-30</i>	8B	EPDM	upper stem seal o-ring	1
	<i>SSV-USOR-V-30</i>		FKM		
	<i>SSV-DBSP-P-30</i>	8D	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-2040</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-2040</i>		FKM		
	<i>SSV-AFSO-E-30</i>	6	EPDM	adapter flange seal o-ring	2
	<i>SSV-AFSO-V-30</i>		FKM		
	<i>SSV-LSE-30</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-30</i>	FKM				
4"	<i>SSV-LSOR-E-40</i>	8A	EPDM	lower stem seal o-ring	1
	<i>SSV-LSOR-V-40</i>		FKM		
	<i>SSV-USOR-E-40</i>	8B	EPDM	upper stem seal o-ring	1
	<i>SSV-USOR-V-40</i>		FKM		
	<i>SSV-DBSP-P-40</i>	8D	PTFE	stem seal plug	1
	<i>SSV-SPOR-E-2040</i>	11	EPDM	stem seal plug o-ring	1
	<i>SSV-SPOR-V-2040</i>		FKM		
	<i>SSV-AFSO-E-40</i>	6	EPDM	adapter flange seal o-ring	2
	<i>SSV-AFSO-V-40</i>		FKM		
	<i>SSV-LSE-40</i>	5	EPDM	stem lip seal	1
<i>SSV-LSV-40</i>	FKM				

Part Number Key

Part Number Example: D06B20NBCCC2PVG

Part Description: Divert Valve, T/L Body, 25Ra Polish, 2", [No Port on A, Butt weld on Port B, Clamp Port C, Clamp on Port D, Clamp on Port E] Spring Return Air-to-Lower Actuator, PTFE Stem Seal, FKM wetted Elastomers, Burkert 8691 Single Acting 24VDC Multipin.

Dixon SSV-Series Single Seat Valve Part Number Key		Valve Function	Valve Body	Actuator Function	Stem Type	Wetted Elastomers	Options
		S	01 A 10 C	1	E	E	A
Valve Function	Code						
Shut-Off	S						
Divert	D						
Valve Body Style (See Diagram A)	Code						
L (2-port Shut-Off)	01						
T (3-port Shut-Off)	02						
Y (2-port Shut-Off)	03						
F (3-port Divert)	04						
LL (3-port Divert)	05						
TL (4-port Divert)	06						
LT (4-port Divert)	07						
T/T (5-port Divert)	08						
Surface Finish	Code						
32 R _a (ID Mech. Polish)	A						
25 R _a (ID Mech. Polish)	B						
20 R _a (ID Mech. Polish)	C						
15 R _a (ID Electropolish)	D						
Valve Size	Code						
1"	10						
1½"	15						
2"	20						
2½"	25						
3"	30						
4"	40						
Connections	Code						
Triclamp	C						
Butt weld	B						
Female I-Line	F						
Male I-Line	M						
Threaded Bevel	T						
Plain Bevel	P						
Q-Line	Q						
Combination (See Table 1)	—						
Actuator Type	Code						
Pneumatic Spring Return (Air-to-Raise)	1						
Pneumatic Spring Return (Air-to-Lower)	2						
Pneumatic Double Acting (Air-to-Air)	3						
Manual Handle	4						
Stem Type	Code						
Elastomer O-Ring Stem Seal	E						
PTFE Plug Seal	P						
Wetted Elastomers	Code						
EPDM	E						
FKM	V						



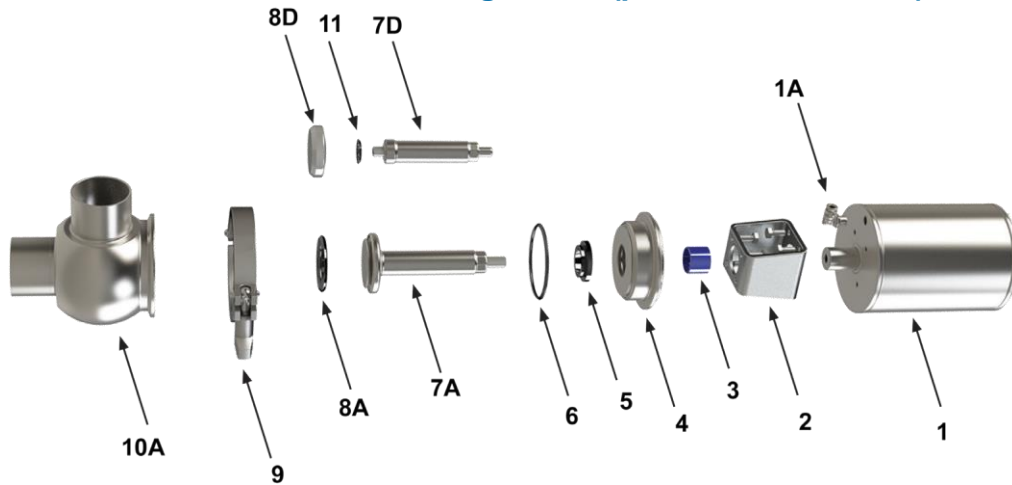
Options	Code
10-30VDC External Prox, PNP, (Qty 2)	A
10-30 VDC External Prox, NPN, (Qty 2)	B
20-253 VAC External Prox, (Qty 2)	C
110VAC External Prox, (Qty 2)	D
Burkert 8691, Single Acting, DeviceNet, Multipin	E
Burkert 8691, Single Acting, AS-i, Multipin	F
Burkert 8691, Single Acting, 24VDC, Multipin	G
Burkert 8691, Double Acting, DeviceNet, Multipin	H
Burkert 8691, Double Acting, AS-i, Multipin	J
Burkert 8691, Double Acting, 24VDC, Multipin	K
Burkert 8691, Without Solenoid, 24VDC, Multipin	L
Burkert 8681, Single Acting, 110VAC, Multipin	M
Burkert 8681, Double Acting, 110VAC, Multipin	N
Burkert 8692 Positioner, 24VDC, 4-20mA, Multipin	P
External Prox Bracket Only	Q

Table 1 (Codes)

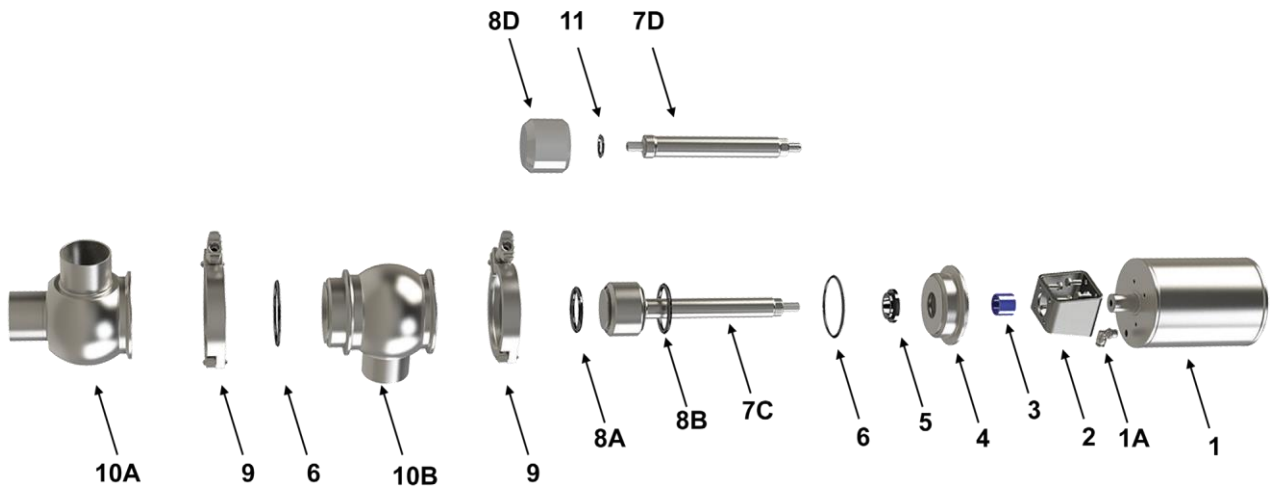
A-Port	B-Port	C-Port	D-Port	E-Port	Port Diagram
C	C	C	C	C	
B	B	B	B	B	
F	F	F	F	F	
M	M	M	M	M	
T	T	T	T	T	
P	P	P	P	P	
Q	Q	Q	Q	Q	
N (No Port)	—	N (No Port)	N (No Port)	N (No Port)	

Bill of Materials

SSV Series Shut-Off Single Seat (pneumatic actuator)



SSV Series Divert Single Seat (pneumatic actuator)



Part Type	Part Number	Item No.	Material	Description	Qty		Valve Type
					Shut-Off	Divert	
Actuator	SSV-ACT-SR-10	1	304SS	1" spring-return actuator	1	1	Shut-Off / Divert
	SSV-ACT-SR-1520		304SS	1½" - 2" spring-return actuator	1	1	
	SSV-ACT-SR-2540		304SS	2½" - 4" spring-return actuator	1	1	
	SSV-ACT-DA-10		304SS	1" double acting actuator	1	1	
	SSV-ACT-DA-1520		304SS	1½" - 2" double acting actuator	1	1	
	SSV-ACT-DA-2540		304SS	2½" - 4" double acting actuator	1	1	
Air Fitting	36095611	1A	Ni Brass	1" - 4" male NPT push-in swivel elbow	1*	1*	Shut-Off / Divert
Actuator Adapter Bracket	SSV-AB10	2	304	1" actuator adapter bracket	1	1	Shut-Off / Divert
	SSV-AB1540		304	1½" - 4" actuator adapter bracket	1	1	
Adapter Flange Slide Bearing	SSV-AFSB-1015	3	316L	1 - 1½" adapter flange slide bearing	1	1	Shut-Off / Divert
	SSV-AFSB-2040		316L	2 - 4" adapter flange slide bearing	1	1	
Adapter Flange	SSV-ADFLNG-10	4	316L	1" adapter flange	1	1	Shut-Off / Divert
	SSV-ADFLNG-15		316L	1½" adapter flange	1	1	
	SSV-ADFLNG-20		316L	2" adapter flange	1	1	
	SSV-ADFLNG-25		316L	2½" adapter flange	1	1	
	SSV-ADFLNG-30		316L	3" adapter flange	1	1	
	SSV-ADFLNG-40		316L	4" adapter flange	1	1	

Bill of Materials

SSV Series Shut-Off and Divert Single Seats

Part Type	Part Number	Item No.	Material	Description	Qty		Valve Type	
					Shut-Off	Divert		
Stem Lip Seal	SSV-LSE-1015	5	EPDM	1"-1½" stem lip seal (EPDM)	1	1	Shut-Off / Divert	
	SSV-LSE-2040		EPDM	2"-4" stem lip seal (EPDM)	1	1		
	SSV-LSV-1015	5	FKM	1"-1½" stem lip seal (FKM)	1	1	Shut-Off / Divert	
	SSV-LSV-2040		FKM	2"-4" stem lip seal (FKM)	1	1		
Adapter Flange Seal O-Ring	SSV-AFSO-E-10	6	EPDM	1" adapter flange seal O-ring (EPDM)	1	2	Shut-Off / Divert	
	SSV-AFSO-E-15		EPDM	1½" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-E-20		EPDM	2" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-E-25		EPDM	2½" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-E-30		EPDM	3" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-E-40		EPDM	4" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-V-10	6	FKM	1" adapter flange seal O-ring (FKM)	1	2	Shut-Off / Divert	
	SSV-AFSO-V-15		FKM	1½" adapter flange seal O-ring (FKM)	1	2		
	SSV-AFSO-V-20		FKM	2" adapter flange seal O-ring (FKM)	1	2		
	SSV-AFSO-V-25		FKM	2½" adapter flange seal O-ring (FKM)	1	2		
	SSV-AFSO-V-30		FKM	3" adapter flange seal O-ring (FKM)	1	2		
	SSV-AFSO-V-40		FKM	4" adapter flange seal O-ring (FKM)	1	2		
	Single Body Valve Stem (Elastomeric Seal)	SSV-SVS-OS-10	7A	316L	1" single body valve stem (elastomeric seal)	1	-	Shut-Off
		SSV-SVS-OS-15		316L	1½" single body valve stem (elastomeric seal)	1	-	
SSV-SVS-OS-20		316L		2" single body valve stem (elastomeric seal)	1	-		
SSV-SVS-OS-25		316L		2½" single body valve stem (elastomeric seal)	1	-		
SSV-SVS-OS-30		316L		3" single body valve stem (elastomeric seal)	1	-		
SSV-SVS-OS-40		316L		4" single body valve stem (elastomeric seal)	1	-		
Single Body Valve Stem (PTFE Seal)	SSV-SVS-PS-10	7B	316L	1" single body valve stem (PTFE seal)	1	-	Shut-Off	
	SSV-SVS-PS-15		316L	1½" single body valve stem (PTFE seal)	1	-		
	SSV-SVS-PS-20		316L	2" single body valve stem (PTFE seal)	1	-		
	SSV-SVS-PS-25		316L	2½" single body valve stem (PTFE seal)	1	-		
	SSV-SVS-PS-30		316L	3" single body valve stem (PTFE seal)	1	-		
	SSV-SVS-PS-40		316L	4" single body valve stem (PTFE seal)	1	-		
Double Body Valve Stem (Elastomeric Seal)	SSV-DVS-OS-10	7C	316L	1" double body valve stem (elastomeric seal)	-	1	Divert	
	SSV-DVS-OS-15		316L	1½" double body valve stem (elastomeric seal)	-	1		
	SSV-DVS-OS-20		316L	2" double body valve stem (elastomeric seal)	-	1		
	SSV-DVS-OS-25		316L	2½" double body valve stem (elastomeric seal)	-	1		
	SSV-DVS-OS-30		316L	3" double body valve stem (elastomeric seal)	-	1		
	SSV-DVS-OS-40		316L	4" double body valve stem (elastomeric seal)	-	1		
Double Body Valve Stem (PTFE Seal)	SSV-DVS-PS-10	7D	316L	1" double body valve stem (PTFE seal)	-	1	Divert	
	SSV-DVS-PS-15		316L	1½" double body valve stem (PTFE seal)	-	1		
	SSV-DVS-PS-20		316L	2" double body valve stem (PTFE seal)	-	1		
	SSV-DVS-PS-25		316L	2½" double body valve stem (PTFE seal)	-	1		
	SSV-DVS-PS-30		316L	3" double body valve stem (PTFE seal)	-	1		
	SSV-DVS-PS-40		316L	4" double body valve stem (PTFE seal)	-	1		
Lower Stem Seal O-Ring	SSV-LSOR-E-10	8A	EPDM	1" lower stem seal O-ring (EPDM)	1	1	Shut-Off / Divert	
	SSV-LSOR-E-15		EPDM	1½" lower stem seal O-ring (EPDM)	1	1		
	SSV-LSOR-E-20		EPDM	2" lower stem seal O-ring (EPDM)	1	1		
	SSV-LSOR-E-25		EPDM	2½" lower stem seal O-ring (EPDM)	1	1		
	SSV-LSOR-E-30		EPDM	3" lower stem seal O-ring (EPDM)	1	1		
	SSV-LSOR-E-40	8A	EPDM	4" lower stem seal O-ring (EPDM)	1	1	Shut-Off / Divert	
	SSV-LSOR-V-10		FKM	1" lower stem seal O-ring (FKM)	1	1		
	SSV-LSOR-V-15		FKM	1½" lower stem seal O-ring (FKM)	1	1		
	SSV-LSOR-V-20		FKM	2" lower stem seal O-ring (FKM)	1	1		
	SSV-LSOR-V-25		FKM	2½" lower stem seal O-ring (FKM)	1	1		
SSV-LSOR-V-30	FKM	3" lower stem seal O-ring (FKM)	1	1				
SSV-LSOR-V-40	FKM	4" lower stem seal O-ring (FKM)	1	1				

* Use Qty 2 For Double Acting Actuators

Bill of Materials

SSV Series Shut-Off and Divert Single Seats

Part Type	Part Number	Item No.	Material	Description	Qty		Valve Type				
					Shut-Off	Divert					
Upper Stem Seal O-Ring	SSV-USOR-E-10	8B	EPDM	1" upper stem seal o-ring (EPDM)	-	1	Divert				
	SSV-USOR-E-15		EPDM	1½" upper stem seal o-ring (EPDM)	-	1					
	SSV-USOR-E-20		EPDM	2" upper stem seal o-ring (EPDM)	-	1					
	SSV-USOR-E-25		EPDM	2½" upper stem seal o-ring (EPDM)	-	1					
	SSV-USOR-E-30		EPDM	3" upper stem seal o-ring (EPDM)	-	1					
	SSV-USOR-E-40		EPDM	4" upper stem seal o-ring (EPDM)	-	1					
	Upper Stem Seal O-Ring	SSV-USOR-V-10	8B	FKM	1" upper stem seal o-ring (FKM)	-	1	Divert			
		SSV-USOR-V-15		FKM	1½" upper stem seal o-ring (FKM)	-	1				
		SSV-USOR-V-20		FKM	2" upper stem seal o-ring (FKM)	-	1				
		SSV-USOR-V-25		FKM	2½" upper stem seal o-ring (FKM)	-	1				
		SSV-USOR-V-30		FKM	3" upper stem seal o-ring (FKM)	-	1				
		SSV-USOR-V-40		FKM	4" upper stem seal o-ring (FKM)	-	1				
	Stem Seal Plug	SSV-SBSP-P-10	8C	PTFE	1" single body stem seal plug (PTFE)	1	-	Shut-Off			
		SSV-SBSP-P-15		PTFE	1½" single body stem seal plug (PTFE)	1	-				
SSV-SBSP-P-20		PTFE		2" single body stem seal plug (PTFE)	1	-					
SSV-SBSP-P-25		PTFE		2½" single body stem seal plug (PTFE)	1	-					
SSV-SBSP-P-30		PTFE		3" single body stem seal plug (PTFE)	1	-					
SSV-SBSP-P-40		PTFE		4" single body stem seal plug (PTFE)	1	-					
Stem Seal Plug		SSV-DBSP-P-10	8D	PTFE	1" double body stem seal plug (PTFE)	-	1	Divert			
		SSV-DBSP-P-15		PTFE	1½" double body stem seal plug (PTFE)	-	1				
		SSV-DBSP-P-20		PTFE	2" double body stem seal plug (PTFE)	-	1				
		SSV-DBSP-P-25		PTFE	2½" double body stem seal plug (PTFE)	-	1				
		SSV-DBSP-P-30		PTFE	3" double body stem seal plug (PTFE)	-	1				
		SSV-DBSP-P-40		PTFE	4" double body stem seal plug (PTFE)	-	1				
		Body Clamp		13MHHM200SN	9	304	1" body clamp		1	2	Shut-Off / Divert
				13MHHM250SN		304	1½" body clamp		1	2	
13MHHM300SN	304		2" body clamp	1		2					
13MHHV300SN	304		2½" body clamp	1		2					
13MHHM400SN	304		3" body clamp	1		2					
13MHHM500SN	304		4" body clamp	1		2					
Lower Valve Body (L-Port) TriClamp	SSV-LBLC10		10A	316L		1" lower valve body (L) configuration, triclamp	1	1	Shut-Off / Divert		
	SSV-LBLC15	316L		1½" lower valve body (L) configuration, triclamp	1	1					
	SSV-LBLC20	316L		2" lower valve body (L) configuration, triclamp	1	1					
	SSV-LBLC25	316L		2½" lower valve body (L) configuration, triclamp	1	1					
	SSV-LBLC30	316L		3" lower valve body (L) configuration, triclamp	1	1					
	SSV-LBLC40	316L		4" lower valve body (L) configuration, triclamp	1	1					
Lower Valve Body (L-Port) ButtWeld	SSV-LBLB10	10A	316L	1" lower valve body (L) configuration, buttWeld	1	1	Shut-Off / Divert				
	SSV-LBLB15		316L	1½" lower valve body (L) configuration, buttWeld	1	1					
	SSV-LBLB20		316L	2" lower valve body (L) configuration, buttWeld	1	1					
	SSV-LBLB25		316L	2½" lower valve body (L) configuration, buttWeld	1	1					
	SSV-LBLB30		316L	3" lower valve body (L) configuration, buttWeld	1	1					
	SSV-LBLB40		316L	4" lower valve body (L) configuration, buttWeld	1	1					
Lower Valve Body (T-Port) TriClamp	SSV-LBTC10	10A	316L	1" lower valve body (T) configuration, triclamp	1	1	Shut-Off / Divert				
	SSV-LBTC15		316L	1½" lower valve body (T) configuration, triclamp	1	1					
	SSV-LBTC20		316L	2" lower valve body (T) configuration, triclamp	1	1					
	SSV-LBTC25		316L	2½" lower valve body (T) configuration, triclamp	1	1					
	SSV-LBTC30		316L	3" lower valve body (T) configuration, triclamp	1	1					
	SSV-LBTC40		316L	4" lower valve body (T) configuration, triclamp	1	1					

* Use Qty 2 For Double Acting Actuators

Bill of Materials

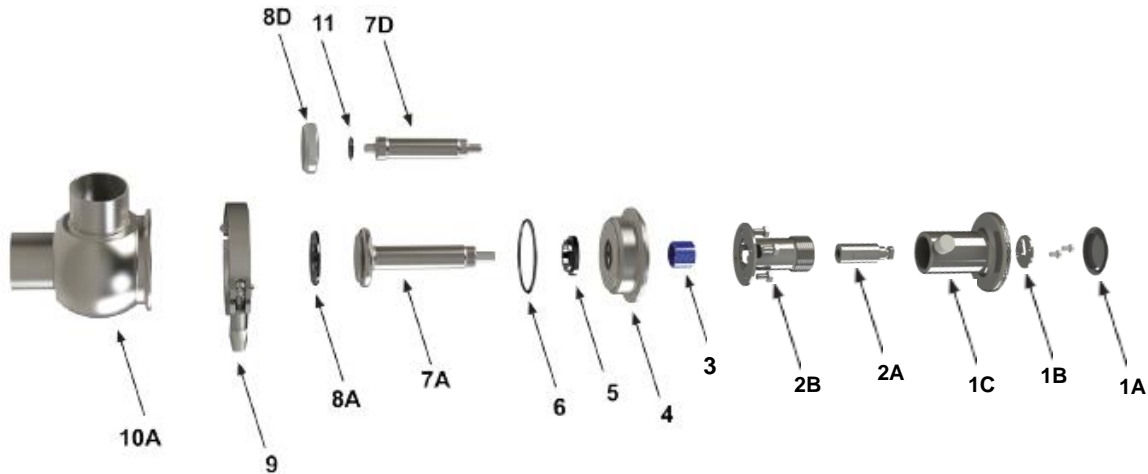
SSV Series Shut-Off and Divert Single Seats

Part Type	Part Number	Item No.	Material	Description	Qty		Valve Type
					Shut-Off	Divert	
Lower Valve Body (T-Port) ButtWeld	SSV-LBTB10	10A	316L	1" lower valve body (T) configuration, buttweld	1	1	Shut-Off / Divert
	SSV-LBTB15		316L	1½" lower valve body (T) configuration, buttweld	1	1	
	SSV-LBTB20		316L	2" lower valve body (T) configuration, buttweld	1	1	
	SSV-LBTB25		316L	2½" lower valve body (T) configuration, buttweld	1	1	
	SSV-LBTB30		316L	3" lower valve body (T) configuration, buttweld	1	1	
	SSV-LBTB40		316L	4" lower valve body (T) configuration, buttweld	1	1	
Lower Valve Body (Y-Port) TriClamp	SSV-LBYC10	10A	316L	1" lower valve body (Y) configuration, triclamp	1	-	Shut-Off
	SSV-LBYC15		316L	1½" lower valve body (Y) configuration, triclamp	1	-	
	SSV-LBYC20		316L	2" lower valve body (Y) configuration, triclamp	1	-	
	SSV-LBYC25		316L	2½" lower valve body (Y) configuration, triclamp	1	-	
	SSV-LBYC30		316L	3" lower valve body (Y) configuration, triclamp	1	-	
	SSV-LBYC40		316L	4" lower valve body (Y) configuration, triclamp	1	-	
Lower Valve Body (Y-Port) ButtWeld	SSV-LBYB10	10A	316L	1" lower valve body (Y) configuration, buttweld	1	-	Shut-Off
	SSV-LBYB15		316L	1½" lower valve body (Y) configuration, buttweld	1	-	
	SSV-LBYB20		316L	2" lower valve body (Y) configuration, buttweld	1	-	
	SSV-LBYB25		316L	2½" lower valve body (Y) configuration, buttweld	1	-	
	SSV-LBYB30		316L	3" lower valve body (Y) configuration, buttweld	1	-	
	SSV-LBYB40		316L	4" lower valve body (Y) configuration, buttweld	1	-	
Upper Valve Body (L-Port) TriClamp	SSV-UBLC10	10B	316L	1" upper valve body (L) configuration, triclamp	-	1	Divert
	SSV-UBLC15		316L	1½" upper valve body (L) configuration, triclamp	-	1	
	SSV-UBLC20		316L	2" upper valve body (L) configuration, triclamp	-	1	
	SSV-UBLC25		316L	2½" upper valve body (L) configuration, triclamp	-	1	
	SSV-UBLC30		316L	3" upper valve body (L) configuration, triclamp	-	1	
	SSV-UBLC40		316L	4" upper valve body (L) configuration, triclamp	-	1	
Upper Valve Body (L-Port) ButtWeld	SSV-UBLB10	10B	316L	1" upper valve body (L) configuration, buttweld	-	1	Divert
	SSV-UBLB15		316L	1½" upper valve body (L) configuration, buttweld	-	1	
	SSV-UBLB20		316L	2" upper valve body (L) configuration, buttweld	-	1	
	SSV-UBLB25		316L	2½" upper valve body (L) configuration, buttweld	-	1	
	SSV-UBLB30		316L	3" upper valve body (L) configuration, buttweld	-	1	
	SSV-UBLB40		316L	4" upper valve body (L) configuration, buttweld	-	1	
Upper Valve Body (T-Port) TriClamp	SSV-UBTC10	10B	316L	1" upper valve body (T) configuration, triclamp	-	1	Divert
	SSV-UBTC15		316L	1½" upper valve body (T) configuration, triclamp	-	1	
	SSV-UBTC20		316L	2" upper valve body (T) configuration, triclamp	-	1	
	SSV-UBTC25		316L	2½" upper valve body (T) configuration, triclamp	-	1	
	SSV-UBTC30		316L	3" upper valve body (T) configuration, triclamp	-	1	
	SSV-UBTC40		316L	4" upper valve body (T) configuration, triclamp	-	1	
Upper Valve Body (T-Port) ButtWeld	SSV-UBTB10	10B	316L	1" upper valve body (T) configuration, buttweld	-	1	Divert
	SSV-UBTB15		316L	1½" upper valve body (T) configuration, buttweld	-	1	
	SSV-UBTB20		316L	2" upper valve body (T) configuration, buttweld	-	1	
	SSV-UBTB25		316L	2½" upper valve body (T) configuration, buttweld	-	1	
	SSV-UBTB30		316L	3" upper valve body (T) configuration, buttweld	-	1	
	SSV-UBTB40		316L	4" upper valve body (T) configuration, buttweld	-	1	
Stem Seal Plug O-Ring	SSV-SPOR-E-1015	11	EPDM	1 - 1½" stem seal plug O-ring (EPDM)	1	1	Shut-Off / Divert
	SSV-SPOR-E-2040		EPDM	2 - 4" stem seal plug O-ring (EPDM)	1	1	
	SSV-SPOR-V-1015		FKM	1 - 1½" stem seal plug O-ring (FKM)	1	1	Shut-Off / Divert
	SSV-SPOR-V-2040		FKM	2 - 4" stem seal plug O-ring (FKM)	1	1	

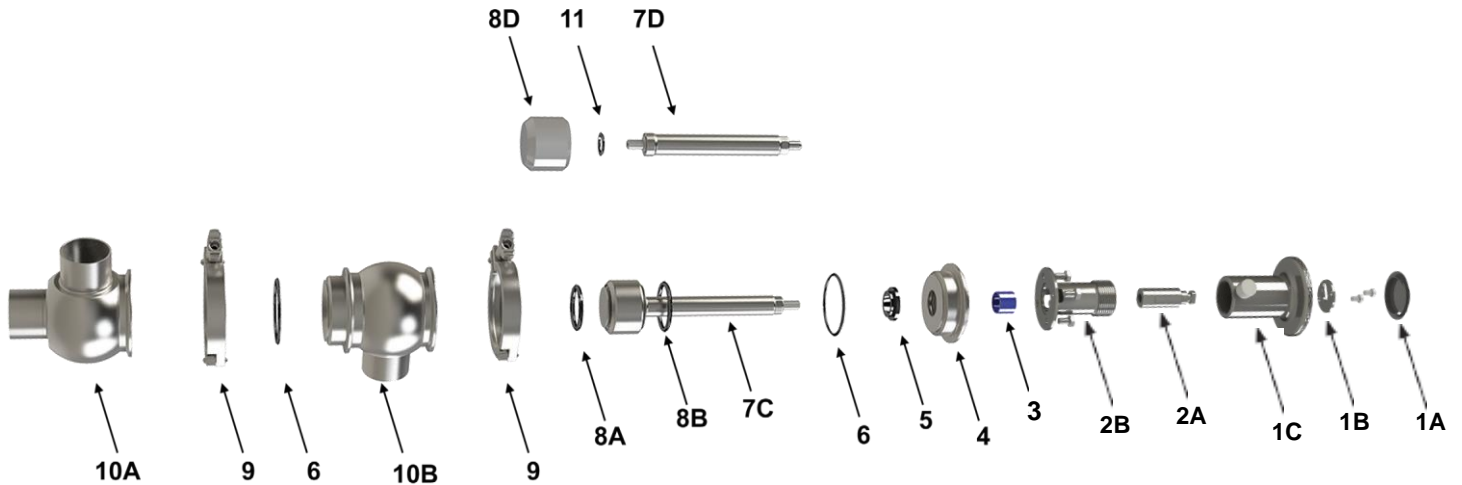
* Use Qty 2 For Double Acting Actuators

Bill of Materials

SSV Series Shut-Off Single Seat (manual handle)



SSV Series Divert Single Seat (manual handle)



Part Type	Part Number	Item No.	Material	Description	Qty		Valve Type
					Shut-Off	Divert	
Handle Cap	9750K320	1A	Poly	1"-4" Handle Cap Cover	1	1	Shut-Off / Divert
Handle Retainer	SSV-HR-1040	1B	304SS	1"-4" Handle Retainer Ring	1	1	Shut-Off / Divert
Handle	SSV-HA-1040	1C	304SS	1"-4" Handle	1	1	Shut-Off / Divert
Handle Stem	SSV-SC-1015	2A	304SS	1"- 1½" Handle Stem	1	1	Shut-Off / Divert
	SSV-SC-2025		304SS	2"- 2½" Handle Stem	1	1	
	SSV-SC-3040		304SS	3"-4" Handle Stem	1	1	
Handle Hub	SSV-HAB-10	2B	304SS	1" Handle Hub	1	1	Shut-Off / Divert
	SSV-HAB-1540		304SS	1½"-4" Handle Hub	1	1	
Adapter Flange Slide Bearing	SSV-AFSB-1015	3	Poly	1"- 1½" adapter flange slide bearing	1	1	Shut-Off / Divert
	SSV-AFSB-2040			2"- 4" adapter flange slide bearing	1	1	
Adapter Flange	SSV-ADFLNG-10	4	316L	1" adapter flange	1	1	Shut-Off / Divert
	SSV-ADFLNG-15		316L	1½" adapter flange	1	1	
	SSV-ADFLNG-20		316L	2" adapter flange	1	1	
	SSV-ADFLNG-25		316L	2½" adapter flange	1	1	
	SSV-ADFLNG-30		316L	3" adapter flange	1	1	
	SSV-ADFLNG-40		316L	4" adapter flange	1	1	

Bill of Materials

SSV Series Shut-Off and Divert Single Seats (manual handle)

Part Type	Part Number	Item No.	Material	Description	Qty		Valve Type	
					Shut-Off	Divert		
Stem Lip Seal	SSV-LSE-1015	5	EPDM	1"-1½" stem lip seal (EPDM)	1	1	Shut-Off / Divert	
	SSV-LSE-2040		EPDM	2"-4" stem lip seal (EPDM)	1	1		
	SSV-LSV-1015	5	FKM	1"-1½" stem lip seal (FKM)	1	1	Shut-Off / Divert	
	SSV-LSV-2040		FKM	2"-4" stem lip seal (FKM)	1	1		
Adapter Flange Seal O-Ring	SSV-AFSO-E-10	6	EPDM	1" adapter flange seal O-ring (EPDM)	1	2	Shut-Off / Divert	
	SSV-AFSO-E-15		EPDM	1½" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-E-20		EPDM	2" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-E-25		EPDM	2½" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-E-30		EPDM	3" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-E-40		EPDM	4" adapter flange seal O-ring (EPDM)	1	2		
	SSV-AFSO-V-10	6	FKM	1" adapter flange seal O-ring (FKM)	1	2	Shut-Off / Divert	
	SSV-AFSO-V-15		FKM	1½" adapter flange seal O-ring (FKM)	1	2		
	SSV-AFSO-V-20		FKM	2" adapter flange seal O-ring (FKM)	1	2		
	SSV-AFSO-V-25		FKM	2½" adapter flange seal O-ring (FKM)	1	2		
	SSV-AFSO-V-30		FKM	3" adapter flange seal O-ring (FKM)	1	2		
	SSV-AFSO-V-40		FKM	4" adapter flange seal O-ring (FKM)	1	2		
	Single Body Valve Stem (Elastomeric Seal)	SSV-SVS-OS-10	7A	316L	1" single body valve stem (elastomeric seal)	1	-	Shut-Off
		SSV-SVS-OS-15		316L	1½" single body valve stem (elastomeric seal)	1	-	
SSV-SVS-OS-20		316L		2" single body valve stem (elastomeric seal)	1	-		
SSV-SVS-OS-25		316L		2½" single body valve stem (elastomeric seal)	1	-		
SSV-SVS-OS-30		316L		3" single body valve stem (elastomeric seal)	1	-		
SSV-SVS-OS-40		316L		4" single body valve stem (elastomeric seal)	1	-		
Single Body Valve Stem (PTFE Seal)	SSV-SVS-PS-10	7B	316L	1" single body valve stem (PTFE seal)	1	-	Shut-Off	
	SSV-SVS-PS-15		316L	1½" single body valve stem (PTFE seal)	1	-		
	SSV-SVS-PS-20		316L	2" single body valve stem (PTFE seal)	1	-		
	SSV-SVS-PS-25		316L	2½" single body valve stem (PTFE seal)	1	-		
	SSV-SVS-PS-30		316L	3" single body valve stem (PTFE seal)	1	-		
	SSV-SVS-PS-40		316L	4" single body valve stem (PTFE seal)	1	-		
Double Body Valve Stem (Elastomeric Seal)	SSV-DVS-OS-10	7C	316L	1" double body valve stem (elastomeric seal)	-	1	Divert	
	SSV-DVS-OS-15		316L	1½" double body valve stem (elastomeric seal)	-	1		
	SSV-DVS-OS-20		316L	2" double body valve stem (elastomeric seal)	-	1		
	SSV-DVS-OS-25		316L	2½" double body valve stem (elastomeric seal)	-	1		
	SSV-DVS-OS-30		316L	3" double body valve stem (elastomeric seal)	-	1		
	SSV-DVS-OS-40		316L	4" double body valve stem (elastomeric seal)	-	1		
Double Body Valve Stem (PTFE Seal)	SSV-DVS-PS-10	7D	316L	1" double body valve stem (PTFE seal)	-	1	Divert	
	SSV-DVS-PS-15		316L	1½" double body valve stem (PTFE seal)	-	1		
	SSV-DVS-PS-20		316L	2" double body valve stem (PTFE seal)	-	1		
	SSV-DVS-PS-25		316L	2½" double body valve stem (PTFE seal)	-	1		
	SSV-DVS-PS-30		316L	3" double body valve stem (PTFE seal)	-	1		
	SSV-DVS-PS-40		316L	4" double body valve stem (PTFE seal)	-	1		
Lower Stem Seal O-Ring	SSV-LSOR-E-10	8A	EPDM	1" lower stem seal O-ring (EPDM)	1	1	Shut-Off / Divert	
	SSV-LSOR-E-15		EPDM	1½" lower stem seal O-ring (EPDM)	1	1		
	SSV-LSOR-E-20		EPDM	2" lower stem seal O-ring (EPDM)	1	1		
	SSV-LSOR-E-25		EPDM	2½" lower stem seal O-ring (EPDM)	1	1		
	SSV-LSOR-E-30		EPDM	3" lower stem seal O-ring (EPDM)	1	1		
	SSV-LSOR-E-40	8A	EPDM	4" lower stem seal O-ring (EPDM)	1	1	Shut-Off / Divert	
	SSV-LSOR-V-10		FKM	1" lower stem seal O-ring (FKM)	1	1		
	SSV-LSOR-V-15		FKM	1½" lower stem seal O-ring (FKM)	1	1		
	SSV-LSOR-V-20		FKM	2" lower stem seal O-ring (FKM)	1	1		
	SSV-LSOR-V-25		FKM	2½" lower stem seal O-ring (FKM)	1	1		
SSV-LSOR-V-30	FKM	3" lower stem seal O-ring (FKM)	1	1				
SSV-LSOR-V-40	FKM	4" lower stem seal O-ring (FKM)	1	1				

Bill of Materials

SSV Series Shut-Off and Divert Single Seats (manual handle)

Part Type	Part Number	Item No.	Material	Description	Qty		Valve Type	
					Shut-Off	Divert		
Upper Stem Seal O-Ring	SSV-USOR-E-10	8B	EPDM	1" upper stem seal o-ring (EPDM)	-	1	Divert	
	SSV-USOR-E-15		EPDM	1½" upper stem seal o-ring (EPDM)	-	1		
	SSV-USOR-E-20		EPDM	2" upper stem seal o-ring (EPDM)	-	1		
	SSV-USOR-E-25		EPDM	2½" upper stem seal o-ring (EPDM)	-	1		
	SSV-USOR-E-30		EPDM	3" upper stem seal o-ring (EPDM)	-	1		
	SSV-USOR-E-40		EPDM	4" upper stem seal o-ring (EPDM)	-	1		
	SSV-USOR-V-10	8B	FKM	1" upper stem seal o-ring (FKM)	-	1	Divert	
	SSV-USOR-V-15		FKM	1½" upper stem seal o-ring (FKM)	-	1		
	SSV-USOR-V-20		FKM	2" upper stem seal o-ring (FKM)	-	1		
	SSV-USOR-V-25		FKM	2½" upper stem seal o-ring (FKM)	-	1		
	SSV-USOR-V-30		FKM	3" upper stem seal o-ring (FKM)	-	1		
	SSV-USOR-V-40		FKM	4" upper stem seal o-ring (FKM)	-	1		
	Stem Seal Plug	SSV-SBSP-P-10	8C	PTFE	1" single body stem seal plug (PTFE)	1	-	Shut-Off
		SSV-SBSP-P-15		PTFE	1½" single body stem seal plug (PTFE)	1	-	
SSV-SBSP-P-20		PTFE		2" single body stem seal plug (PTFE)	1	-		
SSV-SBSP-P-25		PTFE		2½" single body stem seal plug (PTFE)	1	-		
SSV-SBSP-P-30		PTFE		3" single body stem seal plug (PTFE)	1	-		
SSV-SBSP-P-40		PTFE		4" single body stem seal plug (PTFE)	1	-		
SSV-DBSP-P-10		8D	PTFE	1" double body stem seal plug (PTFE)	-	1	Divert	
SSV-DBSP-P-15			PTFE	1½" double body stem seal plug (PTFE)	-	1		
SSV-DBSP-P-20			PTFE	2" double body stem seal plug (PTFE)	-	1		
SSV-DBSP-P-25			PTFE	2½" double body stem seal plug (PTFE)	-	1		
SSV-DBSP-P-30			PTFE	3" double body stem seal plug (PTFE)	-	1		
SSV-DBSP-P-40			PTFE	4" double body stem seal plug (PTFE)	-	1		
Body Clamp		13MHHM200SN	9	304	1" body clamp	1	2	Shut-Off / Divert
		13MHHM250SN		304	1½" body clamp	1	2	
	13MHHM300SN	304		2" body clamp	1	2		
	13MHHV300SN	304		2½" body clamp	1	2		
	13MHHM400SN	304		3" body clamp	1	2		
	13MHHM500SN	304		4" body clamp	1	2		
	Lower Valve Body (L-Port) TriClamp	SSV-LBLC10		10A	316L	1" lower valve body (L) configuration, triclamp	1	
SSV-LBLC15		316L	1½" lower valve body (L) configuration, triclamp		1	1		
SSV-LBLC20		316L	2" lower valve body (L) configuration, triclamp		1	1		
SSV-LBLC25		316L	2½" lower valve body (L) configuration, triclamp		1	1		
SSV-LBLC30		316L	3" lower valve body (L) configuration, triclamp		1	1		
SSV-LBLC40		316L	4" lower valve body (L) configuration, triclamp		1	1		
Lower Valve Body (L-Port) ButtWeld	SSV-LBLB10	10A	316L	1" lower valve body (L) configuration, buttweld	1	1	Shut-Off / Divert	
	SSV-LBLB15		316L	1½" lower valve body (L) configuration, buttweld	1	1		
	SSV-LBLB20		316L	2" lower valve body (L) configuration, buttweld	1	1		
	SSV-LBLB25		316L	2½" lower valve body (L) configuration, buttweld	1	1		
	SSV-LBLB30		316L	3" lower valve body (L) configuration, buttweld	1	1		
	SSV-LBLB40		316L	4" lower valve body (L) configuration, buttweld	1	1		
Lower Valve Body (T-Port) TriClamp	SSV-LBTC10	10A	316L	1" lower valve body (T) configuration, triclamp	1	1	Shut-Off / Divert	
	SSV-LBTC15		316L	1½" lower valve body (T) configuration, triclamp	1	1		
	SSV-LBTC20		316L	2" lower valve body (T) configuration, triclamp	1	1		
	SSV-LBTC25		316L	2½" lower valve body (T) configuration, triclamp	1	1		
	SSV-LBTC30		316L	3" lower valve body (T) configuration, triclamp	1	1		
	SSV-LBTC40		316L	4" lower valve body (T) configuration, triclamp	1	1		

Bill of Materials

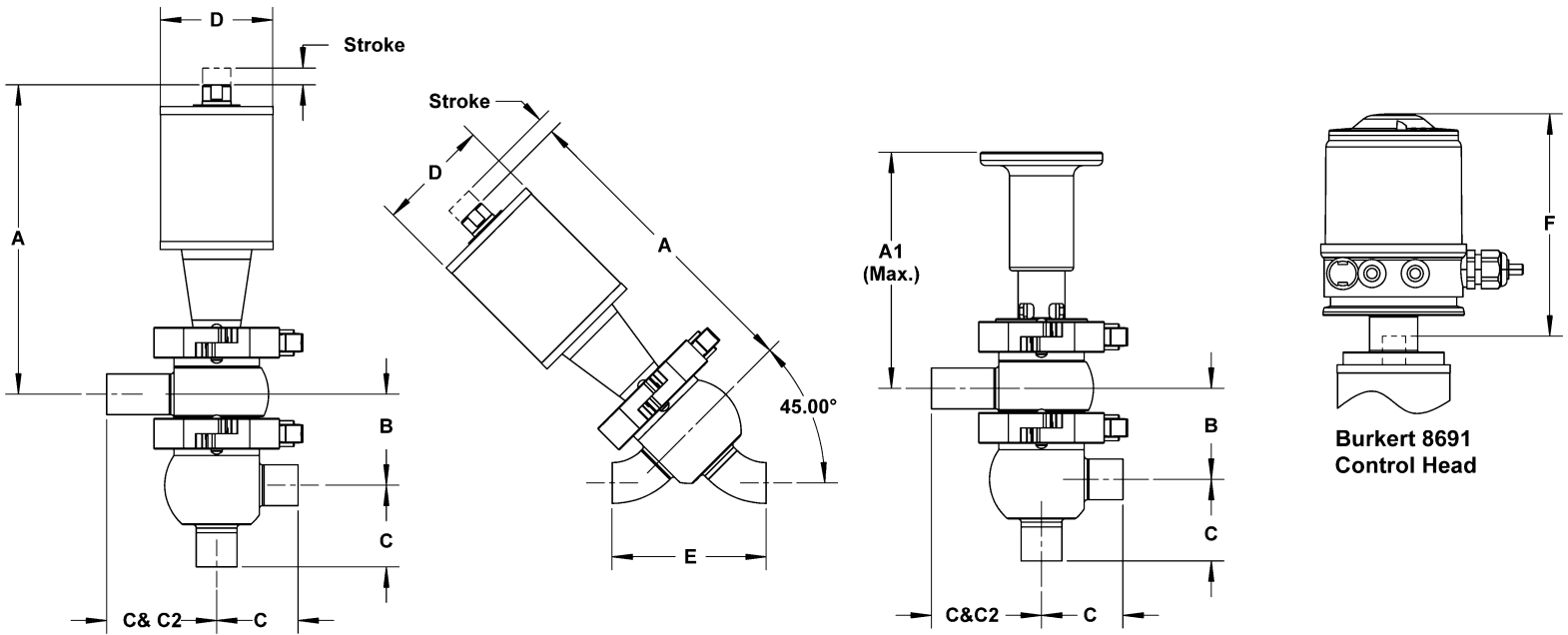
SSV Series Shut-Off and Divert Single Seats (manual handle)

Part Type	Part Number	Item No.	Material	Description	Qty		Valve Type
					Shut-Off	Divert	
Lower Valve Body (T-Port) ButtWeld	SSV-LBTB10	10A	316L	1" lower valve body (T) configuration, buttweld	1	1	Shut-Off / Divert
	SSV-LBTB15		316L	1½" lower valve body (T) configuration, buttweld	1	1	
	SSV-LBTB20		316L	2" lower valve body (T) configuration, buttweld	1	1	
	SSV-LBTB25		316L	2½" lower valve body (T) configuration, buttweld	1	1	
	SSV-LBTB30		316L	3" lower valve body (T) configuration, buttweld	1	1	
	SSV-LBTB40		316L	4" lower valve body (T) configuration, buttweld	1	1	
Lower Valve Body (Y-Port) TriClamp	SSV-LBYC10	10A	316L	1" lower valve body (Y) configuration, triclamp	1	-	Shut-Off
	SSV-LBYC15		316L	1½" lower valve body (Y) configuration, triclamp	1	-	
	SSV-LBYC20		316L	2" lower valve body (Y) configuration, triclamp	1	-	
	SSV-LBYC25		316L	2½" lower valve body (Y) configuration, triclamp	1	-	
	SSV-LBYC30		316L	3" lower valve body (Y) configuration, triclamp	1	-	
	SSV-LBYC40		316L	4" lower valve body (Y) configuration, triclamp	1	-	
Lower Valve Body (Y-Port) ButtWeld	SSV-LBYB10	10A	316L	1" lower valve body (Y) configuration, buttweld	1	-	Shut-Off
	SSV-LBYB15		316L	1½" lower valve body (Y) configuration, buttweld	1	-	
	SSV-LBYB20		316L	2" lower valve body (Y) configuration, buttweld	1	-	
	SSV-LBYB25		316L	2½" lower valve body (Y) configuration, buttweld	1	-	
	SSV-LBYB30		316L	3" lower valve body (Y) configuration, buttweld	1	-	
	SSV-LBYB40		316L	4" lower valve body (Y) configuration, buttweld	1	-	
Upper Valve Body (L-Port) TriClamp	SSV-UBLC10	10B	316L	1" upper valve body (L) configuration, triclamp	-	1	Divert
	SSV-UBLC15		316L	1½" upper valve body (L) configuration, triclamp	-	1	
	SSV-UBLC20		316L	2" upper valve body (L) configuration, triclamp	-	1	
	SSV-UBLC25		316L	2½" upper valve body (L) configuration, triclamp	-	1	
	SSV-UBLC30		316L	3" upper valve body (L) configuration, triclamp	-	1	
	SSV-UBLC40		316L	4" upper valve body (L) configuration, triclamp	-	1	
Upper Valve Body (L-Port) ButtWeld	SSV-UBLB10	10B	316L	1" upper valve body (L) configuration, buttweld	-	1	Divert
	SSV-UBLB15		316L	1½" upper valve body (L) configuration, buttweld	-	1	
	SSV-UBLB20		316L	2" upper valve body (L) configuration, buttweld	-	1	
	SSV-UBLB25		316L	2½" upper valve body (L) configuration, buttweld	-	1	
	SSV-UBLB30		316L	3" upper valve body (L) configuration, buttweld	-	1	
	SSV-UBLB40		316L	4" upper valve body (L) configuration, buttweld	-	1	
Upper Valve Body (T-Port) TriClamp	SSV-UBTC10	10B	316L	1" upper valve body (T) configuration, triclamp	-	1	Divert
	SSV-UBTC15		316L	1½" upper valve body (T) configuration, triclamp	-	1	
	SSV-UBTC20		316L	2" upper valve body (T) configuration, triclamp	-	1	
	SSV-UBTC25		316L	2½" upper valve body (T) configuration, triclamp	-	1	
	SSV-UBTC30		316L	3" upper valve body (T) configuration, triclamp	-	1	
	SSV-UBTC40		316L	4" upper valve body (T) configuration, triclamp	-	1	
Upper Valve Body (T-Port) ButtWeld	SSV-UBTB10	10B	316L	1" upper valve body (T) configuration, buttweld	-	1	Divert
	SSV-UBTB15		316L	1½" upper valve body (T) configuration, buttweld	-	1	
	SSV-UBTB20		316L	2" upper valve body (T) configuration, buttweld	-	1	
	SSV-UBTB25		316L	2½" upper valve body (T) configuration, buttweld	-	1	
	SSV-UBTB30		316L	3" upper valve body (T) configuration, buttweld	-	1	
	SSV-UBTB40		316L	4" upper valve body (T) configuration, buttweld	-	1	
Stem Seal Plug O-Ring	SSV-SPOR-E-1015	11	EPDM	1 - 1½" stem seal plug O-ring (EPDM)	1	1	Shut-Off / Divert
	SSV-SPOR-E-2040		EPDM	2 - 4" stem seal plug O-ring (EPDM)	1	1	
	SSV-SPOR-V-1015		FKM	1 - 1½" stem seal plug O-ring (FKM)	1	1	Shut-Off / Divert
	SSV-SPOR-V-2040		FKM	2 - 4" stem seal plug O-ring (FKM)	1	1	

Troubleshooting

Problem	Possible Cause	Suggested Action
Valve does not move	No compressed air	Check compressed air connection: Is control air being supplied? Is the control air a minimum of 87 PSI ? Are the compressed air hoses airtight? Are the screw-in connections on the actuator fastened tightly and free of leaks?
	Control system error	Check system configuration
	Electrical system error	Check controller and lines
	Defective pilot valve	Check control head, replace pilot valve
	O-ring defective	Remove actuator and check the O-rings on the seat and replace if necessary
Valve moving too slowly	Compressed air too low or vent bore hole on actuator blocked	Increase the supply air pressure to a minimum of 87 PSI and remove anything blocking the vent hole on pressure actuator
Valve moving unevenly	Compressed air supply too weak and media pressure too high	Increase air volume or pressure and reduce media pressure if possible
Valve emitting excessive mechanical noise	Valve or actuator defective; foreign particles in valve	Remove valve and replace valve or damaged components if necessary
Valve leaking at seals	Seal defective or worn	Replace seal if necessary
Any other issues		Contact Dixon Sanitary 800-789-1718

Overall Dimensional Drawing



Valve Size	A	A1	Stroke	B	C (Clamp)	C (Weld)	C2 (Clamp)	C2 (Weld)	D	E (Clamp)	E (Weld)	F
1.0 in	7.58	5.80	0.41	2.23	2.50	2.00	3.20	2.00	2.78	4.78	3.78	6.00
1.5 in	8.80	6.10	0.77	3.15	2.75	2.25	--	--	4.11	6.60	5.60	6.00
2.0 in	9.05	6.28	0.77	3.64	3.50	3.00	--	--	4.11	7.64	6.64	6.00
2.5 in	11.36	6.52	1.04	4.72	3.50	3.00	--	--	6.08	9.33	8.33	6.00
3.0 in	11.61	6.78	1.04	5.04	3.75	3.25	--	--	6.08	10.63	9.63	6.00
4.0 in	12.10	7.25	1.04	5.94	4.50	3.87	--	--	6.08	13.18	11.93	6.00

3A Certificate

Dixon Sanitary holds active 3A certification on the SSV-Series Single Seat Valves under the 3A 53-07 compression valve standard. Our authorization number is 1655. Our certificate can be downloaded on our website or by visiting www.3-a.org

Limited Warranty

Dixon Sanitary (herein called "Dixon") warrants the products described herein, and manufactured by Dixon to be free from defects in material and workmanship for a period of one (1) year from date of shipment by Dixon under normal use and service. Its sole obligation under this warranty being limited to repairing or replacing, as hereinafter provided, at its option any product found to Dixon's satisfaction to be defective upon examination by it, provided that such product shall be returned for inspection to Dixon's factory within three (3) months after discovery of the defect. The repair or replacement of defective products will be made without charge for parts or labor. This warranty shall not apply to: (a) parts or products not manufactured by Dixon, the warranty of such items being limited to the actual warranty extended to Dixon by its supplier; (b) any product that has been subject to abuse, negligence, accident, or misapplication; (c) any product altered or repaired by others than Dixon; and (d) to normal maintenance services and the replacement of service items (such as washers, gaskets and lubricants) made in connection with such services. To the extent permitted by law, this limited warranty shall extend only to the buyer and any other person reasonably expected to use or consume the goods who is injured in person by any breach of the warranty. No action may be brought against Dixon for an alleged breach of warranty unless such action is instituted within one (1) year from the date the cause of action accrues. This limited warranty shall be construed and enforced to the fullest extent allowable by applicable law.

Other than the obligation of Dixon set forth herein, Dixon disclaims all warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose, and any other obligation or liability. The foregoing constitutes Dixon's sole obligation with respect to damages, whether direct, incidental or consequential, resulting from the use or performance of the product.

Some products and sizes may be discontinued when stock is depleted, or may require a minimum quantity for ordering.

