

January 2022

Type SR8 Sanitary Backpressure Regulator

WARNING

Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion, fire and/or chemical contamination causing property damage and personal injury or death.

Fisher™ backpressure regulators must be installed, operated and maintained in accordance with federal, state and local codes, rules and regulations and Emerson Process Management Regulator Technologies, Inc. instructions.

If a leak develops or if the outlet continually vents liquid, service to the unit may be required. Failure to correct trouble could result in a hazardous condition. Only a qualified person must install or service the unit.

Installation, operation and maintenance procedures performed by unqualified personnel may result in improper adjustment and unsafe operation. Either condition may result in equipment damage or personal injury. Use qualified personnel when installing, operating and maintaining the Type SR8 Sanitary backpressure regulator.



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Figure 1. Type SR8

Introduction

Type SR8 self-contained backpressure regulators are suitable for pressure control of steam, liquid or gaseous service. Typical set points range from 2 to 125 psi / 0.2 to 8.6 bar. The regulator is designed to meet sanitary application and material requirements.

Scope of the Manual

This manual provides installation, startup, maintenance and parts ordering information for the Type SR8 Sanitary Backpressure Regulator.

Type SR8

Specifications

The Specifications section on this page provides the ratings and other specifications for the Type SR8. The following information is stamped on the nameplate fastened on the regulator at the factory: type; body size; maximum inlet, outlet and differential pressure; maximum pressure above setpoint; maximum temperature; spring range; cage type; trim and diaphragm material.

Body Size, Inlet and Outlet Connection Style

1/2, 3/4, 1, 1-1/2, 2 and 3 in. /
15, 20, 25, 40, 50 and 80 mm

End Connection⁽⁴⁾

Tri-Clamp[®] Sanitary connections

Body Pressure/Temperature Ratings⁽¹⁾

MAXIMUM TEMPERATURE		MAXIMUM INLET PRESSURE		MAXIMUM OUTLET PRESSURE	
°F	°C	psig	bar	psig	bar
150	65	210	14.5	210	14.5
275	135	180	12.4	180	12.4
400	204	160	11	160	11

Maximum Operating Pressures⁽¹⁾⁽³⁾

See Table 1

Set Pressure Ranges

See Table 2

Maximum Differential Pressures⁽¹⁾

See Table 3

Regulator Temperature Capabilities⁽¹⁾

See Table 4

Pressure Registration

Internal

Service Media

Steam, Gas and Liquid

Options

Vacuum protection
Pressure loaded spring case
T-handle adjusting screw

Pressure Loaded Spring Case Option

Maximum Loading Pressure

1/2 through 1-1/2 in. / 15 through 40 mm body:

125 psig / 8.62 bar

2 and 3 in. / 50 and 80 mm body:

60 psig / 4.14 bar

1/4 NPT tapped vent connection

Vacuum Protection Option

Maximum Vacuum Pressure

14 psig / 0.96 bar (vacuum)

Certifications Available upon Request

FDA approved elastomers/plastics
Material and Functional Test Certificates
USP Class VI approved elastomers/plastics⁽²⁾
ADI free compliant elastomers/plastics⁽²⁾

1. The pressure/temperature limits in this Instruction Manual and any applicable standard or code limitation should not be exceeded.
2. Contact your local Sales Office for details on available constructions.
3. Maximum pressure to prevent damage to internal parts and leakage to atmosphere.
4. End connection clamps and gaskets to be supplied by the user.

Table 1. Maximum Operating Pressures

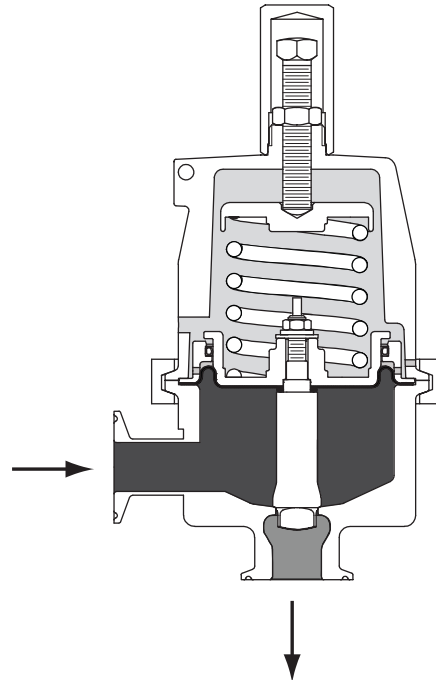
BODY SIZE		MAXIMUM TEMPERATURE		MAXIMUM INLET PRESSURE		MAXIMUM OUTLET PRESSURE	
In.	mm	°F	°C	psig	bar	psig	bar
1/2, 3/4, 1 and 1-1/2	15, 20, 25 and 40	150	65	210	14.5	210	14.5
		275	135	180	12.4	180	12.4
		400	204	160	11	160	11
2 and 3	50 and 80	150	65	150	10.3	150	10.3
		275	135	125	8.62	125	8.62
		400	204	110	7.58	110	7.58

Principle of Operation

Pressure in the controlled system (regulator inlet pressure) registers beneath the diaphragm of the regulator and opposes the force provided by the predetermined spring compression. When regulator

spring force exceeds diaphragm force exerted by the inlet pressure, the spring will keep the valve plug closed to prevent flow to the downstream system. As inlet pressure increases above setpoint, this increase registers on the diaphragm and the valve plug opens to allow flow to the downstream system.

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INLET PRESSURE
 OUTLET PRESSURE
 ATMOSPHERIC PRESSURE

Figure 2. Operational Schematic

Table 2. Set Pressure Ranges and Control Spring Data

BODY SIZE		SET PRESSURE RANGE		COLOR	WIRE DIAMETER		FREE LENGTH		PART NUMBER
In.	mm	psig	bar		In.	mm	In.	mm	
1/2, 3/4	15, 20	2 to 8	0.2 to 0.5 ⁽¹⁾	Blue	0.138	3.51	2.75	69.9	GE06780X012
		5 to 25	0.4 to 1.7	Silver	0.177	4.50	2.75	69.9	GE06781X012
		10 to 50	0.7 to 3.4	Green	0.192	4.88	2.75	69.9	GE06782X012
		35 to 100	2.4 to 6.9	Red	0.225	5.72	2.75	69.9	GE06783X012
		75 to 125	5.2 to 8.6	Red Yellow	0.225 0.148	5.72 3.76	2.75 2.75	69.9 69.9	GE06783X012 GE06784X012
1, 1-1/2 full port 1-1/2 x 1	25, 40 full port 40 x 25	2 to 8	0.2 to 0.5 ⁽¹⁾	Blue	0.225	5.72	3.25	82.6	GE02763X012
		5 to 25	0.4 to 1.7	Silver	0.282	7.16	3.25	82.6	GE02764X012
		15 to 70	1.0 to 4.8	Green	0.331	8.41	3.25	82.6	GE02765X012
		25 to 90	1.7 to 6.2	Red	0.362	9.19	3.25	82.6	GE02766X012
		35 to 100	2.4 to 6.9	Green Yellow	0.331 0.250	8.41 6.35	3.2 3.25	82.6 82.6	GE02765X012 GE06090X012
		75 to 125	5.2 to 8.6	Red Yellow	0.362 0.250	9.19 6.35	3.25 3.25	82.6 82.6	GE02766X012 GE06090X012
2 and 3	50 and 80	10 to 25	0.7 to 1.7	Silver	0.562	14.3	6	152.4	GE14003X012
		15 to 50	1.0 to 3.4	Green	0.625	15.9	6	152.4	GE14004X012
		25 to 60	1.7 to 4.1	Red	0.625	15.9	6	152.4	GE14005X012

1. The 2 to 8 psig / 0.14 to 0.55 bar spring is not available with the metal diaphragm.

Table 3. Maximum Differential Pressures

BODY SIZE		OUTLET PRESSURE RANGE		COLOR	MAXIMUM DIFFERENTIAL PRESSURE	
In.	mm	psig	bar		psid	bar d
1/2, 3/4	15, 20	2 to 8	0.2 to 0.5	Blue	15	1.0
		5 to 25	0.4 to 1.7	Silver	40	2.7
		10 to 50	0.7 to 3.4	Green	100	6.9
		35 to 100	2.4 to 6.9	Red	140	9.6
		75 to 125	5.2 to 8.6	Red/Yellow	160	11
1, 1-1/2 full port 1-1/2 x 1	25, 40 full port 40 x 25	2 to 8	0.2 to 0.5	Blue	15	1.0
		5 to 25	0.4 to 1.7	Silver	40	2.7
		15 to 70	1.0 to 4.8	Green	100	6.9
		25 to 90	1.7 to 6.2	Red	125	8.6
		35 to 100	2.4 to 6.9	Green/Yellow	140	9.6
		75 to 125	5.2 to 8.6	Red/Yellow	160	11
2 and 3	50 and 80	10 to 25	0.7 to 1.7	Silver	50	3.4
		15 to 50	1.0 to 3.4	Green	75	5.2
		25 to 60	1.7 to 4.1	Red	75	5.2

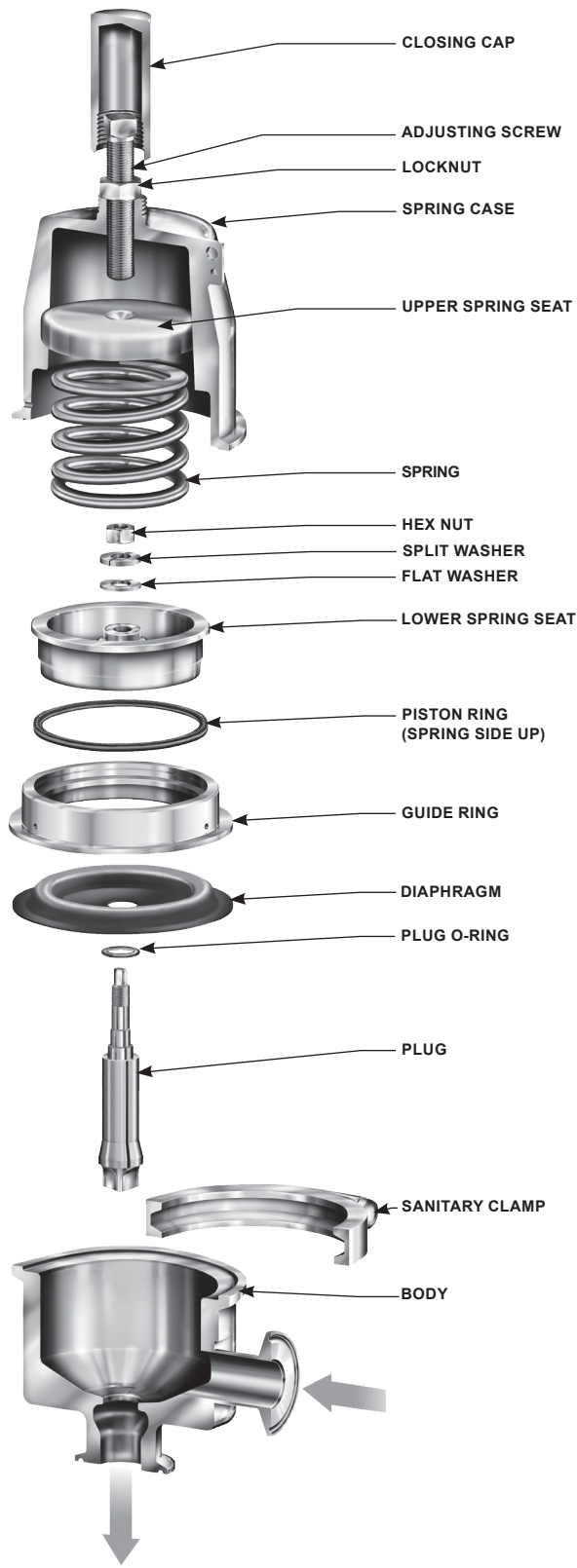


Figure 3. Type SR8 Exploded View



WARNING

Regulators should be installed, operated and maintained in accordance with federal, state and local codes, rules and regulations and Fisher™ instructions.

If a leak develops in the system, it indicates service is required. Failure to take the regulator out of service immediately may create a hazardous condition.

Installation

Clean out all pipelines before installation of the regulator and check to be sure the regulator has not been damaged or collected foreign material during shipping. The regulator may be installed in any position desired. However, to ensure self-draining (from inlet to outlet) the regulator should be installed with the spring case in the upright vertical position. The arrow on the body indicates flow direction.

The piping flange to regulator end connection flange clamps and gaskets are supplied by the user. Clamp gaskets must be compatible with the system requirements. Install and tighten clamps to manufacturer's specifications.

Note

It is important that the regulator be installed so that the vent hole in the spring case is unobstructed at all times.

Pressure Loaded Construction

The spring case can be pressure loaded to adjust set pressure. An optional tapped spring case, guide ring seal and sealing washer on the adjusting screw must be used for these applications. The loading pressure is connected to the 1/4 NPT connection in the spring case allowing registration on the spring side of the diaphragm. Adjusting loading pressure will proportionally change the pressure setting of the regulator. A small amount of mechanical spring load, in addition to the pressure load, is recommended. Regulator set pressure achieved from the combination of spring load and pressure load should not exceed the set pressure ranges listed in Table 2.

Table 4. Temperature Capabilities

SEAT TYPE	DIAPHRAGM MATERIAL	O-RING MATERIAL	TEMPERATURE RANGE	
			°F	°C
Metal (Stainless steel)	Ethylene Propylene Diene (EPDM)	EPDM	-20 to 275	-28 to 135
	Stainless steel	PTFE/Fluorocarbon (FKM) ⁽¹⁾	20 to 400	-6 to 204
	PTFE/Fluorocarbon (FKM)	PTFE/Fluorocarbon (FKM)	20 to 400	-6 to 204
Soft (Polytetrafluoroethylene (PTFE)/ Stainless steel)	EPDM	EPDM	-20 to 150	-28 to 65
	Stainless steel	PTFE/Fluorocarbon (FKM) ⁽¹⁾	20 to 150	-6 to 65
	PTFE/Fluorocarbon (FKM)	PTFE/Fluorocarbon (FKM)	20 to 150	-6 to 65
Soft (Polyether Ether Ketone (PEEK)/ Stainless steel)	EPDM	EPDM	-20 to 275	-28 to 135
	Stainless steel	PTFE/Fluorocarbon (FKM) ⁽¹⁾	20 to 400	-6 to 204
	PTFE/Fluorocarbon (FKM)	PTFE/Fluorocarbon (FKM)	20 to 400	-6 to 204

1. O-ring material is PTFE for the 1/2 and 3/4 in. / 15 and 20 mm sizes. Temperature range is the same.



WARNING

Over pressuring any portion of this equipment may result in equipment damage, leaks in the valve or personal injury due to bursting of pressure-containing parts. The system should be inspected after any overpressure condition.

Startup

The regulator is factory set to the midpoint of the spring range. Please refer to the Adjustment section for directions on changing the setpoint. With proper installation completed, slowly open the upstream and downstream shutoff valves.

Note

When the pressure load option is used, always open block valves on main line before applying loading pressure to the spring case to avoid diaphragm damage.

Adjustment

The setting of the regulator can be varied within the pressure range stamped on the nameplate. Setpoint is defined as the point the regulator starts to open. Build up above setpoint is required to achieve maximum capacity. To change the setpoint, loosen the locknut (key 17, Figure 4) or locking lever (key 22, Figure 4) and turn the adjusting screw (key 18, Figure 4) clockwise to increase the setpoint or counterclockwise to decrease it. Monitor the inlet pressure with a test gauge during the adjustment. Tighten the locknut or locking lever to maintain the desired setting. Available set pressure ranges, recommended maximum allowable differential pressures and spring data are shown in Tables 2 and 3.

Shutdown

Close the upstream shutoff valve. Close downstream shutoff valve. Open the applicable bleed valves to exhaust the system.

Note

When the pressure loaded option is used, bleed all pressure from the spring case before bleeding pressure under the diaphragm to avoid internal part damage.

Maintenance



WARNING

Before disassembling the regulator, isolate it from the pressure system and release all pressure from the regulator as specified in the Shutdown section. Relieve all spring compression and isolate regulator from the pressurized system prior to removing the clamp (key 15).

Due to normal wear that may occur, parts must be periodically inspected and replaced if necessary. The frequency of inspection depends on the severity of service conditions. A preventative maintenance schedule should be implemented that checks regulator setpoint and lockup and that evaluates regulator performance to the system requirements. Regulator performance outside the system requirements will require either adjustment, part maintenance or regulator replacement to meet system requirements.

This section includes instructions for disassembly and replacement of parts. All key numbers refer to Figure 4 or 5.

Type SR8

1. If damage to the diaphragm or seating surface is suspected or to inspect other internal parts, loosen the locknut (key 17) or locking lever (key 22) and turn the adjusting screw (key 18) counterclockwise to remove all spring compression.
2. Loosen the sanitary clamp (key 15) to remove the spring case (key 14). Remove the upper spring seat (key 11) and the regulator spring (keys 12 and 13, when applicable).
3. Remove the diaphragm assembly and plug from the body (key 1). Inspect parts for damage.

Note

When disassembling a unit with a metal diaphragm, replace both diaphragm gaskets (key 6) to ensure a good seal at the diaphragm flange.

Replace the piston ring (key 5), if it has been removed from the guide ring (key 9). Take care not to damage the piston ring during replacement.

4. If parts require replacement, loosen the nut (key 16) while holding wrench flats on plug (key 3) and remove the lock washer (key 24) and flat washer (key 23). The lower spring seat (key 8), guide ring (key 9), diaphragm (key 7) and plug O-ring (key 3) can now be removed from the plug (key 2). An optional lower diaphragm plate (key 10) and O-ring (key 4) are included for the constructions offering protection against vacuum conditions.
5. Replace any damaged parts. Refer to the section titled Soft Seat Maintenance when the seat needs to be replaced.
6. Reassemble in the reverse order of the above procedure. The order is listed below or refer to Figure 3.
 - a. Plug (key 2)
 - b. Plug O-ring (key 3)
 - c. Diaphragm plate (key 10) (vacuum protection construction only)
 - d. Diaphragm plate O-ring (key 4) (vacuum protection construction only)
 - e. Diaphragm gasket (key 6) (Metal diaphragms only)
 - f. Diaphragm (key 7)
 - g. Diaphragm gasket (key 6) (Metal diaphragms only)
 - h. Guide ring assembly (keys 9 and 5)
 - i. Lower spring seat (key 8)
 - j. Flat Washer (key 23)
 - k. Lock Washer (key 24)
 - l. Hex Nut (key 16)

7. Hold wrench flats on plug (key 2), then torque hex nut (key 16) to 6 to 8 in-lbs / 0.7 to 0.9 N•m for the 1/2 and 3/4 in. / 15 and 20 mm, 5 to 7 ft-lbs / 7 to 9 N•m for the 1 and 1-1/2 in. / 25 and 40 mm and 28 to 30 ft-lbs / 38 to 41 N•m for 2 and 3 in. / 50 and 80 mm. After tightening the hex nut, apply threadlocker medium/high strength sealant or equivalent to the nut/thread interface.
8. Position diaphragm assembly in body (key 1). Replace regulator spring (keys 12 and 13, when applicable) and upper spring seat (key 11). Replace the spring case (key 14) and sanitary clamp (key 15). Torque clamp nuts to 20 to 22 ft-lbs / 27 to 30 N•m for the 1/2 through 1-1/2 in. / 15 mm through 40 and 38 to 40 ft-lbs / 52 to 54 N•m for the 2 and 3 in. / 50 and 80 mm.

Note

Lubricate the adjusting screw (key 18) threads and the sanitary clamp bolt threads (key 15) to reduce galling of Stainless steel. Factory recommends anti-seize lubricant.

Keep even spacing between clamp halves when tightening clamp nuts. This will ensure even loading of the diaphragm. If clamp halves touch, please contact factory for a replacement clamp.

9. Follow Startup and Adjustment procedures.

Soft Seat Maintenance

Take care not to damage the internal/wetted surface finish when performing Soft Seat Maintenance.

1. Disassemble the regulator as stated in the prior section.
2. To access soft seat (key 28), unscrew the lower plug (key 27) from the upper plug (key 26). If damaged, replace with new part. Apply Loctite 246 or equivalent to external thread before tightening. Proper torque for the assembly is 6 to 8 in-lbs / 0.7 to 0.9 N•m for the 1/2 and 3/4 in. / 15 and 20 mm; 8 to 10 in-lbs / 0.9 to 1.1 N•m for the 1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm; and 5 to 7 ft-lbs / 7 to 9 N•m for the 1-1/2 in. / 40 mm. Torque for 2 and 3 in. / 50 and 80 mm is 23 to 25 ft-lbs / 31 to 34 N•m.
3. Reassemble as stated in the prior section.

Parts Ordering

When corresponding with your local Sales Office or sales representative about this equipment, always reference the equipment serial number and FS number that can be found on the nameplate.

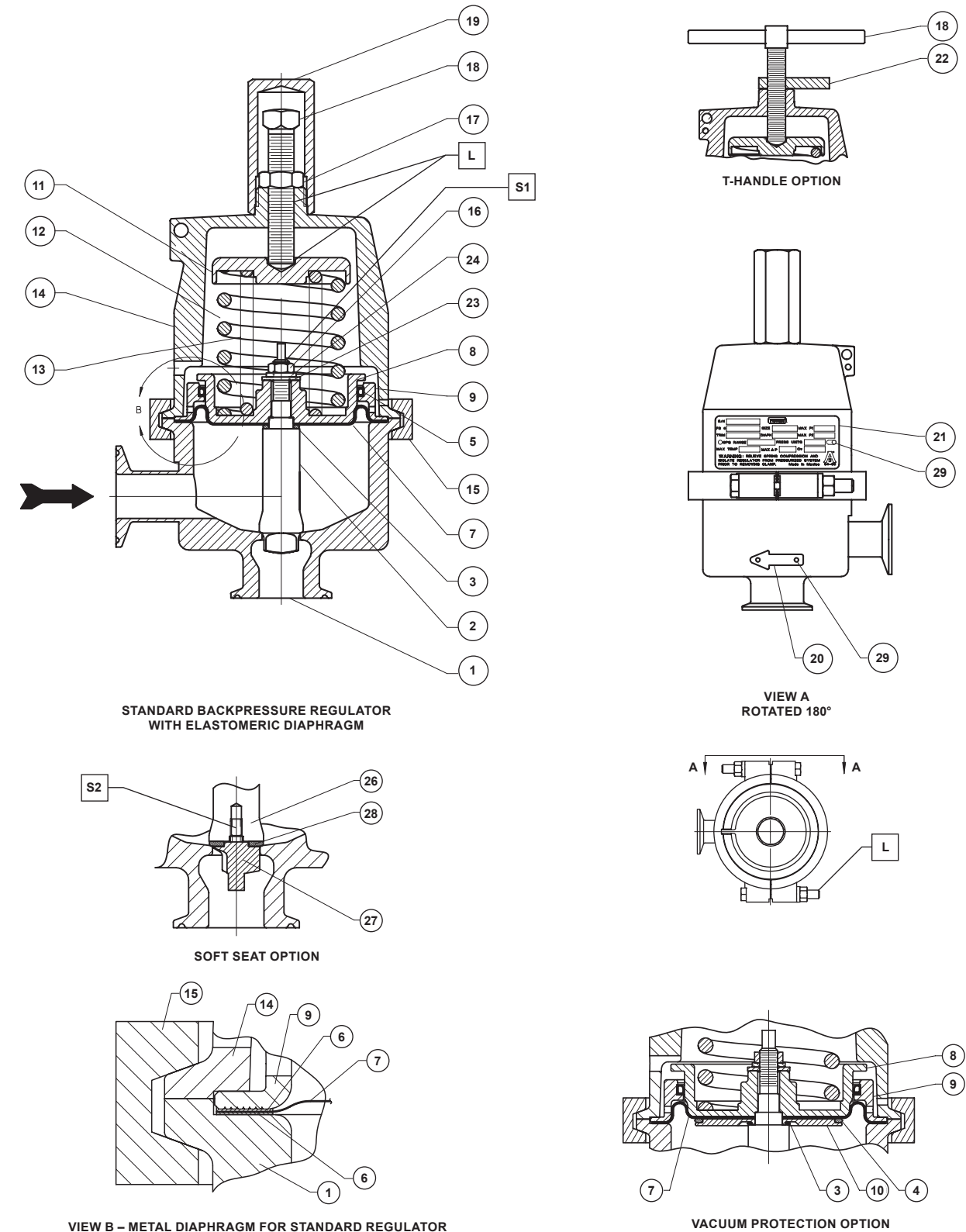
When ordering replacement parts, reference the key number of each needed part as found in the following parts list. Separate kits containing all recommended spare parts are available.

Parts List

Key	Description	Part Number
	Parts Kits	
	Diaphragm Kits (includes keys 3, 5 and 7. Stainless steel kits include key 6, quantity 2). Does not include all applicable parts for changing between elastomer and metal diaphragm constructions. See parts list for differences.	
	1/2 and 3/4 in. / 15 and 20 mm bodies	
	EPDM diaphragm and O-ring	RSR58X00E12
	Stainless steel Diaphragm and PTFE/Fluorocarbon (FKM) O-rings	RSR58X00S12
	PTFE/Fluorocarbon (FKM) Diaphragm and O-rings	RSR58X00V12
	1 and 1-1/2 in. / 25 and 40 mm bodies	
	EPDM diaphragm and O-rings	RSR58X00E22
	Stainless steel Diaphragm and PTFE/Fluorocarbon (FKM) O-rings	RSR58X00S22
	PTFE/Fluorocarbon (FKM) Diaphragm and O-rings	RSR58X00V22
	2 and 3 in. / 50 and 80 mm bodies	
	EPDM diaphragm and O-rings	RSR58X00E32
	Stainless steel Diaphragm and PTFE/Fluorocarbon (FKM) O-rings	RSR58X00S32
	Soft Seat Kits (include keys 26, 27 and 28)	
	1/2 in. / 15 mm body	
	PTFE/Stainless steel	GE06788X012
	PEEK/Stainless steel	GE06788X022
	3/4 in. / 20 mm body	
	PTFE/Stainless steel	GE06797X012
	PEEK/Stainless steel	GE06797X022
	1 in. / 25 mm body	
	PTFE/Stainless steel	GE06323X012
	PEEK/Stainless steel	GE06323X022
	1-1/2 in. / 40 mm body	
	PTFE/Stainless steel	GE06324X012
	PEEK/Stainless steel	GE06324X022
	2 and 3 in. / 50 and 80 mm bodies	
	PTFE/Stainless steel	GE14009X012
	PEEK/Stainless steel	GE14009X022
1	Body	
	1/2 in. / 15 mm body	GE07951X012
	3/4 in. / 20 mm body	GE07952X012
	1 in. / 25 mm body	GE07949X012
	1-1/2 in. / 40 mm body	GE07950X012
	1-1/2 x 1 in. / 40 x 25 mm body	GE07776X012
	2 in. / 50 mm body	GE13988X012
	3 in. / 80 mm body	GE13989X012
2	Plug (metal seat)	
	1/2 in. / 15 mm body	GE06786X012
	3/4 in. / 20 mm body	GE06795X012
	1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm bodies	GE06039X012
	1-1/2 in. / 40 mm body	GE06191X012
	2 and 3 in. / 50 and 80 mm bodies	GE14007X012
3	Plug O-ring	
	1/2 and 3/4 in. / 15 and 20 mm bodies	
	Elastomer diaphragms	1H2919X0022
	EPDM	1P8453X0042
	PTFE/Fluorocarbon (FKM)	
	Stainless steel diaphragms	GE10788X012
	PTFE	14B1935X032
	EPDM	
	1 and 1-1/2 in. / 25 and 40 mm bodies	
	Elastomer diaphragms	1D2888X0042
	EPDM	1C7822X0142
	PTFE/Fluorocarbon (FKM)	
	Stainless steel diaphragms	16A6903X022
	PTFE/Fluorocarbon (FKM)	14A1968X042
	EPDM	
	2 and 3 in. / 50 and 80 mm bodies	
	Elastomer diaphragms	1B8855X0112
	EPDM	12A0006X022
	PTFE/Fluorocarbon (FKM)	
	Stainless steel diaphragms	12A0006X022
	PTFE/Fluorocarbon (FKM)	1B8855X0112
	EPDM	
4	Diaphragm Plate O-ring	
	1 and 1-1/2 in. / 25 and 40 mm bodies	
	EPDM	1V3234X0042
	PTFE/Fluorocarbon (FKM)	1V3234X0052
	2 and 3 in. / 50 and 80 mm bodies	
	EPDM	1V3303X0082
	PTFE/Fluorocarbon (FKM)	1V3303X0092
5	Piston Ring	
	1/2 and 3/4 in. / 15 and 20 mm bodies	GE09274X012
	1 and 1-1/2 in. / 25 and 40 mm bodies	GE09273X012
	2 and 3 in. / 50 and 80 mm bodies	GE14027X012
6	Diaphragm Gasket, for use with 316L Stainless steel diaphragm only, PTFE (2 required)	
	1/2 and 3/4 in. / 15 and 20 mm bodies	GE06772X012
	1 and 1-1/2 in. / 25 and 40 mm bodies	GE06076X012
	2 and 3 in. / 50 and 80 mm bodies	GE13995X012
7	Diaphragm	
	1/2 and 3/4 in. / 15 and 20 mm bodies	
	EPDM	GE06778X012
	Stainless steel	GE06777X012
	PTFE/Fluorocarbon (FKM)	GE06779X012
	1 and 1-1/2 in. / 25 and 40 mm bodies	
	EPDM	GE02299X012
	Stainless steel	GE02643X012
	PTFE/Fluorocarbon (FKM)	GE06086X012
	2 and 3 in. / 50 and 80 mm bodies	
	EPDM	GE14001X012
	Stainless steel	GE14000X012
	PTFE/Fluorocarbon (FKM)	GE14002X012
8	Lower Spring Seat	
	1/2 and 3/4 in. / 15 and 20 mm bodies	
	Without Vacuum Protection	GE06774X012
	1, 1-1/2 and 1-1/2 x 1 in. / 25, 40 and 40 x 25 mm bodies	
	Without Vacuum Protection	GE06330X012
	With Vacuum Protection	GE02638X012
	2 and 3 in. / 50 and 80 mm bodies	
	Without Vacuum Protection	GE13997X012
	With Vacuum Protection	GE13998X012
9	Guide Ring	
	1/2 and 3/4 in. / 15 and 20 mm bodies	GE06770X012
	1 and 1-1/2 in. / 25 and 40 mm bodies	GE02637X012
	2 and 3 in. / 50 and 80 mm bodies	
	For EPDM/ Stainless steel Diaphragm	GE13994X012
	For PTFE/Fluorocarbon (FKM) Diaphragm	GE29277X012

Type SR8

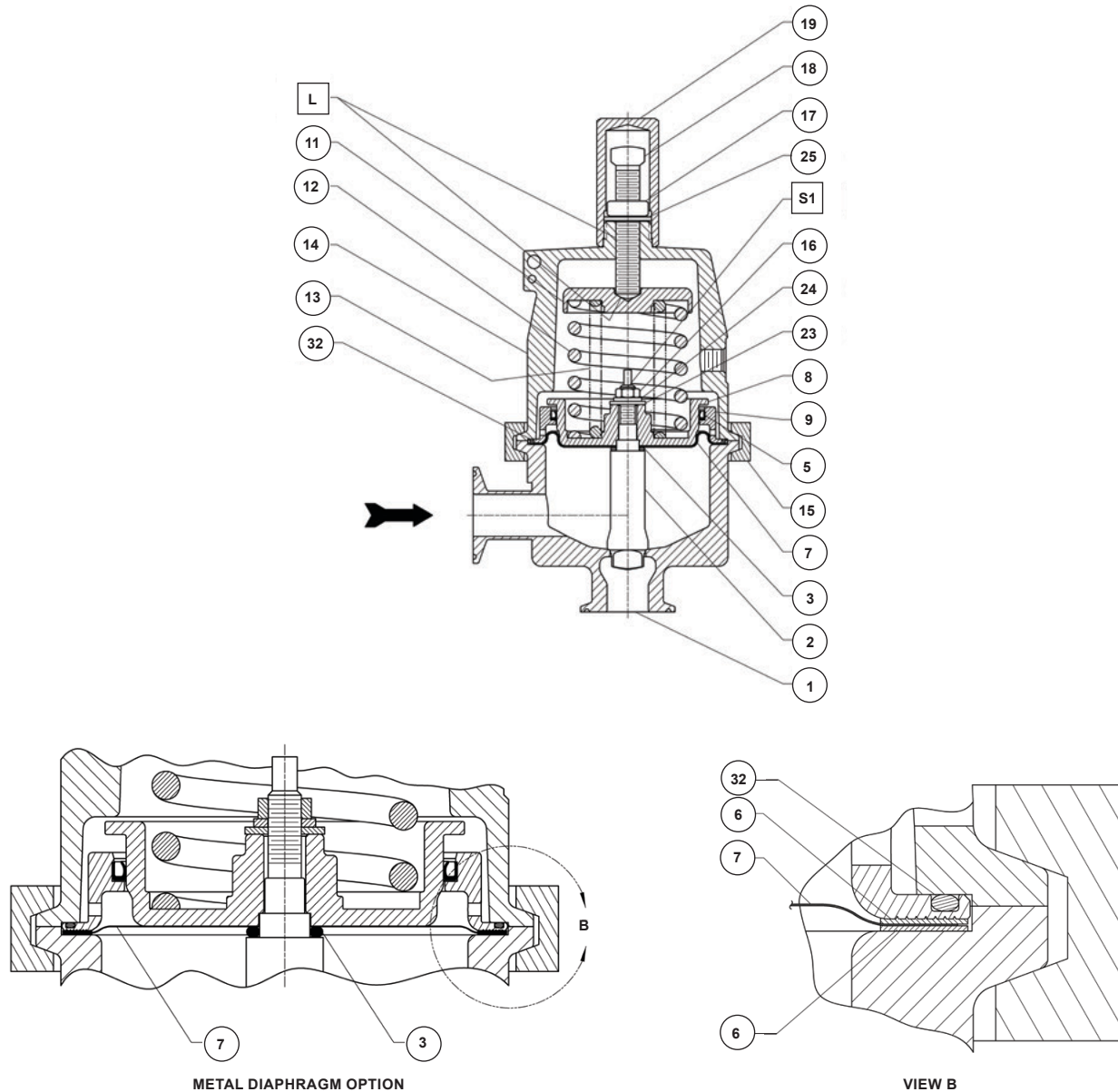
Key	Description	Part Number	Key	Description	Part Number
10	Diaphragm Plate 1, 1-1/2 and 1-1/2 x 1 in. / 25, 40 and 40 x 25 mm bodies	GE02642X012 GE13999X012	19	Closing Cap 1/2, 3/4, 1 and 1-1/2 in. / 15, 20, 25 and 40 mm bodies	1E5433X0032 20B3082X012
11	Upper Spring Seat 1/2 and 3/4 in. / 15 and 20 mm bodies 1, 1-1/2 and 1-1/2 x 1 in. / 25, 40 and 40 x 25 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE06773X012 GE02639X012 GE13996X012		Stainless steel Plastic 2 and 3 in. / 50 and 80 mm bodies	GE14028X012
12	Spring	See Table 2	20	Flow Arrow	-----
13	Spring 1/2 and 3/4 in. / 15 and 20 mm bodies 1, 1-1/2 and 1-1/2 x 1 in. / 25, 40 and 40 x 25 mm bodies	GE06784X012 GE06090X012	21	Nameplate	-----
14	Spring Case 1/2 and 3/4 in. / 15 and 20 mm bodies CF8M Stainless steel Standard Pressure Loaded 316 Stainless steel Standard Pressure Loaded 1 and 1-1/2 in. / 25 and 40 mm bodies CF8M Stainless steel Standard Pressure Loaded 316 Stainless steel Standard Pressure Loaded 2 and 3 in. / 50 and 80 mm bodies CF8M Stainless steel Standard Pressure Loaded 316 Stainless steel Standard Pressure Loaded	GE06767X012 GE06768X012 GE17730X012 GE14020X012 GE02641X012 GE06118X012 GE17755X012 GE14021X012 GE13992X012 GE13991X012 GE14018X012 GE14019X012	22	Locking Lever 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE08989X012 GE08988X012 GE14026X012
15	Bolted Clamp 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE06769X012 GE06116X012 GE13993X012	23	Flat Washer 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	1C3329X0022 GC060805X22 1A5189X0022
16	Hex Nut 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	10A1341X022 1A309338992 T1208735252	24	Lock Washer 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	1H3395X0012 1C2257K0012 1A639638992
17	Hex Nut 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	1A3465X0032 T1208635252 1A3511X0072	25	Sealing Washer 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	12A3880X012 GE20712X022 1V424699012
18	Adjusting Screw 1/2 and 3/4 in. / 15 and 20 mm bodies Standard T-Handle 1 and 1-1/2 in. / 25 and 40 mm bodies Standard T-Handle 2 and 3 in. / 50 and 80 mm bodies Standard T-Handle	GE08849X012 GE08987X012 GE06080X012 GE08985X012 GE14024X012 GE14025X012	26	Upper Plug 1/2 in. / 15 mm body 3/4 in. / 20 mm body 1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm bodies 1-1/2 in. / 40 mm body 2 and 3 in. / 50 and 80 mm bodies	GE06792X012 GE06801X012 GE06325X012 GE06326X012 GE14013X012
			27	Lower Plug 1/2 in. / 15 mm body 3/4 in. / 20 mm body 1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm bodies 1-1/2 in. / 40 mm body 2 and 3 in. / 50 and 80 mm bodies	GE06793X012 GE06802X012 GE06327X012 GE06328X012 GE14014X012
			28	Soft Seat 1/2 in. / 15 mm body PTFE PEEK 3/4 in. / 20 mm body PTFE PEEK 1 and 1-1/2 x 1 in. / 25 and 40 x 25 mm bodies PTFE PEEK 1-1/2 in. / 40 mm body PTFE PEEK 2 and 3 in. / 50 and 80 mm bodies PTFE PEEK	GE06789X012 GE06789X022 GE06798X012 GE06798X022 GE06197X012 GE06197X022 GE06200X012 GE06200X022 GE14010X012 GE14010X022 1E953028982
			29	Drive Screw (2 required)	1E953028982
			32	Guide Ring Seal 1/2 and 3/4 in. / 15 and 20 mm bodies 1 and 1-1/2 in. / 25 and 40 mm bodies 2 and 3 in. / 50 and 80 mm bodies	GE18400X012 GE18399X012 GE11039X012



- APPLY LUBRICANT (L) / SEALANT (S)⁽¹⁾:
 - L = ANTI-SEIZE LUBRICANT
 - S1 = THREADLOCKER MEDIUM/HIGH STRENGTH SEALANT
 - S2 = HIGH TEMPERATURE AND MEDIUM STRENGTH THREADLOCKER SEALANT
1. Lubricant and sealant must be selected such that they meet the temperature requirements.

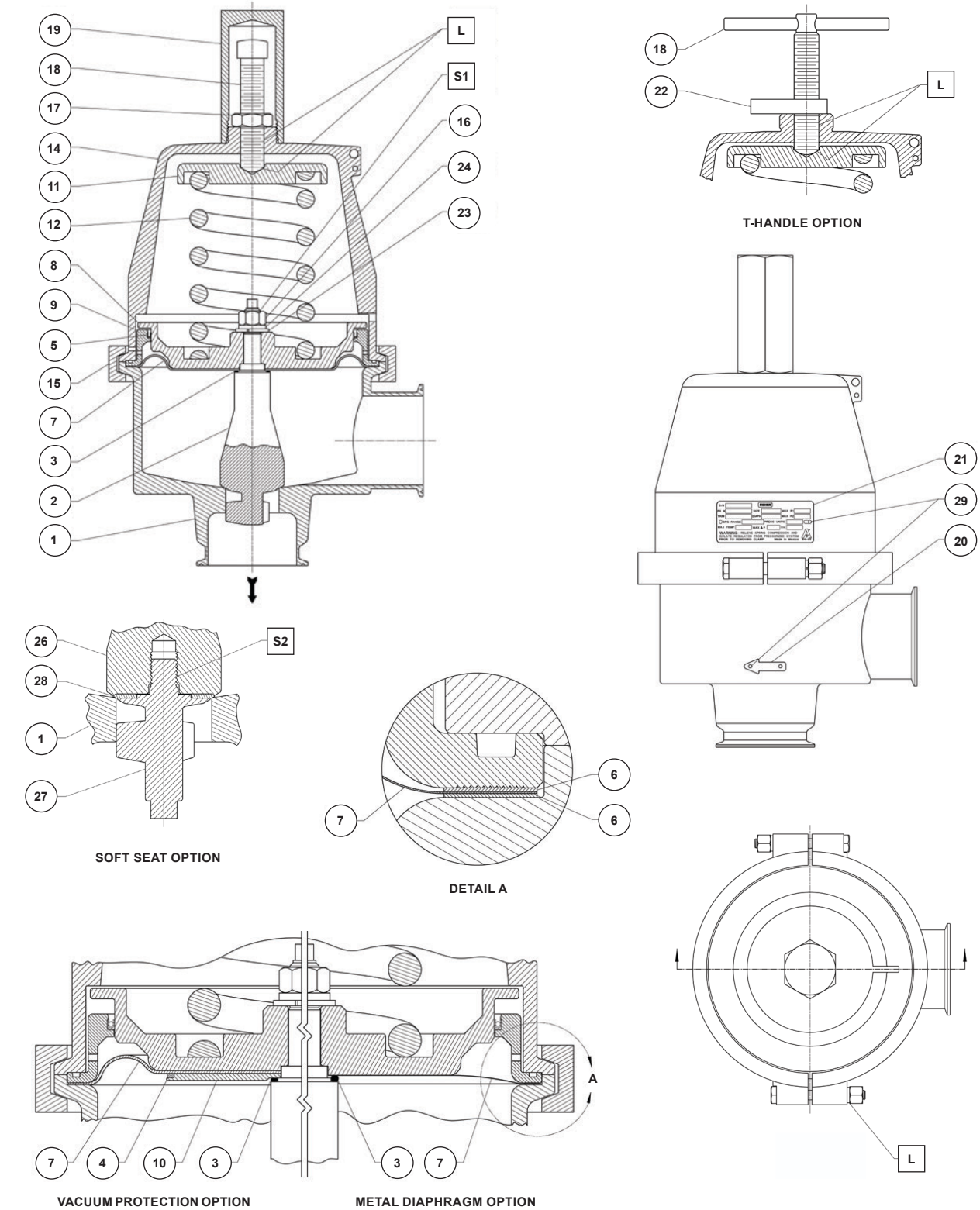
Figure 4. Type SR8 Backpressure Sanitary Regulator Assembly Drawing
 1/2 through 1-1/2 In. / 15 through 40 mm Sizes

Type SR8



- APPLY LUBRICANT (L) / SEALANT (S)⁽¹⁾:
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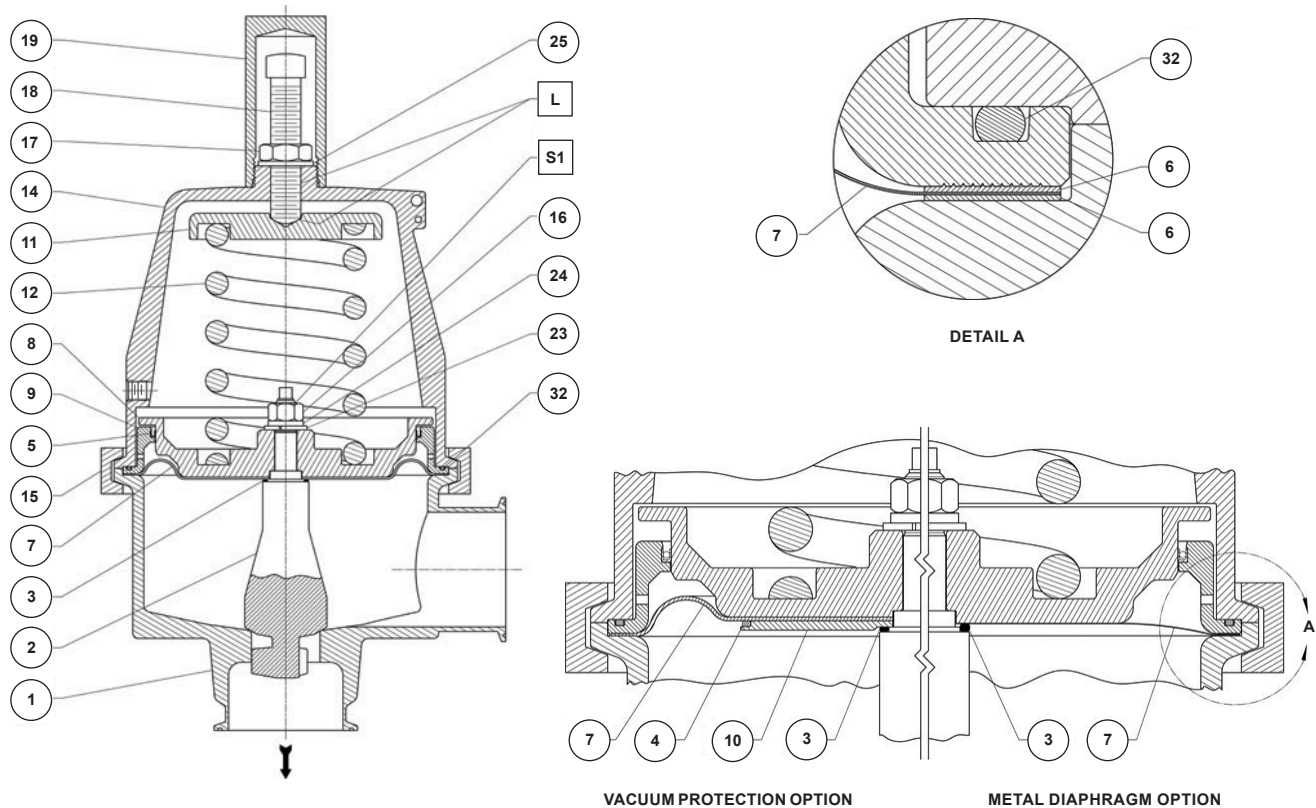
Figure 5. Type SR8 Sanitary Backpressure Regulator Assembly with Pressure Loaded Spring Case
 1/2 through 1-1/2 In. / 15 through 40 mm Sizes



APPLY LUBRICANT (L) / SEALANT (S)⁽¹⁾:
 L = ANTI-SEIZE LUBRICANT
 S1 = THREADLOCKER MEDIUM/HIGH STRENGTH SEALANT
 S2 = HIGH TEMPERATURE AND MEDIUM STRENGTH THREADLOCKER SEALANT
 1. Lubricant and sealant must be selected such that they meet the temperature requirements.

Figure 6. Type SR8 Backpressure Sanitary Regulator Assembly Drawing
2 and 3 In. / 50 and 80 mm Sizes

Type SR8



- APPLY LUBRICANT (L) / SEALANT (S)⁽¹⁾:
 L = ANTI-SEIZE LUBRICANT
 S1 = THREADLOCKER MEDIUM/HIGH STRENGTH SEALANT
 S2 = HIGH TEMPERATURE AND MEDIUM STRENGTH THREADLOCKER SEALANT
 1. Lubricant and sealant must be selected such that they meet the temperature requirements.

**Figure 7. Type SR8 Sanitary Backpressure Regulator Assembly with Pressure Loaded Spring Case
 2 and 3 In. / 50 and 80 mm Sizes**

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