

Fisher® 1261-R and 1261-E Self-Operated Control Valves

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Figure 1. Fisher 1261-R Pressure-Reducing Valve



Introduction

Scope of Manual

This instruction manual provides installation, adjustment, maintenance, and parts information for the Fisher 1261-R and 1261-E Self-Operated control valves. Refer to separate instruction manuals for more information about the valve. The valve body assembly of these valves are the same as the valve body assembly for Fisher 1100 control valves.

Do not install, operate, or maintain 1261-R or 1261-E valves without being fully trained and qualified in valve, actuator, and accessory installation, operation, and maintenance. **To avoid personal injury or property damage, it is important to carefully read, understand, and follow all the contents of this manual, including all safety cautions and warnings.** If you have any questions about these instructions, contact your Emerson Process Management sales office before proceeding.



Table 1. Specifications

<p>End Connection Styles Flanged: CL150 RF and CL300 RF per ASME B16.5. DIN PN 10, 16, 40, Per EN ISO 1092-1, Type B and F</p> <p>Maximum Inlet Pressure and Temperature Flanged: Compatibility with CL150, 300 per ASME B16.34 EN ISO 1092-1,2,3,4</p>	<p>Shutoff Classification per ANSI/FCI 70-2 and IEC 60534-4 Class IV is standard Class VI is optional</p> <p>Flow Characteristic and Flow Direction <i>Trim Standard:</i> Linear. Flow Up per valves with unbalanced plug. Flow Down per valves with balanced plug. <i>Trim for Low Noise (Multihole, Whisper):</i> Linear and Flow Up <i>Trim Anticavitation (Cavitrol™):</i> Linear and Flow Down</p>
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Description

Fisher 1261-R and 1261-E are pressure globe style single-port valves with metal seats, cage guiding and push-down-to-close valve plug action.

The 1261-R is used for pressure-reducing service. Increasing the pressure in the diaphragm casing moves the actuator stem downward.

The 1261-E is used for pressure-relief service. Increasing the pressure in the diaphragm casing moves the actuator stem upward.

The 1261.00-R and 1261.00-E valves use an unbalanced plug. The 1261.01-R and 1261.01-E use balanced valve plugs. (See bulletin 1100 Control Valves for different types of cages and balanced plugs).

Specifications

Specifications for the 1261-R and 1261-E are shown in table 1. Refer to separate manuals for information concerning the actuator.

Table 2. Codification for Fisher 1261 Valves

CODE	1	2	6	1	.	X	X
Digit	1	2	3	4		5	6
DIGIT	N°	DESCRIPTION				DIRECTION FLOW	
5	0	Standard Trim				Flow-Up	
	1	Low noise trims (Multihole)				Flow-Up	
	2						
	4						
	5	Anticavitation Trim (Cavitrol III 1 Step)				Flow-Down	
	6						
	7	Anticavitation Trim (Cavitrol III 2 Steps)				Flow-Down	
	8						
6	9	Low noise level trim (Whisper III A,B,C,D3)				Flow-Up	
	0	Non balanced Plug				Flow-Up	
	1	Balanced Plug (seal Keilpac).				Flow-Down	
	2						
	3						
	4	Balanced Plug (seal MSE)				Flow-Down	
	5						
6							

Table 3. Available Shutoff Classifications per ANSI/FCI 70-2 and IEC 60534-4

Valve Type	Type Balanced	Max. Temp ⁽¹⁾	Seat Type	Enclosure Type		Flow Direction
1261.00	None	400°C	Metal to Metal	Standard	IV	Flow-Up
			Metal to Metal	Optional	V	
		200°C	Metal to PTFE	Standard	VI	
			316°C	Metal to Ekonol	Standard	
1261.01	KEILPAC	200°C ⁽³⁾	Metal to Metal	Standard	IV	Flow-Down ⁽²⁾
			Metal to Metal	Optional	V	
			Metal to PTFE	Standard	VI	
			1261.04	MSE	316°C	
Metal to Metal	Optional	V				
Metal to Ekonol	Standard	VI				

1. See temperature capabilities of actuator diaphragm material
 2. Valves with antinoise trim (Multihole, Whisper Trim™, etc) flow direction will be Flow-Up.
 3. Maximum temperature limited by Keilpac gasket material.

Table 4. Maximum Flow Coefficients (Cv) with Quick Opening per 1261.00-R and 1261.00-E valves

VALVE SIZE NPS	SEAT DIAMETER (mm)								
	4	6	10	15	20	30	40	50	
1/2	0.7	1.5	3.5	6.9					
3/4				8.1					
1				11.6	20				
1-1/2	1.5	2	3	3.5	8.1	11.6	27	39	51
2				11.6	27	46	64		
3				11.6	27	46	64		
4				11.6	27	46	64		
Stroke (mm)	1.5	2	3	4.5	6	9	12	16	

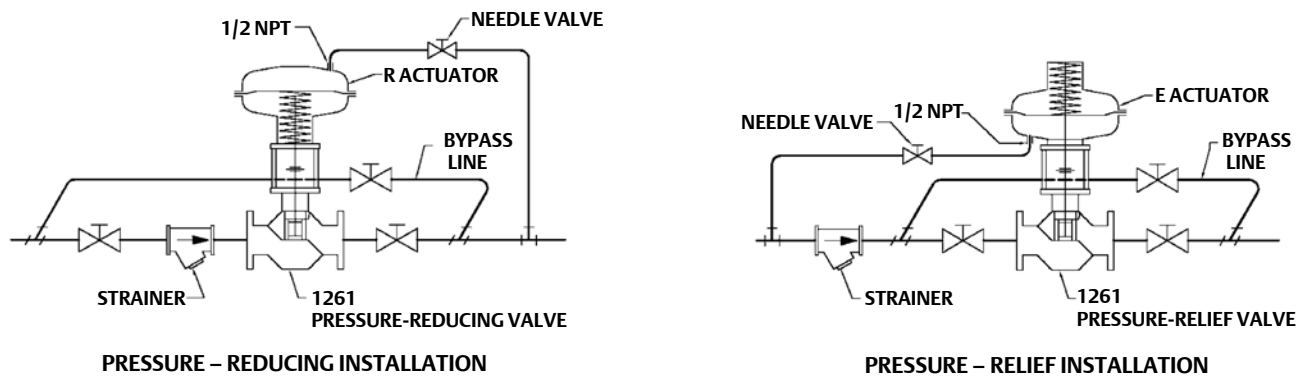
Notes: 1. Kv = 0.865 x Cv

Table 5. Maximum Flow Coefficients (Cv) with Quick Opening per 1261.01-R, 1261.04 R, 1261.01 E and 1261.04 E Valves

VALVE SIZE NPS	SEAT DIAMETER (mm)			
	50	65	80	95
2	51			
3	64			
4		139		
Stroke (mm)	16	16	16	16

Notes: 1. Kv = 0.865 x Cv

Figure 2. Typical Installation Schematics



Installation

⚠ WARNING

Always wear protective gloves, clothing, and eyewear when performing any installation operations to avoid personal injury.

Personal injury or equipment damage caused by sudden release of pressure may result if the valve assembly is installed where service conditions could exceed the limits given in table 1 or the appropriate nameplate. To avoid such injury or damage, provide a relief valve for overpressure protection as required by government or accepted industry codes and good engineering practices.

Check with your process or safety engineer for any additional measures that must be taken to protect against process media.

If installing into an existing application, also refer to the WARNING at the beginning of the Maintenance section in this instruction manual.

CAUTION

When ordered, the valve configuration and construction materials were selected to meet particular pressure, temperature, pressure drop, and controlled fluid conditions. Since some body/trim material combinations are limited in their pressure drop and temperature ranges, do not apply any other conditions to the valve without first contacting your Emerson Process Management sales office.

1. Before installing the valve, inspect it to be certain that the valve body cavity is free of foreign material. Clean out all pipelines to remove scale, welding slag, and other foreign materials.
2. The control valve assembly may be installed in any orientation unless limited by seismic criteria. If the regulator or relief valve is to be used for steam service, the valve should be installed with the actuator positioned below the pipeline, and the control line should be sloped down toward the diaphragm casing. This is to ensure that any forming condensate will maintain a water seal to protect the diaphragm. For more information consult your Emerson Process Management sales office. Flow through the valve must be in the direction indicated by the arrow cast on the valve.

3. Use accepted piping practices when installing the valve in the pipeline. Use a suitable gasket between the valve and pipeline flanges.
4. It is recommended that a strainer be installed in the pipeline ahead of the regulator or relief valve to protect it while in service. (see figure 2).
5. If continuous operation is required during inspection or maintenance, install a three-valve bypass around the valve assembly.(see figure 2)
6. If the actuator and valve are shipped separately, refer to the appropriate actuator instruction manual for the actuator mounting procedure.

⚠ WARNING

Personal injury could result from packing leakage. Valve packing was tightened before shipment; however the packing might require some readjustment to meet specific service conditions.

Maintenance

⚠ WARNING

Avoid personal injury or property damage from sudden release of process pressure or bursting of parts. Before performing any maintenance operations:

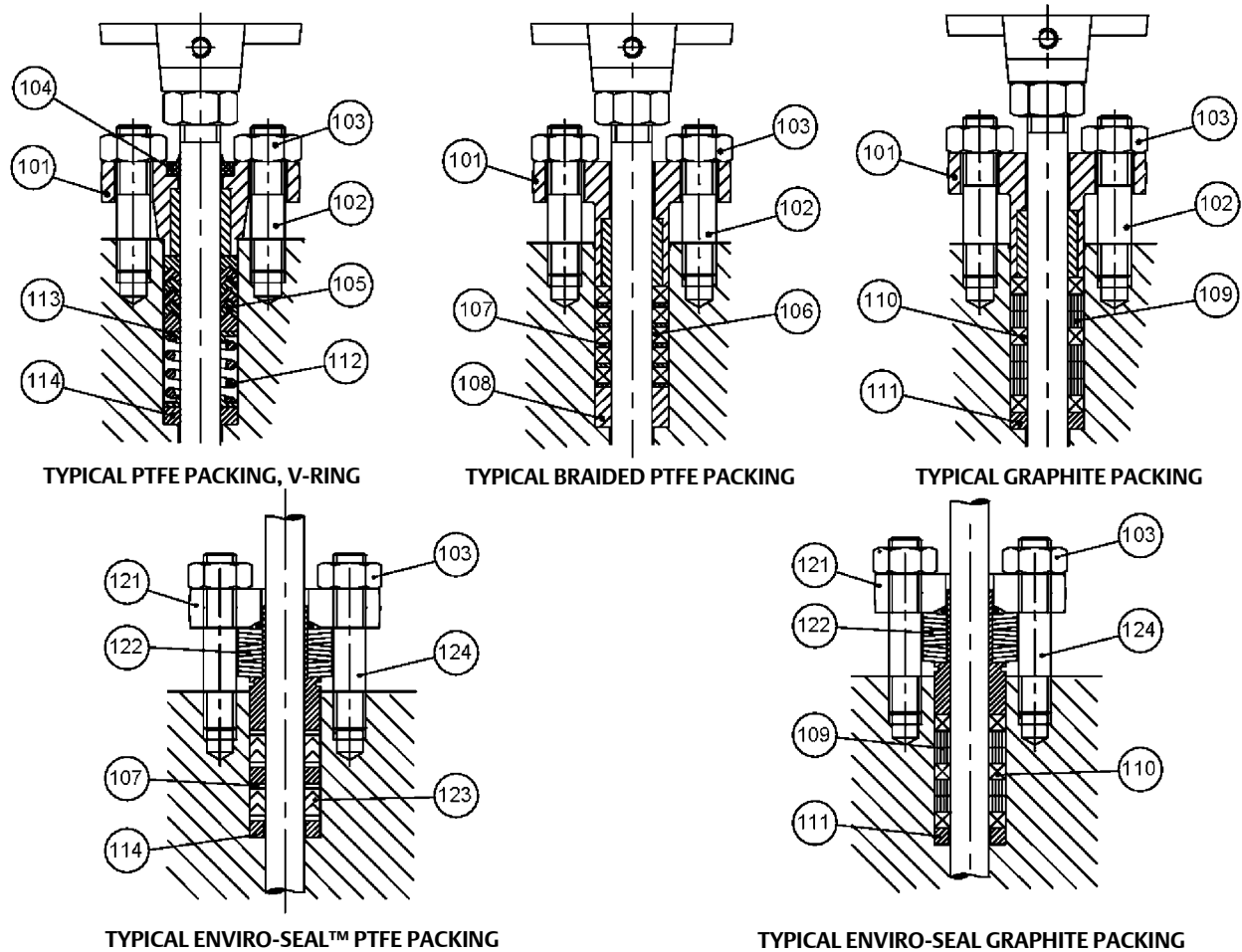
- Do not remove the actuator from the valve while the valve is still pressurized.
- Disconnect any operating lines providing air pressure, electric power, or a control signal to the actuator. Be sure the actuator cannot suddenly open or close the valve.
- Isolate the regulator or relief valve from the system pressure, and relieve all internal pressure.
- Use bypass valves or completely shut off the process to isolate the valve from process pressure. Relieve process pressure from both sides of the valve. Drain the process media from both sides of the valve.
- Vent the power actuator loading pressure and relieve any actuator spring precompression as described in the disassembly actuator section..
- Use lock-out procedures to be sure that the above measures stay in effect while you work on the equipment.
- Always wear protective gloves, clothing, and eyewear when performing any maintenance operations to avoid personal injury.
- The valve packing area may contain process fluids that are pressurized, *even when the valve has been removed from the pipeline*. Process fluids may spray out under pressure when removing the packing hardware or packing rings.
- Check with your process or safety engineer for any additional measures that must be taken to protect against process media.

Valve parts are subjects to normal wear and must be inspected and replaced as necessary. Inspection and maintenance frequency depends on the severity of service conditions The maintenance operations may be performed with the valve in the line.

Note

Whenever a gasket seal is disturbed by removing or shifting gasket parts, a new gasket should be installed upon reassembly. This is necessary to ensure a good gasket seal.

Figure 3. Typical Packing Assemblies for 1261 Valves



Maintenance information which follows for packing maintenance, replacing packing, trim maintenance, and repairing are for the 1261 valve with plain bonnet. A 1261 valve with a plain bonnet is shown in figure 4.

Packing Maintenance

Key numbers refer to figure 3.

For spring-loaded single PTFE V-ring packing, the packing spring (key 112) maintains a sealing force on the packing. If leakage is noted around the bushing of the packing flange (key 101), check to be sure the packing flange is touching the bonnet (key 12 fig 4). If the packing flange is not touching the bonnet, tighten the packing flange nuts (key 103) until the packing flange is against the bonnet. If leakage cannot be stopped in this manner, proceed to the Replacing Packing procedure.

If there is undesirable packing leakage with other than spring-loaded packing, first try to limit the leakage and establish a stem seal by tightening the packing flange nuts (key 103) to at least the minimum recommended torque in table 6. However, do not exceed the maximum recommended torque in table 6, or excessive friction may result.

If the packing (fig 4, key 13) is relatively new and tight on the stem, and if tightening the packing flange nuts does not stop the leakage, it is possible that the valve stem is worn or nicked so that the seal cannot be made. The surface finish of a new valve stem is critical for making a good packing seal.

If the leakage comes from the outside diameter of the packing, it is possible that the leakage is caused by nicks or scratches around the packing box wall. While replacing the packing per the numbered steps below, inspect the valve stem and packing box wall for nicks and scratches.

Replacing Packing

1. Isolate the pressure-reducing or pressure-relief valve from the line pressure, release pressure from both sides of the valve body, and drain the process media from both sides of the valve. Release all pressure from the actuator. Use lock-out procedures to be sure that the above measures stay in effect while you work on the equipment.
2. Disconnect any leak-off piping from the bonnet. Disconnect the stem connector, and then remove the actuator from the valve by unscrewing the leg post nuts (key 11, figure 6).
3. Loosen the packing flange nuts (key 103) so that the packing is not tight on the valve stem. Remove any travel indicator parts and stem lock nuts from the valve stem threads.

▲ WARNING

To avoid personal injury or property damage caused by uncontrolled movement of the bonnet, loosen the bonnet by following the instructions in the next step. Do not remove a stuck bonnet by pulling on it with equipment that can stretch or store energy in any other manner. The sudden release of stored energy can cause uncontrolled movement of the bonnet.

Note

The following step also provides additional assurance that the valve body fluid pressure has been relieved.

4. Hex nuts (key 11) attach the bonnet (key 12) to the valve body (key 1). Loosen these nuts approximately 3mm (1/8 inch). Then loosen the body-to-bonnet gasketed joint by either rocking the bonnet or prying between the bonnet and valve body. Work the prying tool around the bonnet until the bonnet loosens. If no fluid leaks from the joint, remove the nuts completely and carefully lift the bonnet off the valve stem.

CAUTION

When lifting the bonnet (key 12), be sure that the valve plug and stem remains in the valve and on the seat. This will avoid damage to the seating surfaces as a result of the assembly dropping from the bonnet after being lifted part way out. The parts are also easier to handle separately.

5. Unscrew the nuts (key 10) that secure the bonnet (key 12) to the valve (key 1). Carefully lift off the bonnet.
6. If the valve plug and stem start to lift with the bonnet, use a brass or lead hammer on the end of the stem and tap it back down. Set the bonnet on a protective surface to prevent damage to the bonnet gasket surface.
7. Remove the bonnet gasket (key 22), and cover the opening in the valve to protect the gasket surface and prevent foreign material from getting into the valve cavity.
8. Remove the packing flange nuts and packing flange (keys 103 and 101, fig 3). Carefully push out all the remaining packing box parts from the bonnet using a rounded rod or other tool that will not scratch the packing box wall or bottom guide bushing. Clean the packing box and the metal packing box parts.
9. Inspect the valve stem threads and packing box surfaces for any sharp edges that might cut the packing. Scratches or burrs could cause packing box leakage or damage to the new packing. If the surface condition cannot be improved by light sanding, replace the damaged parts.

10. Remove the covering protecting the valve cavity, and install a new gasket set (key 22 and 34), making sure the gasket seating surfaces are clean and smooth. Then slide the bonnet over the stem and onto the bonnet studs (key 11).

Note

The bolting procedures in step 11 include - but are not limited to - ensuring that bolting threads are clean, and the nuts are evenly tightened onto the studs in a crisscross pattern. Tightening one nut may loosen an adjacent nut. Repeat the crisscross tightening pattern several times until each nut is tight and the body-to-bonnet seal is made. When the operating temperature has been reached, perform the torquing procedure once again.

Table 6. Recommended Torque for Packing Flange Nuts

STEM DIAMETER		RATING		GRAPHITE PACKING				PTFE PACKING			
				Minimum Torque		Maximum Torque		Minimum Torque		Maximum Torque	
mm	Inch	ASME	DIN	N•m	Lbf•in	N•m	Lbf•in	N•m	Lbf•in	N•m	Lbf•in
12	0.47	CL150		2.5	22	3.8	34	1.9	17	2.8	25
		CL300		3.4	30	5.1	45	2.5	22	3.7	33
			PN40	3.1	27	4.6	41	2.3	20	3.5	31

Table 7. Recommended Torque for Body to Bonnet Bolting

DN mm	NPS	RATING		SIZE BOLTED	8.8, SA-193-B7, B16		SA-193-B8M CL 2		A2.70	
		ASME	DIN		N•m	Lbf•in	N•m	Lbf•in	N•m	Lbf•in
15, 20, 25	1/2, 3/4, 1	CL150	PN40	M12	70	52	70	52	54	40
		CL300								
40, 50	1-1/2, 2	CL150	PN40	M16	160	118	160	118	120	89
		CL300								
80, 100	3, 4	CL150	PN40	M16	160	118	160	118	120	89
		CL300								

11. Lubricate the bonnet studs (key 10), nuts (key 11), and the surface between the nuts and bonnet with MoS2 (Molykote 111, paste with large solid content) lubricant or equivalent. Tighten the nuts (key 11) in a crisscross pattern until the metallic stop at the bottom side of the bonnet flange contacts the body surface. This will guarantee that the body-to-bonnet joint will withstand test pressures and application service conditions. Use bolt torques in table 7 as guidelines.

12. Install new packing and the metal packing box parts according to the appropriate arrangement in figure 3. Place a smooth-edged pipe over the valve stem, and gently tap each soft packing part into the packing box, being sure that air is not trapped between adjacent soft parts.

13. Slide the packing flange (keys 101) into position. Lubricate the packing flange studs (key 102) and the faces of the packing flange nuts (key 103). Install the packing flange nuts.

Note

The torque values discussed in step 14 and shown in table 6 are recommended guidelines only and are presented as a starting point for this procedure. Tightening the packing flange nuts to a torque value that exceeds the table guidelines, in order to obtain a seal, may indicate other problems.

14. For spring-loaded PTFE V-ring packing (figure 3), tighten the packing flange nuts until the packing flange (key 101) contacts the bonnet.

For **graphite packing** (figure 3), tighten the packing flange nuts to the maximum recommended torque shown in table 6. Then, loosen the packing flange nuts, and retighten them to the recommended minimum torque shown in table 6.

For **other packing types** (figure 3), tighten the packing flange nuts alternately in small equal increments until one of the nuts reaches the minimum recommended torque shown in table 6.

Then, tighten the remaining flange nut until the packing flange is level and at a 90- degree angle to the valve stem. Mount the actuator on the bonnet (key 12) and reconnect the actuator and valve plug stem according to the procedure in the appropriate actuator instruction manual. Check for leakage around the top bushing when the valve assembly is being put into service. Retighten the packing flange nuts as required.

Trim Maintenance

Key numbers in this section refer to figure 4.

Disassembly

1. Remove the actuator and the bonnet as described in steps 1 through 4 of the Replacing Packing procedure.

⚠ WARNING

Use care to avoid damaging the gasket sealing surfaces. The surface finish of the stem of the valve plug (key 8) is critical for making a good packing seal. The seating surfaces of the seat ring (key 2) and, the plug (key 7) are critical for tight shutoff. Assume all these parts are in good condition and protect them accordingly unless inspection reveals otherwise.

2. Packing parts can be removed from the bonnet if desired. Replace this part as described in the packing maintenance procedure.

3. Lift the valve plug and stem (key 7 and 8) out of the valve. If the valve plug is to be reused, tape or otherwise protect the valve plug seating surface to prevent scratches.

4. Remove the cage (key 6), the associated gaskets (key 22 and 34). If the cage is stuck in the valve, use a rubber mallet to strike the exposed portion of the cage at several points around its circumference.

5. Remove the seat ring (key 2), seat ring adapter where used on a restricted-trim (key 2.1 fig 6.2) soft seat ring construction, and seat ring gasket (key 4).

6. Inspect parts for wear or damage which would prevent proper operation of the valve. Replace or repair trim parts as appropriate.

Assembly

1. Install the seat ring gasket (key 4), and seat ring. With a PTFE seat ring construction, install the disk and disk retaining, if is necessary.

2. Install the cage (key 6). Any rotational orientation of the case with respect to the valve body is acceptable.

3. Slide the valve plug (key 7 and 8) and stem assembly, into the cage. Make sure the seal ring is evenly engaged in the entrance chamfer at the top of the cage to avoid damaging the ring.

4. Clean the bonnet and cage gaskets seating surfaces, and install a new gasket (key 22 and 34).

Note

If the packing is to be reused and was not removed from the bonnet, perform the following step carefully to avoid damaging the packing with the stem threads.

5. Mount the bonnet on the valve body, and complete the assembly according to steps 11 through 14 of the replacing packing procedures, omitting steps 12 and 13 if new packing is not being installed.

Parts Ordering

Each valve is assigned a serial number, which can be found on the valve or on the nameplate wired to the valve if it is shipped without an actuator. This same number also appears on a nameplate that is attached to the actuator diaphragm casing when the valve is shipped from the factory as part of a valve assembly. Refer to this serial number when contacting your Emerson Process Management sales office for technical assistance. When ordering replacement parts, refer to this serial number and to the part description and part number from the following parts list.

▲ WARNING

Use only genuine Fisher replacement parts. Components that are not supplied by Emerson Process Management should not, under any circumstances, be used in any Fisher valve, because they may void your warranty, might adversely affect the performance of the valve, and could cause personal injury and property damage.

Parts List

Note

Except where indicated, sizes shown are valve sizes.

Key	Description	Part Number	Key	Description	Part Number
1	Valve Body If you need a valve body as a replacement part, order by valve size, serial number and desired material. contact your Emerson Process Management sales office for additional information.		10	Bonnet studs	See following table
2	Seat ring	See following table	11	Bonnet nuts	See following table
4	Seat ring gasket	See following table	12	Bonnet	
6	Cage	See following table		If you need a bonnet as a replacement part, order by valve size and stem diameter, serial number and desired material. Contact your Emerson Process Management sales office for additional information	
7	Plug	See following table	13	Packing assembly	See following table
8	Stem plug	See following table	21	Balanced seal ring plug	See following table
9	Pin	See following table	22	Body/Bonnet gasket	See following table
			34	Cage gasket	See following table

Key 2 Metal Seat Rings

VALVE SIZE		SEAT PORT DIAMETER		METAL SEAT RING		
mm	NPS	mm	Inch	S31600	S42000	S31600 with Alloy 6 hard facing
15, 20, 25	1/2, 3/4, 1	4	0.16	GP16511.416	GP16511.420	GP16511.46C
		6	0.24	GP16512.416	GP16512.420	GP16512.46C
		10	0.39	GP16513.416	GP16513.420	GP16513.46C
		15	0.59	GP16514.416	GP16514.420	GP16514.46C
20, 25	3/4, 1	20	0.79	GP16515.416	GP16515.420	GP16515.46C
		30	1.18	GP16527.416	GP16527.420	GP16527.46C
40, 50	1-1/2, 2	10	0.39	GP16184.416	GP16184.420	GP16184.46C
		15	0.59	GP16516.416	GP16516.420	GP16516.46C
		20	0.79	GP16517.416	GP16517.420	GP16517.46C
		30	1.18	GP16518.416	GP16518.420	GP16518.46C
		40	1.57	GP16519.416	GP16519.420	GP16519.46C
80, 100	3, 4	50	1.97	GP16523.416	GP16523.420	GP16523.46C
		20	0.79	GP16520.416	GP16520.420	GP16520.46C
		30	1.18	GP16521.416	GP16521.420	GP16521.46C
		40	1.57	GP16522.416	GP16522.420	GP16522.46C
		50	1.97	GP16524.416	GP16524.420	GP16524.46C
		65	2.56	GP16525.416	GP16525.420	GP16525.46C
		80	3.15	GP16526.416	GP16526.420	GP16526.46C
95	3.74	GP16529.416	GP16529.420	GP16529.46C		

Key 2, 2.1 and 2.2 Metal-PTFE Seat Rings

VALVE SIZE		SEAT PORT DIAMETER		PTFE-SEAT RING, RETAINER, AND DISK			
Seat Ring S31600	Retainer S31600	Disk PTFE	Disk EKONOL				
15, 20, 25	1/2, 3/4, 1	4	0.16	GP16503.416	GP16593.416	GD8900001PT	GD8900017EK
		6	0.24	GP16504.416	GP16593.416	GD8900002PT	GD8900018EK
		10	0.39	GP16505.416	GP16594.416	GD8900003PT	GD8900019EK
		15	0.59	GP16506.416	GP16595.416	GD8900004PT	GD8900004EK
20, 25	3/4, 1	20	0.79	GP16507.416	GP16596.416	GD8900005PT	GD8900005EK
		30	1.18	GP16508.416	---	GD8900009PT	GD8900009EK
40, 50	1-1/2, 2	10	0.39	GP22880.416	GP22881.416	GD8900006PT	GD8900022EK
		15	0.59	GP16585.416	GP16597.416	GD8900007PT	GD8900023EK
		20	0.79	GP16586.416	GP16598.416	GD8900008PT	GD8900024EK
		30	1.18	GP16587.416	GP16599.416	GD1486381PT	GD8800611EK
		40	1.57	GP16588.416	GP16600.416	GD8900010PT	GD8900035EK
		50	1.97	GP16589.416	---	GD8900011PT	GD8000176EK
80, 100	3, 4	20	0.79	GP16500.416	GP16598.416	GD8900008PT	GD8900024EK
		30	1.18	GP16501.416	GP16599.416	GD1486381PT	GD8800611EK
		40	1.57	GP16502.416	GP16600.416	GD8900010PT	GD8900035EK
		50	1.97	GP16590.416	---	GD8900011PT	GD8000176EK
		65	2.56	GP16591.416	---	GD8900012PT	GD8800281EK
		80	3.15	GP16592.416	---	GD8900013PT	GD8800175EK
		95	3.74	GP16510.416	---	GD8900036PT	GD8800462EK

Key 6 Cage

VALVE SIZE		SEAT PORT DIAMETER		1261.00		1261.01 and 1261.04	
mm	NPS	mm	Inches	SA-351 CF8M	17.4PH Hardened	SA-351 CF8M	17.4PH Hardened
15, 20, 25	1/2, 3/4, 1	4, 6, 10	0.16 to	GP16086.48M	GP16086.4PH	---	---
		15, 20, 30	1.18				
40, 50	1-1/2, 2	10, 15, 20	0.39 to	GP16087.48M	GP16087.4PH	---	---
		30, 40	1.57				
50	2	50	1.97	GP16087.48M	GP16087.4PH	GP16093.48M ⁽¹⁾	GP16093.4PH ⁽¹⁾
80, 100	3, 4	20, 30 40	0.79 to 1.57	GP16089.48M	GP16089.4PH	---	---
		50	1.97	GP16089.48M	GP16089.4PH	GP16095.48M	GP16095.4PH
		65	2.56	GP16090.48M	GP16090.4PH	GP16096.48M	GP16096.4PH
		80	3.15	GP16091.48M	GP16091.4PH	GP16097.48M	GP16097.4PH
		95	3.74	GP16092.48M	GP16092.4PH	GP16098.48M	GP16098.4PH

1. Bonnet Spacer GP85461.4 is needed for 1261.01 and 1261.04 Balanced Plug Valve. (NPS 2 only).

Key 7.1 Valve Plug for assembly 1261.00

VALVE SIZE		SEAT PORT DIAMETER		METAL TO METAL AND METAL PTFE			
mm	NPS	mm	Inches	S31600	S42000	S31600 with Alloy 6 hard facing	S31600 with Alloy 6 Seat & Guide
15, 20, 25	1/2, 3/4, 1	4	0.16	GP16729.416	GP16729.420	GP16729.46C	GP16729.46T
		6	0.24	GP16730.416	GP16730.420	GP16730.46C	GP16730.46T
		10	0.39	GP16731.416	GP16731.420	GP16731.46C	GP16731.46T
		15	0.59	GP16732.416	GP16732.420	GP16732.46C	GP16732.46T
20, 25	3/4, 1	20	0.79	GP16733.416	GP16733.420	GP16733.46C	GP16733.46T
		30	1.18	GP16734.416	GP16734.420	GP16734.46C	GP16734.46T
40, 50	1-1/2, 2	10	0.39	GP18637.416	GP18637.420	GP18637.46C	GP18637.46T
		15	0.59	GP16735.416	GP16735.420	GP16735.46C	GP16735.46T
		20	0.79	GP16736.416	GP16736.420	GP16736.46C	GP16736.46T
		30	1.18	GP16737.416	GP16737.420	GP16737.46C	GP16737.46T
		40	1.57	GP16738.416	GP16738.420	GP16738.46C	GP16738.46T
		50	1.97	GP16742.416	GP16742.420	GP16742.46C	GP16742.46T
80, 100	3, 4	20	0.79	GP16739.416	GP16739.420	GP16739.46C	GP16739.46T
		30	1.18	GP16740.416	GP16740.420	GP16740.46C	GP16740.46T
		40	1.57	GP16741.416	GP16741.420	GP16741.46C	GP16741.46T
		50	1.97	GP16744.416	GP16744.420	GP16744.46C	GP16744.46T
		65	2.56	GP16745.416	GP16745.420	GP16745.46C	GP16745.46T
		80	3.15	GP16746.416	GP16746.420	GP16746.46C	GP16746.46T
		95	3.74	GP16747.416	GP16747.420	GP16747.46C	GP16747.46T

Key 7.2 Valve Plug for assembly 1261.01

VALVE SIZE		SEAT PORT DIAMETER		METAL TO METAL AND METAL PTFE			
mm	NPS	mm	Inches	S31600	S42000	S31600 with Alloy 6 hard facing	S31600 with Alloy 6 Seat & Guide
50	2	50	1.97	GP83071.416	GP83071.420	GP83071.46C	GP83071.46T
80, 100	3, 4	50	1.97	GP83071.416	GP83071.420	GP83071.46C	GP83071.46T
		65	2.56	GP83072.416	GP83072.420	GP83072.46C	GP83072.46T
		80	3.15	GP83073.416	GP83073.420	GP83073.46C	GP83073.46T
		95	3.74	GP83074.416	GP83074.420	GP83074.46C	GP83074.46T

Key 7.3 Valve Plug for assembly 1261.04

VALVE SIZE		SEAT PORT DIAMETER		METAL TO METAL AND METAL-EKONOL			
mm	NPS	mm	Inches	S31600	S42000	S31600 with Alloy 6 hard facing	S31600 with Alloy 6 Seat & Guide
50	2	50	1.97	GP83289.316	GP83289.320	GP83289.36C	GP83289.36T
80, 100	3, 4	50	1.97	GP83289.316	GP83289.320	GP83289.36C	GP83289.36T
		65	2.56	GP83905Y316	GP83905Y320	GP83905Y36C	GP83905Y36T
		80	3.15	GP83506B316	GP83506B320	GP83506B36C	GP83506B36T
		95	3.74	GP84004D316	GP84004D320	GP84004D36C	GP84004D36T

Key 8 and 9 Valve Plug Stem and Pin Stem

VALVE SIZE		SEAT PORT DIAMETER		PIN	PLUG STEM		PLUG STEM	
mm	NPS	mm	Inches		All Valves	Bonnet 00	Bonnet 02	Bonnet 00
				A2.70	S31600	S31600	S31600	S31600
15, 20, 25	1/2, 3/4, 1	4, 6, 10 15, 20, 30	0.16 to 1.18	GD017487447	GP16748.416	GP16752.416	---	---
40, 50	1-1/2, 2	10, 15, 20 30, 40	0.39 to 1.57	GD017487447	GP16749.416	GP16751.416	---	---
50	2	50	1.97	GD017487447	GP16749.416	GP16751.416	GP40.224516	GP40.224616
80, 100	3, 4	20, 30 40	0.79 to 1.57	GD017487447	GP16749.416	GP16751.416	---	---
		50 65 80 95	1.97 2.56 3.15 3.74				GP40.224516	GP40.224616

Key 21 Balanced Plug Seal Ring

VALVE SIZE		SEAT PORT DIAMETER		KEILPAC		MSE		
mm	NPS	mm	Inches	Ethylen-Propy. O-ring	Fluorocarb. O-ring	Seal Ring	Back-up Ring	Retaining Ring
				PTFE+E540-80	PTFE+V747-75	EKONOL	S31600	S30200
50	2	50	1.97	GS0870960EP	GS0870986VI	GD8800711EK	GP85544.416	10A4220X012
80, 100	3, 4	50	1.97	GS0870960EP	GS0870986VI	GD8800711EK	GP85544.416	10A4220X012
		65	2.56	GS0871052EP	GS0871079VI	GD8800055EK	GP85069.416	10A4210X012
		80	3.15	GS0871150EP	GS0871176VI	GD8899275EK	GP85083.416	10A4219X012
		95	3.74	GS0871184EP	GS0871206VI	GD8800059EK	GP87132.416	10A5350X012

Key 4, 22, 34 and 13 Gaskets and Packing

VALVE SIZE		GASKET KITS		PACKING KITS			
mm	NPS	Graphite	"V" PTFE	Braided PTFE	Ribbon/Filament Graphite	ENVIRO-SEAL PTFE+Graphite	ENVIRO-SEAL Graphite
15, 20, 25	1/2, 3/4, 1	GS8700011GR	GS8700010PT	GS8700004PT	GS8700002GR	GS8000072PT	GS8000073GR
40, 50	1-1/2, 2	GS8700012GR	GS8700010PT	GS8700004PT	GS8700002GR	GS8000072PT	GS8000073GR
80, 100	3, 4	GS8700048GR	GS8700010PT	GS8700004PT	GS8700002GR	GS8000072PT	GS8000073GR

Figure 4. Fisher 1261.00 Valve with Standard Bonnet

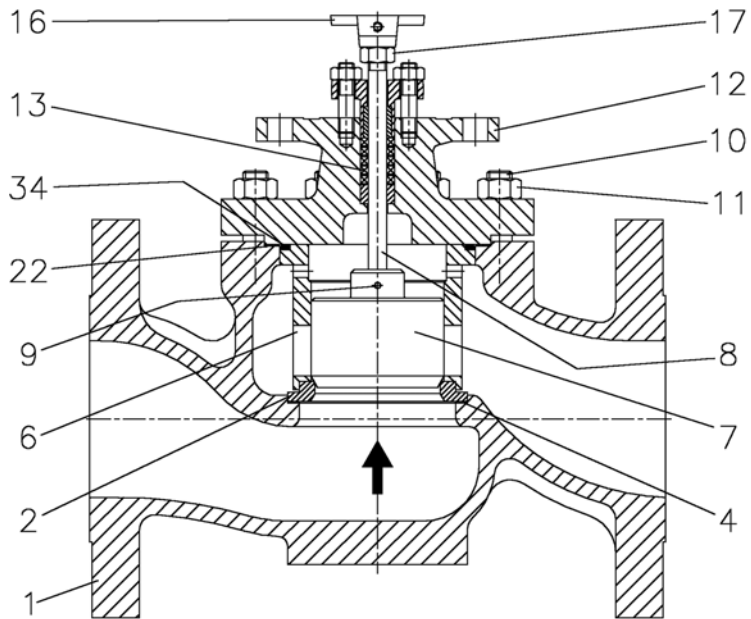


Figure 5. Fisher 1261.01 Valve with Standard Bonnet (Balanced Plug).

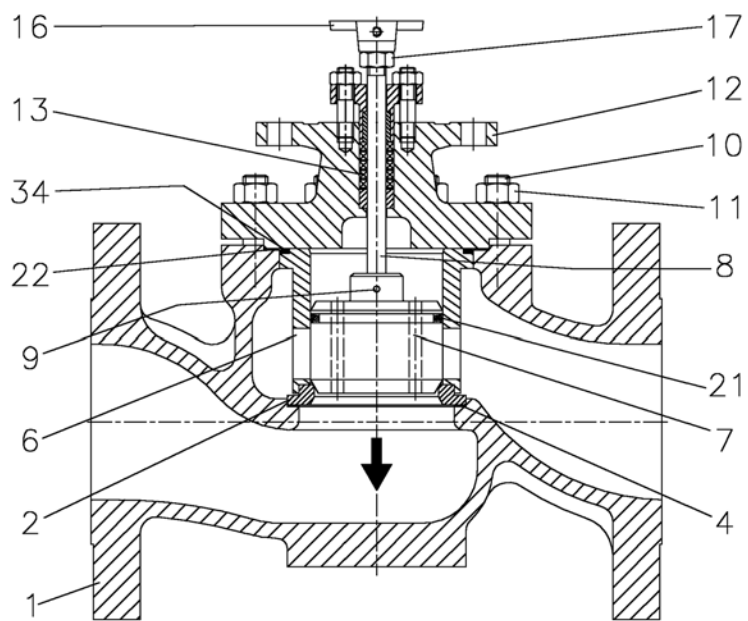


Figure 6. Standard Bonnet NPS 1-1/2 to 4

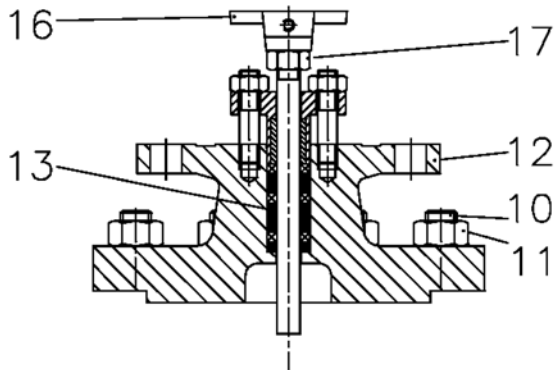


Figure 8. Extension Bonnet NPS 1/2 to 4

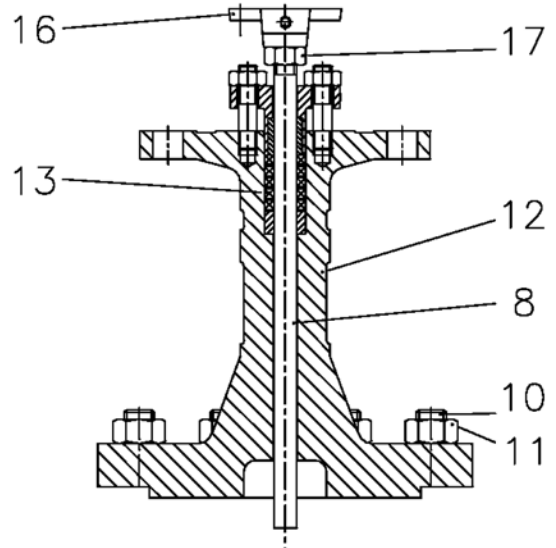


Figure 7. Valve with Soft Seat
(PTFE and other materials)

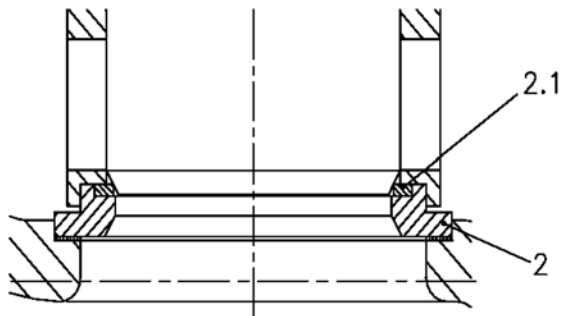


Figure 9. Valve with Soft Seat and Reduced Port

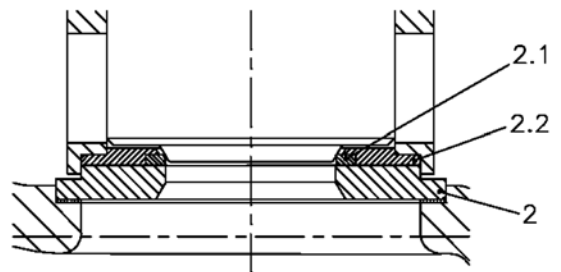


Figure 10. Cage 1261.00 STANDARD

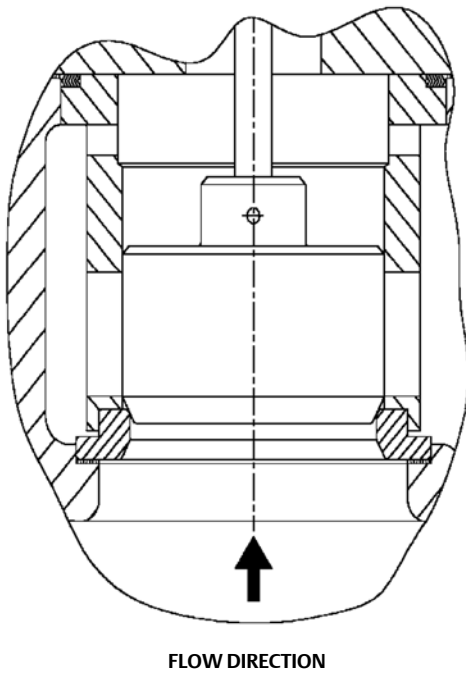


Figure 12. Cage 1261.10 MULTIHOLE

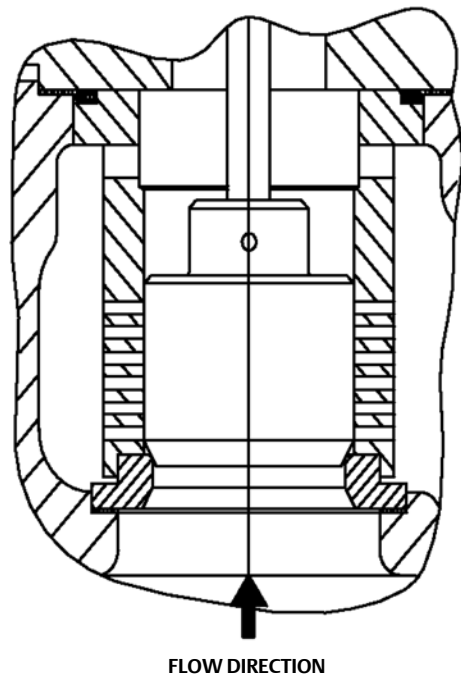


Figure 11. Cage 1261.90 WHISPER III A1-C3

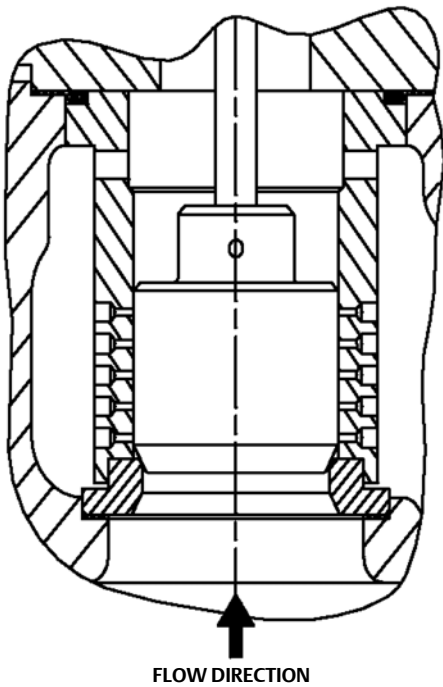


Figure 13. Cage 1261.90 WHISPER III D3

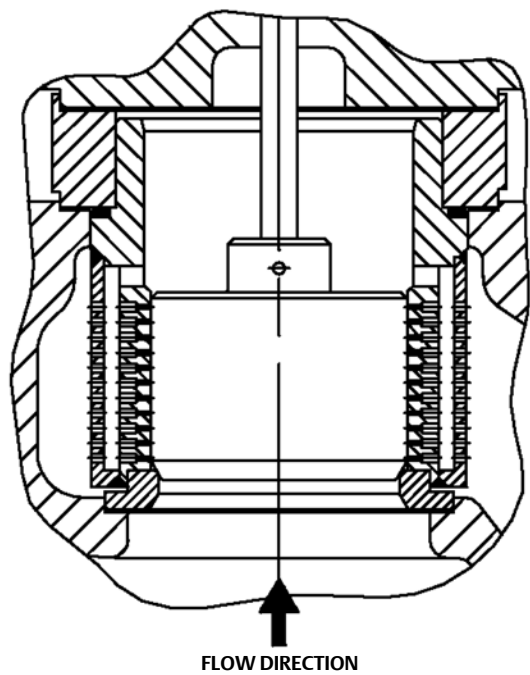
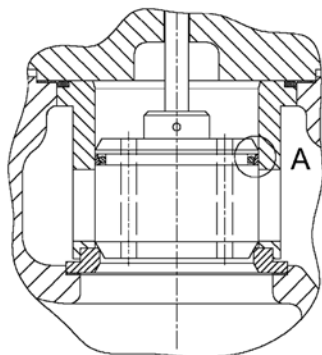


Figure 14. Cage 1261.01 with Balanced Plug KEILPAC
NPS 2 - NPS 4



DETAIL A

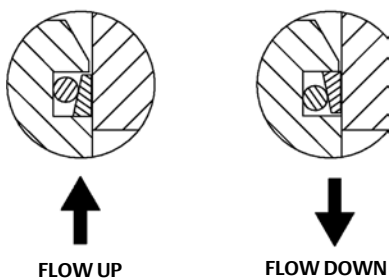
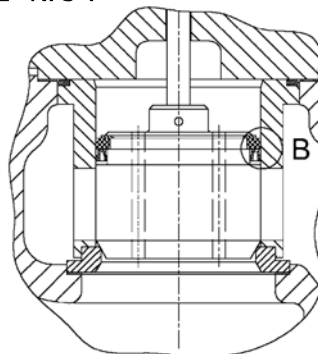


Figure 16. Cage 1261.04 with Balanced Plug MSE
NPS 2 - NPS 4



DETAIL B

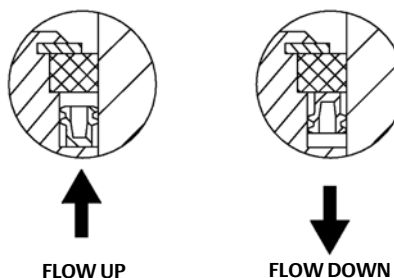
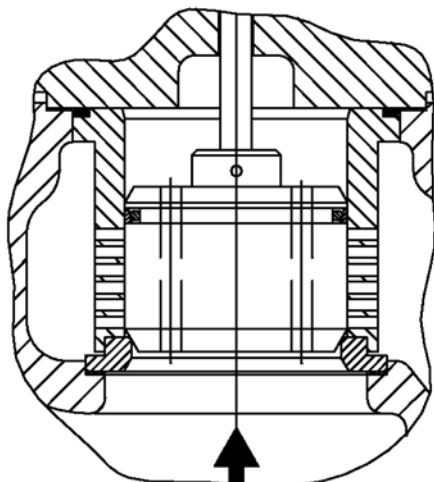
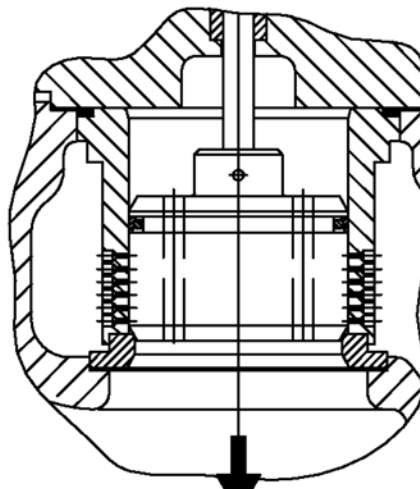


Figure 15. Cage 1261.11 MULTIHOLE
with Balanced Plug KEILPAC



FLOW DIRECTION

Figure 17. Cage 1261.51 CAVITROL III
1 Step with Balanced Plug KEILPAC



FLOW DIRECTION

Figure 18. Fisher 1261 - R Dimensions

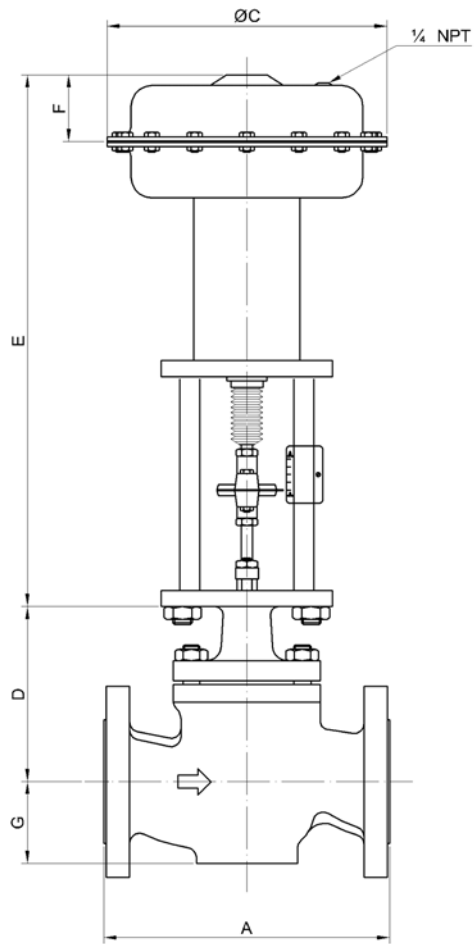


Figure 19. Fisher 1261 - E Dimensions

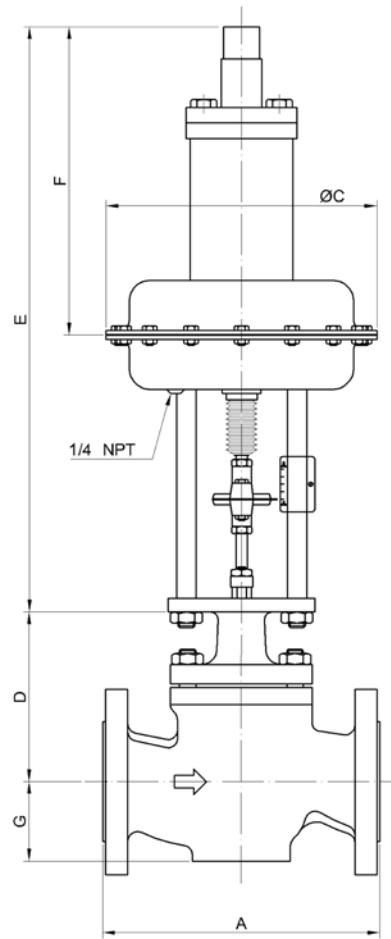


Table 8. Dimensions (mm)

Nominal Diameter (mm)		15	20	25	32	40	50	65	80	100
Nominal Pipe Size (NPS)		1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	EN 558-1 PN 10-40	130	150	160	180	200	230	290	310	350
	ISA-75.03 ASME CL150 RF	184	184	184	---	222	254	---	298	352
	ISA-75.03 ASME CL300 RF	190	194	197	---	235	267	---	318	368
D	Bonnet 00	95			175			195		
	Bonnet 02	265			290			310		
G		65			70			95		

Table 9. Dimensions (mm)

ACTUATOR TYPE	R-2100	R-2101	R-2102	R-3100	R-4100	E-2100	E-2101	E-2102	E-3100	E-4100
Diameter C	215	215	215	315	475	215	215	215	312	475
E	485	480	475	475	560	570	565	560	625	565
F	60	60	60	80	160	355	350	345	330	350

Table 10. Approximate Weights (Kg)

Nominal Diameter (mm)	15	20	25	32	40	50	65	80	100	
Nominal Pipe Size (NPS)	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	
Assy Body	PN 10-40	8	8	8	12	20	23	29	44	50
	ASME CL150 RF	9	9	9	---	19	23	---	42	50
	ASME CL300 RF	9	9	10	---	21	26	---	49	59

Table 11. Approximate Weights (Kg)

ACTUATOR TYPE	R-2100	R-2101	R-2102	R-3100	R-4100	E-2100	E-2101	E-2102	E-3100	E-4100
Kg	15	15	15	25	45	15	15	15	25	45

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