

Installation Instructions

Design CP Single Graphite Packing



FISHER-ROSEMOUNT™

Use these instructions when inspecting or replacing standard single graphite packing.



WARNING

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

- **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.**
- **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 pneumatic actuator loading pressure and relieve any actuator spring precompression.**
- **Use lock-out procedures to be sure that the above measures stay in effect while you work on the equipment.**

If you are installing the system in a valve that is still connected to an actuator, remove the actuator from the valve to provide sufficient space to install the packing assembly. If a spring-return actuator is used, it is possible that disconnecting the stem connector will allow the spring to force the actuator to the end of its travel. Be sure the actuator spring is resting on its travel stop. Refer to the appropriate valve and actuator instruction manuals to remove the actuator.

1. Remove the packing flange nuts, packing flange, and bushing (keys 212, 201, and 208). 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 lower guide bushing. Clean the packing box and the metal packing box parts.

2. Inspect the valve stem threads and packing box surfaces for any sharp edges that might cut the pack-

ing. 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.

3. Install new packing and the metal packing box parts according to the appropriate arrangement in figure 1. 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.

4. Slide the bushing and packing flange (keys 219 and 201) into position. Lubricate the packing flange studs (key 200) and the faces of the packing flange nuts (key 212). Replace the packing flange nuts, but do not tighten.

5. For graphite packing, tighten the packing flange nuts to the maximum recommended torque shown in table 1. Then, loosen the packing flange nuts, and retighten them to the recommended minimum torque shown in table 1.

6. Mount the actuator on the valve assembly, and reconnect the actuator and valve stem. Refer to the appropriate valve and actuator instruction manuals when connecting the valve to the actuator. Check for leakage around the packing follower when the valve is being put into service. Retighten the packing flange nuts as required.

For additional information concerning the installation of this packing kit, please consult the appropriate Fisher Controls product instruction manual.

Table 1. Recommended Torque for Packing Flange Nuts

VALVE SIZE, INCHES	VALVE STEM DIAMETER		ANSI CLASS	GRAPHITE TYPE PACKING			
	Inch	mm		Minimum Torque		Maximum Torque	
				Lbf•in	N•m	Lbf•in	N•m
1, 1-1/2, 2	1/2	12.7	150	32	3.6	48	5.4
			300	43	4.8	64	7.2
2	5/8	15.9	150	26	2.9	39	4.4
			300	35	4.0	52	5.9
3	1	25.4	150	45	5.1	68	7.7
			300	60	6.8	90	10.2
4	1-1/4	31.8	150	31	3.5	46	5.2
			300	41	4.6	62	7.0

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PACKING REPAIR

STEM SIZE DIAMETER, IN. (mm)

RCPXPACK032	1/2 (12.7)
RCPXPACK232	5/8 (15.9)
RCPXPACK042	3/4 (19.1)
RCPXPACK132	1 (25.4)
RCPXPACK142	1-1/4 (31.8)

Packing Stud - Not Shown
(Key 200)
Packing Flange Nuts - Not Shown
(Key 212)
Packing Flange - Not Shown
(Key 201)

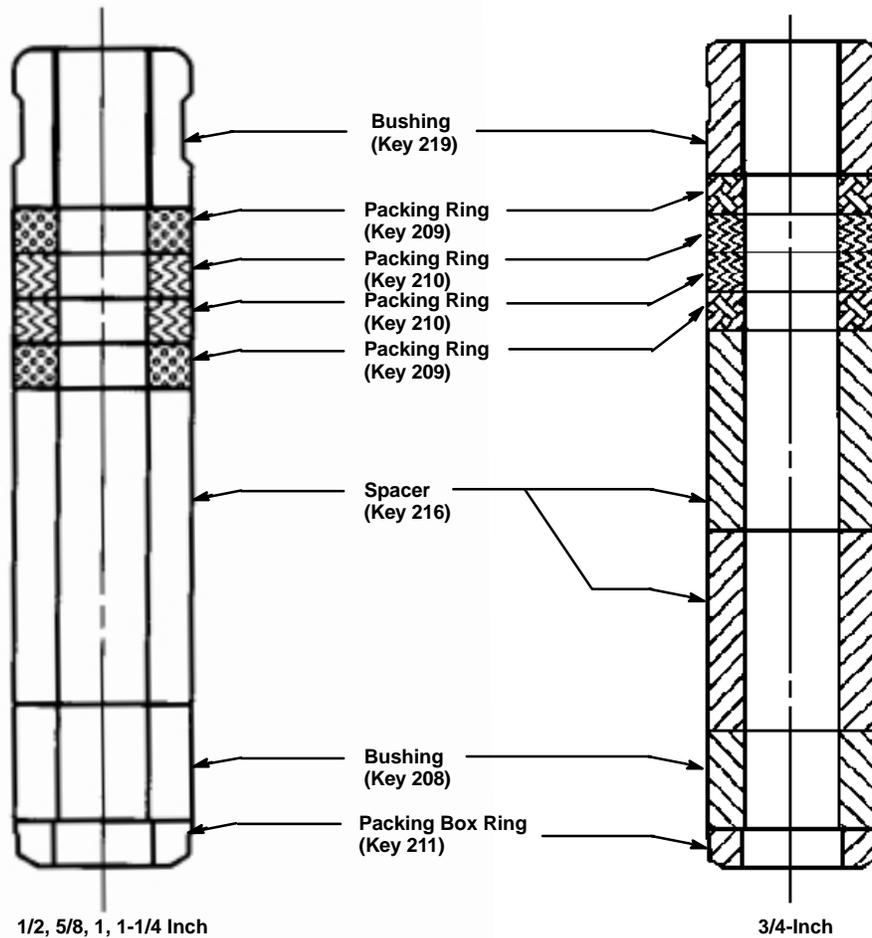


Figure 1. GRAPHITE RIBBON/FILAMENT WITH ONE-PIECE BUSHING

Stems and packing box constructions that do not meet Fisher Controls stem finish specifications, dimensional tolerances, and design specifications, may adversely alter the performance of this packing kit.

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