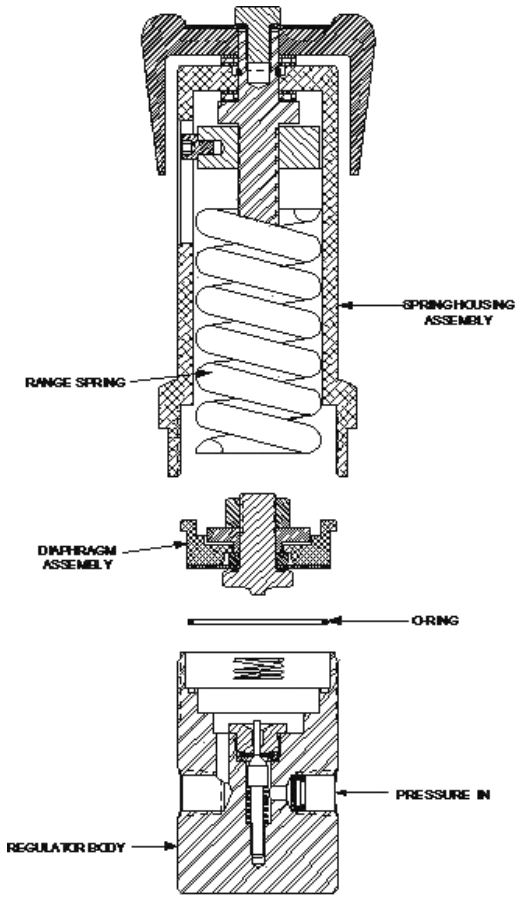
GO REGULATOR

Fluid Control Solutions

PR-50 Series High Pressure Regulator
Non Self-Relieving Series
Diaphragm Replacement Instructions

Make sure you thoroughly understand these directions before proceeding
MAKE SURE THE REGULATOR IS DISCONNECTED FROM AIR SOURCE
MAKE SURE ANY RESIDUAL PRESSURE IS BLED OFF FROM REGULATOR.

Instructions



1. Completely read these instructions before performing any of the operations.
2. Make sure the regulator is disconnected from pressure source; make sure any residual pressure is bled off from the regulator. **FAILURE TO DO THIS WILL RESULT IN SERIOUS PERSONAL INJURY. DO NOT PROCEED UNTIL PRESSURE HAS BEEN REMOVED AND/OR TERMINATED**
3. Securely clamp the regulator body over the flats in a vise.
4. Turn the adjustment knob counterclockwise, as looking from the top of the regulator, until it will turn no further.
5. Using a 2 ¼" wrench, remove the spring housing assembly from the body.
6. Remove the range spring.
7. Remove the diaphragm assembly and counter spring.
8. Carefully remove large o-ring from regulator body.
9. Thoroughly blow out the inside of regulator body using clean, dry compressed air.
10. Clean o-ring surface with a cotton swab moistened with isopropyl alcohol.
11. Apply o-ring lubricant, such as Krytox grease, into groove in regulator body if new o-ring is dark color. Do not apply lubricant to groove if new o-ring is white color. Install new o-ring into groove.
12. Place counter spring on seat retainer.
13. Place diaphragm assembly into regulator cavity.
14. Place range spring on the diaphragm assembly.
15. Place a small amount of Krytox or other lubricant on the outer threads of the body.
16. Put the spring housing assembly over the regulator and engage threads by hand. Tighten hand tight.
17. Finish tightening spring housing assembly to 80 lbf•ft (108 N•m).
18. Attach a pressure gauge and quarter-turn valve to the outlet port. Leave the valve in the closed position.
19. Squirt a leak detecting fluid around the base of the spring housing assembly where it meets the body. Agitate the leak detecting fluid to form a foam. Apply this foam around the slot in the spring housing assembly while watching for signs of escaping gas.
20. Slowly turn the knob while watching and listening for any leaks. It may be necessary to re-apply the liquid. If leaks are noticed, immediately back off adjusting screw and repair unit as needed.
21. If no leaks are noticed, adjust control pressure to a value that is 110% of the maximum rating for this regulator.

Reapply the leak detecting fluid as needed.

22. Note the pressure reading on the gauge. Wait for 5 minutes. Increasing pressure indicates a leak across the seat or flat seal. Decreasing pressure indicates a possible diaphragm leak. If the pressure does not remain stable, the unit must be disassembled and the cause of leakage repaired.
23. Relieve the outlet pressure while backing off on the adjusting knob. Continue backing off on adjustment knob until it is all the way out and will turn no further.
24. The regulator is now ready for service.

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