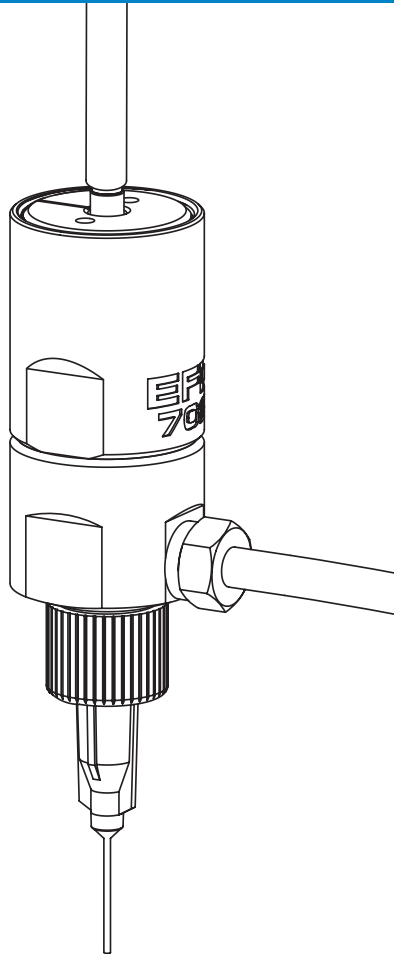


702 Series Mini-Diaphragm Valve

Maintenance & Parts Guide



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Valve Disassembly and Reassembly Procedures

⚠ CAUTION

To prevent damage, the valve must be disassembled starting at the fluid outlet end of the valve.

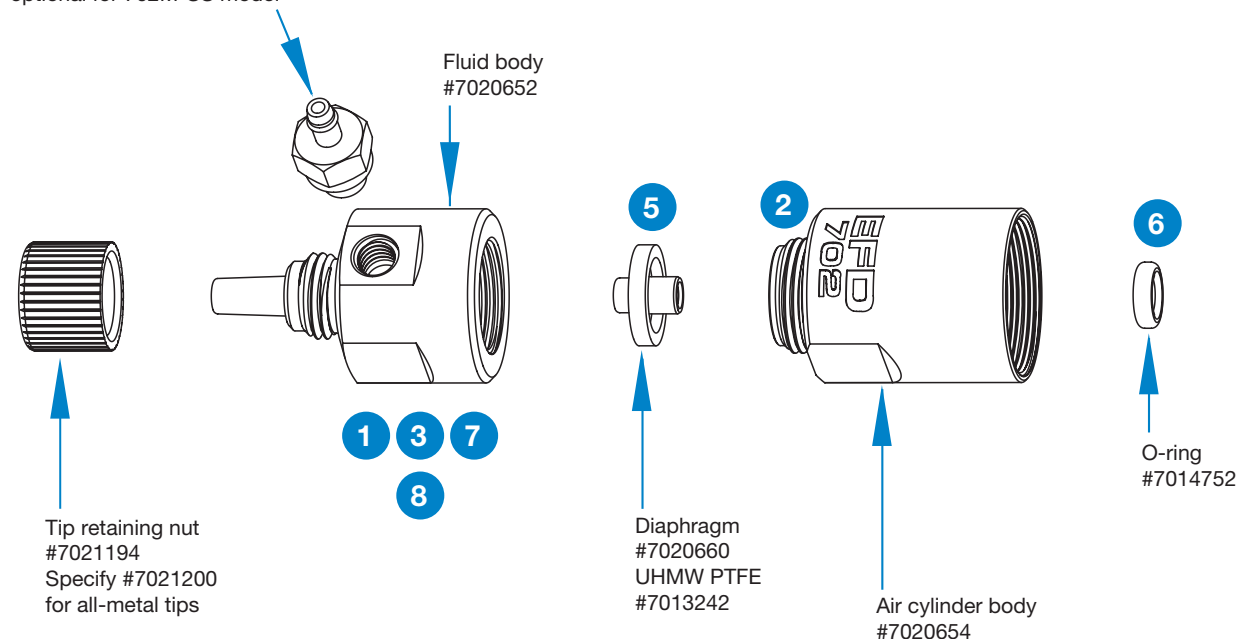
Fluid Body

1. Remove the fluid body from the air cylinder by turning it counterclockwise until it is free.
The diaphragm may loosen or become unthreaded from the piston rod when the fluid body is removed. If so, retighten or reinstall the diaphragm before reinstalling the fluid body.
2. To reinstall the fluid body, turn it clockwise onto the air cylinder and torque to 8.1–10.8 N•m (6–8 ft-lb).

Diaphragm

3. Remove the fluid body by unscrewing it counterclockwise.
4. Place a small Allen wrench in the throughhole located on the piston barb. Hold the Allen wrench to prevent the piston from rotating.
5. Unscrew the diaphragm by turning it counterclockwise and then remove it from the piston rod.
6. Thread on the new diaphragm, holding the Allen wrench to prevent the piston from rotating. Tighten slowly until the diaphragm bottoms against the piston rod.
7. Reinstall the fluid body, turning it clockwise onto the air cylinder and torquing to the value specified in step 2.

Fitting #7020671 for 702V-SS;
optional for 702M-SS model



Valve Disassembly and Reassembly Procedures (continued)

Piston O-ring and Cylinder

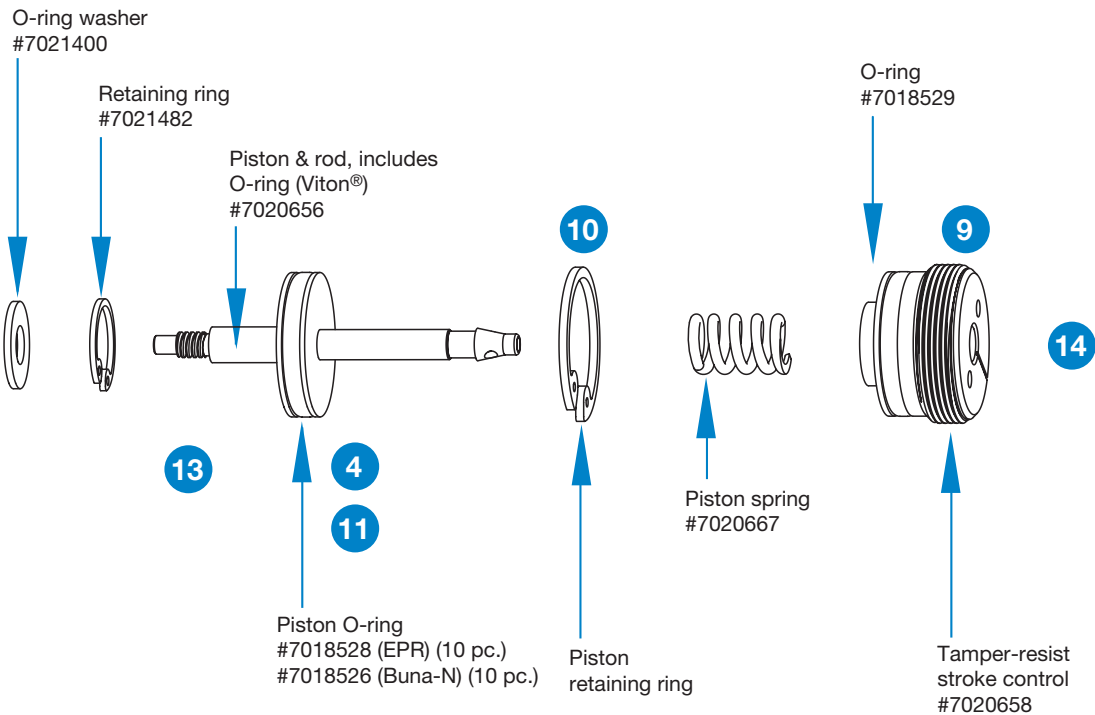
8. Remove the fluid body and diaphragm.
9. Remove the stroke control and spring by turning the assembly counterclockwise.
10. Remove the piston retaining ring.
11. Remove the piston.
12. Remove the cylinder O-ring, retaining ring, washer, and O-ring from inside the air cylinder.
13. Lubricate the O-ring, piston shaft, and air cylinder wall with Nye Lubricant #865. (#7014917).
14. Reinstall the components in reverse order.

Tools Required:

- 6" adjustable wrench (2)
- 6" needle-nose pliers
- 2.5 Allen wrench
- Snap-ring pliers

Important Note: For a PTFE diaphragm — adjust the stroke 1/2 turn open or less. Stroke settings greater than 1/2 turn dramatically reduce diaphragm life.

Part #	Description
7020683	702V-SS Diaphragm Valve
7020679	702M-SS Diaphragm Valve
7020680	702V-A Diaphragm Valve
7013243	702V-T Diaphragm Valve



Troubleshooting Guide

No fluid flow

- If the valve operating air pressure is too low, the valve will not open. Increase the air pressure to 4.8 bar (70 psi) minimum.
- The reservoir air pressure may not be high enough. Increase the pressure.
- The dispensing tip may be clogged. Replace the tip.
- The stroke adjustment may be closed. Open the stroke adjustment.
- Fluid may have solidified in the valve. Clean the fluid body.

Fluid drools after the valve closes, eventually stopping

- This is caused when air is trapped in the outlet section of the fluid body or when the fluid has entrapped air. The air will expand after the valve closes, causing extrusion until the air reaches atmospheric pressure.
Purge the valve by dispensing at a steady flow until clear. If a small tip is used, it may be necessary to remove the tip while purging to obtain sufficient flow to carry the air down through the tip adapter.
- If the fluid has entrapped air, the material must be degassed before dispensing.

Fluid drips at a steady rate after the valve closes

- A steady drip can be caused by excessive reservoir pressure. Check to be sure the reservoir pressure is not above 4.8 bar (70 psi).
- If the stroke adjustment knob is turned out more than two full turns, the reservoir pressure will force the diaphragm open. Check the stroke adjustment knob to be sure it is less than two turns out.
- A steady drip also indicates failure of the diaphragm to close fully due to particle build-up or wear. In either case, replace the sealing head in accordance with the maintenance instructions.

Fluid leaks out between fluid body and diaphragm

- Fluid leakage between the fluid body and the diaphragm indicates the fluid body is loose. Torque to the proper specifications.

Fluid flows out of the drain hole

- Fluid flowing out of the drain hole indicates a ruptured diaphragm. Replace in accordance with the maintenance instructions.
- If using a PTFE diaphragm, verify that the stroke setting is 1/2 turn open or less. Greater than 1/2 turn open reduces diaphragm life.

Valve responds slowly when opening and closing

- Valve response is related to control air hose length and size. The 702V model valve is supplied with 1.5 m (5 ft) of 3/32" ID tubing attached. Any additional length or size change will affect response time. Check to be sure the length and size have not been changed.

Inconsistent deposits

- Inconsistent deposits can result if the air pressure controlling the valve and / or supplying the reservoir is fluctuating or if the valve operating pressure is less than 4.8 bar (70 psi). Check to be sure air pressures are constant and the valve operating pressure is 4.8 bar (70 psi).
- The time the valve is open must be constant. Check to be sure the valve controller is providing a consistent output.



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