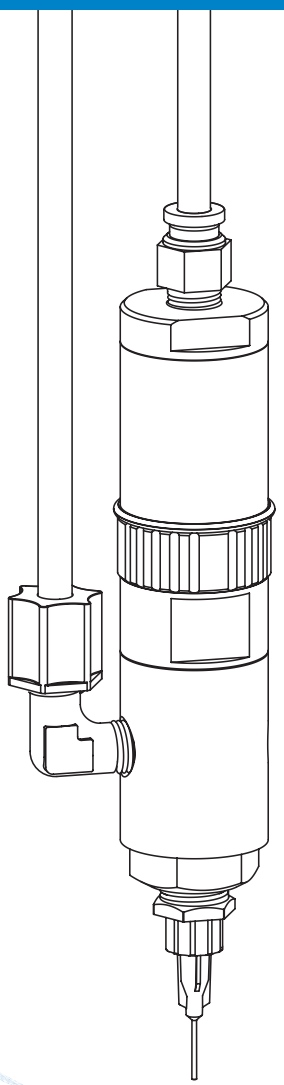
725DA-SS and 725DA Piston Valves

Maintenance & Parts Guide



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Valve Disassembly and Reassembly Procedures

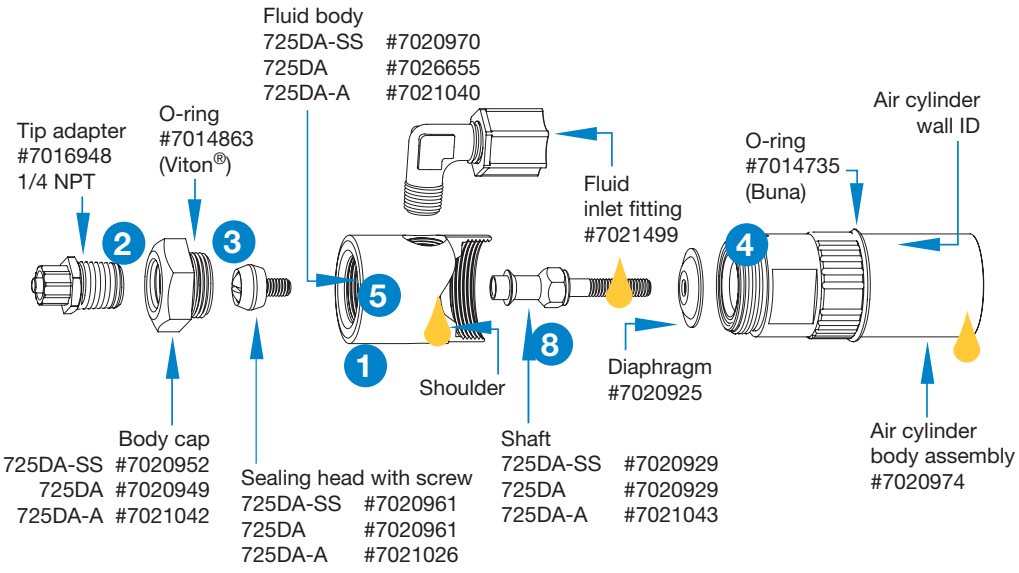
NOTE: For the 725DA-SS (7021014) or 725DA (7021010) or 725DA-A (7021011), set the stroke adjustment to the full open position (two complete rotations). The stroke adjustment must stay open throughout reassembly.

⚠ CAUTION

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

1. Put the threaded rod in the mounting hole.
2. Remove the body cap.
3. Remove the sealing head. *
4. With a wrench on the flats of the air cylinder body, turn to loosen fluid body.
5. Remove the fluid body. *
6. Remove the input air hose from the push-in fitting on the air cap.
7. Insert the 1/8" hex wrench through the air inlet hole in the cap and back the shaft locking screw out two turns. *
8. Using the hex on the shaft, un-thread the shaft and remove the shaft and diaphragm. *
9. Unscrew the air cylinder cap from the air cylinder body. *
10. Remove the piston and spring.

    NOTE: The stroke adjustment ring on the valve air cylinder assembly is not removable. If this assembly requires repair, it must be returned to EFD.



NOTE: Before reassembling the valve, clean all parts, and replace the O-rings, sealing head, and diaphragm.

Inspect for damaged threads, check the piston pins for straightness, and check the fluid body seat for pitting.

⚠ CAUTION

Do not thread fluid inlet fittings too far into the valve. Doing so can obstruct the piston shaft, causing leakage, poor dispensing performance, and damage to the valve.

Reassemble the valve in reverse order of disassembly. Lubricate the parts indicated with Nye Lubricant #865, included in the General Maintenance Kit.

General Maintenance Kit #725DA-RK (7021013)

Includes air cylinder and body cap O-rings, diaphragm, sealing head with screw, and lubricant.

Maintenance Tools:

1/8" hex wrench

1/4" flat-tip screwdriver

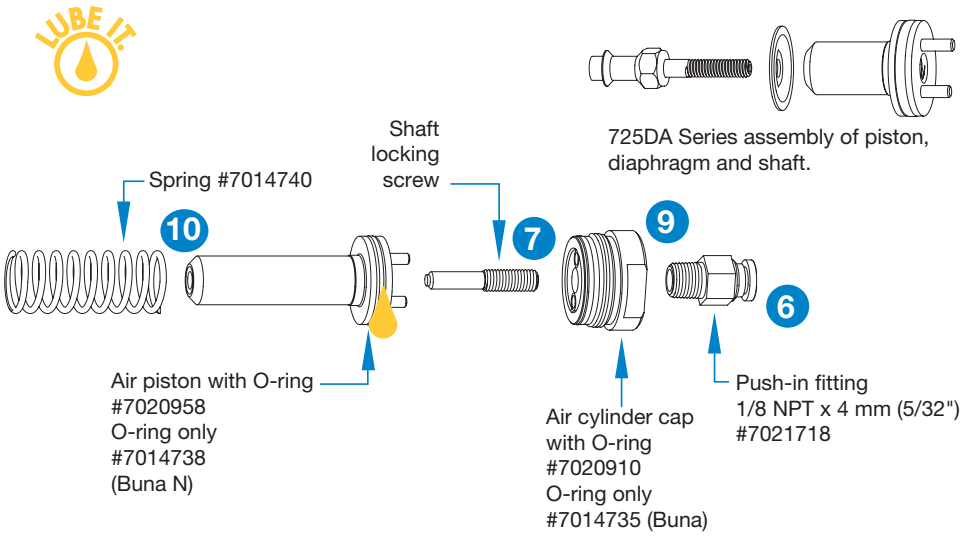
3/8" box wrench

(2) 8" adjustable wrenches

1/8 NPT male pipe or rod

Step	Part	N•m	in.-lb / ft-lb
3	Sealing head screw	1.69 N•m	15 in.-lb
5	Fluid body	6.78 N•m	5 ft-lb
7	Shaft locking screw	2.82 N•m	25 in.-lb
8	Shaft	1.69 N•m	15 in.-lb
9	Air cylinder cap	10.8 N•m	8 ft-lb

*Parts that require a specific torque when reassembling the 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 fluid body. Clean the fluid body.
- The fluid supply line is installed in a blind mounting hole. Remove and reinstall properly.

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 the fluid is 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.

  NOTE: For stripes and lines, the input air pressure can be lowered to eliminate the opening surge.

Fluid drips at a steady rate after the valve closes

- A steady drip indicates a failure of the sealing head to close fully due to particle buildup or wear. In either case, replace the sealing head in accordance with the maintenance instructions.
- Fluid leakage can also occur when a fluid inlet fitting is threaded too far into the valve, thus obstructing the piston shaft. Ensure that the fluid inlet fitting is properly installed.

Valve responds slowly when opening and closing

- The valve response is related to the control air hose length and size. The EFD valve is supplied with 1.5 m (5 ft) of 4 mm (5/32") tubing attached. Any additional length or size change will affect the response time. Ensure that the length and size of the tubing has not been changed.

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.

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). Ensure that the air pressures are constant and that the valve operating pressure is 4.8 bar (70 psi).
- The time the valve is open must be constant. Ensure that the valve controller is providing a consistent output.

Nordson EFD

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