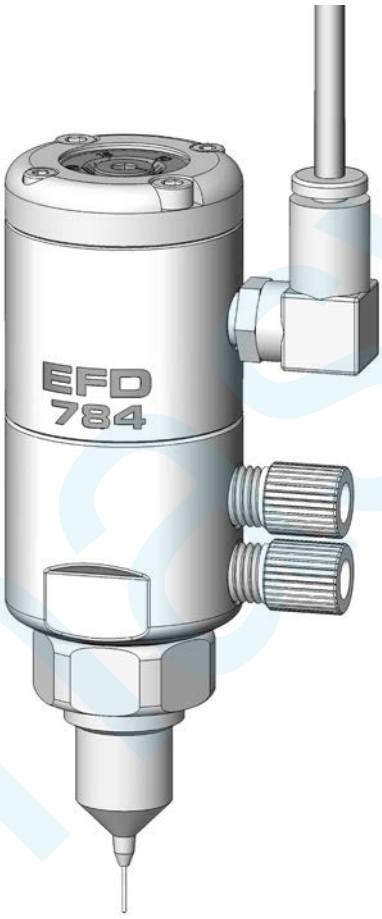
784S-SS Aseptic MicroSpray™ Valve

Maintenance & Parts Guide



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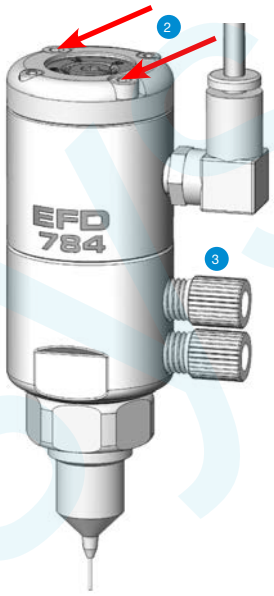
Valve Disassembly and Reassembly Procedures

Tools required:
2.5 mm hex wrench
Adjustable wrench

⚠ CAUTION

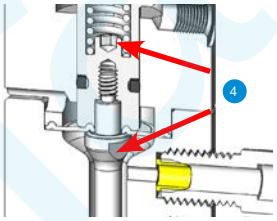
To prevent damage, the valve must be disassembled starting at the fluid outlet end of the valve.



Valve Maintenance: Fluid Body

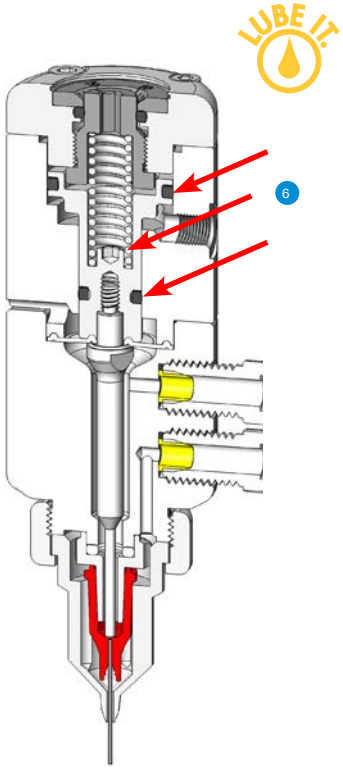
To thoroughly clean the fluid body and replace Diaphragm:

1. ❶ Remove SS air cap retainer nut, air cap, and microspray tip adapter from the fluid body. Dispose of dispensing tip. Do not reuse.
2. ❷ Remove the two retainer screws at the top of the valve to release fluid body.
3. ❸ Remove fluid inlet and nozzle air fittings.
4. To reinstall the fluid body, align fluid body holes with air cylinder body holes and reinsert retainer screws. Torque to 1.58 Nm (14 inch pounds).



Diaphragm

5. Back out stroke control two turns counterclockwise from the closed position.
6. Remove fluid body.
7. ❹ Insert Allen wrench (2.5 mm) through stroke reference control and engage piston shaft.
8. Using the hex on the shaft, unthread shaft, and remove shaft and diaphragm.
9. Install new diaphragm onto needle shaft.
10. With Allen wrench engaged into piston, thread needle shaft/diaphragm onto piston assembly.
11. Reinstall fluid body and torque retainer screws to value specified in step 4.
12. Turn stroke control clockwise until closed, and then reopen to desired stroke.



Valve Disassembly and Reassembly Procedures (continued)

Piston O-Ring

13. Remove fluid body and diaphragm.
14. 5 Remove stroke control and spring by loosening stroke control retainer screws.
15. Remove the piston.
16. 6 Lubricate O-rings, piston shaft and air cylinder wall with Magnalube-G.
17. Reinstall components in reverse order of disassembly.

Round air cap, use tip size listed below

Part Number	Gauge Size	Length
7018314	23	1/2"
7018345	25	1/2"
7005008	27	1/2"
7018433	30	1/2"

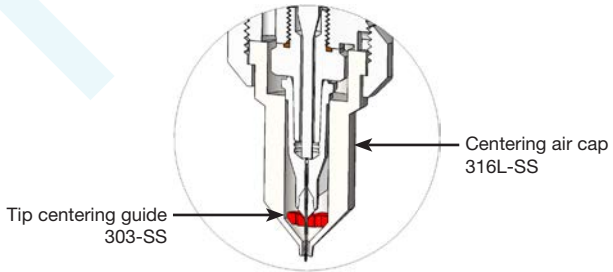
Fan air cap, use tip size listed below

Part Number	Gauge Size	Length
7018302	23	1/4"
7018333	25	1/4"
7018395	27	1/4"
7018424	30	1/4"
7018462	32	1/4"
7018477	33 chamfered	1/4"

Tip centering guide (for centering air caps)

Tip centering guides ensure proper alignment of the dispensing needle in critical spray applications. Order according to the tip size.

Part Number	Gauge Size
7029405	23
7029406	25
7027985	27/33
7029407	30
7029408	32
7361023	Centering air cap only (accommodates the tip centering guide)



To order aseptic microspray valves

7361024
(784S-SS Valve)
Microspray valve with 316L stainless-steel parts and round pattern air cap with 303-SS tip centering guide.

7012988
(784S-SS Valve)
Microspray valve with 316L stainless steel parts and round pattern air cap.

7013000
(784S-SS-F Valve)
Microspray valve with 316L stainless steel parts and fan pattern air cap.

#7012897
non-salable screw
M3X35MM-SS

#7012898
non-salable screw
M2X10MM-SS

#7013479
stroke control
assembly

#7012900
spring

#7013480
piston 316L-SS

#7013674
air cylinder
316L-SS

#7013675
diaphragm PTFE

#7013681
needle 316L-SS

*#7021486
fitting 4.0 mm
OD tube w/ferrule

#7013676
fluid body 316L-SS

**#7013680
tip adapter 316L-SS

#7013678
fan air cap
316L-SS

#7013677
round air cap
316L-SS

#7361023
centering air cap
(for tip centering
guide)

#7013679
retaining nut
316L-SS

*#7021491
fitting fluid 4.0 mm
BARB for 6.0 mm
OD x 4.0 mm ID
feed line use

**#7013682
o-ring, tip adapter PTFE, 10 pc

Troubleshooting Guide

No fluid flow

- If valve operating air pressure is too low, the valve will not open. Increase air pressure to 4.8 bar (70 psi) minimum.
- The reservoir air pressure may not be high enough. Increase pressure. Max fluid pressure: 1.7 bar (25 psi).
- The needle stroke adjustment may be closed. Open stroke adjustment.
- Material may have clogged the fluid body, tip, or output tip adapter. Clean the fluid body outlet components. Change the tip.

Steady drip

- A steady drip can be caused by a worn needle and seat, or a particle holding the needle off the seat. Clean and inspect the needle and seat for wear. Replace worn or damaged parts/tips.

Fluid leaks out the drain hole

- Fluid leaking out the drain hole on the side of the valve indicates the diaphragm is ruptured. Replace the diaphragm.

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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