# Job Aid

# BD FACSCelesta™, BD LSRFortessa™, and BD FACSymphony™ Analyzer families: Flushing the system using the BD FACSFlow™ Supply System

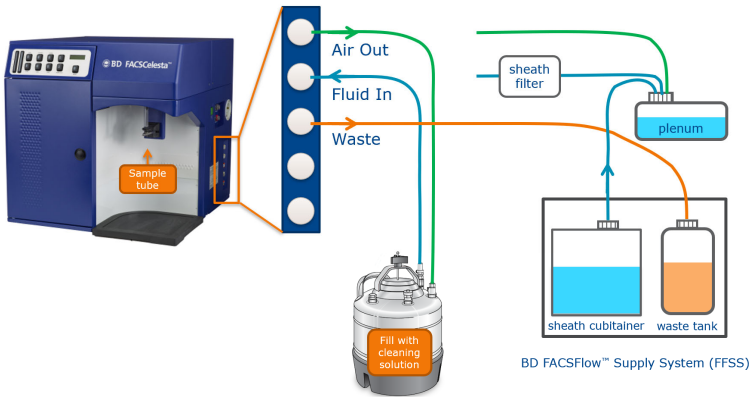
This job aid contains instructions for performing a system flush using the BD FACSFlow™ Supply System (FFSS) on BD LSRFortessa™, BD FACSCelesta™, and BD FACSymphony™ Flow Cytometers. A system flush cleans the overall fluidics to remove debris and contaminants from the sheath and waste tubing, and flow cell. Perform the system flush at least every two weeks. See your instrument's user guide for additional information.

## Before you begin

You will need the following items:

- Stainless steel sheath tank with dedicated tubing lines

  **NOTE** The cytometer system is shipped with a stainless-steel tank for sheath fluid. This tank is replaced by the sheath cubitainer when the BD FACSFlow™ Supply System is installed. You should save the stainless-steel tank and tubing and use it for the system flush procedure.
- 2 L of undiluted BD FACSClean™ Solution or a freshly prepared 10% bleach solution
- 2 L of 1.5% BD® Detergent Solution
- 4 L of deionized (DI) water



BD FACSFlow™ Supply System (FFSS)

## Preparing for the system flush

① Place the stainless steel sheath tank near the cytometer.

② On the right side of the cytometer, disconnect the air line (green) from the air out port and the fluid line (blue) from the fluid in port.

③ Connect the air line (green) from the stainless steel sheath tank to the air out port on the cytometer then connect the fluid line (blue) from the stainless steel sheath tank to the fluid in port.

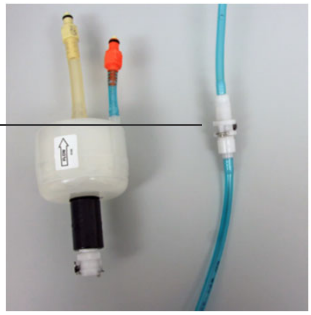
④ Empty the waste tank, if needed.

## Flushing the system

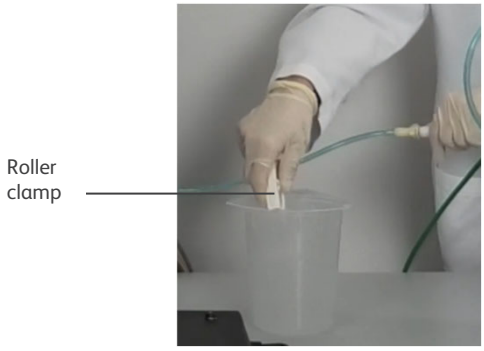
① Fill the stainless steel sheath tank with 2 L of undiluted BD FACSClean™ Solution or a freshly prepared 10% bleach solution.

② Bypass the sheath filter by pressing the quick-disconnects on both sides of the filter assembly. Remove the filter assembly and connect the two fluid lines.

**NOTE** Do not run detergent, bleach, or ethanol through the sheath filter. These fluids can break down the filter paper within the filter body, causing particles to escape into the sheath fluid, possibly clogging the flow cell.



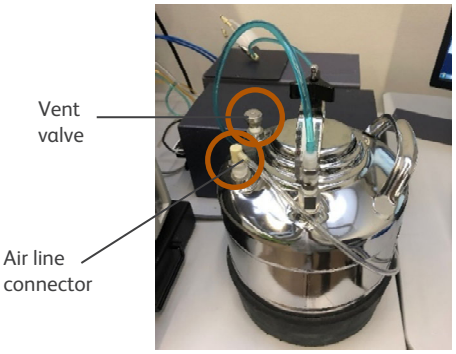

③ Open the roller clamp on the sheath line for about 10 seconds and drain the fluid into a beaker. Close the roller clamp.




④ Remove the DI water tube from the SIP and with the tube support arm to the side, press the PRIME button on the fluidics control panel and when the STANDBY button lights, press PRIME again.

⑤ Install a tube with 3 mL of undiluted BD FACSClean™ Solution or a freshly prepared 10% bleach solution on the SIP with the tube support arm underneath the tube and run it on high for 30 minutes.

⑥ Press the STANDBY button, disconnect the air line (green) from the sheath tank and depressurize the sheath tank by lifting the vent valve.




⑦ Dispose of any remaining solution and rinse the sheath tank with DI water and reconnect the air line to the stainless steel tank.

⑧ Repeat steps 1 through 7 using DI water in the tank and on the SIP to flush out the BD FACSClean™ Solution or 10% bleach.

**NOTE** Make sure to rinse the sheath tank with DI water and empty the waste tank before adding the next solution.

**CAUTION** Never mix BD® Detergent Solution or bleach because they can create chlorine gas.

⑨ Repeat steps 1 through 7 using 1.5% BD® Detergent Solution (dilute in DI water from concentrate) in the tank and on the SIP.

⑩ Repeat steps 1 through 7 using DI water in the tank and on the SIP to flush out the detergent solution.

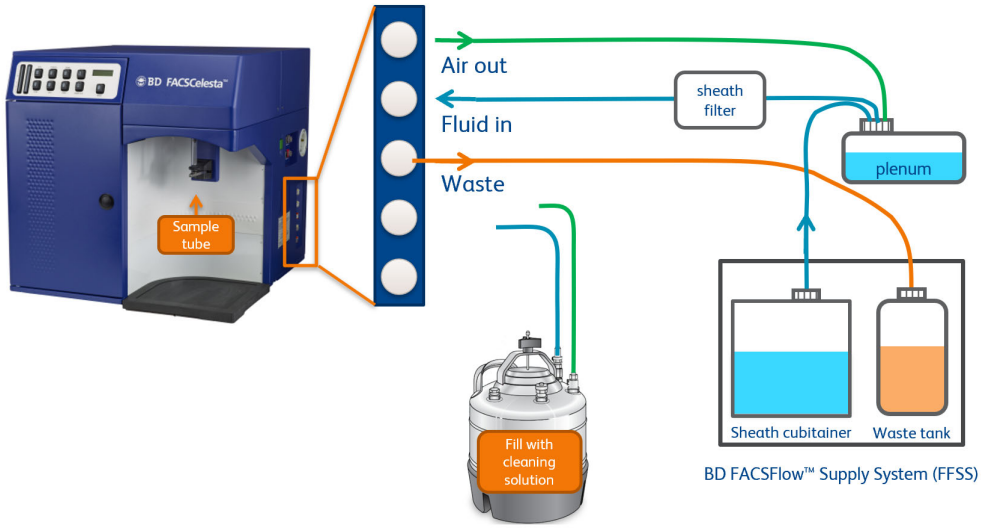
## Re-establishing the connections

① At the cytometer, disconnect the air out line (green) and the fluid in line (blue) coming from the stainless steel tank.

② Reconnect the air line (green) coming from the sheath plenum to the air out port on the cytometer.

③ Reconnect the fluid in line (blue) coming from the sheath plenum and reconnect it to the fluid in port on the cytometer.

④ Check for bubbles and purge the sheath line or sheath filter, if needed.




Class I Laser product
This material is for training purposes.
For Research Use Only. Not for use in diagnostic or therapeutic procedures.
BD-72624 (v1.0)

**BD Life Sciences, San Jose, CA, 95131, USA**

**bdbiosciences.com**