Instrument Not in Use

FLEX

Service Procedure **#013**

Revised: 3/20/23 AES/RK

To maintain the longevity and proper function of the ANKOM*FLEX* Analyte Extractor, it is important to prepare the instrument when it will not be used for an extended period.

1. Purge Solutions from Reservoir Lines.

Purge the supply lines of solutions to prevent crystallization or mold build up from residual reagent solution left in the lines.

Support Items:

500ml Beaker

Vessel Bottom Plugs
(Part # FLEX72)

- Distilled Water Squeeze Bottle
- 95% EtOH Squeeze Bottle
- Empty Squeeze Bottle

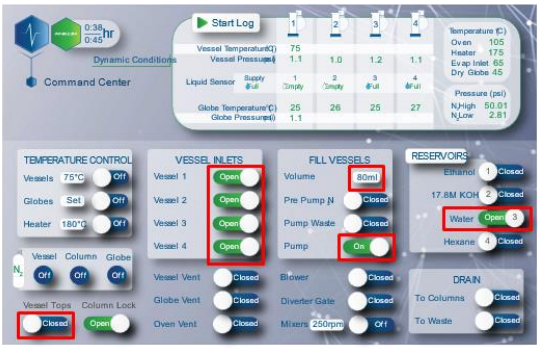
Procedure:

1.1. **Make sure the waste reservoir is empty.**

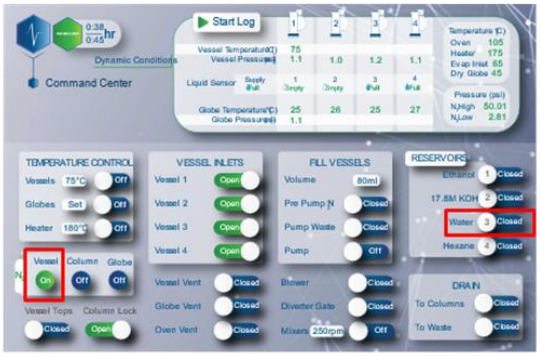
1.2. **Pump Distilled Water (DI) to all Vessel Inlets.**

1.2.1. Install 4 Vessels with Vessel Base Plugs (no caps)

NOTE: Make sure Reservoir #3 is at least half full of DI water

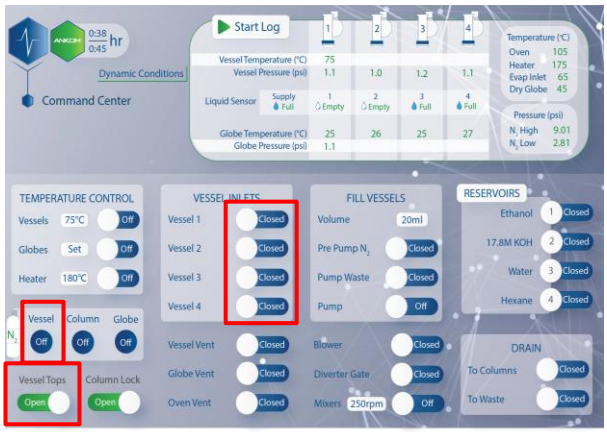


1.2.2. Close Vessel Tops
1.2.3. Open Vessel Inlets 1-4
1.2.4. Open Reservoir #3 (Water)
1.2.5. Set Pump Volume to 80ml
1.2.6. Turn on Pump (it will automatically turn off after volume delivery)



1.2.7. Close Reservoir #3
1.2.8. Turn On Vessel N2 for 15 seconds

1.2.9. Turn Off Vessel N2
1.2.10. Close Vessel Inlets 1-4
1.2.11. Open Vessel Tops



1.2.12. Remove Digestion Vessels
1.2.13. Dispose of liquid in digestion vessels.

2. Disassemble the Digestion Vessels and clean for storage.

If left assembled for extended periods of time (e.g. overnight) the O-rings in the vessel bases will deform and future integrity could become compromised. Clean the digestion vessels, digestion vessel bases, and magnetic cross stir-bars for subsequent use. Use water as a final rinse solution. DO NOT use ethanol or acetone.

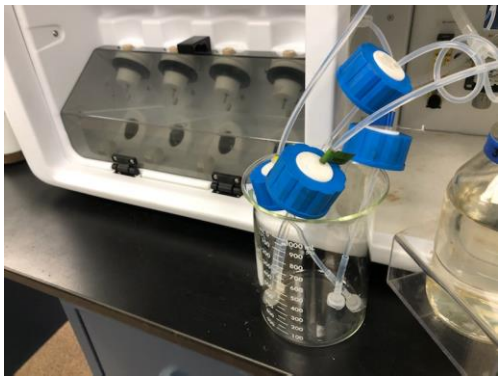
2.1. Push the vessel base off the digestion vessel.

2.2. Clean the digestion vessels and vessel bottom assemblies for subsequent use. Use water as a final rinse solution.
DO NOT use ethanol or acetone.

Digestion Vessel with port (Part # FLEX55)

Vessel Bottom Assembly (#FLEX54)

3. Clean Reservoir Lines.



3.1. Place all Reservoir Lines into an empty beaker

3.2. Open Pre-pump N2
3.3. Open Reservoir #1 and close after 15 seconds
3.4. Repeat previous steps for all Reservoirs
3.5. Close Pre-pump N2

4. Rinse Reservoir Lines with Distilled Water (DI).

4.1. Place all Reservoir Lines into a 500ml beaker of DI Water

4.2. Open Reservoir #1
4.3. Open Pump Waste
4.4. Set Pump Volume to 20ml
4.5. Turn On Pump (it will automatically turn off after volume delivery)
4.6. Repeat previous steps for all Reservoirs
4.7. Close all Reservoirs

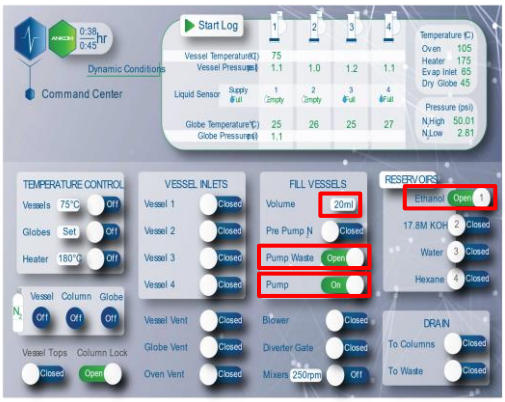
5. Clearing Reservoir Lines

5.1. Keep all the Reservoir Lines in the 500ml beaker of DI water

5.2. Open Pre-pump N2
5.3. Open Reservoir #1 and close after 15 seconds
5.4. Repeat previous steps for all Reservoirs
5.5. Close Pre-pump N2

6. After clearing Pump of DI water, repeat the process to rinse Reservoir lines with 95% EtOH.

6.1. Place all Reservoir lines into a 500ml beaker of 95% EtOH



6.2. Open Reservoir #1
6.3. Open Pump Waste
6.4. Set Pump Volume to 20ml
6.5. Turn On Pump (it will automatically turn off after volume delivery)

6.6. Repeat previous steps for all Reservoirs
6.7. Close all Reservoirs

7. Clearing Reservoir Lines.

7.1. Keep all the Reservoir Lines in the 500ml beaker of 95% EtOH

7.2. Open Pre-Pump N2
7.3. Open Reservoir #1 and close after 15 seconds

7.4. Repeat previous steps for all Reservoirs
7.5. Close Pre-pump N2

8. Clearing Pump.

8.1. Remove the Reservoir lines from the beaker of 95% EtOH. Dry them with a paper towel.

8.2. With Pump Waste Open, Open Pre-Pump N2

8.3. Set Pump Volume to 20ml
8.4. Turn on Pump (it will automatically turn off after volume delivery)

8.5. Close Pre-pump N2
8.6. Close Pump Waste

9. Rinse the drain "To Column" lines with Distilled Water (DI).

9.1. Open Drain "To Column" position

9.2. Place beaker below SPE Column Top Adapter to catch the DI water

9.3. With a spray bottle, manually spray DI water through the four Vessel Bases

9.4. Spray for at least 5 seconds

10. Rinse the drain "To Column" lines with 95% EtOH.

10.1. Place beaker below SPE Column Top Adapter to catch the 95% EtOH

10.2. With a spray bottle, manually spray 95% EtOH through the four Vessel Bases

10.3. Spray for at least 5 seconds

11. Purge remaining solution in the drain "To Column" lines.

11.1. Place beaker below SPE Column Top Adapter to catch remaining solution

11.2. With an EMPTY spray bottle, manually spray air through the four Vessel Bases

11.3. Purge residual solution by squeezing the spray bottle at least five times

11.4. Rinse/clean any drips that may have fallen into SPE column bottom adapter with 95% EtOH through the round bottom flask adapter into a beaker.

12. Rinse the drain "To Waste" lines. Begin with Distilled Water (DI).

12.1. OPEN Drain "To Waste" position

12.2. With a spray bottle, manually spray DI water through the four Vessel Bases

12.3. Rinse for at least 5 seconds

Rinse the drain "To Waste" lines with 95% EtOH.

12.4. With a spray bottle, manually spray 95% EtOH through the four Vessel Bases

12.5. Rinse for at least 5 seconds

Purge remaining solution in the drain "To Waste" lines.

12.6. With an EMPTY spray bottle, manually spray air through the four Vessel Bases

12.7. Purge residual solution by squeezing the spray bottle at least five times

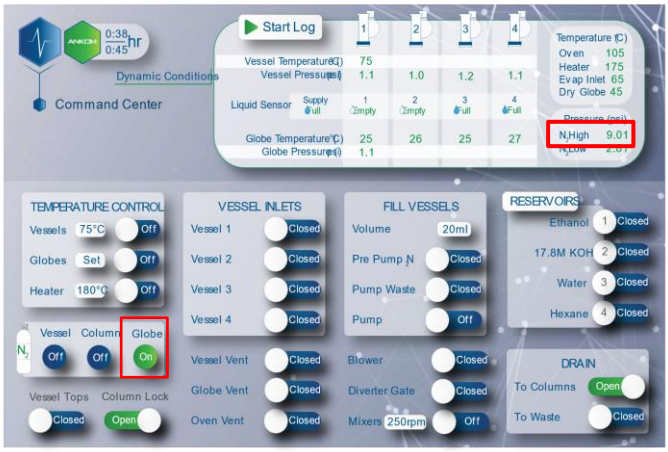
13. Dissipate High Pressure.

This is to ensure that the Drain will stay in the "To Column" position after the instrument is powered down.

13.1. OPEN Drain "To Column" position

13.2. Turn Off Supply Pressure to the instrument (i.e. Nitrogen Tank)

13.3. Turn on Globe N2 to relieve the pressure in the instrument until the High Pressure nitrogen is <10psi



13.4. Turn off Globe N2

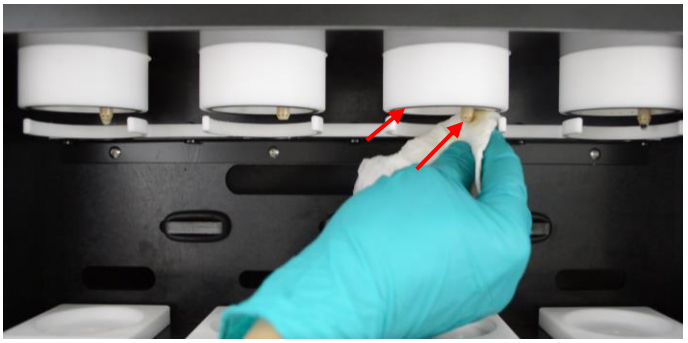
14. Power down instrument.

14.1. Press the Power icon located in the lower right corner of the Home screen, and then press “Shut Down.” Once the screen is black, turn off the power switch on the left side of the instrument.

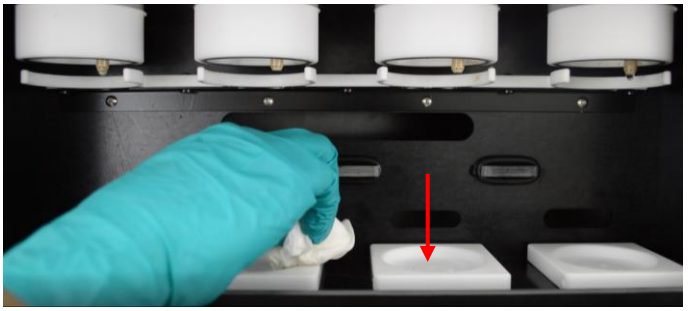
15. Wipe down instrument.

Using a wetted towel, wipe down the following components:

15.1. Digestion Oven Spray Nozzles
15.2. Digestion Vessel Top O-Rings



15.3. Vessel Bases



15.4. SPE Column Tops O-rings