

TOPIC: Restarting UF System After Unexpected Shut Down

Start-Up

Situation:

UF Machine is offline and UF Elements are resting in permeate, or buffered (to same pH as the ED paint bath) RO/DI water. When turning on the magnetic flow meter the reading should read zero (and no paint flow through the meter). If it does not, please see re-zeroing instructions that came with your magnetic paint flow meter.

Get Started...

- * Tools/Materials Required: small bucket to capture paint/air
- * UltraFiltration machine pipe schematic (997303)

Important ED Machine Valve Positions

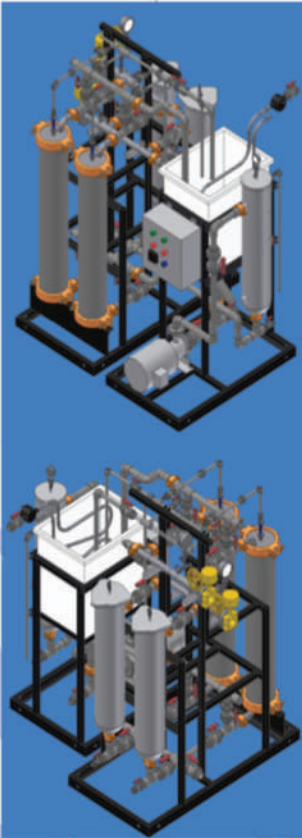
- * V9 and V10 valves are Closed
- * UF Feed Pump is ON
- * VP2, VP3, VP1, VT1, VT2 are all Open

Primary Checks

Do Bag filters need to be changed?

Make sure the UF Elements are flushed (twice if new and shipped in preservative) and resting in permeate or buffered RO/DI water.

The following page lists steps to be taken to restart the UFS TruFlux UF System



Step 1: Open the following valves: *V1-*, V11, V32, VP6*

Step 2: Close the following valves: *VP5, all V2-*, all V6-*, all V4-**

Step 3: Open the following: *all V3-* valves, all V5-* valves, all V25-* valves, and V26-* valves*

Step 4 Crack Open one notch or less: *BPV valve & V18 valve*. Place a bucket under *V18 valve*

Step 5 Open *V9 valve*

Step 6 Close *VP1 valve* and immediately go to Step 7.

Step 7 Slowly begin to open *valve V10*, taking a Full 60 seconds. If the Magnetic paint flow meter reads more than the required ED paint flow rate (i.e. # UF Modules x 70 - 84 gpm), begin to close *V9 valve* as *V10* is opened to its fullest. Note: *VP3* may have to be slightly closed in order to increase the paint flow through *V10*.

Step 8 Close *V18* when all air has been purged and ED paint begins to enter into the bucket.

Step 9 Observe the permeate flow through the *F-** flow meters. Be sure they are clear and normal looking. It is common to see some ED paint in the permeate for up to 10 - 20 minutes with new UF Elements.

Step 10 Slowly throttle closed *V9 valve* until *P2* reads 10 – 15 * psi (if this flow is meant to exit through eductors, this may have to be adjusted as required per the design of the eductor venturi specifications). Slowly close *VP3 valve* until the ED paint flow as shown on the magnetic paint flow meter is as required. *P2* should have 10 – 15 psi. If not, slightly close *V9* and *VP3* to get the proper flow of paint. Repeat as required until *P2* reads between 10 – 15 * psi and the magnetic paint flow meter reads the required flow.

Step 11 UF Machine is now in 'Normal Working Mode'.

Step 12 Complete recording information into the UF Logbook.

Normal Operating Parameters

ED paint flow is (# UF Modules x 70 – 84 gpm).
P2 pressure gage reading is 10 to 15 psi minimum
Typical pressure drop across P1 to P2 is 20-25 PSI minimum.
Standard permeate rate per UF Module is 2.5 gpm +/- 10%

