Flushing equipment and hoses

Using Chem Trend FC10008 & Flush 4

Important safety & prep (read first)

- Work in a well-ventilated area or outdoors. Follow SDS PPE guidance (chemical-resistant gloves, eye protection, face/shield, and respirator if recommended).
- **Keep water/moisture away** from FC-10008, Flush 4 and any isocyanate residues — moisture + isocyanates generates CO_2 and pressure. Seal containers when not in use.
- Do not heat Flush 4 above **100 °F (≈38 °C)**. Do not leave Flush 4 in the machine longer than **4 hours**.
- Have approved waste containers and follow local/federal disposal rules for contaminated solvent/isocyanate waste

Quick checklist (supplies you'll need)

- Chem-Trend FC-10008 (enough to circulate through tanks, hoses, gun) — *recommended for initial flush & storage*.
- Chem-Trend FC10008 (5-10 gallons depending on system size).
- Chem-Trend Flush 4 (5-10 gallons depending on system size).
- PPE (gloves, goggles/face shield, chemical apron, respirator if required), drip buckets, hoses, waste drums, funnels, absorbent pads.
- Tools to relieve system pressure and to open drain/return lines. You will need 5/16 nut driver and adjustable wrenches. You will also need rags/shop towels, brake cleaner and zip ties.
- Machine manual on hand (follow any equipment-specific lockout procedures).

Step 1

- Make sure the air is disconnected from the pump. Also make sure ball valve is closed on pump and reactor. Remove pump from Iso/A-side drum.
- Clean iso/a-side chemical from transfer pump. Using brake cleaner and shop towels/ rags.
- Push in inlet check ball located at the bottom of the pump. Make sure to drain out as much Iso/ a-side out of the pump. Make sure to wipe any residual ISO/ a-side from the bottom of the pump
- Check and clean your y-strainer.

Step 2

- Place cleaned iso/a-side pump into a clean 5-gallon bucket. Make sure to use zip ties to hold the pump in place from falling over.
- Pour 5 gallons FC10008 into your clean 5-gallon bucket.

Step 3

- Make sure your iso/a-side pressure relief valve is in spray mode. This is also the red handle on the front of the reactor.
- Disconnect your recirculation hose from your transfer pump or any return hose connection that is attached to the iso/a-side drum.
- Connect your airline to the air fitting or regulator on your transfer pump.
- Open the ball valve on the transfer pump.
- Open the ball valve on the reactor.

Step 4

- Take the recirculation hose and hold it over a clean bucket and turn your pressure relief valve into recirculation mode.
- Once your pump starts to pump FC10008 into your recirculation hose you will want to pump out the iso/a-side until you see it change color to a light beer color. You will probably push out close to 1 to 2 gallons before you see the change in color.
- Once you see the color change. Switch your pressure relief valve/ red handle back to spray mode.

Step 5

- Take your spray hose where your manifold is connected and hold it over the same 5-gallon bucket that you pushed the iso/a-side into. You may need an additional bucket for this.
- With your 5/16 nut driver open your valve on your manifold and make sure iso/a-side is starting to flow out of your spray hose.
- You will want to push the remaining FC10008 out of your 5-gallon bucket until it is empty.
- Once your 5-gallon bucket is empty close you manifold with you 5/16 nut driver. Then disconnect your airline from your transfer pump.
- Then whip any residual chemical off of your manifold with a rag and spray a little of the break cleaner to clean off.

Step 6

- Check the bucket that your transfer pump is in. Wipe clean any chemical or any debris in the bucket.
- Then you will want to pour your chem-trend flush 4 into your 5-gallon bucket.

Step 7

- Then reconnect your airline to your transfer pump.
- Hold your recirculation hose over a new bucket and then turn your iso/a-side pressure relief valve to recirculation mode. Your transfer pump should start to push flush 4 into the system.
- You will push out 1 to 2 gallons of the FC10008 and have flush 4 in the recirculation hose.
- Once you have pushed out 1 to 2 gallons of the FC10008 turn your iso/a-side pressure relief valve to the spray mode.
- You will need to plug off your recirculation hose and let it sit for 1 to 4 hours.
- Do not let the flush 4 sit in the hose no longer than 4 hours.

Step 8

- You may need to pour more flush 4 into the bucket with your transfer pump.
- You will then open you valve at the end of you spray hose on your manifold. You will possibly push out 2 to 6 gallons depending on how many feet of hose your system has. You may also need to push out additional flush 4 depending on the condition of your spray hose.

- Once you have finished pushing all of the flush 4 out of the bucket close your manifold and disconnect your airline from your transfer pump.
- You will want to let the flush 4 sit in your hose for 1 to 4 hours do not let flush 4 sit in your spray hose more than 4 hours.

Step 9

- Once you have allowed flush 4 to sit in your recirculation hose up to 1 to 4 hours you will then need to check and clean the bucket with your transfer pump of any residual chemical or debris that may have fallen into the bucket.
- Then you will want to pour FC10008 into the 5-gallon bucket that your transfer pump is in.
- Then you will need to unplug your recirculation hose.
- You will then need to get a 5-gallon bucket and hold your recirculation hose over the bucket and turn your iso/a-side pressure relief valve to recirculate. You will push out 1 to 2 gallons out of the flush 4.
- Then you will need to turn your pressure relief valve into spray mode.
- You then will need to reattach your recirculation hose to your pump or plug it.

Step 10

- Once you have let the flush 4 sit in your spray hose for 1 to 4 hours. You will need to add more FC10008 if needed.
- You may need an additional bucket to start pushing out the flush 4.
- Then you will open the valve on your manifold at the end of your spray hose to allow the FC10008 to push out the flush 4. You may have to push out 2 to 5 gallons depending on how many feet of hose you have.
- Once you have pushed out all the flush 4 you will then close the valve on your manifold at the end of your spray hose. You will also disconnect your airline from your transfer pump.
- You will then either be able to store the equipment or be ready to reintroduce iso/a-side into the system. If you are storing the equipment, you will still need to move FC10008 once a month to make sure the chemical is flowing correctly. Also, if you are storing the equipment you will want to wrap your iso/a-side transfer pump in a heavy-duty trash bag.
- You will also want to check your y-strainer to make sure it is clean once you have completed flushing the system and hoses.

Step 11

- If you are wanting to flush out the resin/b-side if it is spray foam resin/b-side you can use hydraulic oil. You will need to push out 2 to 5 gallons to make sure all resin/b-side is out.
- I would also check the y-strainer and clean.