

Recommended Dual-Component Pump Flushing Procedures (Polyurea)

Procedures for flushing out dual-component pumps used to dispense polyurea fillers differ from those traditionally used to flush epoxy fillers, and even the procedures used to flush the Polyol and Iso tanks may vary. To follow is a general outline of our recommended procedures for flushing polyurea components out of a dual-component pump. This bulletin is not meant to be a comprehensive procedural outline, as flushing components and methods will vary depending upon pump equipment, polyurea used, maintenance of the equipment, etc. Please contact our technical service department at [800-223-6680](tel:800-223-6680) to discuss the most appropriate procedures for your specific situation.

Flushing Polyurea Joint Filler

In our experience the amber/clear colored Iso component is the cause of 80% of all the pump problems. These problems can be avoided if care is given to proper flushing, cleaning, and general maintenance. The proper flushing process requires two components; an Iso-eating solvent such as Metzger/McGuire's **M-Flush**, and a moisture free high grade hydraulic fluid or mineral oil.

Iso's have natural enemies that cause them to crust, crystallize and/or harden along tank walls, fittings, hoses, etc. Iso's can also weld moving pump parts together, or build up restrictions within system components slowly leading to off-ratio dispensing.

Moisture/humidity or exposure to air is the main enemy of the Iso component. Reactions can also occur with certain petroleum based products, as well as a variety of traditional cleaning solvents. These adverse reactions all have the potential to create an off-ratio pumping condition as a result of crystallization of the Iso.

Proper cleaning, flushing, and long term maintenance are critical in preventing Iso crusting and related problems. The following is a general outline for flushing both the Iso and Polyol components of polyurea pump systems. The same process can be used for flushing epoxy based products as well. If the pump has not been well maintained (Iso crusted along tank walls, etc.), more extensive cleaning may be necessary to return the unit to a serviceable condition. Contact Metzger/McGuire Technical Service for more specific recommendations.

NOTE: Use only in well-ventilated areas. As with all solvents and industrial chemicals, practice all appropriate safety precautions. Clear work area, use NIOSH-approved

Flushing Polyurea Joint Filler (continued)

hand gloves (butyl or neoprene recommended), eye and face protection. Thoroughly read and understand appropriate product SDS and instructions prior to use.

1. Dispense all remaining joint filler from the pump.
2. Add clean, moisture-free, high grade hydraulic fluid or mineral oil to the pump tanks and dispense through to purge remaining joint filler from the system. Once oil runs clear/clean from the dispensing manifold, continue dispensing to empty the tanks of remaining oil.
3. Add **M-Flush** Iso eating solvent to the pump tanks (wipe the inside of tanks with a clean, lint free rag) and dispense **M-Flush** through the system until clear/clean **M-Flush** runs from the dispensing manifold.
4. Turn off pump and allow **M-Flush** to dwell within the system for 10-20 minutes.*
5. Dispense all remaining **M-Flush** from the pump system. Wipe the inside of tanks with a clean, lint free rag.
6. Add clean, moisture-free, high grade hydraulic fluid or mineral oil to the tanks and dispense through enough oil to ensure ALL **M-Flush** has been purged. Oil should run clean and clear from the dispensing manifold.
7. Ensure that storage oil remains in the tanks and completely covers any screens at the bottom of the tanks.

For pumps that have been cleaned/maintained regularly and do not have excessive build up or crusting, an alternate process may be employed. Disconnect the hoses from the mixing manifold and place the hose ends into the appropriate tanks. Turn on the pump to recirculate **M-Flush solvent through the system for 10-15 minutes. Contact Metzger/McGuire for additional information on this process.*

Additional Notes:

If **M-Flush** is allowed to dwell within the pumping system for extended periods of time (or overnight), a complete pump unit disassembly and cleaning will be necessary. **M-Flush** will not completely dissolve crusted/cured Iso but will soften/loosen it making it easier to remove but this must be removed manually.