



## UFS Corporation

330 North 400 East  
Valparaiso, IN 46383-9704 USA  
PH: 219-464-2027 FAX: 219-464-8646  
www.ufsc.com  
email: service@ufsc.com

# Service Reference

## Topic: Standard Cathodic E-coat Element Cleaning Procedure Using Power Flux Concentrate

Please read all the instructions listed below carefully to familiarize yourself with the project before attempting to perform any of the work or unpacking any further.

### Required Materials

- Paint Company Approved Cleaning Solution

### Required Tools

- Power Flux Concentrate

Although the mechanics of the cleaning procedure is generally the same for most systems, the following procedure is specific to the Power Flux Concentrate cleaner chemistry. The procedure is based on cleaning one eight inch or two six inch cartridges at a time with an individual cartridge cleaning system. You should feel free to modify the mechanics – not the chemistry – to accommodate your specific cleaning system.

1. Isolate the cartridge to be cleaned from the paint manifolds (feed, return, and permeate).
2. **Initial Flush Procedure:** Drain paint from the cartridge and follow up with a D.I. water flush to drain. Cartridge should be flushed until water runs clear. If the flush is to be done using a tank and a pump, adjust the pH to the paint tank (or lower) is preferred.
3. **Final Flush Procedure:**  
Fill: cleaning tank with D.I. water and adjust pH to approximately 2.0 – 2.2  
Open: cleaning return  
Open: permeate to cleaning tank  
Close: cleaning feed  
Start Pump: slowly open the cleaning feed valve  
  
Circulate pH adjusted D.I. water at ambient temperature for about 5 minutes and drain. Close the cleaning inlet valve.
4. **Preparation of Cleaning Solution:** Prepare a 200-liter cleaning solution by mixing the cleaner in the cleaning tank based on a 99:1 dilution. The 200-liter quantity is based on the cleaning of one eight or two six inch cartridge at a time. **NOTE:** Be sure to leave at least 20 cm of space at the top of the cleaning tank to accommodate foaming.  
  
Example: 2 liter Power Flux Concentrate + 198 liter D.I. water = 200 liter solution
5. **Cleaning Procedure:** Raise the temperature of the cleaning solution to 100-105 degrees Fahrenheit either by heating or closed loop circulation. When the solution reaches 100-105 degrees Fahrenheit, adjust the pH to 2.0 – 2.2 by adding formic acid up to 3% or by adding muriatic acid.

It is important to maintain the temperature between 100-105 degrees Fahrenheit and pH between 2.0 – 2.2. Do not allow the temperature to exceed 110 degrees Fahrenheit and pH to drop below 2.0. Once the temperature is stable, slowly open the inlet valve to avoid hydraulically shocking the element. Maintain circulation for 45 to 60 minutes at the specified temperature and pH. Make pH adjustments during the cleaning cycle if necessary.

6. After cleaning is complete, drain the cleaning system completely and flush the cartridge thoroughly with D.I. water at ambient temperature to drain.
7. Drain the cleaning system again. The cleaning procedure is now complete and the element may be returned to paint. Filter bags should be changed at this point.

***For more information*** see the original manual that came with the equipment or call UFSc at the phone number shown above.