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Service Reference

Topic: Repairing 304 SS Anolyte Tanks

Please read carefully before performing work

Required Materials

- 304L Welding Rod
- Super Glue (thin quick setting)

Required Tools

- Stick arc welder

The integrity of the welds in the UFS Cell Circulation tanks are excellent and are leak checked before shipping. On a rare occasion, you might have a need to repair the tank. This will help you through the project. UFS applies a double-sided weld to all wetted seams. If it's necessary to repair a wetted seam, please make the repair on both sides. Making a repair to the tank is difficult because the residue from the electrolyte solution tends to boil off during the welding, which creates porosity in the repaired weld joint.

One of the most common reasons for trouble with welded joints is continuous vibration, which can lead to metal fatigue and weld failure. The Cell circulation tanks should be resting directly on a concrete factory floor. If a metal grate supports the tank, then fabricate a support that attaches directly to the floor, or pit below or else use vibration dampener pads. The metal grating is good at transmitting this type of harmful vibration.

Think and act in a safe manner. Always disconnect power and use a lockout before you work on the E-coat system, or any of the related subsystems. Observe any confined space conditions. Use the appropriate safety equipment & clothing for the task.

Please read all the instruction listed below to familiarize yourself with the project before attempting to perform any of the work.

1. Drain the electrolyte fluid and use an air line to blow out the remaining liquid. Use a cleaner (non chorine type) to wipe the affected area.
2. Allow the affected area to dry before proceeding with any welding.
3. Perform the welding and let cool.
4. Fill the tank with DI water and leak check. Repeat Steps 1 through 3 again and repeat the leak check.
5. Drain the tank and allow to dry. Apply a small bead of super glue, or equal, to the repaired area. Important Note. Please ask your paint company first to confirm compatibility of the glue and their paint.
6. This type of glue is runny and is able to be drawn up into the small holes caused as the electrolyte residue boiled off.
7. Let the super glue dry overnight before adding DI water and restarting the Cell circulation system. Once the glue is dried, electrolyte generally has no affect on it.