ACID FLUSHING PROCEDURE FOR INDUCTION POWER SUPPLIES

Ensuring proper water cooling is paramount for the lifespan of the Induction Technologies Power Supplies. Improper water quality and flow can result in cooling line blockages, leading to overheating and consequential equipment damage. Follow the steps below for acid flushing your induction power supply using sulfamic acid:

Materials and Equipment Needed:

- 1. Sulfamic acid dry powder or granules.
- 2. Acid-resistant containers and buckets.
- 3. Acid-resistant hoses and connectors.
- 4. Pump suitable for handling acid solutions.
- 5. Water source for rinsing.
- 6. Safety equipment: Protective clothing, gloves, safety goggles, and a respirator if necessary.
- 7. First aid kit and eyewash station in case of accidental exposure to acids.



Note: Before you begin, ensure you have the necessary safety equipment, including protective clothing, gloves, safety goggles, and work in a well-ventilated area. Also, consult the manufacturer's guidelines and safety data sheets for sulfamic acid and any other chemicals used in the process.

Procedure:

1. Safety Precautions:

- Put on all required safety equipment, including gloves, goggles, and protective clothing.
- Ensure that the area is well-ventilated to minimize exposure to acid fumes.
- Keep a first aid kit and eyewash station nearby.

2. Preparation:

- Use a large barrel and fill it with fresh, clean water.
- Gradually add dry powdered sulfamic acid. The recommended ratio is approximately one cup of acid for every gallon of water.
- Stir the solution until the sulfamic acid is fully dissolved.
 Warning: Ensure no undissolved acid remains, as pumping it directly into the unit can cause damage.





3. Setup:

- Close the make-up water line leading to the cooling tower.
- Reduce the water level in the cooling tower's sump.
 You have two options for introducing the acid solution:
 - a) Pour the prepared solution into the sump of the cooling tower.
 - b) Directly pump the solution from the barrel through the feed manifold in the power supply.

4. Flushing:

- For optimal results, flush each individual water path separately. This ensures the solution flows correctly through every line.
- Allow the acid solution to circulate through the system for 1 to 4 hours, depending on blockage severity.

5. Rinsing and Neutralization:

- After ensuring all blockages are cleared, drain the unit entirely.
- Refill with fresh water and circulate it through the system for approximately one hour to neutralize any remaining acid.

Drain the unit once more.

6. Final Steps:

- Refill the unit with the water type recommended for the induction power supply.
- Always consult the manufacturer's guidelines and any specific instructions for your induction melting system before performing acid flushing with sulfamic acid, as the procedure may vary based on the equipment's design and materials.

Safety should be the top priority throughout the entire process.

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