



Leading Edge

Protecting Your Business for a More Sustainable Future

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Digester Pipe Repair: Client Issue / Solution

A Wastewater Treatment Facility was experiencing significant issues with digester pipes clogging and needed some digester pipe repairs and upgrades. Over time, an 8-inch diameter pipe had become choked down to a 1-inch diameter due to buildup on the pipe walls. This buildup caused back pressure issues and placed a strain on the pumps.

Additionally, the customer was frustrated with the amount of time and labor required to clean the pipes every few months. The pipes were made of ductile iron and lined with concrete.

They contacted the USI Team for an unconventional, long-lasting solution to help the flow stay open for a longer period of time.

SOLUTION:

USI Groups devised a plan to repair this digester pipe and address the issue using **Resimac 203 Super Flow** with a primer to coat the interior of the pipes. **Resimac 203** was chosen for its ability to create a surface 10 times smoother than bare steel, which improves fluid flow dynamics. Unlike the original concrete-lined pipes, **Resimac 203** eliminates edges and ridges, reducing the chance for future buildup.

The pipes were dismantled and taken to a facility where they were sandblasted to a profile of 2.5-4.5 mils and cleaned using **USI Universal Cleaner**. Once dry, a layer of **Resimac 503 SPEP primer** was applied to the interior of the pipes. As soon as the primer became tacky, one coat of **Resimac 203 (red)** was applied. After approximately two hours, when the first coat became tacky, a second coat of **Resimac 203 (grey)** was applied. The pipes were allowed to cure for two full days before being returned to the customer and reinstalled.

For comprehensive and effective pipe repairs and upgrades in wastewater facilities, reach out to Unconventional Solutions below to speak with a technical expert.



DATES TO REMEMBER

November 21
SEMPPE Meeting -
Whiskey on the Water
(Wyandotte, MI)

December 19
SEMPPE Meeting
Bakers of Milford
(Milford, MI)



Resimac 203 Super Flow Ceramic Repair: Enhanced Flow Efficiency
Epoxy Fluid with Ceramic Fillers is an erosion-corrosion resistant coating used principally in fluid flow situations for improving flow efficiency. The material can be applied directly to abrasive blasted steel or to surfaces previously rebuilt with Resimac 101 Metal Repair Paste or 201 Ceramic Repair Paste.

Colors Available: Grey, Red

Typical Applications:

- Coating for impellers and pump casings
- Application on valves and heat exchanger end plates
- Enhancing efficiency in water boxes and separator housings
- Treatment for pipes, propellers, and kort nozzles
- Suitable for rudders, bow thrusters, ship hulls, and bow separators



Resichem 503 SPEP
Resichem 503 SPEP is a low viscosity solvent free epoxy primer designed to seal and consolidate concrete and cementitious surfaces.

- Penetrates deep into the concrete surface
- Ensures high mechanical adhesion with Resimac chemical & corrosion top coats
- Cures at temperatures as low as 5°C (41°F)



USI Universal Cleaner: The Versatile Solution for Pristine Surfaces and Equipment

USI Universal Cleaner: Prepare and protect your surfaces with the USI Universal Cleaner – the all-in-one solution designed to tackle the toughest degreasing tasks, cleanse application equipment, and clean surfaces for coating applications with

impeccable efficacy. For surface prep this product meets SSPC-SP1.



Unconventional Solutions, Inc.
Repair - Protect - Upgrade

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