Brewery Waster Beer Settling Tank Leak Repair

ID: 8864

Industry: Food & Drink Customer Location: Jacksonville, Florida
Application: VPF-Valves, Pipes and Fittings Application Date: August 15, 2022

Substrate: Concrete

Products: Belzona 1111 (Super Metal), Belzona 1212, Belzona 1321 (Ceramic S-Metal)

Problem

Gap in concrete tank has silicone filler leaking around the stainless-steel fill pipe into the adjoining tank.







Before application (close angle).



Finished application (close angle).



Finished application (far angle).

Application Situation

Beer wastewater was leaking through the concrete and steel pipe gape into another adjoining tank.

Application Method

The first step was using hand tools much like a grinder with grinding disk and/or a pocketknife to clean the substrates. Then, B-1212 was applied to fill the small void between the concrete tank and stainless-steel pipe by pressing in the paste grade with a Belzona applicator. Following that, a chamfer was created around the 12" Diameter pipe and concrete gap by spreading it up the concrete wall 2" all the way around the pipe and out towards the flange a couple inches. Then, an additional B-1111 paste grade was added to build more material on top of B-1212 to create a thicker substrate along the pipe and to ensure the area is sealed. For added insurance and to give a good chemical resistance since B-1321 S metal is also an approved AB – Budweiser product to come into beer contact (even though this is a waste tank) we topped it off in 2 x coats of 1321 S metal to completely seal the paste grade for a stouter permanent repair.

Belzona Facts

Tens of thousands of US dollars in labor and materials plus a supply chain issue of the alternative repair were saved in potential costs. Repairing the concrete wall and installing a new stainless-steel pipe was the alternative option. Plus, the massive downtime costs did not make it a good cost-effective option for the end user AB- Budweiser. The cost of Belzona materials was a couple thousand dollars and mornings worth of labor from the contractor. Plus, scaffolding and safety procedures for confined space environment work. Budweiser – AB has accepted the three Belzona products from many prior applications throughout the Jacksonville facility. I.e., repairs for the glass-lined brewing tanks that are 50 plus years old. These older brewing tanks periodically get damaged by the stirring mechanical arms on the bottom of the tanks. B-1212 and B-1321 are used for repairs. The Belzona products have been taste tested by Budweiser-AB at their St Louis laboratory for direct beer contact with no effects to the taste or quality of the beer. Thus, making Belzona 1321 S metal, B-1111 and B-1212 approved products for use within the plant. Knowing this, we chose all three for a solid repair for the wastewater beer tank.

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