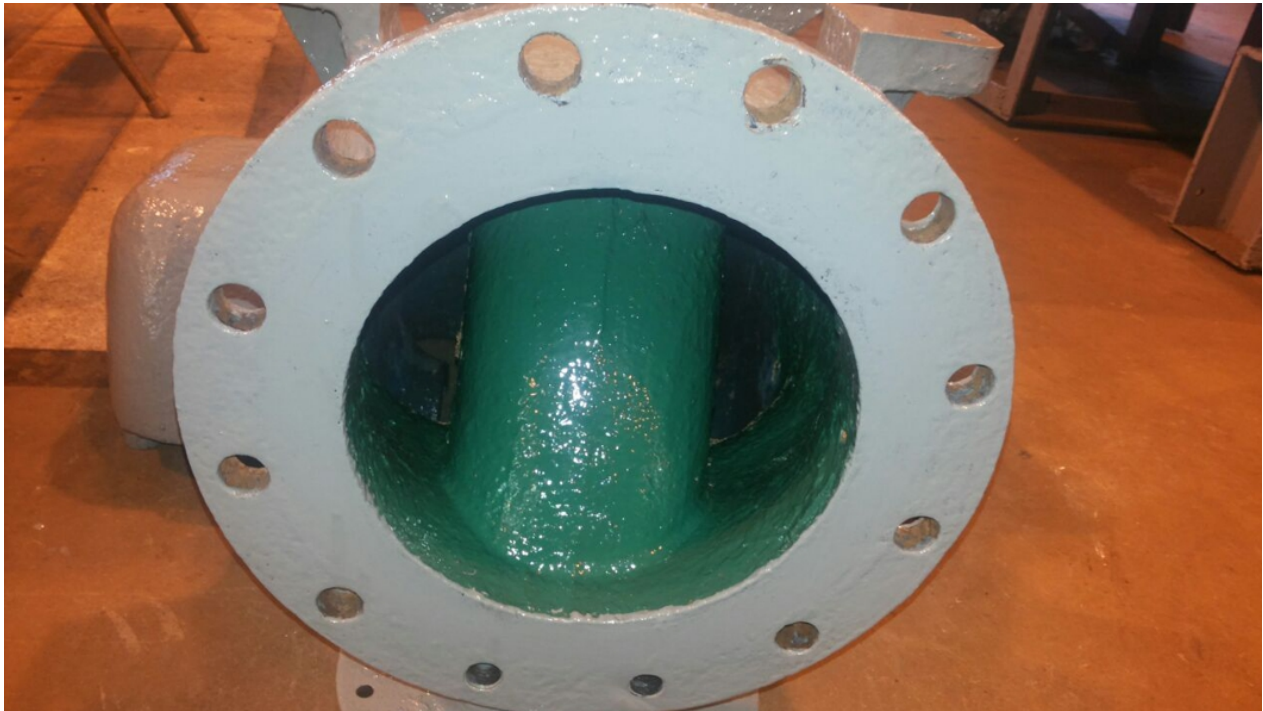


Ceramic Brushable Case Study



Water Treatment Plant Worn Pump Repair

A pump extracting water from a well at a treatment plant in Puerto Rico is repaired and reinforced after becoming heavily worn by minerals and sediment

Defect

The pump extracted groundwater containing minerals and sediments from a well. Over time, these impurities caused the pump to become worn, weakened and degraded. This meant there was a serious risk of bursting.

Because the pump was central to operations, the inconvenience and downtime caused by a burst would have been a disaster. The plant decided to repair and reinforce the pump before it could fail, restoring its strength and avoiding the need for replacement.

Solution

Ceramic Brushable Green Epoxy Coating was used to rebuild the metalwork to its original thickness and offer greater protection from future wear. Ceramic Brushable is reinforced with silicone carbide, giving it an ultra-smooth and toughened finish.

Four coatings of epoxy were applied, each between 1mm and 2mm thick. Once cured, Ceramic Brushable built up a substantial reinforced lining around the worn pump.

Result

With a recoat time of four hours, the repair took two days to complete. The plant now regularly monitor the pump for future wear caused by corrosion and erosion. When there are concerns the pump is becoming too weak, further coatings of Ceramic Brushable are added to restore integrity, making this a cost-effective and long-term solution.

