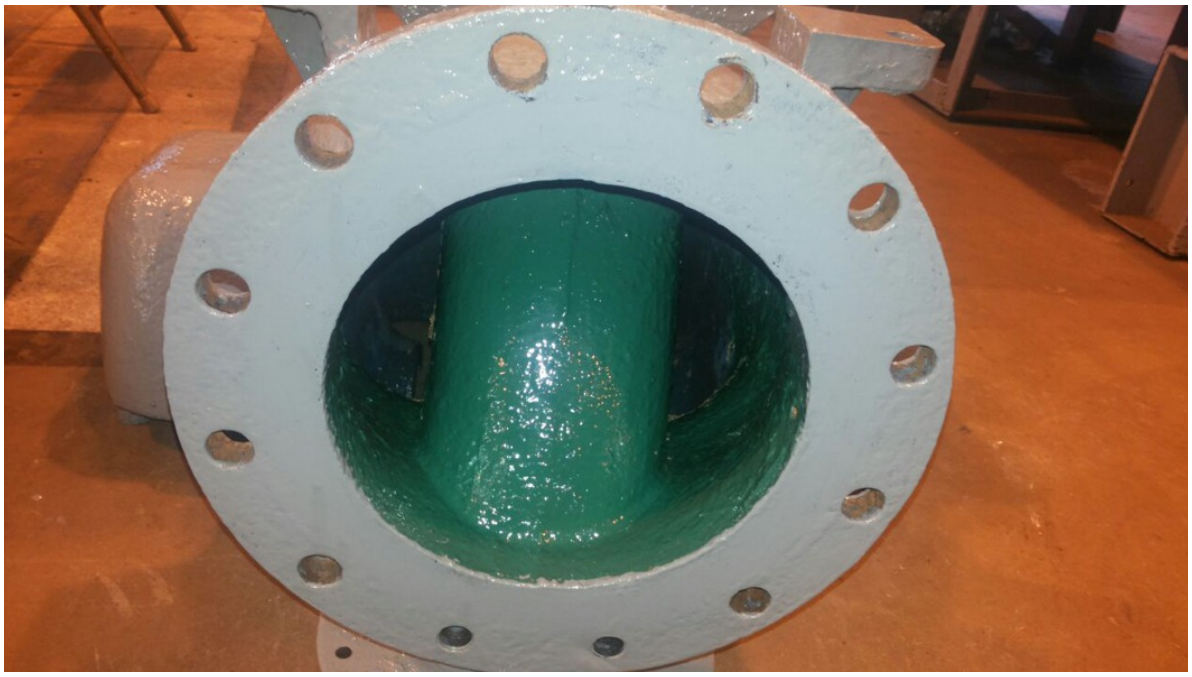
CERAMIC BRUSHABLE

Case Study



Water Treatment Plant Worn Pump Repair

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

Defect

The pump extracted groundwater heavy with minerals and sediments from a well at the water treatment plant in Puerto Rico. Over time, these impurities had worn the pump down. It was now weakened, degraded and at serious risk of bursting.

Because the pump was cental to operations at the plant, any 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 Epoxy Coating was used to rebuild the metalwork to its original thickness and offer protection from future wear. Ceramic Brushable is reinforced with silicon carbide, giving it an ultra-smooth and toughened finish.

Four coatings were applied, each between 1mm and 2mm thick. Once all four coatings had cured, a reinforced lining up to 8mm thick had been built 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 signs of wear and weakening. When there are concerns it is degrading again, further coatings of Ceramic Brushable are applied to strengthen the pump and restore integrity, making this a cost-effective and long-term solution.

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