

EXTERNAL CORROSION TO PIPE REQUIRED A LONG TERM SOLUTION

ID: 9869



PROBLEM

The high lift pumping station (HLPS) Delivery Water Main was situated within a culvert. Over time, a section of this main has thinned due to external corrosion. Originally, the wall thickness was believed to be 12mm, but the area at nozzle had reduced to approximately 7mm

APPLICATION SITUATION

To prevent a through-wall defect, customer requested that the distributor propose a cold-bond solution to address the external corrosion, protect the pipe, and extend the asset's lifespan.

APPLICATION METHOD

The area was prepared using grinders and specialist surface preparation 110v powered tools.

Once the substrate was at an acceptable level, a prefabricated, rolled and blasted plate was dry fitted to the area, ensuring no adjustments were required.

Next, Belzona 1111 was applied directly to both the substrate and plate(s) using a stiff brush first to eliminate air entrapment. The plate(s) were then loaded with Belzona® 1111 in a manner to allow all material to evenly spread across the plate and substrate during bonding. When all excess material had protruded from all 4 sides, Belzona 1111 product was filleted off the plate, leaving a smooth finish.

BELZONA FACTS

Plate bonding using Belzona 1111 restored integrity to the pipe and offered a long term solution to the external corrosion issue that the customer was facing

INDUSTRY

Water / Wastewater

LOCATION

Preston

APPLICATION DATE

July 2025

PRODUCTS

Belzona 1111 (Super Metal)

SUBSTRATE

Stainless-steel

PHOTOS

1. Pipe at nozzle was suffering from external corrosion
2. Cold applied plate bonding was selected as the long-term protection solution
3. The pre-fabricated plate was fitted around the nozzle and loaded with Belzona 1111
4. Belzona 1111 was filleted, presenting a smooth finish and completing the long term protection solution

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