

LEAKING INDUSTRIAL WASH-WATER PIPE AT A STEEL MILL REPAIRED WITH BELZONA

ID: 10268



PROBLEM
This high-pressure water line had corroded and begun leaking at nine locations, flooding the basement level, interrupting operations, and creating HSE concerns. The client was unable to replace the pipe and had to use emergency clamps to temporarily stem the leaks. With only a short shutdown window available, the Belzona repair system enabled all nine leaks to be successfully repaired in a single day.

APPLICATION SITUATION
The basement area of the facility had difficult access, and the water pipe was extremely long, making pipe replacement impractical and not an option the client wished to pursue. The previous repair method involved installing rubber lined clamps; however, these trapped moisture against the pipe surface, accelerating corrosion in those areas. Leaks at 7 bar caused significant disruption, as the basement flooded rapidly and maintenance teams had to work against a pressurised live leak. The Belzona plate bonding method provided a fast solution and, unlike the rubber clamps previously used, delivered a simple long term and permanent repair without promoting further corrosion around the defect area.

APPLICATION METHOD
Emergency leak sealing clamps were removed, and surface preparation was carried out around the defect areas using grinders and Bristle Blaster tools, as abrasive blasting was not practical in those locations. Once the areas around the defects had been cleaned and prepared, the rolled steel plates were prepared in the same manner, and Belzona 7311 was applied to both surfaces. The plates were then pressed onto the repair areas and secured using ratchet straps. To complete the repair, excess Belzona material extruded around the plate edges was removed to form a clean chamfer finish.

BELZONA FACTS
The Belzona solution was completed without the need for welding or heavy equipment. This enabled the repairs to be carried out within a single shutdown day, providing a safer and more economical alternative to deploying a team of welders in a relatively confined space. An additional benefit of the Belzona repair, compared with the previously used rubber clamps, is that moisture is no longer trapped against the pipe surface, helping to prevent further external corrosion.

INDUSTRY
Steel & Metal Processing

LOCATION
131 Mission Bush Road,
Glenbrook 2681

APPLICATION DATE
May 2026

PRODUCTS
Belzona 7311

SUBSTRATE
Carbon steel

- PHOTOS**
1. The heavily corroded areas indicated potential thin-wall issues, and the client was reluctant to carry out welding.
 2. Surface preparation was carried out using grinders and Bristle Blaster tools in accordance with the specification (SSPC-SP 11).
 3. Belzona 7311 was applied to the pipe and to a rolled steel plate, which had also been surface prepared using the Bristle Blaster.
 4. The plates were secured in place using ratchet straps during curing to ensure they did not shift.