

# BELZONA REPAIRS 8" WATER PIPE/FLANGE

ID: 5478

Industry: Power  
Application: VPF-Valves, Pipes and Fittings  
Substrate: Mild Steel and Concrete  
Products: \* Belzona 1121 (Super XL-Metal) ,  
\* Belzona 1321 (Ceramic S-Metal) ,

Customer Location: Anadarko, Oklahoma  
Application Date: October 2014

## Problem

8" pipe had corroded all the way through the pipe in several areas around it. The heat condensers were installed directly above the flange and the pipe that returned cooled water back into the plant. There was not a lot of room to work with and the customer did not know how to seal or repair. They wanted a solution that would prevent the pipe from seperating at the concrete level.



## Photograph Descriptions

- \* 8" pipe/flange in existing condition ,
- \* Cold bonding process with Belzona 1121 to the interior and exterior sleeve ,
- \* Two coats of Belzona 1321 on interior and exterior ,
- \* Completed application and back in service ,

## Application Situation

8" Water lines from the condenser to the Power Plant were failing due to corrosion and while the customer was in the process of replacing all interior and exterior 8" lines, the customer discovered the connecting line that went underground into the facility was

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ISO 9001:2015  
FS 695214  
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the root and major source of leaks of the original problem. Downtime and cost was a huge issue. There were two flanges that were return lines into the plant. The issue was more extreme than predicted and the customer was concerned about the pipe completely breaking at the base of the concrete or pull apart.

## Application Method

Corrosion was removed through grinding and the interior sleeve was then cold bonded with Belzona 1121. The voided areas and rough edges were then filled in with Belzona 1121 around the interior sleeve. The exterior sleeve to the 8" pipe and the concrete was cold bonded with Belzona 1121. Two coats of Belzona 1321 were applied on the interior and exterior.

## Belzona Facts

The plant was looking at a 2-3 month downtime for the traditional repair to remove/replace 20' of the 8" pipe, which the estimated cost would be \$700,000. The customer chose the Belzona solution because it was cost effective and met their requirements. The pipe was back in full service 72 hours after the Belzona repair. The Belzona repair took 3 hours per flange. The total cost was \$7,500.00, saving the customer hundreds of thousands of dollars and reduced downtime by 98%.

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