

# BELZONA REPAIRS BROKEN FLANGE

ID: 5922

Industry: Fluid Flow

Application:

Substrate: Cast iron

Products: \* Belzona 1111 (Super Metal) ,  
\* Belzona 9341 (Reinforcement Sheet) ,  
\* Belzona 9411 (Release Agent) ,

Customer Location: Washington, USA

Application Date: September 2015

## Problem

Broken flange collar was causing material to spill out when in operation.



## Photograph Descriptions

- \* View of the broken flange and removing paint to prepare surface ,
- \* Broken flange in the center, broken piece to the right and the steel backers to the left, ready for the application ,
- \* Side view of completed repair ,
- \* Top view of completed flange repair ,

## Application Situation

Semi-fine limestone material transfer pipeline system.

## Application Method

A 2-piece steel backer was built to bond to the broken flange for added strength. A grinder was used to roughen the application surface. It was then thoroughly cleaned and Belzona 9411 was applied to the bolts, washers, and nuts. A part of Belzona 9341 was pre-cut. A thin coat of Belzona 1111 was applied to all application surfaces and onto Belzona 9341. The application started by wrapping Belzona 9341 around the shoulder of the flange and then the broken piece was mounted back onto the flange using the steel backers. For a finished fit, the bolts were tightened down. Then, the remainder of Belzona 1111 was applied over Belzona 9341.

## Belzona Facts

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015

FS 695214

ISO 14001:2015

EMS 695213

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9000 Registered Quality  
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The flange had evidence of rubberized materials around the break, and was currently covered under a mountain of tape and plastic sheeting in an attempt to contain the leaking material. The only other alternative was replacement and due to the nature of the piece, that was not a viable option. A rough total of \$40.00 USD of Belzona 1111, Belzona 9341 and Belzona 9411 was used and provided a longer than expected repair. The application also allowed the pipeline to return to operation in a very minimal time frame.

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