

# FAST REPAIR OF BUTTERFLY VALVES WITH BELZONA ELASTOMERS RETURNS VESSEL TO SERVICE ON TIME

ID: 7754

Industry: Marine  
Application: VPF-Valves, Pipes and Fittings  
Substrate: Steel and existing rubber boot  
Products: \* Belzona 2121 (D&A Hi-Coat Elastomer) ,  
\* Belzona 2911 (Elastomer QD Conditioner) ,

Customer Location: Oregon, USA  
Application Date: September 3, 2018

## Problem

Two valves were damaged as the rubber boot that provided the sealing surface had suffered damage. One appeared to be damaged by debris that was in the way while the valve was closed removing a large piece of rubber material. The other valve was damaged at the seating area probably during installation.



## Photograph Descriptions

- \* 1. The Customer was excited to use Belzona to complete the repair. ,
- \* 2. Valve 1 with a large piece of rubber boot missing after surface preparation. ,
- \* 3. Valve 2 with damage on the seating area after surface preparation. ,
- \* 4. Repaired valves. ,

## Application Situation

Two butterfly valves that control the flow of seawater in a vessel. The valves needed to be repaired to return the vessel to water on time.

## Application Method

A modified version of Belzona System Leaflet VPF-3 was used to repair the valve lining. Loose material was removed and rubber

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FS 695214  
ISO 14001:2015  
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substrate was undercut to avoid a feathered edge. Application area was thoroughly degreased to remove contamination. Steel substrate was ground and rubber substrate was abraded with roughening brush to create a surface profile for Belzona 2121 (an ABS approved product) to achieve a mechanical bond. The surface was then conditioned with a light coat of Belzona 2911 and allowed to cure. The areas of concern were then masked off and then Belzona 2121 was poured into place. The masking tape was removed immediately and the product was left to cure. After the product had cured the repair areas were machined back to tolerance.

## Belzona Facts

New boots were ordered for the valves but upon receiving them the boots did not fit. Due to a holiday weekened the Customer chose a Belzona solution as the product and technical assistance were available on short notice. After the product was cured the valves were hydro tested to ensure the valves would hold pressure and they passed the test.

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