

Belzona Repairs Vibration Damage in a Slacker Chute

ID: 7920

Industry: Pulp & Paper
Application: VPF-Valves, Pipes and Fittings
Substrate: Stainless steel
Products: * Belzona 1111 ,
* Belzona 1341 ,

Customer Location: Paper Mill - Elands Valley, South Africa
Application Date: 2015

Problem

The plan was to eventually replace the chute, but a temporary solution was needed to repair the metal and prevent further damage. With production unable to shutdown for a continuous amount of time, that left only a 4-hour window for repairs to be carried out.



Photograph Descriptions

- * 1. Through-wall defect on slacker chute ,
- * 2. Steel patch bonded into place ,
- * 3. Belzona 1111 also used to seal a deteriorated drain valve ,
- * 4. All repairs coated with Belzona 1341 for additional protection ,

Application Situation

Due to an increase in the plant's production, a new slacker chute was installed in 2015. During the chute's operation, there would be intermittent vibration causing bearing wear. It also resulted in the screw flights coming into contact with the shoot body on the preload and discharge sides, thinning out the stainless steel.

Application Method

The application was carried out in accordance with Belzona System Leaflet VPF-1. At the top of the chute, a through-wall defect had emerged. A 3mm-thick stainless steel plate was rolled to shape and bonded in place over the defect using Belzona 1111 (Super Metal). This was supported by a metal pole to keep the plate in place during cure. In addition, a drain valve at the bottom of the shoot had developed a through-wall defect. This was repaired also using paste-grade Belzona 1111. Finally, both repairs were then fully encapsulated with Belzona 1341 (Supermetalgilde).

Belzona Facts

The customer had selected Belzona based on previous experiences. Successful applications had been carried out on pump volutes using Belzona 1111, with the customer impressed of the strength properties. Furthermore, they knew that the cure time of the

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ISO 9001:2015
FS 695214
ISO 14001:2015
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versatile repair material would be fast enough to complete the shoot application within the designated 4 hours. The repair performed exceptionally in service, with no further maintenance issues up until the planned shoot change in May 2016.

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