

# BELZONA RECOVERS BALL MILL'S BASE

ID: 4894

**Industry:** Buildings & Structures  
**Application:** FPA-Floor Problem Areas  
**Substrate:** Concrete (base) and carbon steel (support of anchor bolts)  
**Products:** \* Belzona 4111 (Magma-Quartz),  
\* Belzona 4151 (Magma-Quartz Resin),  
\* Belzona 4911 (Magma TX-Conditioner),

**Customer Location:** Aluminum Producer, MA, Brazil  
**Application Date:** August 2005

## Problem

In an inspection conducted by the producer, it was found that there was a very high vibration caused by excessive gap at the base of the ball mill engine and gearbox. It was necessary to provide an effective solution for the situation not to worsen over time.



## Photograph Descriptions

- \* Mill's base before product application ,
- \* Application of Belzona 4911 conditioner ,
- \* Product application by injection ,
- \* Base after application of Belzona 4111/4151 ,

## Application Situation

Ball mill engine and gearbox base

## Application Method

This application was carried out based on Belzona Know-How System Leaflets FPA-10 and FPA-1. Surface was prepared through mechanical scarification. After cleaning, the surface was conditioned with Belzona 4911. After that, Belzona 4111 and Belzona 4151 were applied by injection technique. These products have excellent adhesion, vibration and compression resistance and are superior to conventional concrete in order to minimize the effects of wear (gaps) at the base of anchor bolts.

## Belzona Facts

Following data was found through vibration analysis: Before application – average vibration of 10.57 mm/s<sup>2</sup>. After application –

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

Belzona products are  
manufactured under an ISO  
9000 Registered Quality  
Management System.

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average vibration of 3.38 mm/s<sup>2</sup>. Based on that, it was concluded that Belzona's technology reduced the vibration effects on the equipment by 1/3.

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