

# Belzona Repairs Cement Plants Rotary Dryer

ID: 7930

Industry: Mining & Quarrying

Customer Location: Romania

Application: SHM-Solids Handling Machinery

Application Date: August 2017

Substrate: Carbon manganese steel S355J2G3

Products: \* Belzona 1811 (Ceramic Carbide) ,

## Problem

The rotary dryer (15 m long and 3.6 m diameter) is used for slag drying. The drying cylinder has an angle against the horizontal level and rotates while running. After putting the slag into one end of the rotary dryer, the slag is dispersed uniformly and forms a material curtain in the cylinder to contact the hot air (100°C), which acts like a heat exchanger to achieve slag drying. In the area where the lifting flights are installed onto the interior of the dryer, the slag erodes the steel, eating away up to 15 mm of the metal from the original 20 mm thickness of the shell.



## Photograph Descriptions

- \* 1. Entrance to the dryer ,
- \* 2. The view of the eroded area ,
- \* 3. The eroded areas rebuilt with Belzona 1811 ,

## Application Situation

Internal deterioration of a dryer shell at a cement plant.

## Application Method

After proper surface preparation, the application was carried out in accordance with a modified version of Belzona Know-How System Leaflet SHM-13. ☐ Belzona 1811 was used to fill in eroded small areas.

## Belzona Facts

The customer stated that the Belzona repair material was much less costly than replacing the shell and importantly the application was completed within one day. The application was recently inspected (2019) and the original Belzona 1811 was in the same condition as the day the application was completed, more than 18 months prior. As a result, the customer asked Belzona for several

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ISO 9001:2015

FS 695214

ISO 14001:2015

EMS 695213

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9000 Registered Quality  
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similar applications to be completed, which are currently scheduled for April 2019.

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