

# BOSCH CHAINLESS DIFFUSER COATED WITH BELZONA

ID: 5703

Industry: Sugar  
Application: TCC-Tanks and Chemical Containment Areas

Customer Location: Sugar Mill, Illovo Ubombo, Swaziland  
Application Date: 2010

Substrate: Steel

Products: \* Belzona 1391 (Ceramic HT) ,  
\* Belzona 5891 (HT Immersion Grade) ,

## Problem

The problem with raw sugar cane as it gets processed in the diffuser is three fold: 1) abrasion from the raw crushed cane fibres, 2) there are traces up to 5% Acetic Acid in the raw cane juice, and 3) the dry heat temperature on the steam inlet pipes is 130°C and the wet temperature inside the diffuser is 95°C.



## Photograph Descriptions

- \* Chainless Diffuser designed by Bosch & Associates ,
- \* General view of the sugar plant ,
- \* Structural Steelwork coated with Belzona 5891 ,
- \* Steam inlet pipes coated with Belzona 1391 ,

## Application Situation

A brand new Chainless Diffuser designed by Bosch & Associates was built on site at Illovo Ubombo in Swaziland. The entire internal structural steel work and piping required an erosion and corrosion resistant coating applied to the new steel prior to assembly.

## Application Method

The application was carried out in accordance with Belzona Know-How System Leaflet TCC-5. All areas were prepared by grit blasting with platinum slag. All detail work such as welds were stripe coated. Belzona 5891 applied at 600 micron was selected for all of the channel iron structural steel, approximately 2700 m<sup>2</sup> in total. Belzona 1391 was applied to the spiral feeds and all steam inlet pipes, approximately 500 m<sup>2</sup>, at 900-1000 micron thickness.

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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## Belzona Facts

Bosch wanted a 3 year performance guarantee on the coating, with a R3 million rand performance bond, which AESSEAL honoured. After 4 years, the coating was still in good condition, with touch ups being planned for the end of 2015. In total, close to 3200 m<sup>2</sup> of steelwork was coated with Belzona by AESSEAL. The coating performed so well that the Engineering Manager at the time, Mr. Andrew Francis, has signed off our advertising proposal to be published in South Africa.

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