

# BELZONA REBUILDS ERODED TUBE SHEET BASE

ID: 5290

**Industry:** Heating, Ventilation & Air Conditioning  
**Application:** HEX-Heat Exchangers  
**Substrate:** Mild Steel  
**Products:** \* Belzona 1391 (Ceramic HT) ,

**Customer Location:** BC, Canada  
**Application Date:** October 2010

## Problem

*The molten slag is dripped into water spray which cools it to form granules much like grains of sand. The slag is removed and the water is then cooled and reused in a closed cycle*



## Photograph Descriptions

- \* The tube sheet was grit blasted to a near white metal finish leaving a blast profile of approximately 3 mil. ,
- \* The EPDM plugs were inserted into each of the 2300 holes and levelled off with a straight edge. Belzona 1391 was injected into the space around the EPDM plugs to a depth of  $\frac{3}{4}$  inch in places. ,
- \* The EPDM plugs were removed after the material cured, leaving a smooth Thconical hole. ,

## Application Situation

Eroded tube sheet base

## Application Method

The application was carried out in accordance with a modified Belzona Know-How System Leaflet HEX-1. And using tapered EPDM plugs in the tubes. Belzona 1391 was injected and allowed to flow around the EPDM plugs forming a new “ceramic base”, then plugs were removed after the material had cured.

## Belzona Facts

This tube sheet was horizontally situated and contained 2300 tubes. Operating at 80°C, it was decided to use Belzona 1391. The use of tapered EPDM Plugs meant that each tube opening was conical and easy to remove once material had cured.

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

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