

ONTARIO  
**KNOW-HOW  
IN ACTION**

**BELZONA**<sup>®</sup>  
GREAT LAKES

015/2021

**HVAC  
TUBE SHEET  
EROSION PROTECTION**



**BELZONA**<sup>®</sup>  
Repair • Protect • Improve  
AUTHORIZED DISTRIBUTOR

# THE PROJECT

TUBE SHEET COATING  
MARCH, 2021

A large PPE manufacturer located in Eastern Ontario was experiencing corrosion issues in some of their chiller units.

Chiller units are a vital part of any heating or air conditioning system. Failure to quickly protect these units allows galvanic corrosion to take place, resulting in wastage and metal loss on the tube sheet around the coolant tubes. Left untreated, the loss of metal can cause leakage of the coolant and contamination of the chilled water.

Corrosion is not restricted to the tube sheet, the water box and end covers can also be affected

## CORROSION & EROSION PROTECTION

Customer decided to refurbish a small corroded chiller the previous year to test out the Belzona products. Upon inspection this year, the customer commented that the unit looked like it was done last week. He also added that the operation efficiency of the chillers had also increased and the overall performance was much better. They were are achieving higher output capacities with lower power consumption.

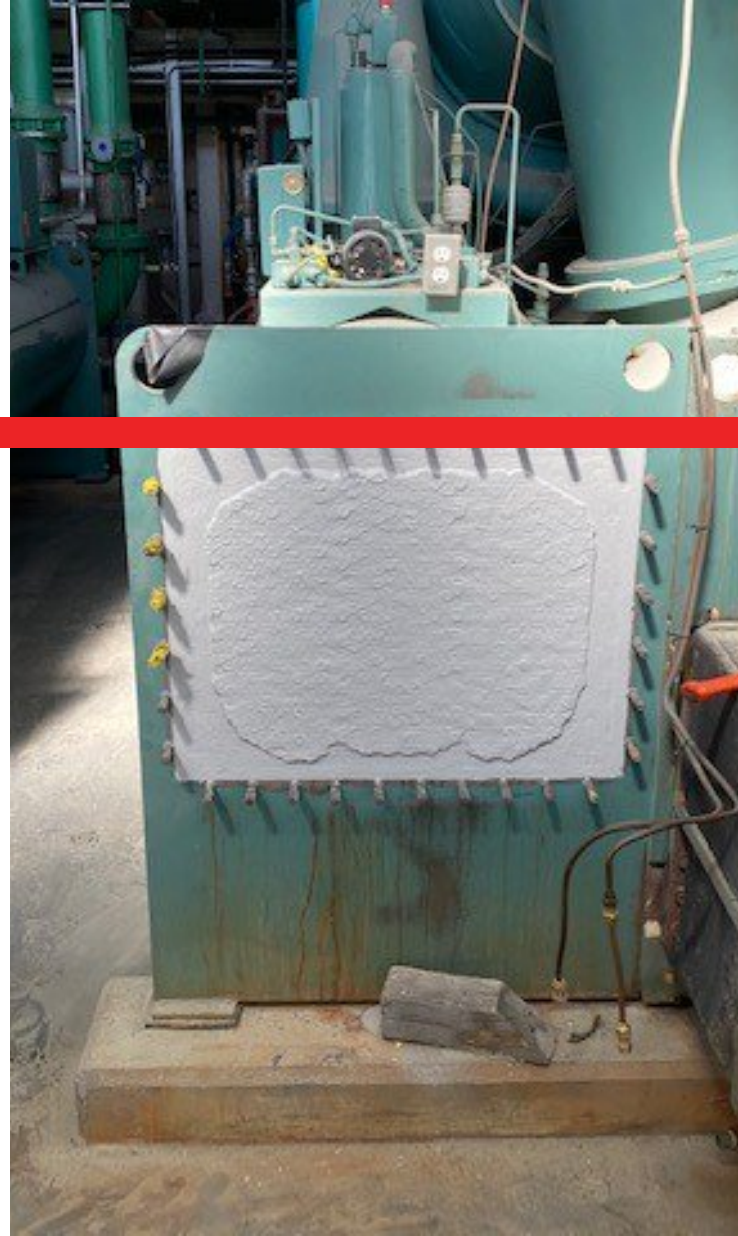


# THE SOLUTION

It was an easy decision for the customer to coat a larger unit as well using Belzona products. Belzona 1331 was used for this application. This is a two coat system for corrosion and erosion protection of equipment operating under continuous immersion.

The unit was sandblasted by the maintenance crew of the manufacturer bringing the unit to near white metal. Belzona 1121 (Super XL Metal) was used to repair the metal loss caused on the heavily corroded unit. Belzona 1121 (Super XL Metal) is a cold curing 100 % solids epoxy composite reinforced with silicon steel composite. It was chosen for its long overcoating window.

## 100% SOLIDS



Once repaired, the unit was then coated using Belzona 1331. This coating also offers a long overcoating window that facilitated the application process for the contracting crew.

**Belzona 1331 was put to the test by the asset owner and after a year in service the product had shown no sign of deterioration. This next-generation coating offers excellent erosion-corrosion resistance, it is spray friendly and when necessary can be applied as a one coat system because of its high build properties.**

