

Belzona Saves Hospital AHU Condensate Pan

ID: 9362

Industry: Heating, Ventilation & Air Conditioning

Customer Location: Nova Scotia, Canada

Application: TCC-Tanks and Chemical Containment Areas

Application Date: March 2022

Substrate: Carbon steel

Products: Belzona 1161 (Super UW-Metal), Belzona 5831LT

Problem

Water condensing on the cooling coils would trickle down to the collection pan. Over the years the pan corroded to the point where large holes developed. Water would leak out through the bottom of the AHU and then down to the hospital operating room below causing disruptions and potential health/mould problems above the ceiling tiles.



Surface preparation to reveal holes in pan and ready for cold plate bonding.



Steel doubler plates bonded into place with Belzona 1161. Edges of pan chamfered with additional Belzona 1161.



First coat of Belzona 5831LT White applied.



Second coat of Belzona 5831LT Grey applied.

Application Situation

Belzona proposed an option where new steel could be bonded into place to restrengthen the floor and contain the condensate. The pan would then be coated with a protective coating to prevent future corrosion. This option would save the hospital from having to purchase and install a new AHU and avoid the disruption that it would cause.

Application Method

The entire pan was power tool cleaned to SSPC-SP11 bare metal cleanliness using grinders and wire wheels. The pan was then degreased with MEK. Several 6mm thick steel plates were measured and cut, then bonded into place using procedure TCC-1 with Belzona 1161. Once Belzona 1161 cured the entire pan was coated with 2 coats of Belzona 5831LT for best adhesion to a power tool cleaned surface, and anticipated humid environment.

Belzona Facts

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015

Belzona products are

FS 695214

manufactured under an ISO

ISO 14001:2015

9000 Registered Quality

EMS 695213

Management System.

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The Belzona surface tolerant solution allowed for power tool cleaning as grit blasting was not feasible due to the AHU being located in the mechanical room penthouse. Surface tolerant Belzona 1161 and 5831LT were also beneficial because of the humid environment and cold temperatures which were expected. Finally the Hospital approved this repair because of the benefit of the products containing no VOCs, therefore would not be an issue for hospital staff and patients during application and curing.

Follow-up inspection two years later revealed the Belzona application to be in excellent condition.

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