

BELZONA SOLUTIONS FOR REBUILDING AND COATING OF CHILLERS

ID: 9739

Industry: Heating, Ventilation & Air Conditioning
Application: HEX-Heat Exchangers
Substrate: Carbon steel
Products: Belzona 1121 (Super XL-Metal), Belzona 5821

Customer Location: DUBAI, UNITED ARAB EMIRATES
Application Date: January 2025

Problem

The tube sheet and end cover of the chiller units were severely corroded, causing a significant decline in efficiency. Furthermore, wear around the gasket seals prevented a proper seal, further affecting the chiller's performance.



Picture taken during site visit noticed heavy corroded and damaged and measurements taken.



Work in progress, surface preparation with grit blast, rubber and plastic plug inserted.



Rebuilding completed Belzona 1121.



Belzona 5821 applied as 2 coat system to protect the tube and the end cover.

Application Situation

The client selected Belzona for its exceptional corrosion and erosion resistance, proven over the years.

Our key selling point was the extended lifespan Belzona coatings provide for valuable assets. We also emphasized that chemical cleaning alone is insufficient, as corrosion continues to advance even after treatment. Additionally, we highlighted a major advantage—the chillers could be returned to service in less than 48 hours after the repair.

Application Method

The surface was grit blasted and thoroughly cleaned, with plastic/rubber plugs inserted to prevent media from entering the tubes during preparation. The plugs were then removed and reinserted before product application. Belzona 1121 was used to rebuild and resurface the damaged areas, while Belzona 5821 was applied in a two-coat system to protect the tube sheet and end cover from corrosion and erosion.

Belzona Facts

The customer gained a proven, high-performance solution that minimized downtime and extended equipment lifespan. The durability and reliability of Belzona products also reduced long-term maintenance costs, making it a cost-effective choice for their

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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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ongoing operations.

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