

BELZONA PROTECTION AGAINST EROSION-CORROSION IN NEW HEAT EXCHANGERS

ID: 10208



PROBLEM

Preventative maintenance was required to protect new heat exchangers from corrosion and erosion at elevated service temperatures of up to 120°C. Without adequate protection, the tube sheets and surrounding areas would be vulnerable to premature deterioration, potentially leading to reduced efficiency, unplanned downtime, and costly repairs or replacement.

APPLICATION SITUATION

The coating application was carried out at the manufacturer's yard, where a total of 27 heat exchanger units were coated prior to installation. The project was successfully completed within 40 days, covering a total surface area of 97 sqm. This ensured the equipment received the required level of protection before entering service, helping to reduce the risk of early corrosion and erosion damage.

APPLICATION METHOD

Application was carried out in accordance with Belzona Know-How System Leaflets HEX-3. Prior to the application of Belzona 1391T, the surface was prepared by abrasive blasting to achieve a cleanliness of Sa 2½ whilst achieving a minimum average surface profile of 75 microns. Subsequently, the application of a 2-coat system of Belzona 1391T was carried out.

BELZONA FACTS

Belzona 1391T was chosen because it met the client's coating specification, which required a system capable of providing long-term protection against both corrosion and erosion in aggressive service conditions. In addition, the material is designed to withstand operating temperatures of up to 130°C, making it suitable for the demanding thermal environment within the heat exchangers.

INDUSTRY

Oil & Gas

LOCATION

Batam, Indonesia

APPLICATION DATE

August 2025

PRODUCTS

Belzona 1391T

SUBSTRATE

NAB Nickel Aluminum Bronze

PHOTOS

1. Corks and bungs were installed in the tubes on the tube sheet.
2. Tube sheet abrasively blasted to achieve the correct substrate profile
3. Application of 2 coats system of Belzona 1391T
4. Completed Belzona 1391T coating application

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