

Flange face repairs

ID: 10305

Industry: Chemical & Petrochemical
Application: VPF-Valves, Pipes and Fittings
Substrate: Carbon steel
Products: Belzona 4301 (Magma CR1 Hi-Build), Belzona 9411 (Release Agent)

Customer Location: Scotland
Application Date: July 2025

Problem

Several flanges had become corroded through contact with inorganic acids. A chemical resistant rebuilding material was required to bring these flanges back into a serviceable condition. The acid content & temperatures of these tanks varied during service, for the most assurance Belzona 4301 was selected.

The tank had an existing lining that had to be tied into for complete chemical protection.



Damaged flange



Flange rebuilt with Belzona 4301



Flange rebuilt with Belzona 4301



Flange rebuilt with Belzona 4301

Application Situation

No hotworks were allowed in the area. By using the Belzona system the repairs could be completed safely & to a standard that would last in service. These repairs were completed in two days. The chemical resistant nature of Belzona 4301 means it can stand contact with the acids in service without experiencing the damage that the previous coating did. To bring the repairs back into service promptly some external heat sources were utilised.

Application Method

The existing material was removed using angle grinders. The metal substrate was then prepared using MBX Bristle Blasters. Flange face formers were then used with Belzona 9411 release agent to rebuild the Belzona 4301 to the required dimensions on the flange.

Belzona Facts

Belzona was already trusted on this site from previous works, especially for the chemical contact areas around the plant.

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ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

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