Belzona 2211 Seals 550 Support Pads on a Carbon Steel Pipeline to Prevent Crevice Corrosion

ID: 9283

Industry: Chemical & Petrochemical Customer Location: India

Application: VPF-Valves, Pipes and Fittings Application Date: November 2022

Substrate: Carbon steel

Products: Belzona 2211 (MP Hi-Build Elastomer), Belzona 2921 (Elastomer GP Conditioner)

Problem

Water ingress had caused localised corrosion on the metal pads that support the joints of a 45 km-long, 60-inch-diameter carbon steel pipeline. The client was looking for a solution to fill these gaps and prevent any risks of water ingress for over 500 support pads.









Carbon steel pipeline in question

The application on one of the support pads in progress

A gap on the pipeline sealed with Belzona 2211 to prevent water ingress

Close-up photo of completed application

Application Situation

The client was looking for a solution that was flexible and hard enough to withstand any potential mechanical damage that could occurt at the pipeline joints. The pipeline had more than 500 support pads in total, with gaps between support pads and the pipe ranging from 5 mm to 15 mm. Belzona 2211 (MP Hi-Build Elastomer) was the perfacet product to provide a permanent solution.

Application Method

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FS 695214 manufactured under an ISO
ISO 14001:2015 9000 Registered Quality
EMS 695213 Management System.

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First, the paint on the edges of each metal pad was removed by machine buffing and hand tools. Surface preparation was then carried out with a wire brush and MBX Bristle Blaster.

After the surface preparation was completed, a thin coat of Belzona 2921 (Elastomer GP Conditioner) was applied onto each metal pad. Belzona 2211 (MP Hi-Build Elastomer) was then applied to fill the gaps between the metal pads and the pipeline. Belzona 2211 was pressed in as thoroughly as possible to eliminate the void between the pipeline and the support.

After a 24-hour cure time, the application was inspected to ensure there were no air bubbles and other defects.

The application was made to 550 joints in the pipeline. In total, approximately 1,250 kg of Belzona 2211 was used to complete the project.

Belzona Facts

Belzona 2211 met the customer's requirement to fill and seal the gap between the support pads and the pipeline, not only to prevent water ingress, but also to withstand potential mechanical damage.