Belzona SF6-FIX on a Voltage Transformer in the Potash Industry

ID: 9962

Industry: Mining & Quarrying Customer Location: Saskatchewan
Application: GSS-Gaskets, Seals and Shims Application Date: July 2025

Substrate: Carbon steel

Products: Belzona 1981 (SuperWrap II), Belzona 7311

Problem

The voltage transformer was leaking, including from the machine bolt locations. After recovering the SF6 gas, the system was pressurized to prevent moisture or contaminants from entering the system. Belzona SF6-FIX was applied to the pressurized VT and sealed the actively leaking flange.









Completed SF6-FIX application Media blasted surface First layer using Belzo with final layer of Belzona 7311 preparation of the bond areas. and 9341 open mesh

Media blasted surface preparation of the bond areas. Breather tube flange and membrane applied over the flange area after this step.

First layer using Belzona 7311 and 9341 open mesh reinforcement fabric over the breather membrane and breather tube.

Second layer using Belzona 1981 SWII resin and 9371 glass fiber reinforcement tape.

Application Situation

Belzona SF6-FIX was selected because the OEM could not provide replacement gaskets within an acceptable timeframe. This allowed for a faster repair, minimizing downtime and providing an effective solution without waiting for parts.

Application Method

The bond areas were grit blasted, and a breather tube and breather membrane were installed over the flange to channel any leaking gas away from the repair area, preventing defects while the material cured.

The first layer of Belzona 7311 was applied, with 9341 reinforcement mesh placed over the flange area and extending onto the bond area. Belzona 1981 resin and 9371 glass fiber reinforcement tape were then applied in five layers over the flange area and onto the bond area.

Once cured, the surface was prepared to a frosted appearance, and the final layer of Belzona 7311 was applied. After curing to the full service level specified in the IFU, the system was brought back online. SF6 leak testing was conducted, and no leaks were detected.

Belzona Facts

Belzona was selected because the OEM could not provide replacement gaskets, and the system needed to be returned to service quickly. Due to the complex geometry of the flange area, a conventional clamp could not be used.

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Belzona SF6-FIX was able to conform to the complex geometry and effectively stop the leak while under pressure. Supported by technical documentation and marketing specifically tailored to this application, the client was confident in proceeding with the repair.