

# BELZONA ELASTOMERS SEAL SF6 GAS LEAK

ID: 4234

**Industry:** Power  
**Application:** VPF-Valves, Pipes and Fittings  
**Substrate:** Steel and Rubber  
**Products:** \* Belzona® 2111 (D&A Hi-Build Elastomer) ,  
\* Belzona® 2311 (SR Elastomer) ,

**Customer Location:** Electricity Substation, UK  
**Application Date:** October 2012

## Problem

Each joint/flange was suffering from leaks requiring sealing as opposed to fully stripping back each joint and replacing with new gaskets which degrade quickly. A solution was required to minimise the uncontrolled release of SF6 gas into atmosphere. The solution must be flexible, and provide in excess of 3kV insulation properties under 0.5bar pressure.



## Photograph Descriptions

- \* Visual view of equipment &ndash; horizontal bus bar ,
- \* Substrate preparation completed ,
- \* Conditioned and first Elastomer coat/joint sealing ,
- \* Completed application with full encapsulation ,

## Application Situation

Six capacitor current transformers leaking SF6 gas to Low Voltage side between bus bar and flange. The operating pressure was 45psi.

## Application Method

The application was carried out in accordance with modified versions of Belzona Know-How System Leaflets VPF-5 & VPF-11. After preparing the substrate and conditioning with Belzona® 2911, a fillet was created using Belzona® 2311 to the circumference of the bus bar, flange and rubber gasket joint. After allowing to cure, a gas test was undertaken to establish that the initial leak sealing system was successful. A coat of Belzona® 2111 was then applied to all of the areas of substrate incorporating Belzona® 9341 (Reinforcing Tape). A second coat was then applied to an approximate thickness of 5mm encapsulating the bus bar, all flange surfaces and the branch joint behind the flange.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

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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Belzona Facts

Upon completion of each of the six applications, gas testing proved zero emission and in turn, the competency of the repairs with a six month review scheduled.

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