Fuelvac® has been operating successfully in underground and above ground tanks since 2004 and is resistant to a wide range of chemicals, biofuels and 100% Ethanol.

Independently tested and certified to EN13160-7 by TUV NORD

Abfad
Industrial Rope Access • Tank Lining Systems

An underground fuel storage tank at an RAF site in the UK site was designated to be internally renovated and have a new double-skin liner installed as the previous one had failed. The 10,000-litre capacity tank stores aviation fuel and is a carbon steel single wall construction.

Welds within the tank had previously been ground back causing defects and had to be repaired. Welding repairs were performed to all these areas and then blasted to prepare the surface for good coating adhesion.

The entire surface area of the tank was spray coated with Enviroline 376F-60 solvent-free coating designed for the protection of fuel storage.

Non-hazardous materials were then installed to create an interstitial space around the whole internal area of the storage tank. Once the double-skin materials are installed a final solvent-free coating is applied as the final protection for fuel storage.

The FUELVAC® double-skin liner system provides a continuous interstitial space around the tank which is monitored with a Class 1 vacuum leak detection unit.

The alarm sequence (Audio & Visual) will be initiated if the vacuum pressure drops below the set level, notifying the operator of a problem within the storage tank and giving early warning.

The 10,000-litre capacity tank at this RAF base has been double-skin lined and monitored and is now operating successfully with a Class 1 Vacuum Pressure leak detection system.

The FUELVAC® system provides a continuously monitored non-compressible interstitial space, providing protection and an early warning system for any issues within the storage tank, allowing for effective management.

Web: www.abfad.co.uk
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Tel. No: 0191 543 7166

- Protect
- Monitor
- Manage

The Award Winning

FUELVAC®

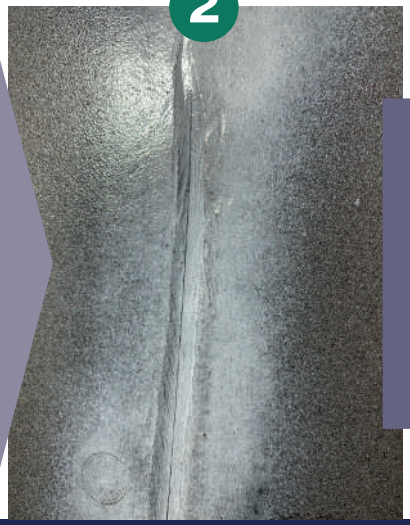
THE INNOVATIVE DOUBLE-SKIN LINING SYSTEM

A Case Study

1

Structural anomalies were found in the steel which required weld repairs to be performed before the tank was pressure tested.

2



Weld repairs to all structural anomalies was completed and NDT inspection (MPI) was performed prior to pressure testing the tank.

3

Shot blasting was then performed to Swedish Standard SA 2.5 to create an angular profile of ≥ 75 microns to allow for greater adhesion.

4

The blast steel profile achieved was around 131 microns, allowing for excellent adhesion of the coating.

5

A solvent-free coating was applied to the tank as a first layer, in preparation for installation of the double-skin liner.

6

This first coating was applied to 2000 microns nominal thickness to provide total encapsulation of the tank steel as the first protective barrier.

7

All double-skin lining materials are applied on top of the initial coating. These materials are non-hazardous and create an interstice around the tank.

8

Final solvent-free coating on to the lining materials, applied to 2mm nominal thickness as the finish coat. This completes the work inside of the storage tank.

9

Vacuum transducer valve located in the tank chamber, this is connected to the interstice of the double-skin liner for the vacuum monitoring.

10

Leak detection equipment is installed on site and ran to the vacuum transducer in the tank chamber. All systems are fully operational. Project Complete.