



Case Study

Air Products Re-Visited

OXIFREE[®]
METAL PROTECTION

Routine maintenance shows successful protection TM198 provides.

Location	Rotterdam
Local Environment	Onshore
Date	28 th – 30 th Nov 2017
Condition	Wet, cold and windy
Total Coatings	1
Substrate Type	Gas Flange
Duration	3 Days

Summary

Air Products used to suffer with contamination to a vent/exhaust structure due to outside moisture entering and causing corrosion. The location of the facility, in close proximity to the coastline, puts it at risk from corrosion with the mixture of salt and moisture in the air.

Oxifree TM198 was initially used to protect this flange in 2012, but in 2017 the material had to be removed for routine maintenance. TM198 was demanded again to reapply.

Introduction

Air Products is a combined heat and power plant in the Botlek and consists of a natural gas-fired STEG unit with combined heat and power, specifically for the Air Products company.

In 2012 Bilfinger and our representative had been called in to apply TM198 to the structure to halt any further corrosion and offer protection going forward.

The project was a success.

Objective

Oxifree TM198 had for the last 5 years prevented the seal between the flange faces from letting in moisture.

The objective post-maintenance was to re coat the flange with new material.

Scaffolding was again used, since the flange is 25 m high.

OXIFREE®
METAL PROTECTION

Before



After



Before



After



Case Study



Process

Surface preparation was minimal, a wire brush was used to remove any loose debris. Prior to application, compressed air was used to dry the flange.

The nuts/bolts were coated first, then applications started at the top of the flange, then the sides and finally the bottom section was coated with TM198. An Elcometer 456 was used at regular intervals to maintain the correct material thickness (>4mm). Silicon was used on the leading edge of the material for added protection.

The material can be applied to operational equipment without the need for an expensive shut-down which saves the client time and expense. The project was completed over 3 days using the Polymelt 50 A-I for hazardous environments.

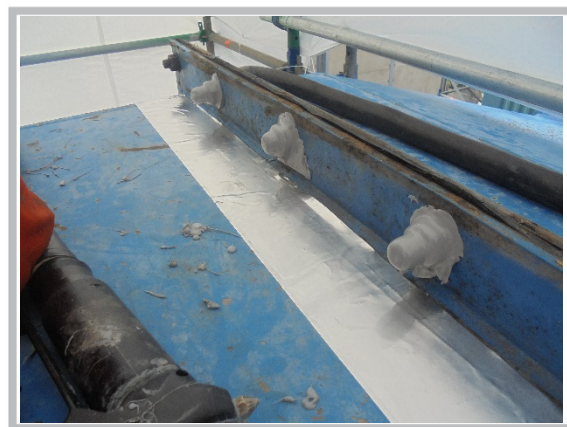
Surface Preparation / Application / Inspection



Solution

Oxifree TM198 was applied over the whole gas flange. The material will cure instantly and prevent water ingress and at the same time protect the nuts and bolts from corrosion. Despite the wet and windy conditions the application was able to go ahead with success.

As you can see by the photos, the original nuts/bolts were able to be re-used due to the protection provided by the initial TM198 application in 2012.



Conclusion

Oxifree TM198 will continue to protect the flanges for many years in the harsh conditions at Air Products, which due to its proximity to the coast is in a salty and wet environment.

No sand-blasting was required avoiding any harmful byproducts and Oxifree is environmentally safe, reusable during application and doesn't contain any VOCs making it the perfect green solution for anti corrosion and contamination needs.

