



Pipe Clamp Corrosion Protection – Gas Facility

Case Study

Corrosion Prevention On Pipe Clamps



Location	The Netherlands
Local Environment	Gas
Date	June 2021
Condition	Wet
Total Coatings	3
Substrate Type	Clamp Assemblies
Duration	3 Days

Zuiderpolder Knooppunt Gas Site



Summary

Oxifree TM198 was selected by NAM as the most appropriate solution for protection of 3 x 28" pipe clamp assemblies at the Zuiderpolder Knooppunt Gas Facility in the Netherlands.

Pipe Clamp Assembly prior to Oxifree



Introduction

The gas facility at Zuiderpolder Knooppunt is a remote, normally unmanned site, so regular maintenance is minimal. The client chose Oxifree TM198 to protect the pipe clamps against corrosion and to avoid continuous monitoring and periodic maintenance.

Pipe Clamp Assembly Encapsulated by Oxifree TM198



NAM chose Oxifree TM198 as it is an approved product with Shell, having been thoroughly tested by means of field trials and laboratory tests.

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Objective

Oxifree was requested to carry out the coating of Oxifree TM198 on 3 x 28" Pipe Clamp Assemblies. This project was carried out over 3 days from 28th – 30th June 2021.

These were very large applications which were fully protected in 3 days despite the bad weather, (heavy rain) which did not hamper the work taking place. Tarpaulins were appropriately placed over the clamp assemblies so that the application could be carried out without any downtime.

Process

The applications were carried out by Oxifree/SFL personnel and supported by IPCO (Oxifree Service Partner, Benelux)

TM198 was applied directly onto the coupling assemblies. The application was carried out using the Oxifree Polymelt 50 A-I (Atex & IECEx) application machine with a 15m hose.

The Oxifree TM198 material was applied over the entire clamp, including the bolts and the steel support on the underside.

Smartbands were fitted on the leading edges on the pipe for added protection against tampering etc.

Pipe Clamp Assembly prior to Oxifree



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Oxifree Polymelt 50 A-I (Atex & IECEx) Application Machine



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Solution

The coating, as approved by the operator, will ensure the clamp assemblies are protected for many years.

A major benefit of TM198 is the minimal preparation means no sand-blasting is required, instead wire brushing to ST2 standard (if required). Weather and the environment was also not an issue during application since TM198 can be applied in a humid environment and tarpaulins were used to keep the rain off the assets during application.

In the future, the material is easy to remove for inspection if required and the corrosion inhibitor oil contained within the coating composition will arrest existing degradation and act as a penetrating oil for the bolt threads for ease of any future maintenance.

Conclusion

TM198 provides a viable cost-effective solution for the long term protection of these areas subjected to a wet and humid environment.

Asset lifetime will be extended and maintenance reduced thus allowing NAM to make savings to their maintenance budget.

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