



Specialised pipeline clamp avoids pipeline disruption

Client	ADNOC LNG
Country	UAE
Date/ Year	2017
Service details	<p>Our on-line leak sealing service features a custom-designed pipeline clamp that contains the leak section, following which a suitable sealant is injected into the clamp to stop the leak.</p> <p>The process is successful on steam, water, hydrocarbons and a wide variety of chemical systems – at pressures from vacuum to 8500 psi and temperatures from minus 320 Deg F to 1800 deg F. It's a turnkey solution that means high plant uptime and reliable results for you.</p> <p>To know more, get in touch with us engineering@uniquegroup.com</p>

Summary of the Project

Unique Group's On-Site Engineering (OSE) division designed and delivered a specialist pipeline leak clamp to ensure client avoided costly production disruption.

Client Requirement / Problem

ADNOC LNG requested us to perform online leak sealing of a 2" leak on a 48" seawater pipeline that provided cooling water to two different trains. The leak was formed due to severe internal corrosion that developed on the weld of the pipe flange.

Since the pipeline was leaking, traditional composite repairs were not possible and standard leak repair clamps could not be used due to space restrictions around the pipeline and the location of the leak point. The only alternative, other than shutting down both the trains, was to provide a customised leak repair clamp.

Unique Solution we delivered

Unique Group designed, manufactured and installed a four-piece 48" enclosure box clamp to achieve a 100% sealing solution – with no disruption to production. A strong-back system was also designed to keep the clamp in place should any further corrosion in future cause a pipe flange separation. The enclosure was designed according to ASME Sec VIII Div 1 specifications.



The high ovality in pipe, longitudinal weld seam and obstructions around the pipe presented installation challenges. However, the clamp was specifically designed with three independent sets of size packing grooves to overcome the pipe ovality.



L-R : Ring Clamp Machining & Four-Piece Ring Clamp

Benefits delivered

- We devised and implemented the only feasible online repair solution to avoid a production shutdown.
- No disruption to production , the repair was performed on the live pipeline

Mr. Hassan Taher, Vice President - Plant Maintenance at ADNOC LNG, congratulated the Unique Group team on successful completion of the project and for providing the best solution to reduce the high-pressure leak, "Completing the work on-line, Unique Group has made an extremely valuable contribution to the smooth running of the plant and avoided a costly shut down. We would like to thank Unique Group for mobilising the service at a short notice and accomplishing the task on time."