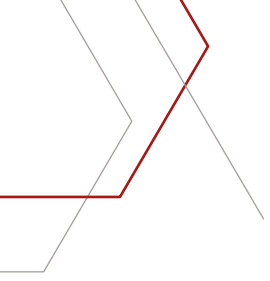


# CASE STUDY

Carbontech Case study 023  
42" Flare line repairs





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## PROJECT DETAILS

	Case Study Number CT-CS:023	Design Pressure 6 BARg	
	Repair Summary Internal corrosion on Flare line	Operating Pressure 0.5 BAR	
	Client Refinery (Non-disclosure signed)	Design Temperature 160°C	
	Service Type Flare Gas	Operating Temperature 125°C	
	Line Size 42	Base Material Carbon steel	
	Line Class N/A		



## ANOMALY DESCRIPTION

Internal corrosion in multiple areas of the 42" flare line



## INTEGRITY CONCERNS

Loss of containment, Fire risks, catastrophic line failure and loss of production would have been the result of taking no action.



## THE CARBONTECH SOLUTION

The line was sandblasted and the surface prepared to NACE 2. The area was then primed with Revowrap Primer. 4 layers of Revowrap 110 was applied in a broken spiral formation.

Surface Preparation achieved: NACE 2

Product used: Revowrap 110

Engineering calculations: ASME PCC2

Layers used: 4 layers (Broken Spiral)

Post cured: Not Required - Line temperature provided sufficient heat to cure the wrap.



## CONCLUSION

The composite repair system designed by Carbontech and satisfying the ISO 24817 standard was successfully installed. The complex geometry associated with elbows, tees etc, presented a novel challenge for the repair solution which was expertly addressed by Carbontech. As a through-wall defect repair, the laminate wrap provides structural integrity to the pipe- in accordance with the required design specifications in addition to providing internal corrosion protection with a design lifetime of 5 years.

The installed Revowrap 110 composite repair system is fully qualified and compliant with ASME PCC2 to meet the demands of petroleum, petrochemical and natural gas industries for various service types



## CARBONTECH

The place chemistry, engineering and global expertise are brought together to drive progressive innovation in advanced composite technologies for the emergency repair of critical assets "There is nothing generic about us" we don't just sell pipe wraps; we provide accurate engineering backing to deliver tailored solutions

Sound and responsible engineering is the basis on which we build our company, products and services. It is the core to our success and it is the foundation on which we have engineered and manufactured our innovative and bespoke products

We strive by a zero-failure philosophy and warrant our engineered composite solutions are tested, proven and validated. We vow to provide dependable, responsible and accurate information regarding the capabilities of our systems

[www.revowrap.com](http://www.revowrap.com)

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PROGRESSIVE COMPOSITE ENGINEERING

