A Hole-in-One Pipe Repair

ID: 10406

Industry:	*Chemical & Petrochemical*	Customer Location:	*Scotland, UK*
Application:	*VPF-Valves, Pipes and Fittings*	Application Date:	*September 2026*
Substrate:	*Carbon steel*		
Products:	*Belzona 1121 (Super XL-Metal),Belzona 1981 (SuperWrap II)*		

Problem

Hot work restrictions severely prohibited any welding or open flame on-site, ruling out traditional metallic sleeve welding or cut-and-replace solutions. Furthermore, conventional localized patch repairs or temporary clamps were completely inadequate, as they would not have restored the pipe's original structural wall strength or hoop stress resistance required for safe long-term operation.



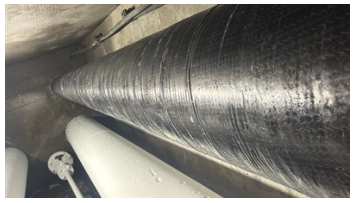
Before image, repair pipe top right



After wrap consolidation removed



View of repair



View of repair

Application Situation

A hole had formed at the top of the pipe, compromising its containment and structural integrity. Because the loss of use of this pipe would severely impair the site's overall operation, a swift, reliable reinforcement solution was urgently required to restore the pipework without forcing a costly plant shutdown.

Application Method

The surface of the pipe was thoroughly prepared by grit blasting to achieve the required surface profile. The surface defect was then faired and leveled using Belzona 1121 (Super-Fluid Metal). A Belzona Plate Bond was integrated, followed by the application of 3 wraps of Belzona 1981 SuperWrap composite system to structurally reinforce the pipework.

Belzona Facts

Cold-Applied Safety: Avoided hazardous hot work, eliminating the need for welding permits or costly downtime. Structural Integrity Restored: The composite reinforcement fully restored the pipe's hoop strength and pressure containment without requiring pipe replacement.

ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

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