

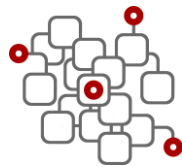
Minimising Asset Down-Time Safely, Effectively and Reliably

CASE STUDY 118

26" Wellhead

PROJECT DETAILS

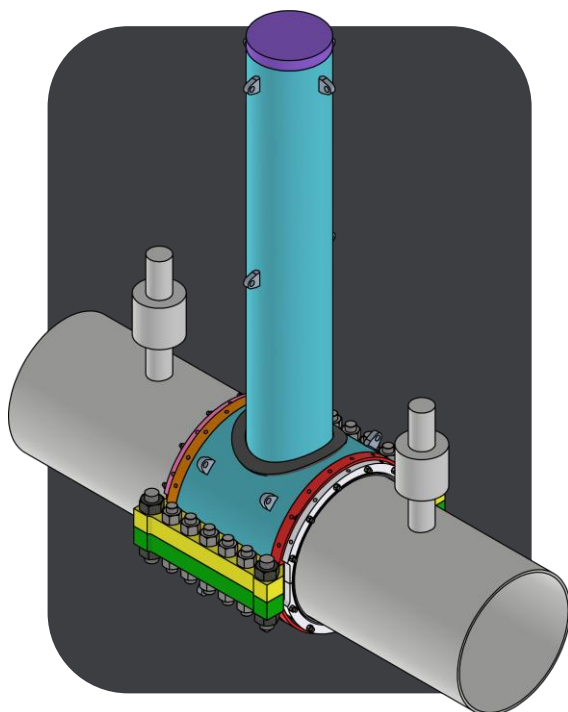
Case Study Number	119
Description	20" x 2" Top Hat Enclosure
Industry	N.A.
Process	Dry Gas
Line Size	20" x 2"
Design Pressure	55 Bar
Operating Pressure	30 Bar
Design Temperature	90°C
Operating Temperature	55°C
Pipe Material	SA-516 Gr 70N
Line Class	N.A
Compiled By:	Beruseal Engineering
Date:	10/02/2026
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ANOMALY DESCRIPTION

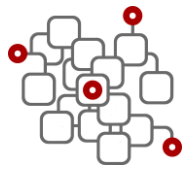
The anomaly involved a pressurized gas leak identified on a 2" instrument isolation valve body within a production pipeline system. Specifically, the leak was located at the flanged end connection stub where it joins the body of the valve. Visual inspections and testing confirmed the valve was weeping from the bonnet under an operating pressure of 30 bar, creating a hazardous atmosphere and necessitating immediate containment to prevent a full loss of integrity.

Before Photo



INTEGRITY CONCERNS

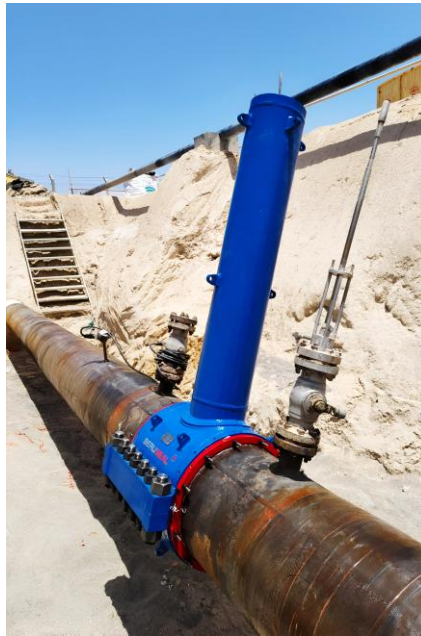
The risk of a catastrophic release of flammable dry gas into the atmosphere. The "weeping" bonnet posed a fire and explosion risk, especially given the presence of detectable Lower Explosive Limit percentages. Furthermore, the continued thinning of the valve body suggested that the leak would likely escalate if left untreated.

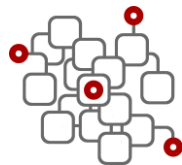


THE BERUSEAL SOLUTION

To contain the leak, a custom-engineered "Top Hat" enclosure assembly (20" x 2") was designed and manufactured in accordance with ASME PCC-2 and BPVC Section VIII Division 1 standards. The solution utilized a specialized enclosure with a typical caulking lip design and high-pressure sealant injection ports to create a secondary pressure boundary around the failing valve. Following the "Live Repair" installation, the assembly was subjected to rigorous non-destructive examination, including 100% Magnetic Particle Inspection (MPI) on all welds, to ensure the long-term containment of the 30 bar process service.

After Photos





Restoring Integrity, Maintaining Reliability



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