



BEAT THE TEST

Deacon® Rocket Wrap® **outperformed** the ASME PCC-2 Nonmetallic Composite Repair Systems requirements for high-risk applications.

Deacon Rocket Wrap solves a diverse array of problems: repairs holed, weakened, and corroded process piping systems and tanks. Looking to restore damaged critical assets back to the original specification and strength? Our engineered carbon fiber composite system easily conforms to a wide range of shapes, offering a repair solution for the most challenging applications.

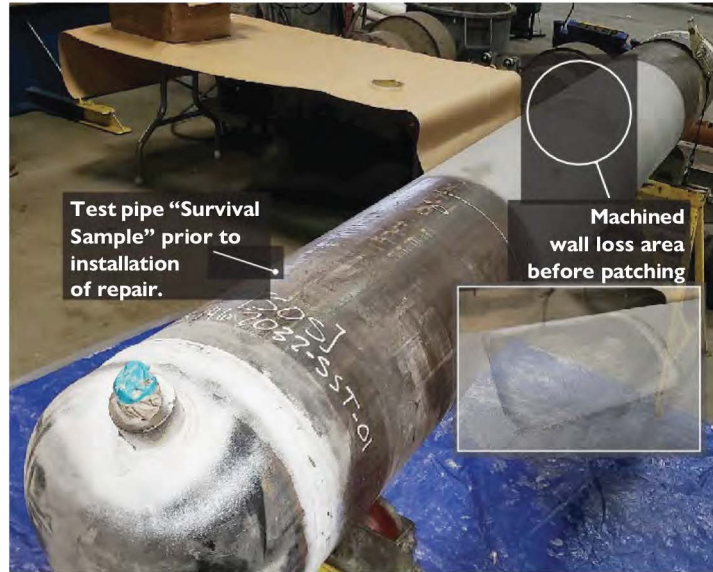
DEACON ROCKET WRAP STRENGTH

Stress Engineering Services (SES) in Houston, TX, performed an independent assessment of Rocket Wrap's strength. ASME set the standard for pipe repair—Article 401 states that a damaged pipe (e.g., a pipe exhibiting external corrosion/missing material) can achieve a target design pressure with a sufficient level of reinforcement using a composite material.*

SES procured and fabricated the spool survival sample for full-scale testing using a known pipe material and common diameter. They created a region of machined wall loss in its center, specified as a 6"x 8" area with about 75% wall loss. The repair area and wall loss regions were then blasted to NACE2 near white metal cleanliness. This test had to confirm that our repair system has acceptable shear and bond strength sufficient for the yield strength of the original pipe. The number of wrap layers and length were calculated using ASME PCC-2 and had to hold to 3,170 psi.

DEACON ROCKET WRAP TEST RESULTS

The test was completed, and Deacon Rocket Wrap's material was certified. Pressurization to failure was attempted, but the equipment didn't go that high. After changing to a higher pressure pump, the pipe, not the wrap, failed at 4,754 psi, nearly 50% more strength than anticipated! Deacon Rocket Wrap repair remained intact; not only did it achieve the minimum requirements, but: **the pipe itself burst, not our Deacon Rocket Wrap's patch!**



Repair System Process



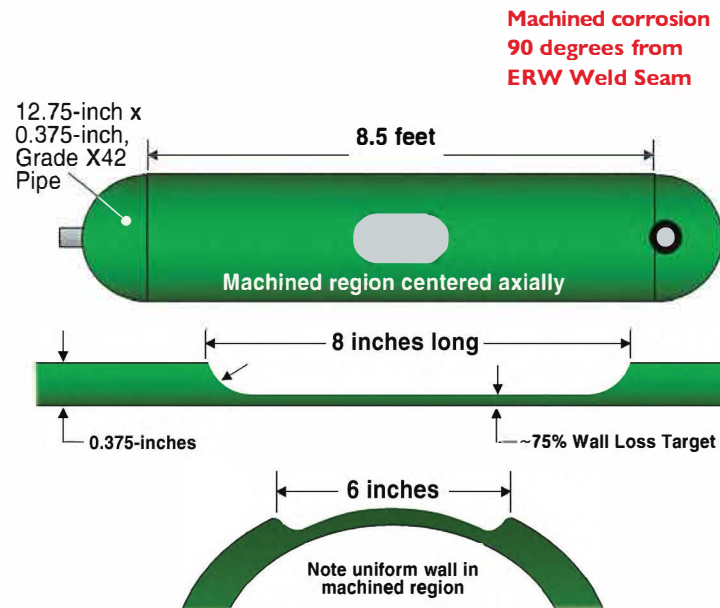
Wall loss region with Deacon Rocket Filler and Deacon Rocket Primer installed.



Installation completed with **Deacon Jacket Wrap**.



7-Layer repair installation complete.



* ASME PCC-2-2018, Part 4, Nonmetallic and Bonded Repairs, Article 401, Nonmetallic Composite Repair Systems: High-Risk Applications.

PCC-2 Spool Survival Test

Internal Pressure vs. Time | Rocket-Wrap® Composite Repair System | 14 September

--- Test Pressure (3,167 PSI)
 — Spool Survival Test
 — Burst Test

