## **CASE STUDY**

## **Equipment Preservation - Flanges**



# Internal Flange Protection of a Pipe Section in Texas, USA with ZERUST® Inhibitor Fusion (ZIF) Tape, ZIF Guard, and Tube Strip Pro

Location: Texas, USA | Date: May 2025 | Contractors: ZERUST® & Mid-America Pipeline and Construction | Client: Confidential

#### **Project Summary**

ZERUST® Integrity Solutions™ was contacted to educate and assist with the application of a custom-designed corrosion mitigation solution for a newly installed pipe section. The solution involved the use of ZERUST® ZIF Tape and ZERUST® ICT® Tube Strip Pro to protect the internal flange area of a 24-inch pipe section. Field Engineers provided hands-on training and application support during the site visit to ensure proper installation and long-term corrosion protection.

#### **Asset & Site Details**

Asset ID: Interchangeable Pipe Section with Internal Flange

Diameter: Pipe Section - 24-inch (≈ 610 mm)

Condition: Newly installed; uncoated threaded rods, nuts, and flanges

Weather During Application: 80°F (≈ 27°C), 80% humidity, early rain with clear



Application of ZERUST® ZIF Tape for Internal Flange Protection on a 24-inch Pipe Section.

## **Solution Implemented**

#### **Products Used**

- ZERUST® Inhibitor Fusion (ZIF) Tape (2-inch and 4-inch)
- ZERUST® ICT® Tube Strip Pro
- ZERUST® ZIF Guard

#### **Implementation Details**

- ZERUST® ICT® Tube Strip Pro was woven around threaded rods within the flange gap and wrapped around exposed nuts.
- 2-inch ZIF Tape was used to anchor the application around the top flange and transition point on the pipe.
- 4-inch ZIF Tape was applied in a radial lattice followed by a spiral wrap technique, finishing with a circumferential wrap around the pipe.
- ZERUST® ZIF Guard was applied over all terminating tape ends to reinforce adhesion and longevity.
- Onsite training was conducted for the client and Mid-America Pipeline personnel, with a second flange applied by the attendees.

#### **Outcome**

The ZIF Tape corrosion mitigation solution was successfully implemented with minimal issues. The targeted asset is now protected with a convenient and effective system that avoids the use of greases, waxes, or coatings. Attending personnel were successfully trained on the application process. It is recommended to monitor the applied system for adhesion and to reapply ZIF Tape if the pipe section is removed or replaced.

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### **Project Photos**









Corrosion protection claims are based on Northern Technologies International Corporation (NTIC) internal laboratory testing performed under controlled parameters on contaminate-free substrates. Real-world application corrosion protection duration on different substrates will vary and depends on factors such as, but not limited to, the application or use, environmental/ storage conditions, surface cleanliness, type of substrates, and coating t hickness (where applicable). The use of the term "Up to" in reference to time is defined as any time duration from zero up to a specified time frame, but in no event beyond the specified time frame. The use of the term "for years" is based on NTIC's experience with its products but is in no way guaranteed. The use of the term "Up to" in reference to volume is defined as any volume from the top to a specified volume but in no event beyond the specified volume of protection. It is the customer's/user's obligation to evaluate product performance, corrosion protection duration, safety, and suitability for intended use within the scope advised in the data sheet and to comply with all applicable laws and regulations.

LIMITED WARRANTY/DISCLAIMER Warranty is limited to the replacement of a product that fails to meet specifications. For full warranty and disclaimer information, visit www.zerust.com/warrantv.

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