

Restoration and Temporary Preservation of Corroded Vertical Sump Drain Pumps Using ZERUST® Axxaclean® 2048 and ZerioGuard® 5

Location: UAE | Date: May 16, 2026 | Contractor: ZERUST Integrity Solutions® | Client: Confidential

Project Summary

Three newly supplied vertical sump drain pumps intended for the client were found to have severe internal corrosion affecting the casing, impellers, and shaft column internals prior to commissioning. Due to the extent of corrosion observed, the pumps were initially rejected by the end user.

ZERUST Integrity Solutions® was engaged to develop a practical restoration and temporary preservation solution capable of minimizing dismantling while effectively cleaning and protecting the internal surfaces until installation and startup.

Asset & Site Details

Asset ID: Vertical Sump Drain Pumps

Quantity: Three Pumps

Affected Areas: Suction-side casing, impellers, and shaft column internals

Project Requirement: Restoration and temporary preservation prior to commissioning

Operational Constraints: Limited internal accessibility and restricted injection/drainage points



Internal surfaces following ZERUST® Axxaclean® 2048 Cleaning Solution and ZerioGuard® 5 treatment

Solution Implemented

Products Used

- ZERUST® Axxaclean® 2048 Cleaning Solution
- ZERUST® ZerioGuard® 5

Implementation Details

- A soaking-based cleaning and preservation procedure was developed to restore the affected internals and establish temporary corrosion protection.
- The pump cavities were treated using ZERUST® Axxaclean® 2048 cleaning solution, followed by multiple flushes and a final holding treatment using a 2% solution of ZERUST® ZerioGuard® 5.
- Final drying was completed using nitrogen prior to temporary preservation and storage.

Outcome

The implemented procedure significantly improved the internal condition of the pumps and successfully addressed the observed corrosion concerns. Despite accessibility limitations and complex internal geometry, the soaking-based approach proved effective while minimizing dismantling and rework activities.

The client expressed satisfaction with the final results, and the pump OEM formally approved the implemented restoration and preservation methodology.

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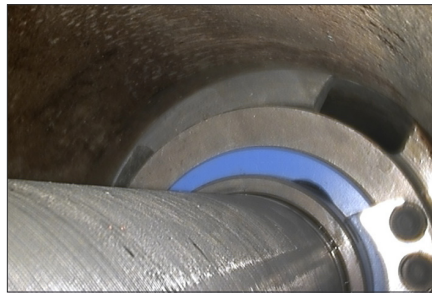


project case studies

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Project Photos



† **DECLARATION**

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Contact Us



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A product of:
Northern Technologies
International Corp
4201 Woodland Road
Circle Pines, MN 55014 USA
Toll-Free: +1 (800) 328-2433
www.ZerustIS.com



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