

CASE STUDY

High humidity, caustic cleaning agents, and extreme temperatures caused an inadequate corrosion control system to fail, putting a business' production and reputation at risk!



Learn how the Fixxus Coatings Solution eliminated the risk of contaminated food products from peeling coatings and applied a lasting system

The Fixxus Division of Superior Industrial Maintenance partnered with a major fresh produce distributor in the southeast regarding their concern over potential foreign object debris falling from the ceiling of a large production area (peeling paint and rust, among other things).

Unfortunately, a previous supplier had recommended and applied a coatings system that could not withstand the facility's interior environment. This facility's rigorous cleanliness and food safety program called for the frequent use of caustic cleaning agents on all surfaces within the production area. Additionally, the facility maintained consistently high levels of humidity at cold temperatures to store and process fresh vegetables throughout the year.

When visible rust appeared on the production facility's structural steel and elements of the coating system began to be visibly at risk of peeling off, the facility manager contacted Superior Industrial Maintenance looking for an emergency repair.

The client required a coating system for approximately 28,000 square feet of surface area that:

- Was highly abrasion, water, and chemical resistant and was capable of long-term exposure to a harsh physical environment.
- Must be able to cure below 45 degrees Fahrenheit (as production and storage continued)
- It had to be completely installed within a very short timeframe.

Superior Industrial Maintenance recommended and installed our patented Fixxus Coatings Solution. The system's base layer consists of a surface-tolerant primer with much lower-than-normal levels of Volatile Organic Compounds (VOCs). An accelerator was added to the primer to allow it to cure in sub-45-degree temperatures. The top coat consisted of a fast-curing, aliphatic polyurea that is highly versatile, flexible, and abrasion and chemical resistant. Additionally, the polyurea topcoat is an effective anti-microbial system, given that the spray application creates a solid monolithic covering as the finished product.



The entire project consisted of:

- Erecting a scaffold approximately 30' above grade to access the entire 28,000 square foot ceiling area.;
- Installing an enclosure system to protect the finished product and surrounding areas from overspray. Maintaining negative air pressure within the enclosure for the duration of the project was crucial.
- Adequately preparing the substrate surface using hand tools and grinders (introducing blast media into the environment was not an option due to production) and removing all the debris.
- Spraying the primer and topcoat to a total thickness of 40 mils with a cure time of less than 30 minutes.

The entire project was completed in nine days. Additionally, Fixxus' pre-project planning and execution allowed the customer to remain in production during the entire process. There was no contamination of any finished product.

The Fixxus Division of Superior Industrial Maintenance was able to meet all of the client's requirements by:

- Clearly understanding the physical conditions (and related chemistry) of the client's production environment. This allowed us to tailor the polyurea solution to meet their specific needs. Fixxus pioneered the use of polyurea in food-grade production facilities and, combined with Superior Industrial Maintenance, has over 35 years of dealing with some of the most challenging corrosion control issues.
- Maintaining a constant inventory of the materials needed for our proprietary system. This allows us to respond immediately without waiting on other manufacturers or supply chains.
- Maintaining our fleet of plural component pumps specifically designed for mobile, high-production projects and fully self-contained tractor-trailer rigs with all necessary accessories, safety equipment, materials, and scaffolding. We can respond rapidly and arrive with our in-house, full-time employees as your sole-source solutions provider.
- Providing a well-trained, safety-focused workforce. Our entire field workforce has a current OSHA 10 certification, and our supervisors are OSHA 30 certified. Additionally, we maintain a full-time, in-house Quality Control and Quality Assurance Manager Safety. Our focus on safety and proper planning makes us more efficient and helps us maintain an outstanding safety record.

Our client was very satisfied with the finished product and is looking forward to applying the system throughout much of the balance of their 750,000-square-foot facility.

Superior Industrial Maintenance and Fixxus provide a wide variety of corrosion protection solutions for any substrate. From walls and ceilings to floors, roofs, process piping repair, insulation, and abatement, we can handle all your maintenance needs.

If you have a challenging corrosion control or maintenance issue, we would love to help. Please contact us at <https://gosuperior.com/>.

