

Holdtight 102

Salt Remover / Flash Rust Preventer



Case History for Surface Preparation at Tank Fabricator

Background

Customer is a South Texas based steel fabrication plant involved in manufacturing storage tanks for the Permian Oil Basin in West Texas. Everything this manufacturer does, from cutting to coating, is carried out through a state-of-the-art, fully-automated conveyor system. Due to this advanced technology, the company produces a new tank every two hours.



Corrosion Issue

The carbon steel used in manufacturing these tanks can be plagued with various contaminants such as grease, rust, cutting fluids, and mill scale. Even though the steel is being thoroughly blasted by Wheelabrator's dry abrasive blasting technology upon arrival to the plant, it is still prone to rusting due to the time it is left unprotected and after being exposed to water in the final surface preparation stage. Although the manufacturer is drying and painting within four hours of the steel being introduced to water, flash rust can form within minutes. Having rust or any other salts/contaminants on metal surfaces can have severe effects when it comes to applying a coat of paint. Premature lifting and blistering of the coating are two very common, yet avoidable, issues associated with this problem. It is imperative to have a completely clean surface when painting metal so that the maximum adhesion and lifespan of a coating can be achieved.

Surface Preparation Solution

- Customer adds the proper amount of HoldTight® 102 to the deionized water, which is made on site, used in washing down the tanks as they are prepared for painting. It is crucial that the solution be composed of no more than 1%-2% HoldTight® 102 (water to HoldTight® 102). Incorrect dilution can result in a residue being left on the carbon steel which will affect the adhesion of the coating when it is applied.
- The tanks, both inside and out, are thoroughly cleaned by the solution which is administered in a washing station at a pressure of 500-1000 psi.
- The freshly cleaned products are then placed in a jet propulsion drying booth and dried at a temperature of 150-160 degrees Fahrenheit.
- As the company then begins to paint, they frequently test the conductivity of the surface to ensure no salts/contaminants are present that would compromise the adhesion of their paint.
- Due to the proper administration of HoldTight® 102, the testing continually confirms that the steel is rust and salt/contaminant free. This enables employees to paint and complete the tanks in a very efficient manner.

Results

A strong coating system is vital to maintaining the integrity of the steel that these tanks are made of. In order to increase the adhesion and lifespan of the coating, which is exposed to many harsh elements that reside out in the oilfield, application to a clean surface is essential. HoldTight® 102, if used correctly, has the ability to remove all salts/contaminants from the tank's surface and prevent the formation of flash rust which allows our customer to get the maximum effectiveness out of their coating. Failure to adequately prepare a surface can result in poor coating performance which will require costly maintenance expenses down the road.

