

Epoxy protective coatings in the water tank industry



CASE STUDY

Challenge

Midwest Tank Company, established in 1972, is a producer of high-quality tanks for small and large corporations as well as contractors. Five-gallon paint kits are mixed by hand then sprayed through an air-operated airless pump. The customer has seen increased activity in the 100 percent solids coatings market. Since they didn't have the proper equipment, the customer was not able to bid on these projects. This is primarily what led them to explore plural-component equipment options.

Solution

The introduction of the Graco XP70 Plural-Component Sprayer has created an option that has a quick return on investment and provides an entry into the 100 percent solid coatings market.

Results

The Graco XP70 was installed and sprayed Tnemec Series N140 epoxy. Day one resulted in a 69 percent* decrease of waste. Midwest Tank utilized the Graco XP70 ROI calculator to project an annual estimated material savings of \$15,000. This calculated to a one-year return on investment. Midwest Tank realized many additional benefits such as increased quality control due to mixing accuracy, consistent and repeatable coating thickness, and the ability to spray at lower pressures with less overspray because of machine's ability to heat the coating. In some instances, the customer was able to reduce the number of coatings applied to the tank since heated materials build better, removing any incidents of runs. On top of it all, Midwest Tank noted how easy it was to use the machine without advanced training since training was accomplished in only a few hours.

*Based on 40 ounces (1.2 l) of waste versus one gallon (3.8 l) of waste per flush including solvent waste to load and flush in a ¼ in x 50 ft (6.3 mm x 15 m) hose.



Midwest Tank eliminated hand mixing with the Graco XP70, which saved money and greatly reduced material waste.

For more information, contact us at 1-877-844-7226 or info@graco.com. Visit us at www.graco.com

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SPECIFICATIONS

END USER

Midwest Tank Company

INDUSTRY

Tank, Basin and Vessel Fabrication

APPLICATION

Protective coating of various grades of carbon steel. Tnemec Series N140 Pota-Pox® Plus is made for use on the interior and exterior of steel or concrete tanks, reservoirs, pipes, valves, pumps and equipment in potable water service.

Material Specs:

- Series N140 Pota-Pox Plus
- Material Supplier: Tnemec

Typical Properties

- Ratio (A:B) by volume: 1:1
- 67% solids
- Chemistry: Epoxy

GRACO EQUIPMENT

- Graco XP70® Plural-Component Sprayer

CONFIGURATION

- Part number: 571102
- 1:1 Ratio XP70 with NXT® 6500 motor and two Xtreme® 85cc lowers
- Two 7 gal (26.5 l) hoppers direct coupled to the proportioning pumps
- Heat: (2) Viscon® heaters set at 90° F (32° C) mounted on XP cart
- 76:1 pressure ratio run at a spray pressure of 21 MPa (207 bar) (3000 psi)
- Circulation kit: As configured on XP70 (in and out of hoppers)
- Hose:
 - 1/4 in x 50 ft (6.3 mm x 15 m)
 - 1/4 in x 10 ft (6.3 mm x 3m) whip
- XTR-7™ gun and 519 tip included with XP70 Package

Accessories:

- 262393 45:1 Merkur® flush pump kit mounted on XP cart
- Tip: 415 XHD RAC® tip



With the Graco XP70, Midwest Tank was able to reduce the number of coatings applied to the tank since heated materials build better removing any incidents of runs.