

PROTECTIVE COATINGS  
APPLICATION

# West Coast Polyurea Contractor Attributes Success to Experience & Equipment



A crew member applies polyurea on the water course of one of the park's rides using Graco's Reactor proportioner and Fusion spray gun.

**CUSTOMER**  
Innovative Painting & Waterproofing, Brea, California

**APPLICATION**  
Waterproofing & painting contractor

**OBJECTIVE**  
Efficient system to proportion & spray polyurea

**SOLUTION**  
Graco Reactor™ proportioner, Fusion™ spray gun & Data Reporting Kit

**RESULTS**  
Simple, reliable, easy-to-use system.

Don Dancy is a leading advocate of polyurea coatings on the West Coast. He's been applying these materials since he founded Innovative Painting & Waterproofing, Inc. in Brea, California, six years ago. Today, 80 percent of his work is spraying polyurea.

"It's an ideal protective coating," he says. "The material is 100% solids with zero VOC's — no solvents, no odor. It's as good as it gets for AQMD."

The company's clients agree. For example, the general contractor at a major Southern California amusement park was under pressure to complete the rehab on one of the park's premiere rides last year. The time allocated to finish the remainder of the job, which

included waterproofing the structure, was reduced from six weeks to two weeks. Faced with the looming deadline, the contractor called Innovative and asked Don if polyurea could replace the waterproofing material specified for the job, which was a multi-coat, modified cold tar coating.

Don verified that a polyurea coating would be a superior alternative. He explained that a polyurea coating could be applied in a single application, that it set quickly and that it was as durable as other protective coatings.

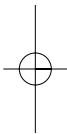
The general contractor and the facilities department of the amusement park were not

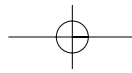
familiar with polyurea and asked Don for a demonstration. The next day he pulled into the park with a work trailer that contained material and equipment.

He described the material and application process to the group as he set up the system, which featured a Graco Reactor™ E-XP2 proportioning system. He stressed the experience of his crew and explained how the application equipment proportioned the two component material and maintained heat and pressures for optimum material strength and durability. He showed how the system provided diagnostic, data reporting, pressure readout, temperature and pressure controls, as well as auto-shut down capabilities to assure the system met the polyurea's specific application requirements. Then he sprayed a test patch.

"I call it a "shock and awe" demonstration," he says. "I spray the material, let it set for 15 to 20 seconds and then invite the clients to walk on it. They can't believe it dries that fast!"

His audience was utterly amazed that they could walk on the material within only a few seconds. They were thrilled with the new technology and





instructed the general contractor to use the polyurea coating to waterproof the structure.

Don left the site believing he had the job.

However, the next day he learned the job had been given to another contractor who submitted a lower bid. Don chalked up the loss and turned his attention to other projects.

But the very next day he received another call from the park. The hired waterproofing contractor had started the job the night before but when the park's project manager and the general contractor went out to inspect his work the next day, the material had not cured properly in certain areas, the thickness of the coating was not uniform and he was behind schedule.

"He claimed it was the best that could be done with this material and his equipment," says Don. "The contractor obviously didn't have the experience with the material or the right application equipment. Both are extremely important if you expect to provide a quality job."

Don was asked to step in. That night he was at the site and in 3-1/2 days he completed the job to everyone's satisfaction.

"We sprayed 2,000 gallons of polyurea without a single hitch," he



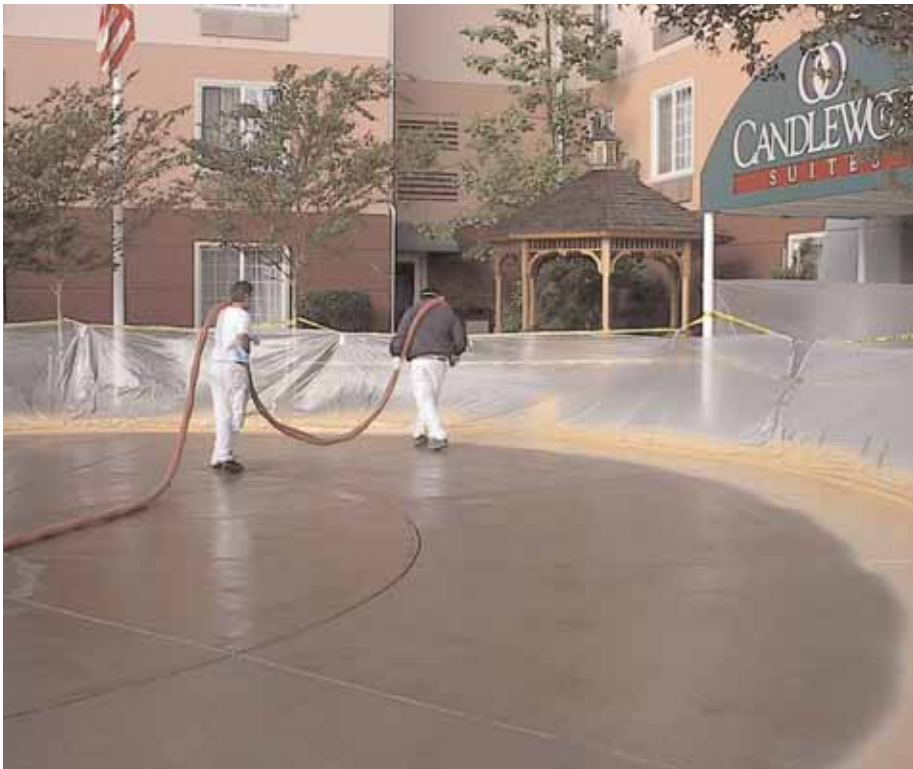
says. "The park was extremely pleased with our effort."

Don constantly stresses the importance of experience and using the right equipment when it comes to spraying polyurea. Innovative's crew has received at least four years of classroom and on-the-job training. Likewise, the application equipment that transfers,

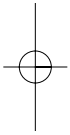
proportions, heats and sprays the material was selected after thoroughly researching his options, as well as taking his own experiences into consideration. He's been in the painting and waterproofing business since 1974.

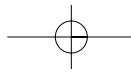
The key components of Innovative's spray application system are Graco's Reactor E-XP2 plural component proportioner, Data Reporting Kit, heated hose and Fusion™ spray gun. All of this application equipment, as well as the polyurea, air compressor, spare parts, and safety equipment are transported in a 28-foot work trailer, specially designed by Don to contain everything his crews need on the jobsite. The company has two completely outfitted trailers that tackle jobs in 11 Western states. Don is planning to build a third rig to handle smaller jobs so that his two full-size rigs wouldn't be tied up for long durations of time.

Inside the trailer, Graco Husky™ low-pressure, diaphragm feed pumps transfer the resin and isocyanate (ISO) from 55-gallon drums to the Reactor



In addition to the theme park, Innovative uses the Reactor proportioner and Fusion spray gun on a variety of waterproofing jobs, such as factory floors and roadways.





proportioner. The Reactor proportions precise ratios of resin and ISO and pumped the components through 300 feet of heated hose to the Fusion spray gun.

According to Don, it takes about 30 minutes to bring the material to working temperature before the daily spraying begins. Blanket heaters are used to heat the material in the drums. In addition, the Reactor's heater has an output of 15,300 watts. The system maintain the polyurea's temperature between 140°- 160° F. the entire day.

The system can maintain fluid pressure up to 3500 psi, assuring significant pressure to atomize even the most viscous coatings. Don claims they haven't had any problems atomizing any of the material they've sprayed. He's found that the polyurea he sprays atomizes best between 2,700 to 3,100 psi.

In addition to providing superior atomization at high pressures, the Fusion gun has been designed to reduce a number of time-consuming maintenance chores that plague other plural component spray guns. One of the problems associated with spraying polyurea is the tendency of the material to clog the spray gun's mix chamber and tip. When this occurs the sprayman must stop work, tear the gun down and clean it. It's a time consuming job and can occur many times a day.

The Fusion gun features a patented Air-Blast™ air cap that provides an extra blast of air across the orifice. This air stream reduces build-up around the tip orifice where clogging typically occurs.

Another labor saving feature of the Fusion gun is its patented Quick Shot™ grease port. During breaks and at the end of the day, Don says the sprayman simply shoots grease into the head of the gun, coating the entire fluid section to prevent moisture exposure. It takes only a couple of seconds and assures the polyurea in the gun will not set and that it will be ready to spray the next time it is picked up and triggered. Guns that don't feature this grease port must be taken apart to clean out the mixed polyurea that has set in the spray tip, mix chamber and seals and then manually grease all components that come into contact with the polyurea — a chore that can take at least half-an-hour.

The Fusion gun also features stainless steel side seals for long life. The fact that no tools are required to tear down the gun also reduces downtime related to gun maintenance.

Don also added a Data Reporting Kit to each Reactor system. The Reporter is designed to record critical application information on the Reactor proportioning system. The Graco Kit records the volume of material sprayed,

target and actual "A" & "B" pressures, primary temperatures of the "A" and "B" components, as well as hose temperature. The recorder provides a date and time stamp as often as every 10 seconds and records any diagnostic codes or system shutdowns.

The data can be downloaded into a spreadsheet and graphed to visually determine if the material was applied within the proper application parameters. It also allows contractors to gauge efficiency and job profitability.

"In addition to providing me with valuable system and production information, I've used the Reporter to show customers how precise and accurate the system is. It's a good sales tool," he says.

Not that Innovative Paint and Waterproofing, Inc. is scrambling to keep its crews and equipment busy. From laundry facilities, and factory floors to pier piling, treated telephone poles and water containment tanks, Don's crew and equipment are kept very busy. "The more work we accept, the more exposure we receive," he says. This exposure results in more calls for quotes," he says.

"Polyurea is an excellent alternative for maintenance and restoration applications that in the past required lengthy shutdowns and the use of volatile coatings. In fact, with an experienced crew and the right application equipment you're not going to get a better protective coating," Don concludes. •



Graco Reactor E-XP2 proportioner with Fusion spray gun

*For more information about Innovative's waterproofing or painting capabilities:*

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