

# SOLUTIONS



## PROJECT:

*Gulf Intracoastal Waterway*

OWNER: *U.S. Army Corps of Engineers*

YEAR: *2011*

## The Problem

After the devastation faced by New Orleans and the surrounding areas following Hurricane Katrina, the U.S. Army Corps of Engineers (USACE) responded by designing a superior defense that would greatly reduce risk of flooding from hurricane surges by the start of hurricane season 2011. The new construction will defend against a storm with a 1% chance of occurring in any given year.

The Gulf Intracoastal Waterway (GIWW) West Closure Project, it is part of the \$14.6 billion Greater New Orleans Hurricane and Storm Damage Risk Reduction System. The mammoth complex tackles the threat of a major storm by offering a navigable floodgate, a pump station, floodwalls, foreshore protection, and an earthen levee. The 225-foot-wide navigable floodgate, requiring two, 32-foot-tall, 750-ton metal sector gate leafs, blocks up to a 16-foot surge from the Gulf. The eleven pump, 5400 horse power diesel engine, pump station is the largest water drainage pump station ever built in the nation. When a sector gate is closed during a storm event it can pull 150,000 gallons of rainwater per second out of the Harvey and Algiers Canals.

But these pumps and engines, some of the largest in the world, are only as good as the grout that supports them. To secure these enormous machines require grouts designed to meet the heaviest, most dynamic specifications - which is why the U.S. Army Corps of Engineers selected Five Star Products' DP Epoxy Grout to address the unique requirements of the West Closure's engines and pumps.

## The Five Star® Solution

DP Epoxy Grout provides the highest Effective Bearing Area (EBA) of any product in the marketplace. Incredibly versatile and user-friendly, it has a long history of successful use in demanding applications. Because of its excellent flow properties, installations turn out void-free, and its expansive non-shrink characteristics and very low creep ensure long-term permanent support and allow pumps and engines to run properly without alignment or vibration problems. Five Star® DP Epoxy Grout can be poured thick or thin under machinery and allows outstanding positive expansion to ensure the highest Effective Bearing Area of any epoxy grout. Its volume of aggregate can be adjusted to meet job-site conditions without sacrificing physical properties.

Five Star® has a strong relationship with the USACE, developed over many years, so the company was called upon to provide technical, field and customer support throughout the lifespan of the project. As Five Star Products' Technical Services Manager Chris Piekos explains, "The U.S. Army Corps of Engineers is a demanding group that looks at products and applications ten different ways – and if your product does not stack up every way they look at it, they will find an alternative one that does."

Just as importantly, the USACE knew Five Star® would provide all the necessary support to get the grouting of the engines and pumps done right and done on time. Five Star® product specialists met with the USACE and Topcor Services of Baton Rouge, LA, the project contractor, at the onset of the project, ensuring that everyone in the workforce understood how to pre-condition, mix and place the DP Epoxy Grout. Five Star® field support personnel have been on site every time the grout has been placed. The GIWW project is scheduled for completion in June 2011; in the meantime, Five Star® remains on the job, providing technical field support every single time the contractor installs its products.



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# DP EPOXY GROUT

## Dual-Purpose, Deep Pour Precision Epoxy Grout

### PRODUCT DESCRIPTION

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Five Star® DP Epoxy Grout is the only expansive, non-shrink, low exothermic epoxy system for machinery grouting. This versatile, dual purpose product is formulated for single, large volume placements and may be used as thin as 1/2 inch (13 mm) and up to 18 inches (450 mm) in depth. Five Star® DP Epoxy Grout is a three component, 100% solids, solvent-free system formulated to provide high-strength and superior creep resistance combined with the highest Effective Bearing Area (EBA). Five Star® DP Epoxy Grout exhibits positive expansion when tested in accordance with ASTM C 827.

### ADVANTAGES

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- Low Exotherm Properties with Early Strength Development
- Long Working Time
- Solvent-free Clean Up
- Adjustable Flow for Various Conditions
- Expansive, Non-shrink per ASTM C 827
- Superior Creep Resistance
- Chemically Resistant
- 95% Effective Bearing Area (EBA) when Following Proper Grouting Procedures
- Excellent Adhesion to Steel

### USES

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- Large Volume Applications
- Foundation Rebuilds and Skid Mounted Equipment
- Precision Alignment under Dynamic Load Conditions
- Vibration Dampening for Rotating Equipment
- Aggressive Chemical Environments
- Support of Tanks, Vessels and Rotating Equipment
- Installation of Anchors and Dowels
- Wind Turbine Baseplates

ISO   
9001:2008  
REGISTERED

For worldwide availability, additional product information and technical support, contact your local FiveStar® distributor, local sales representative, or you may call Five Star Products, Inc. Engineering and Technical Service Center at (800) 243-2206

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