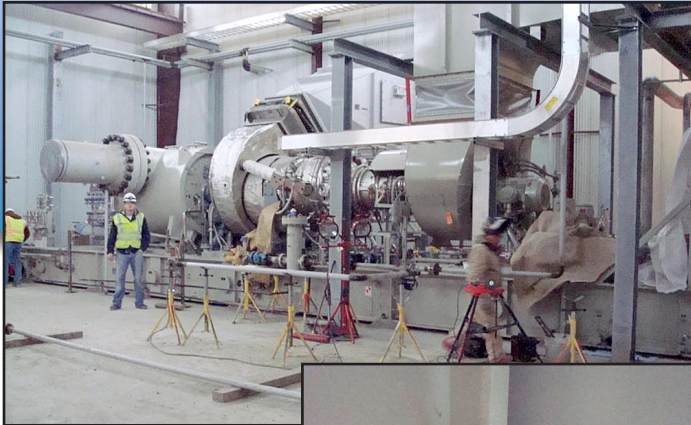


S L U T I O N S



PROJECT:

Ruby Pipeline

OWNER: El Paso Corporation

YEAR: 2011

The Five Star® Solution

Superior Product + On-Site Technical Support

As one can imagine in such a vast geographical area, the team faced a number of weather- and location-related challenges during installation. Although the Roberson compressor was installed during moderate autumn temperatures, Wildcat was literally a different beast. In what would later be described as one of the region's harshest winters, sub-zero temperatures dogged workers from the project's onset. "The workers did an incredible job of protecting the equipment and the product before, during and after placement," recalls manufacturer's rep Tracy Baxter. Tents were erected and heaters turned on full blast to keep the equipment and the grout at a workable temperature before, during, and after the pour.

The stations' remote locations also meant making special transportation and lodging arrangements. Because travel to each job site took approximately 90 minutes on highways and 30 minutes off-road, work crews stayed at hotels as close to the work sites as possible. Despite these challenges, grouting and installation at each compressor station took an average of just 10 days to complete.

Technical support was a critical part of the equation. "We wouldn't have used a new product if we did not believe we could get such a high level of technical support and field service," states the foreman. "That's something Five Star Products has always provided better than any other grout manufacturer!" During installation, both Tracy Baxter and Kermit Palmer, a Five Star Products engineering rep out of Texas, offered on site technical support – in Kermit's case with less than 12 hours' notice.

The Ruby Pipeline project has opened the door to a continuing relationship with El Paso. According to the job foreman, "The professional level that Five Star Products was able to maintain opened many eyes at El Paso."

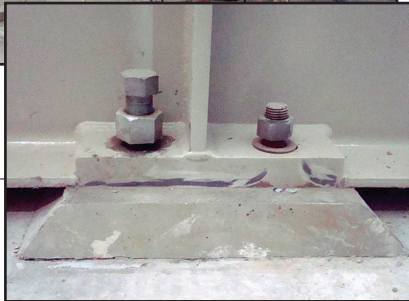
The Challenge

A Growing Demand for Natural Gas

The Ruby Pipeline, with a capacity of 1.5 billion cubic feet per day, represents one of the most ambitious natural gas transmission projects ever undertaken in the U.S. Spanning 680 miles from Wyoming to its terminus in Oregon, the pipeline addresses our nation's growing demand for natural gas.

El Paso Corporation, the country's leading interstate natural gas pipeline franchise, is the operator of the Ruby Pipeline, which includes four compressor stations along its route. Compressors were installed at two locations: the Roberson Creek Compressor Station in Wyoming with three 23,000HP electric-drive compressor units, and the Wildcat Hills Compressor Station in Box Elder County, UT, featuring two 15,000HP natural gas solar turbine-driven units.

The Ruby Pipeline project marks the first time El Paso Corporation has used a Five Star product. Because of Five Star Products' outstanding reputation in the industry, Five Star® Pump Grade SP Epoxy Grout was specified due to its outstanding 20,000 psi compressive strength.



FIVE STAR

Specified by the World's Best™

EPOXY GROUTS

Superior-Performance, Precision Non-Shrink

SP EPOXY GROUT & SP EPOXY GROUT PG

Five Star® SP Epoxy Grouts are the next generation in ultra-high performance epoxy grout. Five Star® SP Epoxy Grout has extremely high compressive strength, is expansive non-shrink, with ultra-low creep and outstanding Effective Bearing Area (EBA). Available both in standard and pump grade, Five Star® SP Epoxy Grout is a 100% solid epoxy grout system for high performance machinery and equipment.

ADVANTAGES

- Ultra-high 1 day & 7 day strengths
- Very low creep
- Available in standard grade and pump grade
- Excellent chemical resistance
- 95% Effective Bearing Area (EBA)
- Expansive and non-shrink per ASTM C 827
- Simple soap and water clean-up

USES

- Compressors and turbo-machinery
- Pumps and rotating equipment
- Skid-mounted equipment
- High dynamic load applications

FIVE STAR® SERVICES

- Design-A-Spec™ engineering specification assistance
- Technical on-call center with field and project experienced staff
- Field support representatives for on-site consultation
- Corporate research laboratory available to customize products for unique applications

Low Exothermic, Pumpable, Precision Non-Shrink

DP EPOXY GROUT & DP EPOXY GROUT PG

Five Star® DP Epoxy Grout is the only, expansive, non-shrink, low exothermic epoxy grout for machinery grouting. This versatile, dual-purpose product is formulated for single, large volume placements and may be used as thin as ½ inch (13 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. Available in standard or pump grade, Five Star® DP Epoxy Grouts exhibit positive expansion when tested in accordance with ASTM C 827.

ADVANTAGES

- Pumpable and pourable
- Low exothermic properties with early strength development
- Long working time
- Solvent-free clean up
- Expansive, non-shrink per ASTM C 827
- Superior creep resistance
- Chemically resistant
- 95% Effective Bearing Area (EBA)
- Excellent adhesion to steel

USES

- Large volume applications
- Foundation rebuilds and skid mounted equipment
- Precision alignment under dynamic load conditions
- Vibration dampening for rotating equipment
- Support of chemical tanks, vessels and rotating equipment
- Installation of anchors and dowels
- Operating temperatures up to 180° F (82° C)

For worldwide availability, additional product information and technical support, contact your local Five Star® distributor, local sales representative, or you may call the Five Star Products' Engineering and Technical Service Center at 1-800-243-2206.

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