



CASE STUDY – CHOCKFAST RED EPOXY GROUT

ELECTRIC MOTOR DRIVEN COMPRESSOR UNIT GROUTING

Chockfast Red is a three-component, high strength, 100% solids, epoxy grout used under large machinery and soleplates in various equipment foundations. It is characterized by its high compressive strength, low dust, low exotherm, negligible shrinkage and gentle curing, deep pour capabilities.

Chockfast Red epoxy grout is ideal for high stress, high horsepower applications under large, dynamically loaded equipment foundations in oil refining, chemical processing, natural gas transmission, pulp and paper and other heavy industrial markets. It is used for new equipment installations or re-grouting applications on critically aligned machinery with very close tolerances.

A world-leading industrial gas separation company specified **Chockfast Red** for setting a new electric motor driven compressor at their facility in Allegheny County, PA.

Chockfast Red epoxy grout provides precise permanent alignment for rotating equipment, while providing resistance to expansion under high temperature operating equipment and slow gentle curing characteristics. **Chockfast Red** helps to extended equipment and foundation life, lower equipment operating cost and lower machinery maintenance cost.

PROJECT DETAILS

Foundation dimensions (each)

Motor – 18 Ft. x 6 Ft.

Compressor – 20 Ft. x 6 Ft.

Designed grout clearance – 3.5 In.

Temperatures during grout Installation

Interior Ambient: 65°F

Concrete temperature 56° F

Skid steel temperature 58° F

Part A Resin 72° F

Part B Hardener 72° F

Part C Aggregate 68° F

The installation crew grouted the motor and compressor unit using a total of: 40 Cu. Ft. of Chockfast Red Epoxy Grout – 1.6 Cu. Ft. Units

CHOCKFAST RED

LOW DUST, DEEP-POUR EPOXY GROUT

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THE DECISION TO USE CHOCKFAST RED EPOXY GROUT WAS BASED ON MANY FACTORS

1) Dependable track record

Chockfast Red has earned a reputation spanning several decades for providing problem free, consistent results in the most demanding equipment foundation environments. It remains the most widely known 3-part epoxy grout from the Chockfast brand product line. This legacy epoxy grout is also one of the most often specified epoxy grouts in the industry, for setting critically aligned rotating equipment.

2) Construction schedule

During the construction phase, grout work was required to be done as quickly as possible to contribute to a faster schedule and a quicker completion date. As a result, Chockfast Red Epoxy Grout was chosen to achieve the fastest possible startup time of the new machinery.

3) Weather conditions

This projects location near Pittsburgh, PA often experiences variable weather conditions in late fall. The grout installation took place outside, so a temporary shelter was constructed for protection from the weather and outdoor elements and was pre-conditioned for 48 hours per manufacturers guidelines. Heat was added to the sheltered area, prior to any mixing or placement of the epoxy grout. For grouting to be successful under these conditions, special preparation, handling, and installation techniques were required.



Image A: Process equipment is often critically aligned to precise tolerances within thousands of an inch. Completing final horizontal leveling pours in contact with critically aligned equipment, should be limited to maximum depths of 4". In this instance, two separate grout pours are required. The first pour in the anchor bolt hole can be made using Chockfast Red up to 6 Ft. deep. Then a final leveling pour of 4" or less is made using additional Chockfast Red epoxy grout.



Image B: Chockfast Red may be used in thicknesses greater than 2", however individual pours should generally not exceed 18" deep and 7' in length. When grouting critically aligned machinery with foundation dimensions longer than 7', the use of closed-cell foam rubber expansion joints is recommended.



Image C: Chockfast Red's low exotherm and slow, gentle curing characteristics allow for deep pours to be made without the potential for stress cracks often found in hotter curing epoxy grouts. Chockfast Red has an unmatched reputation for reliability among natural gas transmission, petrochemical, oil refining, power generation and other heavy industrial construction related industries.



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ABOUT ENERGY TECH SYSTEMS

Established in 1992, Energy Tech Systems continues to be your primary source for industrial machinery grouts, natural gas engine & compressor parts and epoxy pipe supports. ETS continues to be the largest and most experienced supplier of FasTrac Construction Products epoxy grouts in the Northeastern United States. Our mission since inception has been to satisfy customer demands with great quality products and exceptional service, a recipe that has proven successful for over 30 Years. www.energytechsys.com



ABOUT STEVENS ENGINEERS & CONSTRUCTORS

Stevens specializes in heavy rigging, civil concrete, earthwork, demolition and excavation. We also have expertise in mechanical equipment setting and alignment, construction management and plant maintenance, including shutdown and turnaround services. As a sole-source provider of design/build services, we have effectively merged outstanding technical, engineering, construction and management expertise to better enable our clients, large and small, to overcome their most challenging project obstacles. Many companies claim to offer the total package of services you ultimately need, but Stevens constantly delivers on the promise of single source reliability. With Stevens, you can count on getting the results you need to reach your business goals from start to finish, to ensure that your project is safe and successful. www.stevenssec.com

