APPLICATION CASE HISTORY – CHOCKFAST® RED HF

HIGH-SPEED GAS COMPRESSOR PACKAGE

Chockfast Red HF is the next generation, three-component, 100% solids epoxy grout. Our latest product in a long line of successful machinery grouting and chocking compounds, Chockfast Red HF offers excellent high-flow qualities for improved working and placement – and it is pumpable.

Chockfast Red HF is suitable for small and large volume pours – achieving excellent cured properties for dependable, long-term service under increasingly difficult-to-grout industrial machinery and equipment. In this case history, the contractor achieved highly successful results using Chockfast Red HF on a series of five high-speed gas compressors. Installation of the compression units were part of a new gas processing plant constructed near Gordondale, AB Canada. This was an ideal application to demonstrate the versatility of Chockfast Red HF and the technique of using grout pumps for placement under multiple pieces of equipment.

PROJECT DETAILS
A SERIES OF HIGH-SPEED COMPRESSOR SKIDS WERE GROUTED USING CHOCKFAST RED HF

Skid dimensions (each)
49.87 ft (15200 mm) L x 20.51 ft (6250 mm) W -5 skids total

Overall foundation dimensions (each)
51 ft (5486 mm) L x 52.0 ft (15850 mm) W -3 total

Design grout clearance - 1.6 in (41 mm)
Actual clearance range - .75 - 1.75 in (19-45 mm)

Mean outside temperatures during grout Installations
58 - 36°F (14 -2°C)

The contractor completed all five installations using Chockfast Red HF with a pumped placement technique. The pump used was a Model P-25 grout pump, manufactured by Machine Technologies.

The installation crew grouted five packaged skids using a total of 875 cu. ft. (24.8 m³; 24,777 liters) of Chockfast Red HF – an average of 70 – 2.5 cu. ft. units (0.071 m³; 70.8 liters) per skid.

DIFFERENT FACTORS WERE TAKEN INTO CONSIDERATION ON THE DECISION TO USE CHOCKFAST RED HF AND THE PUMPED INSTALLATION METHOD

Application complexity Each fabricated skid had an intricate array of piping, vessels and other obstructions. In many areas where grout placement was necessary, it was difficult to gain proper access. Each skid also had a

CHOCKFAST® RED HF EPOXY GROUT
A HIGH-FLOW, PUMPABLE EPOXY GROUT
substantial ‘footprint’— large overall dimensions which not only made preparations and installation of grout more difficult, but costly. This was a key consideration in the type of grout, and placement method to use.

**Construction schedule** The client required the grout work be done as quickly as possible to contribute in expediting the construction schedule and overall completion date for the project. This meant using the best method to achieve minimum turnaround between grouting operations.

**Remote location** The plant site was in a remote location. Once on site, the grout crew and their tools & equipment were solely committed to getting the grout work done. Any delays while onsite would have a negative effect on their cost control and profitability. Seamless planning and execution of the grouting operation was vital to success.

**Weather conditions** In early spring, the weather conditions at the project location were variable. Though the installations were in a building, it lacked heating so temperatures in the work areas where more readily affected by current weather conditions outside. Grouting in these conditions required special preparation, handling and installation approach to achieve consistent results.

WITH THIS SERIES OF SUCCESSFUL GROUT INSTALLATIONS, SIGNIFICANT GOALS WERE ACHIEVED— Using the pump placement method, considerably less labor, equipment and materials were required to perform the work— contributing a significant reduction in overall project costs. Focusing on minimum turnaround between grouting operations made possible with the pump placement approach, the contractor completed all grout installations over a two-week period. This reduced the number of schedule days originally planned to carry out the work - applying significant time saving to the overall construction schedule.

THE SELECTION OF CHOCKFAST RED HF FOR THIS INSTALLATION ALSO PROVIDED A NUMBER OF MAJOR ENHANCEMENTS TO THE GROUT OPERATION AND PERFORMANCE BENEFITS TO THE CUSTOMER—

The fluid consistency of Chockfast Red HF does not require reducing aggregate loads to improve grout flow and helps to reduce grout waste – less volume is required to achieve desired results versus standard grout formulations. The fluid qualities and unique formulation of Chockfast Red HF are also keys to consistent performance when using grout-ready pumps as a placement alternative. Using pumps can save time and money on costly assembly and dismantling of head boxes, grout troughs and platforms that may be required when placing grout in a conventional manner. Pumping also makes it increasingly easier to reach areas with very limited access with a high level of placement control.

The large unit size and improved mixing process of Chockfast Red HF allows for more productive grout batching - produce greater amounts of mixed grout with less effort and time. This provides more ready material on-hand for placement and high-output placement. Excellent working & cured physical properties are achieved with Chockfast Red HF even at shallow depths.