
RIG'S HVOF FLUSHING EXPERTISE AND SPECIALIZED EQUIPMENT ACHIEVE SUCCESS FOR CUSTOMER STRUGGLING TO CLEAN AN ETHYLENE COMPRESSOR

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Case Study

SYNOPSIS

After two oil changes and a manual cleaning of the lube oil reservoir, the EPC managing the job had not achieved their target ISO cleanliness levels for their ethylene centrifugal compressor. The plant team contacted Reliable Industrial Group for help. With oil flush specific equipment and expertise in high velocity oil flushing and efficient filtration techniques, the RIG team was able to get the compressor system lube oil to exceed the target cleanliness requirements ahead of schedule. This kept project start-up on-track.

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RIG deployed custom flushing equipment.

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INTRODUCTION

A large EPC was contracted to perform maintenance on a C2 Ethylene Centrifugal Compressor that experienced multiple seal failures. Within the work scope, the EPC team verified lubricant system cleanliness prior to compressor start-up. After performing two oil changes along with manual cleaning of the compressors lube oil reservoir, the system did not meet cleanliness requirements and start-up could not be completed.

At this point, the on-site team contacted the Reliable Industrial Group (RIG) team for help in the last week of December. A certified plant-technician from RIG worked with EPC to engineer a high velocity oil flush (HVOF) that would guarantee the system met the required ISO cleanliness levels before New Year's Day.

METHOD

RIG deployed custom flushing equipment to the plant in Sarnia, Ontario for the flush designed to achieve higher velocity during cleaning and incorporate efficient oil filtration. An experienced RIG technician was also on-site for the entire flush to provide both the day and night shift crews with technical expertise. The equipment used included:

- Centrifugal Pump capable of 3-700 GPM via Variable Frequency Drive Controls.
- (5) Microglass Beta 1000 Filtration
- 72 KW Heaters
- Stainless Steel Pressure Tested temporary hoses
- On-Site Particle Counter

RIG executed the project ahead of schedule and exceeded target cleanliness requirements.

Once completed with the RIG contracted services the client requested RIG to stay on-site and assist with the final phase which included reinstatement of the system's lubricant pipe and circulating with the system pumps.

FINAL RESULTS

RIG's flushing expertise, fast response, and professional project management assured the customer exceeded cleanliness specifications by New Year's Day. This kept the compressor start-up on-track for the EPC team managing the project.

Within two weeks of demobilizing from the C2 project, both the EPC and the customer requested that RIG return to perform the same services on their C3 Compressor.

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