

Installing SAFEGUARD® Lubrication System to Optimize Lubrication Rates

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The Challenge

Many compressors are installed with what are known as pump-to-point lubrication systems. This is a system with a large lubrication reservoir which houses sufficient individual lubrication pumps to pump to each required point on the machine, typically packing cases and cylinders. These pumps can become badly worn over their lifetime, making it very difficult to maintain correct lubrication rates which results in either over- or under-lubrication to specific points on the compressor. It can also be very difficult to locate spares for these very old systems and components.

Typically, these lubrication pumps have a visual sight glass so the operator can gauge the lubrication rate of each pump. The problem is this sight glass is on the suction side of the pumps, not the delivery side. Therefore, any wear in the pumps rocker and thus change in performance will not be seen through the sight glass, meaning the operator can believe the lubrication rate is correct, but what is being delivered to that specific point is not that rate at all.

Solution Highlights

CPI SAFEGUARD™ lubrication system consoles have been designed as a standalone lubrication console for hazardous locations and all types of industrial machinery including reciprocating compressors and reciprocating pumps.

Each system console is designed to work with CPI's extensive line of divider blocks and lubrication system accessories to provide precise lubrication to your machinery.



The Solution

The SAFEGUARD™ lubrication system manufactured by CPI, part of the Howden Group, is constructed using divider blocks as the distribution method which provides accurate lubrication rates to specific points on the compressor. Replacing the original pump-to-point lubrication system with CPI's SAFEGUARD system ensures correct lubrication rates, and therefore optimum performance and lifetime from the critical sealing components.

With CPI's expertise in the sealing packing rings and piston and rider rings, we can ensure the optimum set-up for your lubricated compressor.

Successful Upgrades with SAFEGUARD™ 5000 Lubrication Systems

COUNTRY	APPLICATION	COMPRESSOR MAKE/MODEL
Kazakhstan	Seal Gas Compressor	4 Nuovo Pignone 4HB/3 compressors
Perú	Refinery	4 Howden compressors
Poland	Urea Plant	7 Nuovo Pignone CO2 4HE/4 compressors
Poland	Nitrogen Plant (Synthesis gas)	6 Ingersoll Rand 5HHE/3 compressors
Poland	Nitrogen Plant (Synthesis gas)	1 Double motor package for IR circulation pumps 1HHE/1
Spain	Refinery / Recycle	1 Nuovo Pignone 2HB/1 compressor
Spain	Refinery	1 Nuovo Pignone 2HF/1 compressor
Sweden	Chemical Plant	1 LMF compressor
USA	Refinery	2 Clark CLBA-4 compressors
USA	Refinery	1 Nuovo Pignone 15-002/HG compressor
USA	Refinery	1 Worthington BDC 3-4-1-1 compressor
USA	Refinery	2 Dresser Rand 4HSE and HSE compressors
USA	Refinery	1 Worthington BDC 3-1 compressor

Successful Upgrades with SAFEGUARD™ 1000 Lubrication Systems

COUNTRY	APPLICATION	COMPRESSOR MAKE/MODEL
Netherlands	Refinery	1 Neuman & Esser 1SZL125 compressor
Netherlands	Refinery	3 Neuman & Esser 1SZL130 compressors
Netherlands	Refinery	1 Neuman & Esser 1SZL320 compressor
Netherlands	Refinery	1 Burckhardt 2B1S-2.34_1 compressor
Netherlands	Chemical Plant	1 Ingersoll Rand HHE-VK
USA	Refinery	1 Dresser Rand 2HSE compressor
USA	Refinery	1 Cooper LM-3 compressor
USA	Refinery	2 Ingersoll Rand HSE compressors