Customer Testimonial

Monolec® R & O Compressor / Turbine Oil (6402)

Union Sanitary District – Union City, Calif.

LeRoi Screw Air Compressors

- **Saves $2,730 annually in electrical consumption**
- **Extended oil drain intervals**

Customer Profile

The Union Sanitary District is a wastewater facility located in Union City, California. They have been an LE customer since 1991.

Application

This wastewater facility uses four LeRoi screw air compressors to supply air to the entire plant. These compressors alternate being online, but at least two are running 24 hours a day.

Challenge

While using a commercial grade oil in these compressors, maintenance was required every six to eight months as sludge was building up in the oil cooling filter. It took one maintenance person approximately four hours to break down the compressor and get the cooling filter out of the unit. This cost $25 per hour. Cleaning of the oil cooling filter was being done on a contract basis and cost approximately $900. The units were being cleaned at each oil change.

LE Solution

The local LE lubrication consultant presented LE's Monolec® R & O Compressor / Turbine Oil (6402) and LE's ZAP Energy Savings Program to Richard Silva, facilities maintenance supervisor and Roger Ham, facilities maintenance manager. Monolec 6402 contains special additives to control deposits and give protection against wear, corrosion and rust. It is nonfoaming and contains Monolec®, LE's exclusive wear-reducing additive. Based on the anticipated energy savings on these four compressors and elimination of the sludge buildup problem, a conversion was scheduled.

Results

While flushing the compressors, sludge was found in the oil cooling filter. Once the filter was clean, the unit was filled with Monolec 6402. The unit was monitored for five days, and the amperage averaged a five amp drop and a 15°F drop in temperature at the output. This results in a $2,730 per year savings in electrical energy.

The following formula is used to find the cost of a unit's electrical consumption. This is the same formula used by the local utility company.

.Volts x Amperes Saved x 1.73* = kW Savings
kW Savings x Hours of Operation Per Year = Annual kWh Savings
Annual kWh Savings x Electrical Rate = Annual Electrical Savings
*Conversion Factor for a 3-Phase Power Source

.680 x 5 x 1.73 = 5.88
5.88 x 8600 = 50,568.00
50,568.00 x $0.054 = $2,730

Monolec 6402 saves $2,730 annually in electrical consumption.

Using oil analysis to monitor the condition of the oil, drain intervals are now set at 12 to 18 months, using Monolec 6402.

Thank you to Roger Ham, maintenance facilities manager, Richard Silva, facilities maintenance supervisor, and to the local LE lubrication consultant, for providing the information used in this report.

Monolec® is a registered trademark of Lubrication Engineers, Inc.

Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

SIC 4952
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