



Multilec[®] Industrial Oil (6802)

Advanced Drainage Systems – Owosso, Mich.

Gardner Denver 50 HP Air Compressor

- Saves \$845.65 annually in electrical consumption

Customer Profile

Advanced Drainage Systems, Inc. is a manufacturer of large diameter Corrugated Polyethylene Culvert Pipe used in construction, agriculture, and home improvement. They manufacture tile up to a 60 inch diameter. They have been a Lubrication Engineers Customer since 1985.

Application

Advanced Drainage Systems utilizes a 50 HP Gardner Denver air compressor to supply their plant air requirements.

Challenge

ADS was not having problems with the existing air compressor lubrication. However, they had used Monolec[®] Air Compressor Oil on their earlier compressor and were very satisfied with its performance. A presentation was made that indicated the use of Multilec in the new air compressor should reduce friction and energy consumption and therefore save them money on their electric power bill. In addition, Multilec[®] Industrial Oil (6802) costs less than the synthetic fluid they were using, providing additional savings.

LE Solution

The local LE lubrication consultant recommended Multilec Industrial Oil (6802), which is made from 100% Paraffinic base oils with an exclusive additive package that allows performance levels beyond that typical of synthetic lubricants. It also contains Monolec[®], LE's exclusive friction reducing additive.

Results

To provide data to compute the ZAP savings, amperage readings were taken before and after the unit was drained, flushed and refilled with Multilec 6802. These readings showed a two amp savings as a result of the switch to Multilec.

The following formula was used to find the cost savings based on the unit's energy consumption. This is a standard engineering formula and is also used by the local utility company.

$$\begin{aligned} & (\text{Volts}/1000) \times \text{Amperes Saved} \times 1.73^* = \text{kW Savings} \\ & \text{kW Savings} \times \text{Hours of Operation Per Year} = \text{Annual kWh Savings} \\ & \text{Annual kWh Savings} \times \text{Electrical Rate} = \text{Annual Electrical Savings} \end{aligned}$$

*Conversion Factor for a 3-Phase Power Source

$$\begin{aligned} & (480/1000) \times 2.0 \times 1.73 = 1.6608 \\ & 1.6608 \times (24 \times 6 \times 52) = 12,436 \\ & 12,436 \times \$.068 = \$ 845.65 \end{aligned}$$

Multilec 6802 saves \$ 845.65 annually in electrical consumption.

Based on the initial cost of the 6 gallons of Multilec 6802 and 6 gallons of APTO used for the flush and refilling of this compressor combined with the annual energy savings generated, there is a payback period of 69 days.

Thank you to Dave Haas, production manager, Tim Swain, maintenance, and to Matt Pressnell, LE lubrication consultant (pictured), for providing the information used in this report.





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

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