



Monolec® R & O Compressor / Turbine Oil (6403)

Water Supply Company – Los Angeles County, Calif.

Westinghouse 125 hp Electric Vertical Motor

- Saved \$452 annually in electrical costs

Customer Profile

A local LE lubrication consultant services a water supply company in Los Angeles County, California. The company operates pumps to supply residential and business users with ground water.

Application

They were using a Westinghouse 125 hp electric vertical motor on one of the water pumps.

Challenge

They were very interested in reducing their electric power costs.

Solution

When the LE lubrication consultant proposed the benefits of ZAP, LE's Energy Saving Program to the company, they decided to convert the pump to Monolec® R & O Compressor / Turbine Oil (6403). Monolec 6403 offers excellent oxidation resistance, does not emulsify with water and contains Monolec®, LE's exclusive friction and wear-reducing additive.

Results

Prior to converting to Monolec 6403, amperage readings were taken on the unit under full load conditions. The units were then drained warm, flushed and filled with Monolec 6403. Again amperage readings were taken under full load, and a 3 amp drop was recorded in the Westinghouse unit. The savings in electrical energy is calculated to below.

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.

$$\begin{aligned} \text{kW Savings} &= \text{Volts} \times \text{Amps Saved} \times 1.73^* \\ \text{Annual kWh Savings} &= \text{kW Savings} \times \text{Hours of Operation Per Year} \\ \text{Annual Electrical Savings} &= \text{Annual kWh Savings} \times \text{Electrical Charge} \\ & \text{*Conversion factor for a 3-phase source} \end{aligned}$$

$$\frac{3 \text{ Amps} \times 480 \text{ Volts} \times 1.73^* \times 24 \text{ hours} \times 180 \text{ days} \times \$0.042}{1000 \quad \text{Day} \quad \text{Year} \quad \text{kW hour}} = \$452 \text{ annually}$$

Thank you to Andy Hutt, LE lubrication consultant (pictured), 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.

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