



Monolec® R & O Compressor / Turbine Oil (6404)

Pork Packing Plant in South Carolina

Kinney Vacuum Pump

- Reduced temperatures 12-15 degrees
- Saves \$9,964.80 per year in electrical costs
- Extended oil drain interval from 3-7 days to 21 days

Customer Profile

This customer is a premier full line pork producer. They make over 300 products for retail and food service. These pork products are made from choice cuts of pork and spices. They are located in South Carolina.

Application

Kinney, Busch and Beach Russ vacuum pumps are used to pull vacuum for the packing process throughout the plant. These pumps are alternated to run at different times. They average well over 8 hours per day. An 8-hour time period was used to calculate the savings for this report.

Challenge

The plant maintenance manager and the utility manager, were looking for an oil that could extend the drain interval and lower the operating temperature. The commercial grade oil would emulsify with water and have to be drained every 3-7 days. This would cause undue downtime because they didn't know when the oil would oxidize and fail.

LE Solution

After seeing the presentation on Lubrication Engineers' ZAP Energy Savings Program and the water separation demonstration, the maintenance manager agreed to try LE's Monolec® R & O Compressor / Turbine Oil (6404) in several vacuum pumps. He was very interested in seeing if LE could hold up to his plant's harsh environment.

Results

Monolec 6404 was installed in a Kinney vacuum pump. The temperature dropped 12–15 degrees, and amps were reduced by 2.07 amps. This amperage reduction will save this packing company an estimated \$9,964 in electrical energy costs per year. Mark Jones, LE lubrication consultant showed management how effectively Monolec 6404 could separate from water and explained how beneficial a daily water drain off procedure would be for their pumps. It was soon realized that the drain interval could be extended from 3-7 days to 21 days. They achieved an estimated yearly savings of over 1090 hours of maintenance down time and a labor savings/earnings over \$16,000 for all of their pumps.

$.460(\text{volts}) \times 2.07 (\text{amps saved}) \times 1.73^* = 1.6473 \text{ KW Savings}$
 $1.6473 \times 1920 (\text{hours per year}) = 3162.8 \text{ KW Savings}$
 $3162.8 \text{ KW Savings} \times .105(\text{Duke Power electric rate}) =$
 $\$332.16 \text{ saved per unit}$

Conversion factor for a 3-phase power source

$\$332.16 \times 30 \text{ vacuum pumps} = \$9964.80 \text{ total estimated electrical savings per year.}$

Thank you to Luis Arce, maintenance manager, and to Mark Jones, 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.

SIC 2011
LI70569 06-10

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