



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

**Goldkist Poultry – Athens, Ga.**

**Sullair LS16 60 HP Compressors**

- Reduced operating temperatures 8 degrees
- Reduced power consumption by 21 amps, a savings of \$15,066.45 in electrical energy costs

### Customer Profile

Goldkist Poultry is one of the largest processors of chicken in the world. The Athens, Georgia plant is a first stage poultry processing plant.

### Application

The plant uses three Sullair LS16 60 hp compressors to provide air services to the entire production facility.

### Challenge

The units are a major concern for the maintenance staff due to current operating temperatures and electrical loads each compressor uses. The compressors are situated outside and are exposed to hot Georgia summers that can easily reach over 95°F (35°C).

### Solution

Charlie Hoag, maintenance engineer, contacted Mark Jones, LE lubrication consultant, to discuss what could be done. Mark explained that LE products are engineered to lower operating temperatures, provide excellent protection for the compressors, and cost about 50 percent less than what they are purchasing now. Mark recommended Monolec® R & O Compressor / Turbine Oil (6403) to reduce operating temperatures, increase wear protection, and extend drain intervals.

### Results

Prior to the conversion, while still using commercial grade synthetic oil, amperage readings were taken on the

unit. Under full load, amperage and temperature were measured. Temperature measured an average of 220°F (104°C), and amperage measured an average of 88 amps. The unit was then drained, flushed and refilled with Monolec 6403. When the amperage and temperature readings were taken, the unit registered 212°F (100°C) and 67 amps – an 8°F drop in temperature and a 21 amp reduction in power consumption.

The following formula is used to find the cost of a unit's electrical consumption:

$$\begin{aligned} & \text{Volts} \times \text{Amperes Saved} \times 1.73^* = \text{kW Savings} \\ & \text{kW Savings} \times \text{Hours of Operation per year} = \text{kWh Savings} \\ & \text{kWh Savings} \times \text{Electrical Charge} = \text{Energy Savings Per Year} \\ & \text{*Conversion Factor for a 3-phase Power Source} \end{aligned}$$

$$\begin{aligned} & .480 \times 21 \times 1.73 = 17.438 \\ & 17.438 \times 3,840 = 66,961.92 \\ & 66,961.92 \times .075 = \$5,022.15 \text{ per year/per compressor} \end{aligned}$$

Monolec 6403 saves \$5,022.15 annually in electrical energy costs for one compressor. Total savings for all three compressors is \$15,066.45.

### Other Products Used

- Monolec® Industrial Lubricant (4701)
- Quinplex® Food Machinery Lubricant (4025)
- Monolec® Hydraulic Oil (6120)



*Thank you to Charlie Hoag, maintenance engineer, Kent Pilgram and Fred Westfall, maintenance staff members, 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.

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300 Bailey Avenue • Fort Worth, TX 76107 • Fax: 800-228-1142  
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[www.LElubricants.com](http://www.LElubricants.com)  
**800-537-7683**