

6403 MONOLEC® R&O COMPRESSOR / TURBINE OIL GOLDKIST POULTRY, Athens, GA

Sullaire LS16 60 HP Compressor • SIC 2015 Poultry Slaughtering & Processing

CUSTOMER TESTIMONIAL

- ✚ Amperage Drop of 21 Amps
- ✚ Electrical Savings of over \$15,000.00
- ✚ Temperature Drop of over 8 Degrees

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.

AREA OF CONCERN

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).

LE SOLUTION

Maintenance Engineer Charlie Hoag contacted local LE Lubrication Consultant Mark Jones 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% less than what they are purchasing now. Mark recommended 6403 MONOLEC® R&O Compressor/Turbine Oil to reduce operating temperatures, increase wear protection, and extend drain intervals.

CUSTOMER COST SAVINGS

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 LE's 6403 MONOLEC® R&O Compressor/Turbine Oil. When the amperage/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.

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

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

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

LE's 6403 MONOLEC® R&O Compressor/Turbine Oil 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

- ◆ 4701 MONOLEC® Industrial Lubricant
- ◆ 4025 QUINPLEX® Food Machinery Lubricant
- ◆ 6120 MONOLEC® Hydraulic Oil

Lubrication Engineers wishes to thank Maintenance Engineer Charlie Hoag, Maintenance staff members Kent Pilgram and Fred Westfall for all their hard work and support, and LE Lubrication Consultant Mark Jones (pictured) for the information provided to prepare this report.

