### 6802 MULTILEC® INDUSTRIAL OIL

### **HEALTH CARE LAUNDRY, Albuquerque, NM**

Sullair Model 1025 Compressor • SIC 7218 Launderers Industrial

## 6802 SAVES \$3,457.64 ANNUALLY IN ELECTRICAL ENERGY COSTS FOR ONE SULLAIR COMPRESSOR!

#### **CUSTOMER PROFILE**

Health Care Laundry provides laundry services for hospitals in the Albuquerque area. The company has four locations. The Albuquerque location was established in 1998, but was set up with used equipment. The plant has been an LE customer since 2002. Jason Stanek is the Chief Engineer.

#### **APPLICATION**

The plant-wide air is supplied by a Sullair Model 1025 compressor. The plant also has an Atlas Copco compressor as back up and for peak loading. The compressors run two shifts per day, six days a week. The compressors are located in the boiler room where ambient temperatures usually run 90°F to 100°F (32°C to 38°C), but can reach 130°F (54°C) in the summer.

#### **AREA OF CONCERN**

Mr. Stanek was interested in saving energy, but was also having other problems while using a major brand lubricant. These problems were: 1.) high operating

temperature, which tripped the thermal cut-out switch; 2.) excess condensate downstream from the compressor, especially in the separator; and 3.) elevated levels of make-up oil.

#### LE SOLUTION

The local LE Lubrication Consultant recommended 6802 MULTILEC Industrial Oil to address Mr. Stanek's concerns. MULTILEC is a heavy-duty industrial oil for use in compressors, hydraulics, bearings, pumps and gear applications. It reduces acid hydrolysis in rotary screw compressors. LE's 6802 also contains LE's proprietary additive MONOLEC, which has been demonstrated to reduce wear by 24%.

#### **CUSTOMER COST SAVINGS**

Temperature and amperage readings were taken on the Sullair compressor before and after changing to LE's 6802 MULTILEC Industrial Oil. Because of the high contamination, indicated by the high operating temperatures, two flushes were done with LE's 6802 and the filters and separator were changed. The change out resulted in a 35°F temperature drop and a 10 amp electrical saving.

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Mr. Daniel R. Stanley is the Office Manager for Health Care Laundry. With the variable rates charged across different shifts, he provided valuable assistance in establishing the dollar savings realized. Evaluation of electrical costs was difficult because of bulk rates varying from 3.907 cents/kW for off-peak rates to a high of 11.871 cents/kW during on peak use. Approximately 54% of the plant's electrical use in on-peak. Allocating the various bulk rates to the hours worked on each shift yielded an overall average electric cost of 8.341 cents/kWh.

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

## Volts x Amps Saved x 1.73\* = kW Savings

kW Savings x Hours of Operation per year = kWh Savings kWh Savings x Electrical Rate = Electrical Savings per Year \*conversion factor for three phase power

> 480v x 10a x 1.73 = 8.304 kW 8.304 x 4992 = 41454 kWh Savings 41454 x 8.341 = \$3,457.64 Annual Savings

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Other benefits realized in addition to the energy savings are the 35°F temperature drop, which has eliminated the thermal cutout from tripping. The marked temperature drop realized with LE will greatly enhance the compressor life. Condensate only needs to be drained once per week now instead of every four hours; the use of makeup oil has been eliminated. Mr. Stanek has recommended the use of LE to the other plants and said, "LE is the best oil I have ever used, bar none"

#### ADDITIONAL PRODUCTS USED

6806 MULTILEC Industrial Oil is used in the gearboxes and 6315 Way Lubricant is used on the centralized lube system on the Hypro Ironer where Mr. Stanek has seen a 3:1 reduction in use. Additional products are being introduced on a phased in basis with the goal to be 100% LE.

We would like to thank Chief Engineer Jason Stanek, Office Manager Daniel R. Stanley and the local LE Lubrication Consultant for the information provided to prepare this report.