

6403 MONOLEC® R & O COMPRESSOR / TURBINE OIL

WOLVERINE GASKET & MFG, CO., Blacksburg, VA

Gardner-Denver 50 hp Electra-Ascrew Air Compressor

SIC 3053 Gaskets, Packing & Seal Devices Stamping

CUSTOMER TESTIMONIAL

Saved over \$11,000

for electrical energy, lubricant, parts and labor costs in 18 months!

CUSTOMER PROFILE

Wolverine Gasket & Mfg. Co. manufactures gaskets. They have been an LE customer since 1990.

APPLICATION

A Gardner-Denver Electra-Screw air compressor that runs 24 hours per day, six days a week, provides all plant air for their operation.

AREA OF INTEREST

When they were using commercial grade motor oil in this air compressor, it was running hot, making it necessary to change oil every three months. The Maintenance Supervisor was looking for an oil that would offer longer drain intervals and also lower the operating temperatures on the unit.

LE SOLUTION

LE Representative Richard Jones

recommended LE's 6403 MONOLEC® & O Compressor / Turbine Oil to control deposits and give protection against wear, corrosion and rust. Based on expected savings in lubricant consumption by extending drain intervals and lowering electrical costs, Wolverine Gasket agreed to a conversion. Amperage and temperature readings were taken on the air compressor unit prior to converting to LE's 6403. The amperage draw measured 65 amps. The unit was drained warm, flushed and then filled with LE's 6403. Readings after the conversion recorded a 5 amp drop and a 5° F temperature reduction.

CUSTOMER COST SAVINGS

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 company.

$.Volts \times Amps \text{ Saved} \times 1.73^* = kW \text{ Savings}$
 $kW \text{ Savings} \times \text{Hours of Operation Per Month} = \text{Monthly kWh Savings}$
 $kWh \text{ Savings} \times \text{Electrical Charge} \times 12 \text{ months} = \text{Energy Savings Per Year}$
*Conversion Factor for a 3-Phase Power Source

$.480 \times 5 \times 1.73 = 4.15$
 $4.15 \times 624 = 2,589.60$
 $2,589.60 \times \$0.0814 \times 12 = \$2,529.52$

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Additional Savings

Commercial Grade Lubricant	LE's 6403 MONOLEC® R & O Compressor / Turbine Oil
Change Interval 1,872 hours =3/months	Change Interval 11,232 hours = 18/months
16 gallons @ \$4.20/gallon \$67.20	16 gallons @ \$9.95/gallon \$159.20
1 Filter @ \$8.00 each 8.00	4 Filters @ \$8.00 each 32.00
Labor 40.53	Labor 72.93
Oil Disposal Cost <u>8.00</u>	Oil Analysis (LEAP) 41.25
Sub Total \$123.73	Oil Disposal Cost <u>8.00</u>
6 changes (18 months or 11,232 hours) x \$123.73 Total \$742.38	Total \$313.38

TOTAL ENERGY SAVINGS FOR 18 MONTHS = \$3,974.28
TOTAL OIL/LABOR COST SAVINGS PER CHANGEOUT IN 18 MONTHS = \$429.00

LE's 6403 MONOLEC® R & O COMPRESSOR / TURBINE OIL TOTAL SAVINGS IN 18 MONTHS = \$4,223.28 ON ONE AIR COMPRESSOR UNIT!

Wolverine Gasket & Manufacturing Company also converted two other air compressors to LE's 6403 MONOLEC R & O Compressor / Turbine Oil. One is an Atlas Copco model GAU 37, 50 hp, which showed a 5 amp drop after converting to LE's 6403. In 18 months this amounts of \$4,223.28 in operating costs. The second Atlas Copco air compressor model GAU 609, 60 hp showed a 4 amp drop after converting to LE's 6403. This amounts to a \$3,464.42 savings in operating costs over 18 months.

In 18 months, Lubrication Engineers, Inc. has saved Wolverine Gasket & Manufacturing Company over \$11,000 for electrical energy, lubricant, parts and labor costs.

OTHER PRODUCTS USED

Wolverine Gasket was using four commercial greases throughout their operation. These four greases have been replaced with LE's 1275 ALMAPLEX® Industrial Lubricant. Not only have they consolidated their grease inventory, grease consumption has been cut in half.

LE's 607 ALMASOL® Vari-Purpose Gear Lubricant is used in small gearboxes throughout the plant. These gearboxes have also shown amperage and temperature reductions after converting to LE!

We want to thank Charlie Hall, Maintenance Supervisor and LE Representative Richard Jones (pictured) for the information provided to prepare this report.

