

6404 MONOLEC[®] R&O COMPRESSOR / TURBINE OIL GENERAL CLINICAL PLASTIC CORP., Mirada, CA

50 hp Mattei ES500 Air Compressor • SIC 3089 Plastic Products, nec

SAVINGS OF \$2,175 ANNUALLY IN ELECTRICAL ENERGY COSTS

CUSTOMER PROFILE

General Clinical Plastics manufacture plastic medical products such as medicine cups, wash basins and various size containers. David Marlow is the Maintenance Superintendent and Klaus Shesnack is the Vice President at this location. They have been an LE customer for six years.

APPLICATION

General Clinical Plastic Corp. uses a 50 hp Mattei ES500 air compressor for the primary air supply for their equipment and tools.

AREA OF CONCERN

In June of 1990 the LE Representative contacted them and presented LE's ZAP Energy program. Using a commercial grade SAE 30 air compressor oil they were experiencing a number of problems. This compressor was only one year old, and already the customer was experiencing sludging, bearing failures and carbon deposits. They also felt the compressor was running too hot, with a casing temperature of 180°F (82°C). According to Maintenance Superintendent David Marlow, the associated downtime and repair

costs were unacceptable.

LE SOLUTION

It was recommended to change to LE's 6404 MONOLEC R & O Compressor / Turbine Oil because the excellent oxidation resistance of this oil would help combat the effects of the extreme temperatures of air compression. Also, the special additive package would control carbon deposits and give protection against wear and rust. Best of all, LE's 6404 contains MONOLEC, LE's exclusive wear-reducing additive. The LE Representative also explained that they could reduce their annual electrical consumption by using LE's 6404.

CUSTOMER COST SAVINGS

Since changing to LE's 6404, General Clinical Plastic Corp. has realized a number of benefits. The Mattei air compressor runs cooler, with a casing temperature of only 170°F (77°C). According to operators, the compressor also runs quieter and they have experienced a 6 amp reduction in power consumption. The electric energy savings are considerable as this compressor operates 24 hours a day, five days a week. The following calculations shown document this substantial savings.

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The following formula is used to find the cost of operation of a unit's electrical consumption. This is the same formula used by the local utility.

$$\begin{aligned} \text{kW Savings} &= .\text{Volts} \times \text{Amperes Saved} \times 1.73^* \\ \text{Annual kWh Savings} &= \text{kW Savings} \times \text{Hours of Operation Per Year} \\ \text{Annual Electrical Savings} &= \text{Annual Savings} \times \text{Electrical Charge} \\ \text{kW Savings} &= .480 \times 6 \times 1.73 = 4.98 \text{ kW} \\ \text{Annual kWh Savings} &= 4.98 \text{ kW} \times 6,240 \text{ hpy} = 31,075 \text{ kWh} \\ \text{Annual Electrical Savings} &= 31,075 \text{ kWh} \times \$.07 = \$2,175 \end{aligned}$$

LE's 6404 MONOLEC® R & O COMPRESSOR / TURBINE OIL SAVES \$2,175 ANNUALLY IN ELECTRICAL ENERGY COSTS



We wish to thank Maintenance Superintendent David Marlow, Vice President Klaus Shesnack and LE Representative Bob Stewart for providing information to prepare this report.

Bob Stewart