

6404 MONOLEC® R&O COMPRESSOR/TURBINE OIL

BRIDGEPORT TWP—WWTP, Bridgeport, MI

Digester Mixer Drive • SIC 4952 Sewerage Systems

SAVING \$ 681.59 ANNUALLY IN ELECTRICAL CONSUMPTION

CUSTOMER PROFILE

The Bridgeport Charter Township Wastewater Treatment Plant serves the Township of Bridgeport, Michigan. The plant has been an LE customer since 1986.

APPLICATION

Digester Mixer continually moves contents of an aerobic digester in the treatment process. The drive is 10 HP, 460v, 3Ph, 60Hz and operates through a Chemineer reducer, sitting on top of the unit completely exposed to the elements 24 hours a day, 365 days a year. Temperature extremes of 0° F up to 100° F or more.

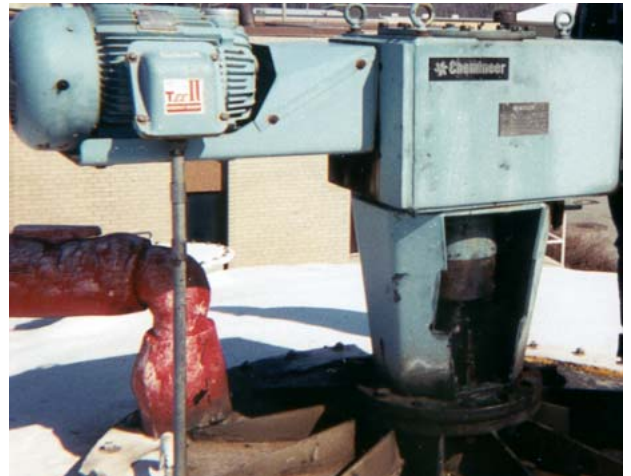
AREA OF INTEREST

Extending lube changes beyond 4-6 months experienced with commercial grade oil. Longer drains and potential energy savings.

LE SOLUTION

6404 MONOLEC® R & O Compressor / Turbine Oil

- ◆ R&O ISO 100 turbine oil
- ◆ Made with 100% Paraffinic base oils



- ◆ Contains rust and oxidation inhibitors and a foam suppressant
- ◆ Contains MONOLEC to provide longer gear life and less operating friction.
- ◆ ZAP Energy Savings Program

CUSTOMER COST SAVINGS

To provide data to compute the ZAP energy savings, an amperage reading of 13 amps was recorded on the mixer drive. The reducer was then drained, flushed and refilled with LE's 6404 MONOLEC® R & O Compressor / Turbine Oil. Then an amperage reading of 10.5 was recorded. **This resulted in a 2.5 amp drop -- a 19 percent decrease in electrical power used.**

CUSTOMER TESTIMONIAL

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

$$\begin{aligned} & (\text{volts}/1000) \times \text{Amperes Saved} \times 1.73^* = \text{kW Savings} \\ & \text{kW Savings} \times \text{Hours of Operation Per Year} = \text{Annual kWh Savings} \\ & \text{Annual kWh Savings} \times \text{Electrical Rate} = \text{Annual Electrical Savings} \\ & \text{*Conversion Factor for a 3-Phase Power Source} \end{aligned}$$

$$\begin{aligned} & (460/1000) \times 2.5 \times 1.73 = 1.99 \text{ kW} \\ & 1.99 \text{ kW} \times (24 \times 365) = 17,432 \text{ kWh} \\ & 17,432 \text{ kWh} \times \$.0391 = \$ 681.59 \end{aligned}$$

LE's 6404 MONOLEC R & O COMPRESSOR / TURBINE OIL SAVES \$ 681.59 ANNUALLY IN ELECTRICAL CONSUMPTION

Based on the cost of nine gallons of 6404 MONOLEC R & O Compressor / Turbine Oil used for the flush and refilling of this reducer, combined with the electrical savings generated, there is a **payback period of 61 days**. The extended drain interval for the unit has been targeted at one year.

OTHER PRODUCTS USED

9068 MONOLEC^o SYNTHETIC AIR COMPRESSOR OIL.



Ed Carstens

We wish to thank Wastewater Department Superintendent Ed Carstens and the local LE Representative for the information provided to prepare this report.