



## Monolec® R & O Compressor / Turbine Oil (6401)

Orange Water & Sewer Authority – Chapel Hill, N.C.

Westinghouse 450 HP Pump

- Saves \$1,599 annually in electrical energy costs

### Customer Profile

The Orange Water & Sewer Authority produces drinking water for a three-city area in and around Chapel Hill, North Carolina. They have been an LE customer since 1991.

### Application

The main pump used to supply drinking water for the area is a 450 hp Westinghouse.

### Challenge

In order to supply the tri-city area with fresh drinking water, the Orange Water & Sewer Authority maintains 260 miles of water main and 7.5 million gallons of water is pumped each day. It is essential that the pumps be kept in good operating condition.

### LE Solution

In January of 1991, the local LE lubrication consultant recommended Monolec® R & O Compressor / Turbine Oil (6401) for this pump. Prior to converting to Monolec 6401, amperage readings were taken on the pump and measured at 81.5. After installing Monolec 6401, a 1 amp drop was achieved.

### Results

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.

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

$$\begin{aligned} & 2.30 \times 1 \times 1.73 = 3.979 \\ & 3.979 \times 8,736 = 34,760.54 \\ & 34,760.54 \times \$0.046 = \$1,598.98 \end{aligned}$$

Monolec R & O Compressor / Turbine Oil (6401) saves \$1,599 annually in electrical energy costs.

*Thank you to Doug Terry, superintendent, and to Jeff Boyles, LE lubrication consultant (pictured), for providing the information used in this report.*





Monolec® is a registered trademark of Lubrication Engineers, Inc.

Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

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