



Increasing Profitability by Reducing Energy Costs.

Case Study: Eimo Technologies

Michigan Air Solutions conducted an energy audit and discovered undersized piping in this facility caused increased power consumption, increased oil carryover, and unstable air pressure throughout the plant. Increasing the pipe size saved an estimated 80,412 kWh accounting for an annual cost savings of \$6,433.

ENERGY AUDIT DISCOVERY

For the initial period logged, 3/4 inch aluminum pipe ran from the discharge of each compressors before teeing into the plant header system (1 1/2 inch black pipe). 3/4 inch pipe is rated for 36 CFM at 125 PSI, and the average 30 HP compressor produces 124 CFM.

When a VSD compressor encounters a restriction the compressor ramps up to fight the restriction. The problem is that compressor controls operate on pressure. When the compressor tries to increase flow to satisfy plant pressure, the restriction actually causes plant pressure to drop as more air is trying to push through an undersized pipe. In other words, the way the system was configured the 30HP Sullair VSD was programed to perform a task made impossible by the restriction.

OIL CARRYOVER

The backup Sullair was observed running unloaded for extended periods of time. The backup did shut off at times; however, it also ran for entire days at a time unloaded. The most plausible explanation for this would be a broken idle timer. When an air compressor runs unloaded for extended periods there is a high probability oil carry over will occur.

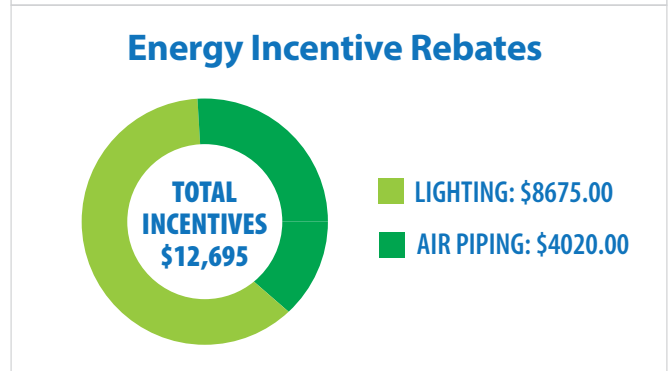
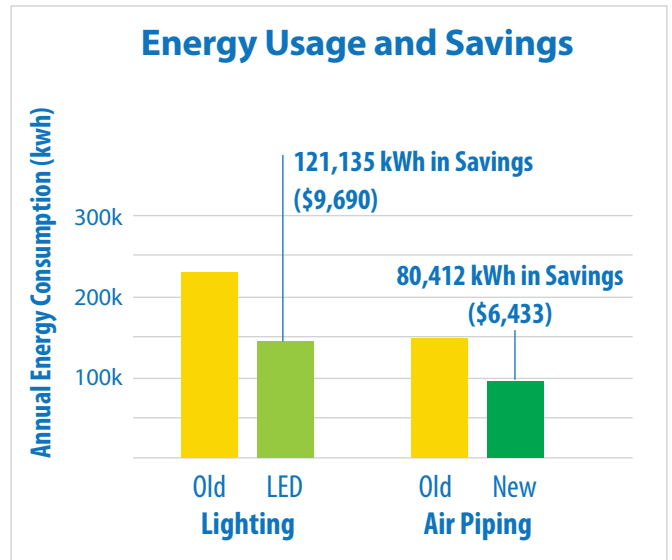
Now that the restriction is fixed the 30 HP VSD can run the plant and the oil carryover issue may be resolved by repairing the idle timer or turning off the backup compressor until it is needed.

To learn more about how to increase your energy savings, and how to qualify for incentives and rebates, contact us at 800.727.2470 or mi-air.com/savings

ABOUT MICHIGAN AIR SOLUTIONS

As the authorized Quincy compressor distributor in Michigan, our experts can help you design, troubleshoot and maintain your air systems for maximum productivity, efficiency and longevity. We only recommend and sell the best air compressors, dryers, vacuum pumps and accessories.

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Total Project Cost: **\$34,812.00**
 ROI Payback: **1 Year 2 Months**
 Estimated 5 Year Energy Savings: **\$80,615.00**

ABOUT EE LED SUPPLY

EE LED Supply works with businesses to completely replace existing non-LED bulbs to save money, reduce energy usage, and receive Utility Company rebates where applicable. EE LED Supply maintains a catalog of wholesale LED products and can handle any custom order or project.

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