



A Study in Compressed Air Management: Atlas Container

Sparks Dynamics Assists Atlas Container Secure a \$15,000 BGE Energy Rebate

Customer Profile

For 45 years, Atlas Container has been manufacturing corrugated packaging and display products. Product packaging must adapt to new sustainability goals that are geared toward protecting and preserving our environment. Atlas Container is proudly committed to sustainable packaging. They employ environmentally friendly practices that emphasize efficient resource usage, renewable energy and recycling. In line with their sustainability goals, Atlas knew they could save energy and money by evaluating their compressed air system. They contacted Industrial Diagnostics (a compressed air equipment distributor) and Sparks Dynamics to conduct an energy audit and baseline their system which was supplied by a 200 HP Rotary Screw Compressor with a Variable Speed Drive (VSD).



The Solution

The ReMASTER Compressed Air Monitoring system was installed in 2015. This system is capable of monitoring compressed air system parameters on a continuous basis and transferring that information to a cloud server which can be accessed by Atlas Container personnel, Industrial Diagnostics and Sparks Dynamics. This information was collected into a database which can be exported to an Excel spreadsheet or displayed graphically using Sparks Dynamics ViewMaster Software. The average annual compressed air electricity expense was estimated to be approximately \$116,000. This is based on an incremental \$/KWh electric rate of \$.091 per KWh and an estimated compressed air energy consumption of 1,279,200 KWH. The implementation phase of Energy Conservation Measures (ECMs) for the Compressed Air System included:

- Identification and repair of compressed air leaks
- Understanding of compressed air usage per manufacturing machine and installation of shut off valves when the machines are no longer in production mode
- Identification of misapplications of compressed air to include blow offs, venturis, and cooling scenarios
- Understand system pressure requirements and potential installation of point of use pressure regulation.

The Results

Pre and Post ECM system monitoring has verified that the implementation of the ECMs is saving over \$20,000 per year. There has been a reduction in compressed air consumption of 20% and when there is no production on the weekend the compressor is now shut off. The VSD control of the compressor allows for efficient turndown to match the load. A dew point monitor was installed to insure that the dryer and cleanup equipment are working and providing clean dry air to the plant. A Modbus interface module was installed that now allows the compressor panel information to be streamed to the cloud as well. Analytics have been developed that continuously run on the data streams and to ensure the system maintains an efficient performance envelope.

Contact Us

To discover how we can put our expertise to work for you, call us today at **1-410-344-6070** or email us at Info@sparksdynamics.com

Sparks Dynamics is a compressed air management company that provides audits, remote monitoring and analytics services that notify and recommend corrective actions, enhanced control algorithms, equipment sourcing and energy financing.

www.sparksdynamics.com

Technical Scope

ReMaster Remote Monitoring System

- Combination mass flow, temperature, and pressure meter
- Multi channel KW meter
- Honeywell Tridium SCADA system
- Modbus integration to measurement devices and control panels
- KPIs Streamed to Sparks Dynamics virtual servers running on Microsoft Azure cloud application platform
- Specially developed compressed air system analytics
- ViewMaster Energy Management Analysis Tool
- Automated Operator Log Generator

Benefits

- 20% Reduction in Compressed Air Consumption
- Energy cost savings of over \$20,000 achieved per year
- Received \$15,000 BGE Energy Rebate
- Less than a 1 year simple payback



Sparks Dynamics ViewMaster Software

