



airleader
Compressor Management

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Short Project Description
The AIRLEADER Compressor Management System was retrofitted to an existing compressor system at Herman Miller, located in Spring Lake MI. The installation of the AIRLEADER system led to a dramatic reduction of energy in hidden or sleeping energy losses which outperformed expectations.

Reference Project Address
Hermann Miller - 171
18558 171th Ave
Spring Lake, MI 49456

Energy Efficiency Achieved
The project achieved energy savings of 763,762 kWh which was an improvement of 21%. The monetary savings were in excess of \$60,000, making the project cash positive within the first year of operation. This means the simple Return on Investment (ROI) was a stunning 0.9 years. In addition, monitoring features of the system increased overall system awareness and helped realize further savings after the project was fully implemented.

Hermann Miller - 171

The use of compressed air in manufacturing processes is extremely expensive and represents roughly 10% of the overall electricity used in manufacturing industry.

Significant amounts of energy are lost through system inefficiencies such as compressed air leakage, heat, inefficient controls, and a low degree of awareness from operators. With this in mind, compressed air systems should be an important target for Energy and Sustainability Managers all over world.

Herman Miller's Sustainability Manger took the first step by initiating an Air Energy Audit. The goal was to better understand the system, potential energy savings, the ROI with these improvements, and creating a base line for comparison to post retrofit.

The Energy Audit identified compressed air as a significant portion of the energy demand at the facility which was 24.5%. The compressed air system represented nearly one-quarter of the total electricity bill for this facility. The audit revealed inefficiencies of the 6 compressors spread across 3 different locations. A system simulation performed during the audit found potential savings for the company, reduction in wear and tear and lower overall run time for the equipment through the use of an AIRLEADER Compressor Management System.

The estimated ROI for the project was just over one year which made it easy for Herman Miller to opt for the AIRLEADER Master controller with web-based monitoring. In addition to the quick ROI, the web-based monitoring system provided further benefits and strengthened the argument in favor of moving forward with the project.

The result for Herman Miller was an annual savings of 763,762 kWh at a specific cost of



8cents/kWh. These energy reductions helped the company realize over \$60,000 annually in energy savings. These results have been verified and have contributed to the Herman Millers 2011 total energy reduction of 876,863 kWh.

AIRLEADER's philosophy and focus is on running large compressors at full load while trimming with smaller compressors. In order to do it effectively, accurately and reliably, the system consumption is required to determine the best and most efficient combination of compressors at any given time. AIRLEADER utilizes an innovative, self-learning proprietary calculation which constantly adapts to system changes resulting

in efficiencies far above sequencers and other controllers.

AIRLEADER has sold more than 10,000 controllers and is a household name in Germany. The company's brand recognition is steadily growing in North America. The monitoring system performs as a continuous Air Energy Audit as required by ISO 50001, allows the monitoring of air quality as defined in ISO 8573-2010, and provides other system reliability data and assure long-term effectiveness.

Short payback time makes AIRLEADER an attractive investment for retrofitting compressed air systems.