

Smart air

By Keith Essenburg | MiBiz
kessenburg@mibiz.com

GRAND RAPIDS – **Lacks Industries** recently became the first U.S. company to install a German-made device that its manufacturer says can save nearly a third of the energy a business uses to produce compressed air.

The system has saved Lacks energy, resulting in real money savings.

SIGA Green Technologies, based in Karlsruhe, Germany, distributes the device – the Airleader Master Module – throughout Germany and the United States. SIGA Green Technologies Owner Jan Hoetzel said the Airleader is connected to a company's air compressors.

Noting that most companies have multiple compressors of various sizes, Hoetzel said the Airleader constantly gauges the need for compressed air, then activates the minimum number of compressors needed to produce the air needed at that moment.

"Compressed air is one of the most expensive sources of energy used in manufacturing," Hoetzel told *MiBiz*. "By managing the generation-side of the system, most companies can achieve significant energy savings. Although it's an established market-leader in Germany, the Airleader is new to the United States."

Alan Beatty, maintenance manager at Lacks Enterprises' Paint East facility, said the Airleader met the company's interest in conserving energy.

"We have four air compressors, and we were looking at ways to save energy and utilize the compressors more efficiently," Beatty told *MiBiz*. "The Airleader looks at air pressure and demand and selects the right compressor combination to most efficiently achieve the demand at that time."

Beatty said SIGA Green Technologies "came in and did an analysis and basically hit all of the objectives and estimates (they promised)." He added that since the Airleader was installed, he has seen substantial electricity savings at the 107,000-square-foot paint facility.

"We know absolutely what that savings is. We went from 0.433 kilowatts per hour to 0.298 kilowatts per hour" for air com-

pressor operations, he said. "That's a savings of 31.1 percent."

Hoetzel, who maintains an office in Grand Rapids, said his company has spent the last several months conducting energy surveys at other West Michigan businesses.

"At one test site, we discovered as much as 35 percent, or \$40,000, of wasted energy because the compressors did not relate to the varying demands in the plant," Hoetzel said. "Both the generation and demand for compressed air need to be in balance, and the Airleader's eight-fold, self-learning trend calculation provides dynamic control. It synchronizes and optimizes the running time of each compressor station with significant energy savings."

He said the Airleader also provides real-time statistics and graphs to document cost, volume, performance and waste.

"Many companies don't realize how vital the management of compressed air systems is to achieving substantial energy savings, increased performance and equipment life, reduced service costs, improved system reliability and air quality," he said. "Historically, companies with a focus on sustainability have been concerned with the demand side of their air compressor systems. That's naturally where they have to start to improve system efficiency. But it's the generation side that offers huge energy savings."

Hoetzel said his company's product reduces an air compressor system's starting and stopping, lowers service hours and service costs, monitors temperature and humidity, and can detect leaks in a compressor system.

"We've seen return on investment of less than six months, and the Airleader also has the ability to improve system reliability and compressed air quality. Its text message and e-mail alert system provide an early indication of system malfunctions, so contaminated compressed air never reaches your finished products." **MiBiz**



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