

By replacing outdated equipment and utilizing John Henry Foster's technology expertise, we have enjoyed a 40% reduction in energy costs.

JHF's compressed air audit, along with power factor data comparisons between old equipment and new, was instrumental in our decision to replace our existing equipment. LSI will realize its R.O.I. in less than 13 months through energy savings and rebates.

**Dave Eberhardt**  
**Director of Manufacturing**  
**LSI Corporation of America**  
**Minneapolis, Minn.**

## Meet Our Expert

**Dustin Nord, CEM**

Dustin holds a B.S. degree in Industrial Technology from the University of North Dakota, Grand Forks and has completed training designed by the U.S. Department of Energy and Compressed Air Challenge.

Dustin is an active member in the local AEE Chapter and has completed the CEM class designating him as a Certified Energy Manager.

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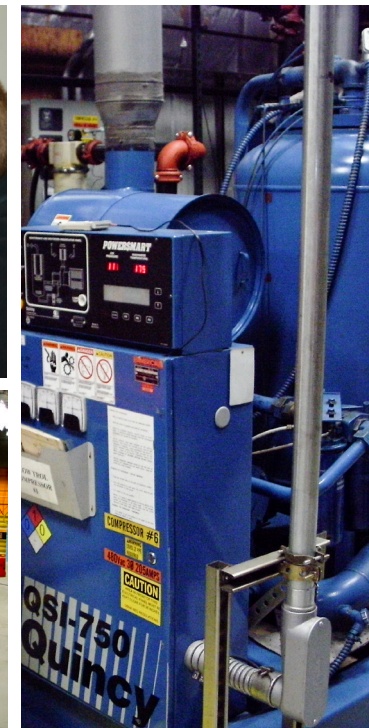
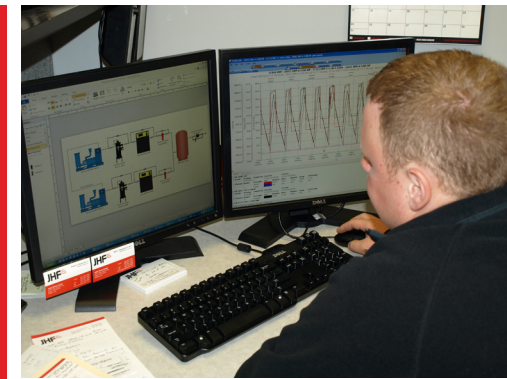
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# COMPRESSED AIR ENERGY EFFICIENCY PROGRAMS

*Compressed air systems in industrial facilities represent the greatest opportunity for energy savings initiatives*

John Henry  
Foster



**JHFOSTER**  
John Henry Foster.com  
Automation • Robotics • Compressed Air • Service



## ENERGY AUDITS BRING BIG SAVINGS

70% of facilities utilize compressed air in some aspect - a compelling reason to investigate the potential for energy savings

*As businesses are searching for new ways to save money, it's prudent to conduct an energy audit to examine how efficiently a compressed air system operates year after year. It's a fact: When businesses purchase equipment based on cost rather than efficiency, they will spend more on energy bills in the long run. More specifically, electricity used to run compressed air systems could be more than 75% of their system's total lifetime costs.*

### BENEFITS OF COMPRESSED AIR EFFICIENCY AUDITS

#### MAXIMIZE SYSTEM PERFORMANCE

A large copier toner producer, with over 5,000 h.p. of installed air compressor base, maximized their system efficiency and performance with a centralized master control and monitoring equipment designed by JHF. The automation of the compressed air system resulted in an operation cost reduction of \$200K, as well as associated maintenance costs.

#### LOWER OPERATIONAL COSTS

Systems Engineers from JHF, working with a large freezer manufacturer, recommended improvements in the operation and design of their compressed air system, which resulted in an annual operational cost savings of over \$100K. The recommendations to the compressed air system qualified for energy rebates from a local utility of \$166K, reducing project ROI to less than two years.

#### INCREASE SYSTEM RELIABILITY AND STABILITY

A metal finishing company, based on information from a compressed air system audit, justified the installation of additional compressed air equipment, which resulted in an increase in system reliability, stability and redundancy. System improvements eliminated unscheduled shutdowns, reduced operational and maintenance costs, and provided back-up capability for production.

#### INCREASED PRODUCTIVITY

A precision manufacturing company, based on recommendations from a compressed air audit, installed storage tanks and demand regulation, which stabilized system pressure. The stabilizing of system pressure resulted in a dramatic increase in product throughput without increased operational costs.

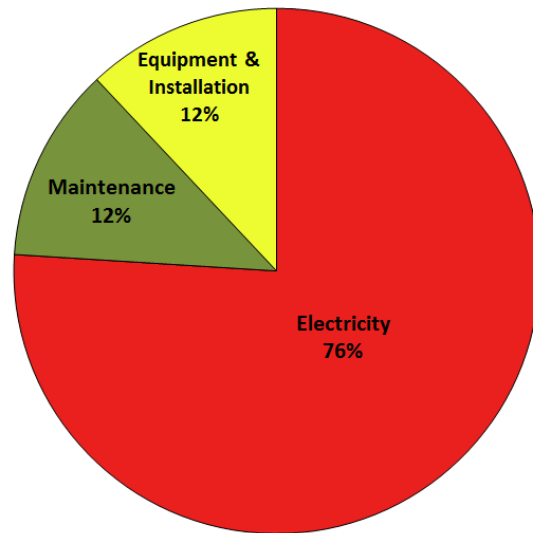
#### ELIMINATE INAPPROPRIATE AIR USAGE

Results of a compressed air audit at a manufacturing plant identified multiple blow-off applications utilizing high pressure air from the plant's compressed air system. Low pressure blowers were recommended and installed, which not only reduced plant air demand but also a reduction in operational costs.

“ Following a compressed air audit on our 250,000-square-foot facility, John Henry Foster identified a plumbing project that allowed us to turn off a 50HP compressor and identify numerous air leaks. In just the first two months, we have already seen energy savings of over 30%! And we expect those savings to increase over time.

**Pete Madsen**  
Maintenance Supervisor  
Ryerson, Inc.  
Plymouth, Minnesota

### Typical Lifetime Compressed Air Costs



\*Source US DOE, Office of Industrial Technologies: "Energy Tips"

JHFoster has conducted over 500 audits resulting in energy savings exceeding \$4M.

### INDUSTRIES SERVED

JHF uses state-of-the-art equipment to monitor systems ranging from 25 to over 1,000 horsepower. We customize our audits for companies of all sizes - small, medium or large - in numerous industries, including:

Agricultural    Automation    Energy    Industrial    Medical    Technology    Transportation

### BUSINESSES CAN RECEIVE AN AVERAGE OF \$10,000 IN ENERGY REBATES

JHF partners with energy companies to identify savings initiatives. Federal and state programs are available to assist you in achieving significant energy and process efficiencies.

- Xcel Energy
- Alliant Energy
- Otter Tail Power Company
- Wisconsin Focus on Energy
- Dakota Electric
- Missouri River Energy
- Minnesota Power

### EXPERIENCE THE DIFFERENCE

JHF's audits offer an in-depth, comprehensive look at the operation of an entire compressed air system. We utilize advanced software to establish a baseline that addresses the "what if" scenarios for system improvements. Our audits provide the most detailed and accurate analysis and information available, including:

- State-of-the-art equipment monitors kW, amps, pressure, flow and dew point
- Breakdown of flow usage
- Supply equipment assessment
- Distribution system assessment
- Point-of-use assessment
- System upgrade recommendations
- Return on investment applied to all recommendations
- Supporting data (Real-time monitoring graphs)

*John Henry Foster (JHFoster) is a leading distributor and service provider for automation and compressed air systems. Our mission is to assist companies like yours automate their manufacturing applications to make the process a positive journey. We are committed to providing successful solutions that exceed production demands, reduce costs, and increase overall efficiencies.*

