**Complete Air System Evaluation Yields Significant Savings in Overall Efficiency**

**The Client**
Kent Foundry Company, located in Greenville, Michigan, is a leading manufacturer of Grey and Ductile iron (or Nodular iron) castings for a variety of industries and market sectors, selling to customers throughout the USA. Kent Foundry concentrates on marketing castings from 100 to 1500 pounds and utilizes the no-bake molding process (using Pep-Set resins or binders) for all the molds it makes.

Kent Foundry specializes in low-volume and custom-formed casting of machine tool parts, valves and fittings.

**The Challenge**
While foundries in the United States were closing at an alarming rate, Kent’s management was determined to use best practices to stay in business. David Ziny, Maintenance Supervisor, fearlessly took on the challenge and targeted opportunities to save money in the Foundry’s compressed air system. Kent Foundry requires three distinct air systems, high pressure to run the grinders, medium pressure to run a majority of the plant’s other air requirements and low pressure to transfer sand from a storage tank to operations. Working diligently for 27 years at Kent, Ziny has made compressed air his passion. His dedication to squeezing productivity out of every pound of pressure not only produced significant energy savings, it has allowed Kent to stay competitive in a niche market, impact its bottom line and consider future expansion.

In 1996, Ziny, knew that the five inefficient rotary vanes Kent Foundry used to generate compressed air to do everything from ladle pre-heating to running air grinders were hurting profitability. Each of the 50 horsepower (hp) compressors consumed full-load power regardless of demand, devoured parts and ran non-stop. "We weren’t efficient. We wanted to grow the business, and it takes air to do that," Ziny explains, pointing out, "A lot of people think air is air. Compressed air is not just air. It’s a utility."

In a move to reduce utility costs, Ziny and Kent Foundry management along with John deWaha of TMI Compressed Air Systems, an authorized Quincy Compressor distributor, agreed the first step was to replace the five rotary vanes with two Quincy QSI-500, 100 hp, air-cooled rotary screw compressors, equipped with the patented PowerSync® capacity controls and variable displacement airds. Soon after, adequate air storage was added and made “useful” by including the installation of a steady pressure flow control valve. Storing the compressed air at 110 psig and releasing it everything from ladle pre-heating to running air grinders were hurting profitability. Each of the 50 horsepower (hp) compressors consumed full-load power regardless of demand, devoured parts and ran non-stop. "We weren’t efficient. We wanted to grow the business, and it takes air to do that," Ziny explains, pointing out, "A lot of people think air is air. Compressed air is not just air. It’s a utility."

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When it comes to reliability, everyone is making the same promise. But when it comes to keeping the promise, Quincy Compressor stands alone. This is why Quincy Compressor has introduced its exclusive ten-year airend warranty that covers both parts and labor on select models. Reliability is about confidence, performance, and trust – every day. Quincy Compressor’s Royal Blue Warranty program is proving reliability for the next ten years.

**PRODUCTS AND SERVICES**

- Rotary Screw Compressors
  - QSI (50 hp - 300 hp)
  - QGV (50 hp - 200 hp)
  - QB (10 hp - 60 hp)
  - QS5 (50 hp - 200 hp)
  - QGS (5 hp - 15 hp)
- Reciprocating Compressors
  - QR25 (1 hp - 25 hp)
  - QT (3 hp - 15 hp)
  - PLT (3 hp 15 hp
- Climate Control & Medical Systems
- Vacuum Pumps
- Air Treatment
- EQ Auditing Services

**MARKETS AND INDUSTRIES**

- Agriculture/Farm
- Automotive/Tire
- Climate Control
- Contractor/Builder
- Dry Cleaning
- Energy Exploration
- Food & Beverage
- Low Pressure
- Manufacturing
- Medical & Dental
- Pharmaceutical
- Plastics
- Woodworking

**UNDENIABLY THE WORLD’S FINEST**

Quincy Compressor specializes in compressed air technology, offering top-notch products and services since 1920. Serving the industry nearly nine decades, Quincy is on the cutting edge, engineering quality and reliability into every offering. Award-winning accomplishments have allowed Quincy to build solid relationships with its customers and achieve compressed air systems best practices. Quincy’s flagship products include the QSI and QGV rotary screw compressors, the reciprocating QR-25, QT and Climate Control packages along with its innovative Royal Blue Warranty, widely recognized as the industry’s strongest warranty program.

“People say you can’t run a plant at that low of a pressure,” Ziny says. “Give them my phone number. We’ve run at that pressure for about six years.”

**The Conclusion**

Taking a full-scale foundry from 250 hp to less than 100 hp and 110 psig down to 79 psig is a testament to how much a systematic approach can affect overall efficiency. Ziny and deWaha made significant manufacturing “lifestyle” changes. Rules were applied to air usage operation wide. "It was a tough sell at first because the whole system approach was new," Ziny says. "But Management was open to allowing us to try new things. It sure was a learning process. " The exercise has influenced energy and production efficiency, and the savings have created an acute awareness of compressed air costs. Things like equipment, tools and even hose selections are carefully considered to ensure optimal performance at the lowest flow and pressure, which translates into the lowest operating costs.

“It takes a lot of electricity to create compressed air,” Ziny concluded. “Growing our business means adding more people and air users. To be profitable we must eliminate wasteful air practices. I think we have done a good job so far.”