

Automotive Overhaul!

New equipment and smart controls drive a dynamic energy efficiency transformation

Problem:

An automotive parts manufacturer was experiencing severe inefficiencies with their compressed air system. Three centrifugal compressors vented unused air and the rotary screw compressor cycled on and off too frequently because the system was not properly controlled. Additionally, annual maintenance was excessive, costing around \$109,000 each year.



Solution:

A comprehensive Air Demand Analysis was conducted to build a true demand profile. Based on the audit findings, a new energy efficient system was designed that included a Sigma Air Manager (SAM) system master controller, a 450 hp variable frequency drive rotary screw compressor, a 250 hp rotary screw compressor, as well as the rotary screw compressor from the previous system. The old, under-utilized centrifugals were hauled away—along with their exceptionally high maintenance bills.



Result:

The Sigma Air Manager master controller monitors the compressors and selects the most energy efficient combination of units to meet the fluctuating demand. Thanks to SAM, energy consumption has been reduced by 1,093,600 kWh annually. The system also has much lower maintenance costs and with SAM balancing load hours between the compressors, this cost will continue to be kept at an absolute minimum.

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|---|------------------|
| Annual Energy Costs of Previous System: | \$699,779 |
| New Annual Energy Cost: | \$570,733 |
| Annual Energy Cost Savings: | \$129,046 |
| Utility Rebate: | \$169,857 |
| TOTAL FIRST YEAR SAVINGS: | \$298,893 |
| Simple Payback Period: | 17 months |



Not Getting Enough Supervision?



Sure. We make a better compressor.

More reliable. More air for less energy. Easier to maintain. And quieter. But when it comes to efficiency, system design is critical.

You can run several very efficient machines, but not run them efficiently. That's why we are such sticklers for system controls. Advanced compressor controls like our Sigma Air Manager 2 make compressors "play well with others". Under SAM's supervision, compressors don't fight each other. And when they aren't playing, they are off. No wasting energy idling or cycling.

SAM 2 gives you superior performance, steady pressure for production, and reduced energy usage. It also minimizes run time which extends service intervals. Reduced cycling and idling means less wear and tear on the motor, starter, valves, etc. And with SAM's Kaeser Connect, you also get built-in remote monitoring and a constant air energy audit. Stop neglecting your compressor and give it the supervision it needs with SAM 2.

Call us today, you'll thank us tomorrow!



Kaeser's Sigma Air Manager 2 (SAM) combines the benefits of modern industrial PC and Internet technology to provide unparalleled compressor control, monitoring, and energy savings.

Learn more at kaeser.com/sam.

**KAESER
COMPRESSORS**

Built for a lifetime.™

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