

Seize the Savings!

A fresh approach yields sweeping savings for a quick ROI

PROBLEM:

At a plant manufacturing turbines for hydro-electric power plants, excess capacity had been a source of comfort for many years despite recommendations for system updates. Four modulating, twenty-year old compressors, two 75 hp, two 25 hp, supplied the system—without central controls—causing excessively high energy costs. When a new plant engineer came on board, he took a closer look at the energy efficiency. Having attended a Kaeser Compressed Air Seminar, he knew a systems approach could unlock significant savings.



SOLUTION:

Kaeser ran a KESS (Kaeser Energy Saving Simulation) using supply side audit data and designed a complete system solution that would dramatically reduce the specific power from 62.0 kW/100 cfm to 17.5 kW/100 cfm. New energy efficient compressors, an air receiver, as well as a system master controller were installed. The new system has the same number of compressors and total horsepower as before, but it provides even more flow.



RESULT:

The Sigma Air Manager (SAM) master controller monitors the four new compressors and selects the most efficient combination of units to meet the plant demand. With its built-in SAC *Plus* software, SAM continually tracks energy consumption so the plant benefits from having an ongoing compressed air energy audit. As a matter of fact, the specific power has been reduced more than anticipated—all the way down to 16.7 kW/100 cfm.



Annual Energy Costs of Previous System:	\$59,780 per year
Reduction in Specific Power:	45.3 kW/100 cfm

Annual Energy Cost Savings:	\$22,680 per year
Additional Savings in Maintenance Costs:	\$7,240 per year
TOTAL ANNUAL SAVINGS:	\$29,920

Simple Payback Period:	14 months
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An investment in knowledge pays the best interest.

-Benjamin Franklin

At Kaeser, we believe the more you know about operating air systems, the more you'll get out of them. That's why we're committed to providing resources to help you run your plant as efficiently as possible.

Our Compressed Air Seminars, whitepapers, and blog are the perfect tools to help optimize the productivity and efficiency of your systems, as well as control your operating costs.

Use these resources and let our compressed air experts show you how to properly size your compressed air equipment, design an efficient system, evaluate energy consumption, and give you the tools you need to optimize your compressed air operations.

Visit our Resource Center today at www.kaeser.com/resources and get the knowledge you need to invest in your system's energy efficiency.



Kaeser's Resource Center connects compressed air users with the information they need to operate their systems efficiently.

Learn more at: www.kaeser.com/resources.

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