1300 Sumner Avenue, Cleveland, OH 44115 P: 216-241-7333 F: 216-241-0105 E: cagi@cagi.org URL: WWW.CAGI.ORG





## **Case Study - Sustainability**

SITUATION: An international leader in cement and concrete production identified energy as their highest operating cost. Although electricity represented 13% of the total energy consumption, electricity accounted for 48% of total energy costs. Compressed air production accounted for a significant portion of this electricity usage and cost. They estimated a 30% annual kWh reduction potential through leak reduction, better control practices, and modernizing the compressors and distribution piping. The company undertook a progressive program over several years to evaluate and optimize its compressed air production in five US plants having a combined power consumption of 44 million kWh annually for compressed air.

**SOLUTION:** They conducted extensive air system audits and implemented system wide improvements to address poor controls, leaks, inefficient equipment, and aging piping. Their new systems included controls that more accurately track consumption in real time.

## **OUTCOME:**

The results:

- A reduced carbon footprint by 23 million lbs of CO<sub>2</sub>
- An 8% improvement in specific power (kW/100cfm)
- Improved pressure stability in all five plants
- An average of 43% reduction in kWh per plant (range was 23 to 64%)
- Total energy savings over 19 million kWh annually

## **IN SUMMARY**

For many companies, especially publicly traded companies, sustainability has become a buzzword that the public relations or marketing team infuses into corporate brochures, ads, and press releases to positively influence public opinion about the company. Sustainability is not just good for garnering positive, public relations. Fortunately, when it comes to compressed air, the actions that reduce its carbon footprint and waste stream are also making real and significant contributions to the bottom line, sustaining profitability in addition to environment benefits.

CAGI is the leading organization representing manufacturers of compressed air system equipment, including air compressors, blowers, pneumatic tools, and air and drying and filtration equipment. This document is for information purposes and should not be used as a substitute for instructions from individual manufacturers. Always consult with individual manufacturers for specific instructions regarding their equipment.