KMG finds compressed air leaks and big dollar savings

Project at a glance

$20,000
Savings per year

+

Freed Capacity
for plant expansion

The opportunity

KMG is a chemical manufacturing facility located in Pueblo. KMG uses compressed air in most of its operations. So, as they plan for growth, one of their top concerns is having enough compressed air. They were concerned that they might need to add compressors in order to meet compressed air demand for their facility. Through the Black Hills Energy program, KMG found cost-effective strategies to cut down compressed air waste and free up capacity for their operations.

The projects

Air compressors typically reject 90% or more of the energy they use as heat. This means less than 10% of that energy is actually going into the compressed air stream. Leaks are always the first user of compressed air and can account for 30-50% of the compressed air demand.The Black Hills Energy compressed air audit, provided by Michaels Energy, found opportunities for both leak repair and equipment upgrades to free-up capacity in the compressed air system.

Incentives Available

100% of study costs for systems 50-100 HP (up to $2,500)

75% of study costs for systems >100 HP (up to $15,000)

The results

The opportunities identified in the audit provide savings of nearly $20,000 per year. KMG immediately repaired the largest leaks, which saved about $9,000, and is planning to replace its air drying system to further reduce waste.

Aaron Suazo, engineering and maintenance manager for KMG, says “as the plant continues to grow, not wasting CFM with our desiccant dryer gains us the flexibility to grow and do more pumping when we need to. We were aware of the air leaks, but we didn’t completely understand the volume of minor leaks across the whole plant. If we found 170 CFM, that’s a large fraction of the plant’s capacity. We sometimes struggle to have enough capacity, so by fixing those leaks, we gain capacity for the plant.”

For More Information

Carl Samuelson
cwsamuelson@michaelsenergy.com

Patti Olenick
patti.olenick@blackhillscorp.com

Black Hills Energy Ready