DO YOU KNOW HOW YOUR COMPRESSED AIR SYSTEM IS PERFORMING?

By Jason Cravy, Air Power Sales & Service

As a facilities manager or business owner, you know how important it is to maximize the efficiency of your compressed air system. Especially now, more than ever, when money may be tight and savings need to be realized.

Electricity represents more than 75% of the total costs of an air compressor over its lifecycle — and some of that energy is used to make unneeded air.[1] To overcome this, customers should evaluate the overall performance of their compressors and the health of their system though an air audit. Using a tool like Sullair AirSuite™ gives customers a 360° view of their entire compressed air system. The numbers doesn't lie, which means you can make data-driven decisions and help identify potential savings.

Nearly 4.5 years ago, Air Power Sales & Service met with a Texas-based pharmaceutical customer to discuss their processes, what they were doing and how they were doing it. Using this information, and based on the plant engineer's feedback, a compressed air system was recommended and installed.

Fast forward to 2020 and, from our perspective, they were having some trouble with their system. To get to the bottom of it, we conducted an air audit. For one week, we monitored the company's system to see what was going on and diagnose what was happening.

[1] *Determine the Cost of Compressed Air for Your Plant. Energy tips sheet, U.S. Department of Energy, December 2000*

This pharmaceutical customer's compressed air system consisted of a Sullair 75 hp variable speed rotary screw compressor and one desiccant dryer. The compressor produces 341 cfm, and the desiccant dryer produces 60 cfm purge. Taking into account the dryer's purge, the customer's average consumption was only 62 cfm.

While the customer does have some peaks, the air audit showed the compressed air system was way oversized, and the compressor was on the verge of cratering. The longevity of their equipment was at risk and they were wasting energy – and money.

After analyzing the air audit, we determined the customer should size down to a smaller compressor, while keeping their storage. Using the same storage they've had, we will gain efficiency through excess storage to compensate for excess demand.

Air Power Sales & Service has made two compressed air system recommendations to the customer's executive team to determine which approach they'd like to take. One recommendation is for a small Sullair oil flooded compressor, as the air does not encounter the product – it is only used mechanically. The second recommendation is for a Sullair 50 hp oil free air compressor, giving the customer more flexibility for down the road and totally removing the risk of product contamination. Either way, the customer can replace their entire system with a payback in only 2.5 years! Quite the payoff for a simple air audit.

This is only one example of a customer who has realized the value of an air audit. Air audits credibly establish what is happening in a user's system so we can make proper recommendations for the compressed air system.

By understanding what your processes are, and how your compressed air system is being used, together we can find ways to better manage what you have, what you might need – and how you can do it more profitably. AirSuite™ helps get to the bottom of this and convey this information, with data behind it.

Now is a perfect time for compressed air users to assess the health of your compressed air systems and prepare for the near future, as business ramps back up. Who knows... maybe you could have a brand-new, more efficient compressed air system with a quick payoff too.