IS YOUR COMPRESSED AIR SYSTEM SUPPORTING SUSTAINABILITY & ENERGY-SAVING PRACTICES?

By Erica Geske

As industries put an increased emphasis on sustainable production, energy-saving practices should be top of mind for everyone.

When you think of energy savings, you may only think of the big three utilities—water, electricity and natural gas. While these utilities are definitely important factors, compressed air should be part of the conversation as well.

Compressed air is widely considered the fourth utility. Used in more than 70% of manufacturing processes, your compressed air system represents a huge opportunity for energy savings[1]. In fact, it is estimated poorly designed and maintained compressed air systems in the United States cost up to $3.2 billion in wasted energy costs each year[2].

Electricity represents more than 75% of the total costs of an industrial air compressor over its lifecycle[3]. Increasing compressed air system efficiency is critical to help keep your operating costs low and will help contribute to more environmentally friendly production practices.

How Can You Lower Your Energy Costs & Increase Sustainability Practices?

- **Compress only the air you need**
  Effectively matching compressed air output to demand is key to saving energy—and money! Using a compressor with a reliable capacity control system or turning the system off when production lulls or halts can help significantly reduce energy usage.
- **Get a full system audit**
  A full system audit can identify key performance parameters such as actual delivery to production, system reliability and quality of compressed air (ISO classes). Common areas audits identify for efficiency improvement include misuses of air, inefficient system setups and machines not properly sized for operations.
- **Reduce pressure where you can**
  Increased pressure use significantly decreases efficiency. Cutting 2 psi reduces energy consumption by 1%[2]. Keep an eye on system pressure and identify if you are increasing the pressure to compensate for leaks, piping issues or poorly maintained air treatment items.
- **Check drains**
  Replacing timer or manual drains with zero loss drains can be an easy way to help reduce air loss and increase efficiency.
- **Regular filter maintenance is a must**
  Inspect and change filters systematically not just in the compressor room, but also downstream and at point of use. Properly maintained filters can help ensure air quality and help prevent pressure drop.
- **Use a heat recovery system**
  Compressed air generates heat and you can reuse it for other functions in your operation such as make-up air or to heat your facility—resulting in energy savings.
- **Regular maintenance and monitoring of equipment**
  Regular maintenance can help compressors run longer and more efficiently which can save energy costs and help ensure more uptime.

Sullair is committed to supporting sustainable manufacturing practices. Our reliable compressed air solutions are specifically engineered to help save you energy. We offer a broad range of products and services to help you maximize efficiency including:

- Capacity Control Options
- Air Audits/AirSuite™
- SULLIMAX Zero-Loss Drains
- Filters
- Heat Recovery Systems

Sullair and our network of Authorized Distributors are fully equipped to help your operation optimize energy efficiency.

1 Ochoa, R. Using ISO 8573-1 to Test Compressed Air: Clearing the Confusion. Compressed Air Best Practices. Retrieved from: https://www.airbestpractices.com/industries/food/using-iso-8573-1-test-compressed-air-clearing confusion#:~:text=In%20many%20applications%2C%20compressed%20air%20is%20used%20from,may%20impact%20product%20quality%20to%20general%20%E2%80%9Cshop%E2%80%9D%20uses

2 Working with Compressed Air. Benefits: Environmental. Compressed Air & Gas Institute. Retrieved from: https://www.cagi.org/working-with-compressed-air/benefits/environmental.aspx#!prettyPhoto

3 Determine the Cost of Compressed Air for Your Plant. Energy tips sheet, U.S. Department of Energy, December 2000

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