

Controlling your compressed air system effectively can really pay dividends when it comes to cutting your electricity usage. There are many simple, cost-efficient steps you can take to help reduce your energy consumption from compressed air.

If your air demand fluctuates, variable-speed drive technology can help you to match supply with demand, enabling the compressed air system to come on and off load as required, with the potential to save a large amount of energy. In addition, don't forget that a compressed air system is exactly that – a system, and every component plays its part.

From accurate air receiver sizing to the specification of air treatment and dryer equipment, to condensate drains, to the pipework. Make sure you are controlling every aspect of the system and not just the compressor.

Our helpful guide talks you through some of the areas to consider...

The 10% Taskforce!

Join our campaign to cut compressed air energy wastage and take the equivalent of 317 thousand cars off the road, saving UK business over £147.5 million.

Visit the BCAS 10%
Taskforce website below
and share your energy
saving tips. Working
together, we can cut our
carbon footprint from
compressed air for a
brighter future!



Your guide to better compressor control

Invest in high-efficiency equipment



The small additional price premium for higher efficiency components usually pays for itself in less than two years.

- Ask your supplier to conduct an air audit and data logging. This will help identify if a variable speed compressor, or a combination of fixed and speed-regulated drive technology could lower your electricity consumption
- The compressor is just the start. Ensure your supplier audits your air treatment and downstream equipment and advises on the best course of action to optimise performance
- Assess your usage. If your compressor operates for long hours, specify best in class efficiency motors (at least IE3)

Consider intelligent sequencing



When two or more compressors are installed together, it is likely that the combined capacity of the system will be greater than the actual site demand.

- Investigate electronic sequencing and control systems. These predict and select the best combination of compressors to meet the demand, such as using a combination of fixed and variable speed machines
- They also maintain the pressure to a much narrower range - to within 0.2 bar

Consider ease of use



To help ensure your compressed air system operates at maximum efficiency, it needs to be easy to operate. Consider the setup of any control system, prioritising a simple user interface and accurate reporting.

- Specify control systems that can report on the complete installation, including ancillary equipment such as dryers and filters – to give you a comprehensive overview of your energy performance
- Consider remote monitoring. Does the control system have sufficient capacity to transfer data, and can operators check the system status, energy consumption and performance remotely?







Benefits of improved control

- Optimise compressed air system efficiency
- Use only the energy that the process requires
- Use compressors intelligently and only when needed, helping to reduce running hours and maintenance
- Manage and optimise every part of the compressed air supply – from compressed air generation, through air treatment, to storage







Top tips

- Conduct a compressed air energy audit to identify potential energy savings across the entire system
- Check compressor parameters are optimised for your application
- Monitoring and control go hand in hand. Make sure you act on data and continually review your system

For more compressed air energy savings tips and advice, visit

