

Companies as climate guardians



Companies have a crucial responsibility in reducing CO₂ emissions. Compressed air is considered an energy carrier that has significant savings potential.

Climate neutrality, greenhouse gases, CO₂ certificates, green energy, climate change, energy efficiency. These are all terms that are gaining ever-greater importance, particularly for businesses. The ecological image of a company is increasingly becoming its store sign.

But what lies behind it? What measures can be taken, and how does your contribution to reducing CO₂ emissions impact your business? We will provide you with answers to these questions in our blog post.

Limit global warming to well below 2°C. That's the goal of the Paris Agreement on climate protection. This is intended to be achieved through increasingly significant reductions in greenhouse gas emissions. Climate neutrality means the substantial reduction of CO₂ emissions and the offset of any remaining CO₂ production. It is therefore not sufficient for a company's operations to be simply "CO₂-neutral". They must actively work to minimise their CO₂ emissions.



HPC plc
Victoria Gardens
Burgess Hill
West Sussex RH15 9RQ
Tel: +44 (0)1444 241671
Fax: +44 (0)1444 247587
info@hpcplc.co.uk
www.hpcplc.co.uk

Another important term within this context is “greenhouse gases”. It describes emissions that have a direct impact on climate change. This includes gases such as methane, ozone and sulphur hexafluoride, in addition to CO₂. All of these, except CO₂, are converted into the so-called CO₂ equivalent for better comparability of their environmental impact.

Furthermore, greenhouse gas emissions can be divided into three categories:

1. Direct emissions of gases through combustion in dedicated facilities, such as combustion furnaces
2. Emissions related to purchased energy, such as district heating usage
3. Indirect emissions, such as those created by business travel

All three categories are present in most industrial companies.

Savings potential in compressed air generation

From an origin perspective, approximately 85% of greenhouse gas emissions can be attributed to the energy sector. Companies in particular therefore have a crucial responsibility in reducing overall CO₂ emissions.

This brings us to the question: What can you actively do as a company?

You can utilise green energy - electricity from renewable sources - and make your production process more energy efficient.

Around 10% of industrial electricity demand is required for the production of compressed air. Hence, compressed air is also considered an energy carrier that has significant savings potential.

This potential includes, among others:

- The prevention of leaks,
- Optimized control and demand regulation,
- Utilisation of compressor exhaust heat,
- Maintaining correct pressure levels,
- Heat recovery, in particular, has an huge impact on efficiency. Compressed air generators convert almost all of the energy that is supplied to them into heat, of which up to 96% can be recovered and reused.

For you, as a company, it is essential to have your compressed air supply analysed for improvement opportunities and optimised, or to plan an efficient compressed air system from the outset that is tailored to your specific production conditions.



HPC plc
Victoria Gardens
Burgess Hill
West Sussex RH15 9RQ
Tel: +44 (0)1444 241671
Fax: +44 (0)1444 247587
info@hpcplc.co.uk
www.hpcplc.co.uk

HPC

When comparing an optimised compressed air system to a non-optimised one operating under the same conditions, the optimised station produces 73% fewer CO₂ emissions than the non-optimised one. This amounts to 139.7 tons of CO₂ annually.

The energy efficiency of the compressed air supply not only affects greenhouse gas emissions, but also the lifecycle costs of a system, since energy costs account for the vast majority - up to 70% - of total expenses.

Customised efficient solutions

At HPC KAESER, energy efficiency is our top priority. The path to an efficient compressed air system begins with us through consultation and planning. With our proprietary ADA and KESS processes, we can accurately measure your actual compressed air demand as required in daily operation. Based on these data, we can determine a customised solution that is specifically tailored to your company's exact needs.

Through optimised interaction of all compressed air components, your energy costs can be reduced by up to 30%.

Unsurprisingly, our compressors also feature technically innovative components. For example, our rotary screw compressors feature flow-optimised SIGMA PROFILE rotors developed by KAESER's highly experienced engineers. They enable energy savings of up to 15% compared to conventional rotor profiles. Furthermore, our rotors have an exceptionally long service life. They are more energy-efficient and exemplify KAESER's long-standing commitment to sustainability.

Given the growing importance of this issue, if you are able to reduce your CO₂ emissions, you contribute to climate protection and enhance your image, which in turn leaves a positive impression on customers.

Moreover, you can also take advantage of regional funding opportunities. To put it another way, support is available for measures that lead to enhanced energy and resource efficiency. This includes, for example, investments in the replacement or acquisition of highly efficient equipment and systems, such as the latest compressed air technology and master control systems.

Funding is also available for measures related to the utilisation of exhaust heat. If you are interested to learn more about the scope of funding opportunities or are unsure about the application process, we at HPC KAESER will gladly help you.



HPC plc
Victoria Gardens
Burgess Hill
West Sussex RH15 9RQ
Tel: +44 (0)1444 241671
Fax: +44 (0)1444 247587
info@hpcplc.co.uk
www.hpcplc.co.uk