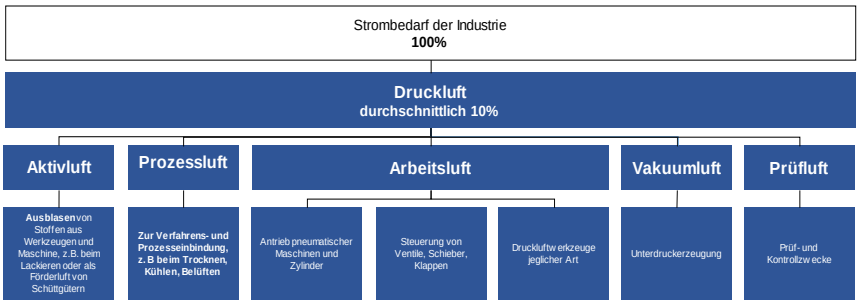
# Fact sheet

## Air audits

No other form of energy is used in as many fields and applications as compressed air. This is due to the fact that it can be produced easily and quickly on demand and to user-defined quality standards. Over time, the loss of energy between the point of production and the point of consumption of the compressed air can however become substantial. This can lead to high costs, and such losses often account for more than 80 % of the overall expenses for compressed air. To detect and eliminate such losses, companies carry out compressed air audits. These audits provide the data for optimisation measures, which normally pay for themselves within less than one year. Apart from saving money, lower energy consumption is obviously good for the environment, as natural resources are protected and $CO_2$ emissions are minimised.

## Around ten percent of the manufacturing industry uses compressed air

Depending on a country's level of industrialisation and the energy efficiency of the national power grid, around 10% of the produced electricity is consumed by compressed air equipment.




## Huge potential for savings

According to a representative study carried out in EU member states, there are a number of extremely effective ways to save energy in compressed air production.

By resorting to innovative measuring and processing technology, energy consumption can be reduced.

| **Maßnahme** Ausschnitt aus der Studie "Compressed Air Systems in the European Union, Peter Radgen, Edgar Blaustein" | Messtechnik | | | | | | Gasaufbereitung | | | | | Einsparungspotential | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Volumenstrommessgerät FLM | Leckagesuchgerät LKD | Taupunktmessgerät DPM | Öldampfmessgerät OCV | Drucksensor PRM | elektron. niveaugeregelter Ableiter BEKOMAT | Druckluftfilter CLEARPOINT | Kältetrockner DRYPOINT R | Membrantrockner DRYPOINT M | Adsorptionstrockner DRYPOINT AC | Katalysator BEKOKAT | Anwend-barkeit | Effizienz-gewinn gem. Studie | Gesamt-potenzial |
| Neuanlagen oder Ersatzinvestitionen | | | | | | | | | | | | | | |
| Technische Optimierung des Kompressors | ■ | ■ | | | | ■ | ■ | | | | | 15% | 7% | 1,1% |
| Verbesserte Druckluftaufbereitung | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 10% | 5% | 0,5% |
| Gesamtanlagenauslegung | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 25% | 9% | 2,3% |
| Verminderung der Druckverluste im Verteilsystem | ■ | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 30% | 3% | 0,9% |
| Optimierung von Druckluftgeräten | ■ | ■ | | | | | ■ | ■ | ■ | ■ | ■ | 1% | 40% | 0,4% |
| Anlagenbetrieb und Instandhaltung | | | | | | | | | | | | | | |
| Verminderung der Leckageverluste | ■ | ■ | | | | ■ | | | | | | 80% | 20% | 16,0% |
| Häufigerer Filterwechsel | ■ | ■ | | | | | ■ | | | | | 40% | 2% | 0,8% |
| | | | | | | | | | | | | **Summe** | | **22%** |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