



Service

AIRAUDIT®

exact measurement and optimization for modern manufacturing

Truth in Compressed Air.



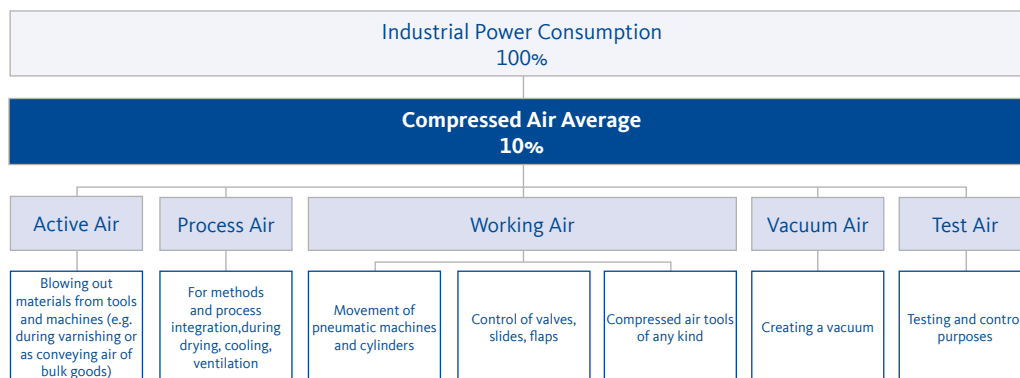


AIRAUDIT® from BEKO Technologies

What are 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 and purity standards. Over time, the loss of energy between the point of production and the point of consumption of the compressed air can become substantial. This can lead to increased costs that eventually start to erode margins, and such losses often account for more than 80% of the overall operating expense of a compressed air system. To detect and eliminate these losses, companies will conduct periodic compressed air audits. These audits provide the data points required to optimize the values measured, which normally pay for themselves in less than one year. Apart from saving money, lower energy consumption is obviously good for the environment, as natural resources are protected, and CO₂ emissions are kept to a minimum by reducing the demand on electrical production. This makes periodic air audits one of the most cost effective strategies modern manufacturing facilities can employ with a nearly overnight return on investment.

Facts and Figures



Why is this important? Depending on a country's level of industrialization and the energy efficiency of the national power grid, around 10% of the electricity produced is consumed by compressed air equipment in industrial processes. Furthermore, industrial energy consumption tends to be twice that of residential and commercial when considering all primary energy sources consumed, yet is one of the sectors where there is the most opportunity for optimization and the reduction of energy waste through relatively simple steps.

Measure	Measurement Technology										Potential Savings			
	METPOINT® FLM Flow Sensors	METPOINT® LKD Leak Detector	METPOINT® DPM Dew Point Sensors	METPOINT® OCV Oil Vapor Monitoring	METPOINT® PRM Pressure Sensors	BEKOMAT® Condensate Drains	CLEARPOINT® Separators and Filters	DRYPOINT® RA Refrigeration Dryers	DRYPOINT® M Membrane Dryers	DRYPOINT® X / AC Desiccant Dryers	BEKOKAT® Hydrocarbon Removal	Applicability	Efficiency gain according to study	Total Potential
*Excerpt from the study "Compressed Air Systems in the European Union, Peter Radgen, Edgar Blaustein"														
According to a representative study carried out in European Union member states, there are a number of extremely effective ways to save energy in compressed air production.														
New Installations or Replacement Equipment														
Compressor optimization												15%	7%	1.1%
Improved compressed air treatment												10%	5%	0.5%
Total system design												25%	9%	2.3%
Reduction of pressure losses system												30%	3%	0.9%
Optimization of compressed air devices												1%	40%	0.4%
Plant Operation and Maintenance														
Reduction of leakages												80%	20%	16%
Frequent filter changes												40%	2%	0.8%
												TOTAL	22%	

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Compare

Measured Values

	Volumetric Flow	Pressure Dew Point	Particle Content	Oil Vapor Content	Oil Aerosol and Vapor Concentration	Pressure	Power Uptake and Energy Consumption	Leak Detection
Basic AIRAUDIT®	✓	✓	✓	✓	✓	✓	—	—
Total AIRAUDIT®	✓	✓	✓	✓	✓	✓	✓	✓

Efficient

- › Quickly determine and compare actual air quality to your requirements.
- › Highlights all areas with optimization potential and provides complete solutions for the problem areas to eliminate guesswork.

Economical

- › Reduces your energy and compressed air consumption while improving the overall air quality providing a very fast ROI.

Comprehensive

- › Receive comprehensive documentation for all measured values.
- › Identify, measure, evaluate, and exchange consumable materials responsible for energy loss

How it works? Our service provides either a basic or total audit of your facility, which in addition to the compressed air relevant parameters shown above, also considers energy efficiency of the system. Energy consumption measurements are only included with the Total AIRAUDIT® service and will examine both energy consumption and leakage, which are two areas where the highest efficiency gains can be realized rather easily. All of the data collected will be provided to you and explained at the end of the audit, and is yours to keep for further optimization of the compressed air system and its efficiency as time and/or budget permits.

Supplemental Analysis Services

Consumable Material Analysis

We offer a regular wear analysis of adsorbent materials such as desiccant and activated carbon typically used to treat compressed air systems. The desiccant and activated carbon used in various types of dryers and activated carbon adsorbers are subject to deteriorate over time, and it is inevitable that they will eventually cease working. When this happens, your system is being robbed of performance, so exchanging these materials in a timely fashion is critical to maintaining long-term system performance.

Condensate Analysis

Condensate generated by compressed air systems can be aggressive, it can be dispersed, and it can also emulsify. All of which can be detrimental to product quality, other components in the system, employees and the environment. In order to determine the composition of and elements in your condensate, as well as determining the correct processing technology, we offer our customers a complete condensate analysis from our in-house laboratory.

Product Family



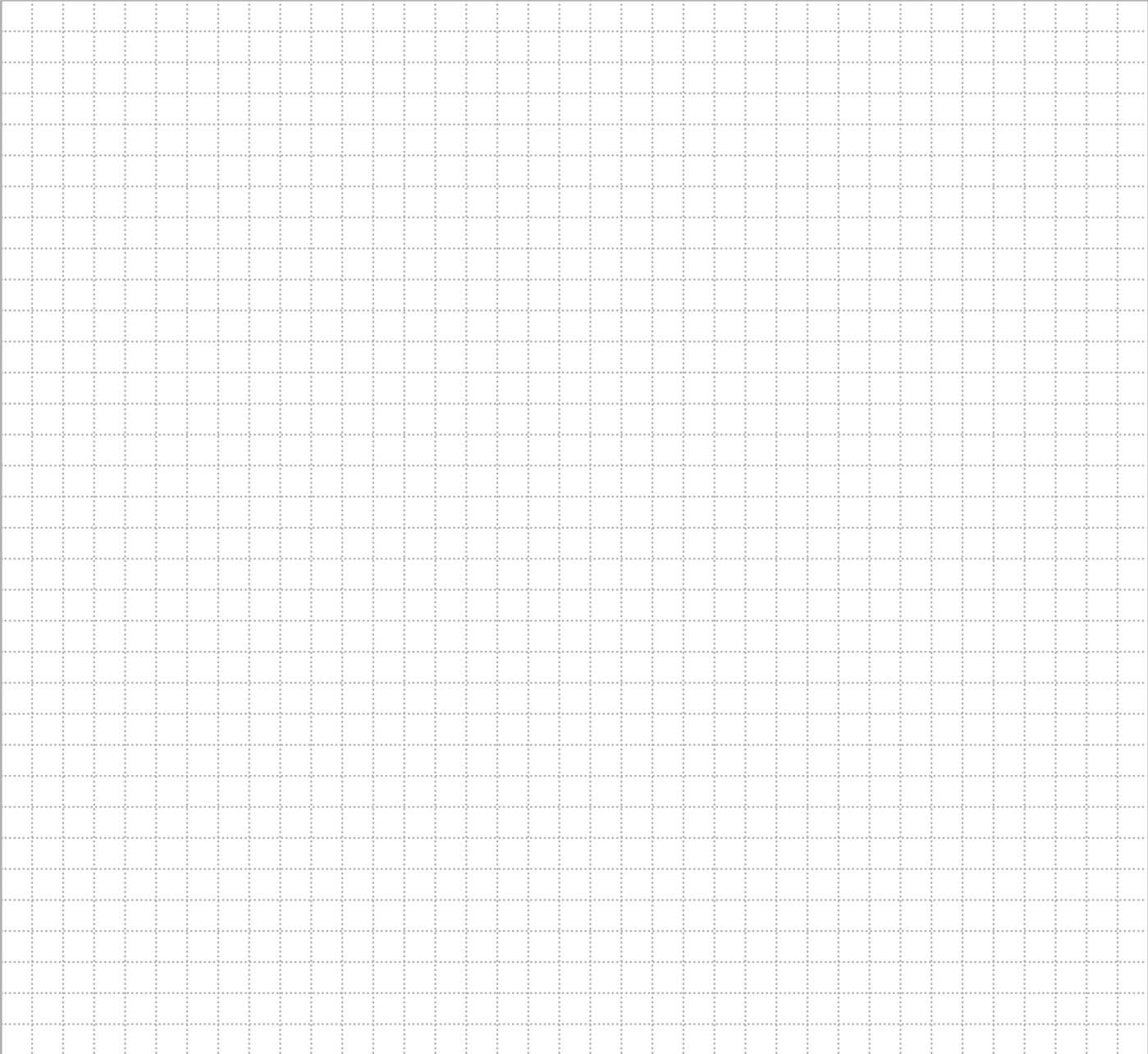
Monitoring / Data Logging

Sensors

Mobile Solutions

Reliable | Efficient | Innovative

What can we do for you?



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