

Compressed air system health check options

Atlas Copco

Atlas Copco Compressors offers 3 levels of health check for your compressed air installation, with the aim to assess whether there are opportunities for performance or efficiency improvements, better compliance and money / CO2 savings.



What is the cost of compressed air in your plant?



Do you use the compressed air properly?



Do you have the right amount of compressed air?



How can you reduce cost of your compressed air system?

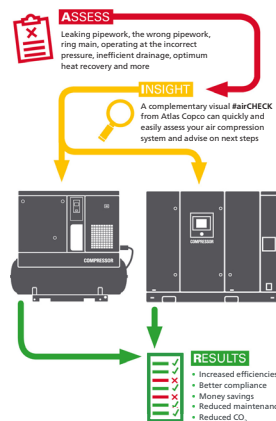
STEP 1

Free visual inspection and energy potential calculation (EPC) →

The #airCHECK will cover general information such as compressor room environment, whether there are any air quality issues, and a visual inspection of all compressed air equipment on site, including appropriate capacity, ISO compliance, unproductive running, pressure, drain functionality and general equipment condition.

The EPC focuses on the power usage of the compressors, load v. unload hours, and average leak assessment, which results in a potential calculation, identifies if stage 2 is recommended, and will highlight real, tangible savings.

A written summary of the equipment health will be provided, outlining running equipment improvements, wasteful practices or non-conformance with ISO standards, along with an estimate of potential cost and energy savings.



Energy Savings Potential: An Example

We have identified a yearly total potential saving of £43,601 including a yearly CO2 emissions reduction of 210,736.42 kg.

This saving can be obtained by following the recommendations summarised in the table:

Description of the intervention	Estimated Savings
Energy Recovery System	£0
Optimizer 4.0	£24,389
Leakage Repair Programme	£19,211
Total Potential Savings	£43,601



Potential Energy Savings 22% £43,601
 Potential CO2 Emissions Savings 210,736.42 kg
 Potential Energy Efficiency 0.445 J/l → 8,000 kW/year

STEP 2

Energy assessment and recommendations through data logging →

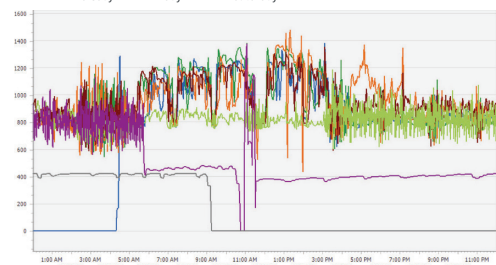
Where step 1 shows a potential for energy savings, the next stage is to fit current logging equipment to each compressor which will record then map the energy consumed over a full week period, showing the actual running hours and calculated air usage. Based on this data we are able to calculate a realistic energy savings potential, make simulations and provide recommendations to achieve optimal energy efficiency. This service is free of charge.

DID YOU KNOW ?

- Air compressors typically consume from 10-12% of a factory's electricity, sometimes up to 30%
- Energy can account for around 75% of the lifetime cost of generating compressed air. At some sites, around 30% of these costs are wasted, e.g. through leaks!

TYPICAL FLOW PROFILE

Monday Tuesday Wednesday Sunday
 Thursday Friday Saturday



STEP 3

Full AIRScan audit to ISO 11011 standard →

If required, a full AIRScan will be quoted. This service covers a range of parameters, such as flow testing, air leak detection, air quality testing, measurement and analysis of pressure and dew point throughout your whole system, from compressor room to production processes. Included in AirScan is reporting and discussions of the most suitable methods to reduce your energy costs and CO2 emissions. Note that this audit almost always pays for itself in savings.

AIRScan follows the ISO 11011 standard for compressed air energy efficiency assessments. This ensures that your installation is assessed based on a clearly defined framework. The AIRScan can also serve as a benchmark for ISO 50001.

EXAMPLE OF AN AIRScan

We performed a compressed air flow audit at a cement producer during one week in Q1 2020. The resultant simulations revealed a potential saving of approx. £23,500 per annum (11% of annual energy costs) through upgrading to VSD+ compressors and a reduction in CO2 emissions of 140 tons/annum.



FIND OUT MORE

www.atlascopco.co.uk/compressors

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