



Atlas Copco

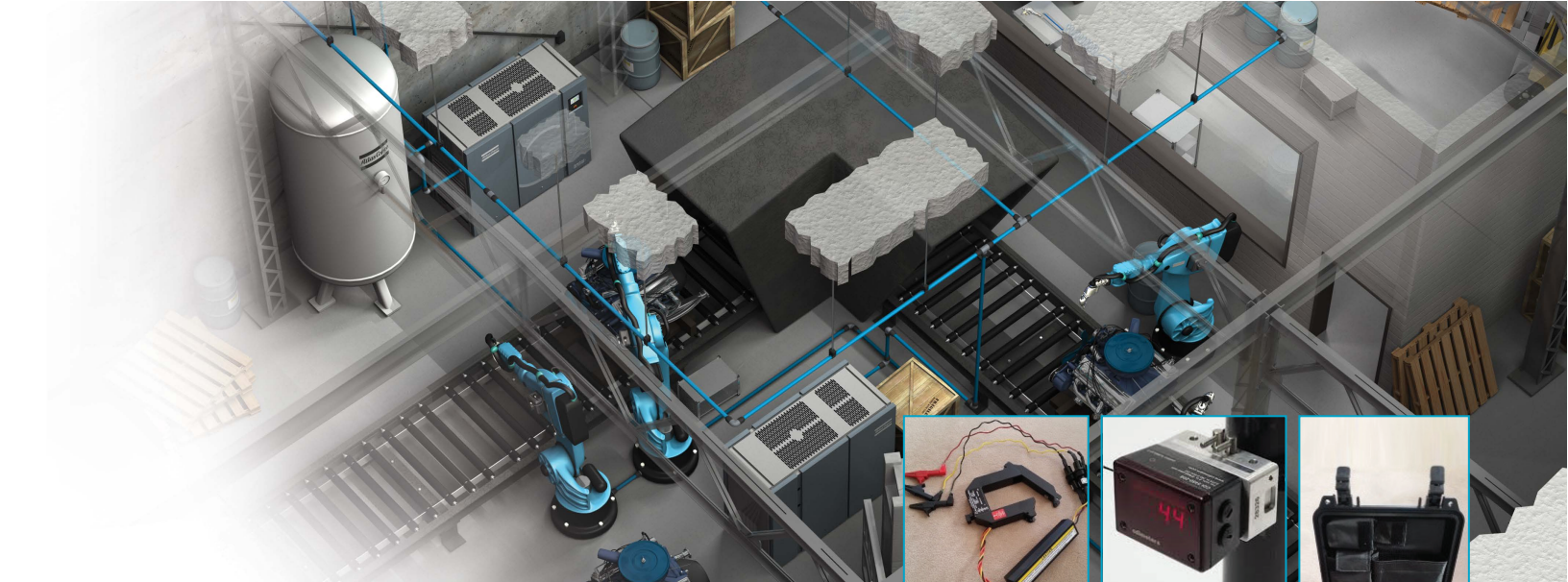


AIRScan

**Is your compressed air system optimized?
An AIRScan gives you the answer.**

AIRScan is a comprehensive audit of your entire compressed air installation, including energy input, air flow demand, system pressure, air quality, pressure drops, and more.

Performed by a highly trained Energy Consultant, AIRScan offers a reliable analysis and well-founded recommendations for energy efficiency improvements.



AIRScan Report:

AIRScan reports are written using real data to show true cost of compressed air and how efficient your system is currently running. Our unique audit software can stimulate various configurations of your compressed air installation. This allows us to provide realistic projections on potential energy savings as well as environmental and financial benefits. Typical AIRScan identifies tangible measures that can result in 25-30% energy savings.

AIRScan reports provide a clear summary for decision makers, as well as an in-depth evaluation of your problems and solutions for your technical personnel.

AIRScan follows the ASME EA-4-2010 and the ISO11011 standard for compressed air energy efficiency assessments. This ensures that your complete installation is assessed based on a clearly defined framework. Moreover, if you have, or are considering, an ISO 50001 energy management system, the AIRScan audit can serve as your benchmark.



AIRScan Services:

Leak Detection:

Ultrasonic leak detection to find and tag, document, and size leaks based on ultrasonic Db Readings.

Supply & Distribution Audit

Power Consumption of machines, pressures in compressor room, pressure drop across filtration. Evaluate mix of machines and overall pressure requirements. Identify potential shortcomings of distribution system.

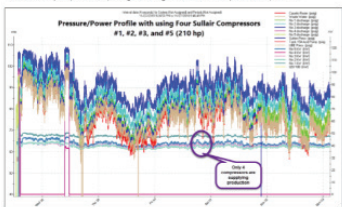
Full System Audit:

Supply side audit + pressures and pressure drop in distribution system, overall pressure requirement at point of use + assessment of end uses and provide potential alternatives.

Air Quality Audit:

Verify Air Quality is to the appropriate ISO standard, including, but not limited to, particulate, oil, and dew point testing. Breathing air, chemical make-up testing is available as well.

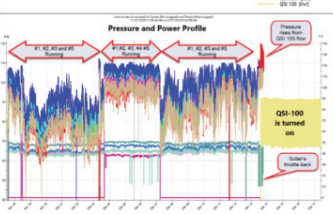
The chart below shows a closer view of the time that only 4 compressors were running. #4 was on. The bottom chart shows a 10 minute time stamp. This profile proves the plant can operate at pressures. Production is actually running at 85 psig to 70 psig. Compressors #2 and #3 have throttle because they only use their package discharge and not the true production pressure.



The Power/Pressure profile in the chart below shows the various measured pressures scaled on the left side (175 mmHg) and power in kW which are the bottom five colors scaled on the right side of the chart (172 mmHg). You can see the pressure variations based on how many compressors were running. On the left side when #2, #3, #4 and #5 (210 hp) was running, pressure would only get to the around 80 psig. Most of the plant operated at near 75 psig. When the #4 compressor was turned on, we now had (200 hp) and pressure climbed to around 120 psig.

When you combine undersized piping and minimal demand side volume, there is no pressure stabilization that can occur. Compressors are forced out and often times demand momentarily exceeds the supply causing these extreme pressure drawdowns plantwide.

The Q20 was turned on at the very end of our data logging period. Since this was dedicated to analyzing, you can see the red line jumps up to between 110 psig and 120 psig. That red line represented a pressure from within AirScanning. This is much to high and creates artificial demand and rapid cooling of the compressor.



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