

Making Money from Waste

An Air Audit Can Pin Point Wastages In Your Compressed Air System



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What happens when some cash goes missing from the company cashbox? Investigations, FIRs start taking place. The same would happen when there is a theft in the company and some inventory goes missing. It is, of course a big issue. Finance Director and the Managing Director are alerted, alarm bells start ringing in the company.

When there is a theft in the company and some cash or inventory goes missing, alarm bells start ringing

When, however, a million or ten million worth of electricity goes to waste because of leaking air in the company's compressed air system, nobody seems to even notice and the electricity bill gets paid, with a straight face.

Check ups are a great way to stay healthy. Very often doctors advice us to beware of the silent killer, blood pressure, which goes on to damage kidneys, set off diabetes and later on lead to heart attacks.

In industry, quite similarly, waste is a silent killer and nowhere is it more evident than in the compressed air system. Poor piping layout, pressure drop across clogged filters, unbalanced

Nobody seems to miss the ten million worth of electricity wasted because of leaks in the compressed air system

facility design, faulty sizing of air compressors and filters and a host of other elements lead to silent wastage of large sums of money, lost production

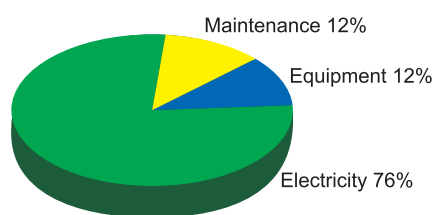
and poor product quality. AirAudit for a Compressed Air System provides a detailed analysis of your Compressed Air System to identify any inefficiency that is causing wastage of resource or money. Although a Compressed Air System may appear to be working properly, one cannot be sure whether the system is working to its full potential, and where the waste lies in the system.

Compressed Air System are, traditionally, installed with water grade galvanized iron piping and plumbing fittings, without taking into consideration the host of design factors which effect its efficiency. GI Pipe loses its coating where it is threaded, but where rust proofing is needed the most. Within three years, most systems are losing up to 30% of compressed air through leaks at the threaded joints.

Later, no leak inspection routine is followed in most plants. Regular

Compressed Air Costs in Perspective

Costs over 10 years



checkups are usually not performed, to discover leakages in piping as well as the machines using compressed air. The results is deteriorating performance over a period of time.

Air Audit highlights system failures that may otherwise not be detectable and may silently be increasing yearly expenses on energy.

Air Audit helps large users of compressed air to identify opportunities for reducing energy consumption and overall business costs. It provides benefit for the customers by evaluating

the current running system. The audit involves the evaluation of the leakages, corrosion in iron pipes, loose fitting of pneumatic pipes, machine damage due

A Textile Plant with a connected compressed air system load of 500 KW can discover through an air audit, ways to save up to Rs. 7.77 million/year, based on current electricity cost in Pakistan.

to moisture and broken seals etc.

If your business is a user of compressed air, an Air Audit is a step to make a substantial impact on your production costs. It can make a profound impact on your business, not just once, but year after year.

An Air Audit can identify inefficiencies in your compressed air system and assist with the entire system performance optimization, leak reduction and practical air management processes. Not only will a plant reduce power consumption it will also reduce compressed air system load and wear and tear, which in turn will extend the



Rusty Pipe

life of the entire compressed air system. Air Audit will help you to:

1. Waste less air
2. Produce less air
3. Reduce compressed air system load
4. Save money

While installing a Compressed Air System, certain key points are usually omitted, such as the correct diameter of pipes, angle of inclination of pipes installed, quality of the pipes, methods of collecting oil and impurities from the system and many more. Also, when installing a compressed air system, it is important to buy genuine products, as they come with a warranty and work in an efficient manner. Using non-genuine



Atmospheric Dirt

products and piping etc can cause the system to work inefficiently, which not only damages the machine components, but can also cause machinery failure. Small, scattered instances of such negligence can accumulate over the long run and increase the overall energy and maintenance cost of a Compressed Air System, while contributing to plant downtime.

As the energy cost is increasing with time, it is important to make the most efficient use of your compressed air system. Air Audit process can deliver energy savings of 30% and greater. Cost of an Air Audit is recovered through reduced system costs over a short time span. The cost of an AirAudit is negligible compared to the savings a company can generate based on the improvements proposed in the air audit report. The U.S. Department of Energy determined that on average up to 50% or more of the energy, it takes to run one 100 hp air compressor, is wasted! Audits review the entire compressed air system to identify ways to maximize efficiency; reduce waste; and reduce energy, maintenance, and equipment costs. Audits provide the most accurate possible data on the current system conditions to help manage the system, identify component upgrades, and ensure the entire system operates as it should. An audit can help plant management to:

1. Reduce operating costs by 25% to 50%
2. Reduce maintenance costs by 10% to 80%
3. Get the most accurate possible data on current system conditions and machine

health.

4. Receive documentation on power usage and your system's interrelationships
5. Can be conducted without downtime or disruption to productivity

In Pakistan, AirAudit's team of auditors is the best way to maximize the



Rusted Compressed Air Tanks

efficiency of a compressed air system. An audit is designed to help identify savings opportunities. Audit solutions are often simple, such as minor piping corrections, inexpensive compressor control adjustments, and/or additional storage capacity complemented with precision flow controllers. Every system has its unique characteristics.

For more details, visit www.airaudit.com.pk or twitter @airguru1