

COMPRESSED AIR ENERGY EFFICIENCY CHEAT SHEET

HOW IS YOUR MAINTENANCE?	ARE YOU USING IT RIGHT?
<ul style="list-style-type: none"> ■ Change your filters on a regular basis. ■ Clean filters mean less work for the compressor and therefore less energy used. ■ Regularly scheduled, properly performed maintenance reduces contamination in the air stream which can clog filters and make your compressor work harder. ■ Automated drains with moisture sensors can reduce the amount of time they are open, meaning less work for the compressor. 	<ul style="list-style-type: none"> ■ Can you use it less? If your system sits idle for long periods with the compressor working you are wasting and a lot of energy and increasing your costs. ■ Do you have to use compressed air for all your applications? For example, vacuum-based systems designed for that purpose may be cheaper than using your compressed air for that purpose. ■ Have you established usage guidelines for your employees to educate them as to when to use your compressed air system?
WHAT ABOUT LEAKS?	IS IT DESIGNED WELL?
<ul style="list-style-type: none"> ■ Approximately 20% of compressed air is wasted via leaks in a typical plant. If the compressor has to work harder to produce more air due to leaks you are losing money. ■ Excessive leakage can force you to buy a larger compressor than you need. ■ To start, monitor and establish a baseline for leaks in your system. This helps to understand when leaks are on the rise. ■ Log all leaks; this gives you a starting point for future leak detection. ■ Finding leaks can be done simply with 	<ul style="list-style-type: none"> ■ Piping that is too small impedes air flow and the ability to support your operation effectively. ■ Piping that is too large forces the compressor to overwork to provide sufficient air for your operations. When in doubt the larger pipe is a better option. ■ Is your air intake drawing in cool air? Cooler denser air at the start means less work for the compressor to compress the air as opposed to hotter thinner air. ■ Is your air pressure correct? If you are operating at an air pressure beyond what you require you are wasting energy.

<p>soap and water, but far more efficiently with leak detection equipment.</p>	<ul style="list-style-type: none"> ■ Are you utilizing heat recovery equipment? Upwards of 90% of the heat generated by compressed air systems can be recovered and used for other applications, lowering your utility bill.
<p>ARE YOU USING TECHNOLOGY?</p>	<p>CONSIDER LIFE-CYCLE COSTS?</p>
<ul style="list-style-type: none"> ■ The Industrial Internet of Things (IIoT) has delivered advances in compressed air monitoring capability. ■ This advanced monitoring capability can lead to improvements in both uptime and efficiency, saving a considerable amount. 	<ul style="list-style-type: none"> ■ It is an error to think only in terms of the cost of the air compressor unit. Over the life of your compressed air system the life-cycle costs for a fixed speed compressor can be broken down as: <ul style="list-style-type: none"> ■ 7% purchase price ■ 11% maintenance ■ 82% energy costs ■ A variable speed compressor will reduce the energy costs by approximately 35% to 50%.