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Finding out the "Real Cost" of leaks in compressed air systems

Many plant managers are not aware of the real cost of a leak in their compressed air system. Immediate Leakage detection and repair by **Greatrex** consultants offers significant savings for plants using compressed air systems.

Compressed air leaks are typically responsible for between 20% - 30% of the air consumption which often makes the leaks themselves the single largest consumer of air.

Greatrex can assist plant managers to understand the true cost associated with air leakage and help make the leakage reduction projects a high priority. Greatrex can measure all the key parameters of a system so managers can better understand leakage levels, cost of compressed air and then quickly evaluate potential savings.

A typical leakage scenario is shown below:

Despite the fact that the cost of leakage is hidden in the total electric bill, the leaks are very much a real cost.

Site Energy cost -	$0.14/kW
Site Air Capacity –	35m³/minute
Leakage –	20% 7m³/minute (44kW approximately)
Leakage per hour =	$6.16
Leakage per year (Based on 6000 Operating Hours) =	**$36,960**
Typical cost to detect leaks with BVRG services:	**$4000-$6000**
Typical cost to repair leaks with BVRG services:	**$5000-$7500**

Leaks themselves can compound problems and exponentially increase inefficiency. For example, a typical 5% undesired pressure drop caused by an unregulated demand such as a leak can often lead to increasing system pressures unnecessarily. The system increases power usage in order to produce 105% of required pressure to allow for the 5% leak.

Furthermore, all leaks when placed under increased pressure then exacerbate the total leakage rate and the system consumes even more wasted power.

It is also important for plants to understand that the type of air compressor and the local capacity controls can be hugely influentual on the savings potential. Evaluating this can become quite complicated for the uninformed, particularly when there are multiple compressors.

Identifying and fixing leaks is an obvious means of reducing compressed air costs. Greatrex can assist Plant Managers to both properly eveluate savings potential and execute a systemmatic approach to leakage reduction to achieve the best longer term results.

Please see the recent case study: Compressed Air Leakage Management Program at Uncle Toby's Wahgunya – Proven Savings of $165,000/year. < link to study>