

Compressed Air Leakage Management Program at Uncle Toby's Wahgunya- Proven Savings of \$165,000/year

Implementing a compressed air leakage management program has proven to be well worthwhile for Uncle Toby's Project Manager Rodney Tomkins who has managed to **save the company a whopping \$165,000 per year in approximate power savings (approximately 30% of total compressed air power usage).**

The Uncle Tobys plant ran **three large compressors at full capacity to satisfy the sites air demand requirements.** Mr Tomkins contacted Greatrex in 2008 and requested help on reducing air demand through compressed air leakage in the plant.

Greatrex were asked to focus on leakage rectification. This included initially **two compressed air leakage surveys and repair projects per year and then reduced down to one per year from 2010.**

Using advanced diagnostic equipment, the first survey indentified 264 leaks. These were easily fixed by local contractors.

Within a year air demand through leakage had reduced by enough that the site only need to run 2 compressors! This provided significant and immediate savings (shown in table below). Uncle Toby's also benefited from the security of then having a back up compressor in case of breakdown or maintenance requirements.

Total power savings are approximately 160kW. Actual power cost for the site was \$0.12/kW/h (including all usage charges plus all fees based on kW's consumed or variable charges).

Savings summary:

160kw x 24 hours x 365 days x \$0.12 = **\$168,192 estimated annual power savings**
= **\$460 daily savings**

Note: Additional maintenance and capital costs will also be saved.

To ensure repairs were carried out Uncle Toby's used a 3rd party local contractor to conduct repairs.

ROI Summary:

Cost for each Leakage survey = \$8,400

Approx Repair cost per survey = \$1,800

Total Cost for each Survey & Repair project = \$10,200

Cost of 2 leakage & repair projects per year = \$20,400

Annual spend (based on 2 survey and repair projects) vs savings = 12%

In 2011 and 2012 Mr Tomkins worked on a project overseas and unfortunately without the same dedication to Leakage Management there was a resurgence of leakage back into the system. Upon returning in 2013 the 3rd compressor was again required to run (approximately 30% - 40% of capacity) to account for an increase of approximately 10m³/minute of leakage. **An immediate refocus on leakage has again proven successful and the site is back to only requiring 2 compressors to run to meet total production air demand.**

Unlike most Australian Manufacturing sites Mr Tomkins understood the high costs associated with producing compressed air and in turn the savings potential of reducing air demand through implementing a successful ongoing compressed air leakage management program.

Mr Tomkins continues to engage Basil Greatrex to perform regular site leakage surveys allowing the in house resources to focus their efforts on production related issues and requirements.