



Papamoa Beach,
Papamoa 3118
TAURANGA

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Client: **Central Processing – Auckland, NZ**
Service: **Compressed Air & Vacuum Leak Survey carried out 23rd – 26th Mar**

The compressed air / vacuum leak survey under-taken on the above mentioned dates resulted in **288** air leaks and zero vacuum leaks being identified.

The attached Log provides comprehensive information pertaining to the location of each leak and a brief description of the nature of the leak. All leaks exceeding 80dB have been logged as Urgent and are also listed in a separate worksheet sorted by location to assist you with prioritising your maintenance program. Further information on individual leaks is written on a Green high visibility "Leak" identification tag supplied by ULDS Ltd and is attached to the source of each leak.

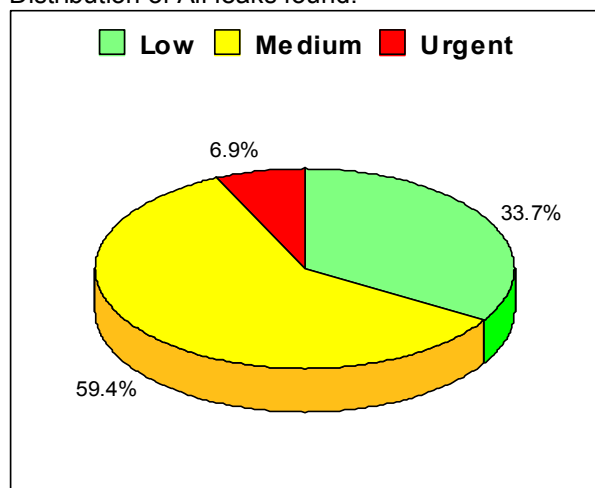
Estimate of Air Loss:

Our survey estimates an air loss of approximate **344.5 CFM** which equates to about **20.6%** of site consumption. The cost of that loss based on an estimated \$p/KWH of 0.150c is **\$57,483 pa.**

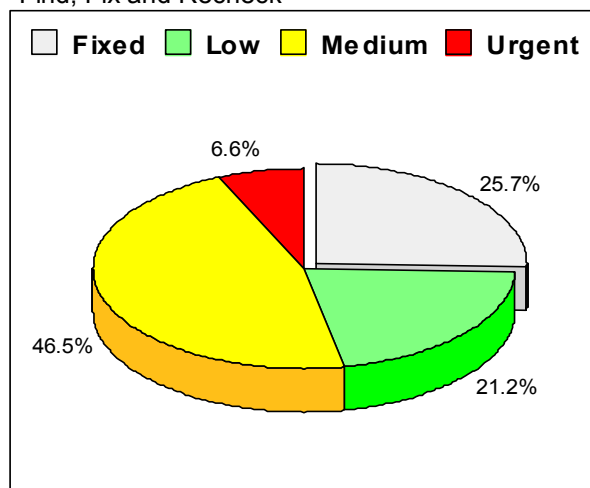
Immediate Savings:

During the survey we used the "Find, Fix and Recheck" method which resulted in **25.7%** of the leaks found being repaired. This equates to an estimated immediate power saving of **\$14,773 pa.**

Distribution of All leaks found:



"Find, Fix and Recheck"



Observations:

The total number of leaks found during this year's survey has dropped 36%. This includes a 57% drop in Low leaks and Urgent leaks dropping 23%. This has resulted in a decrease in the overall air loss i.e. down from 27.0% to 20.6% which is now below the industry standard of 25%.

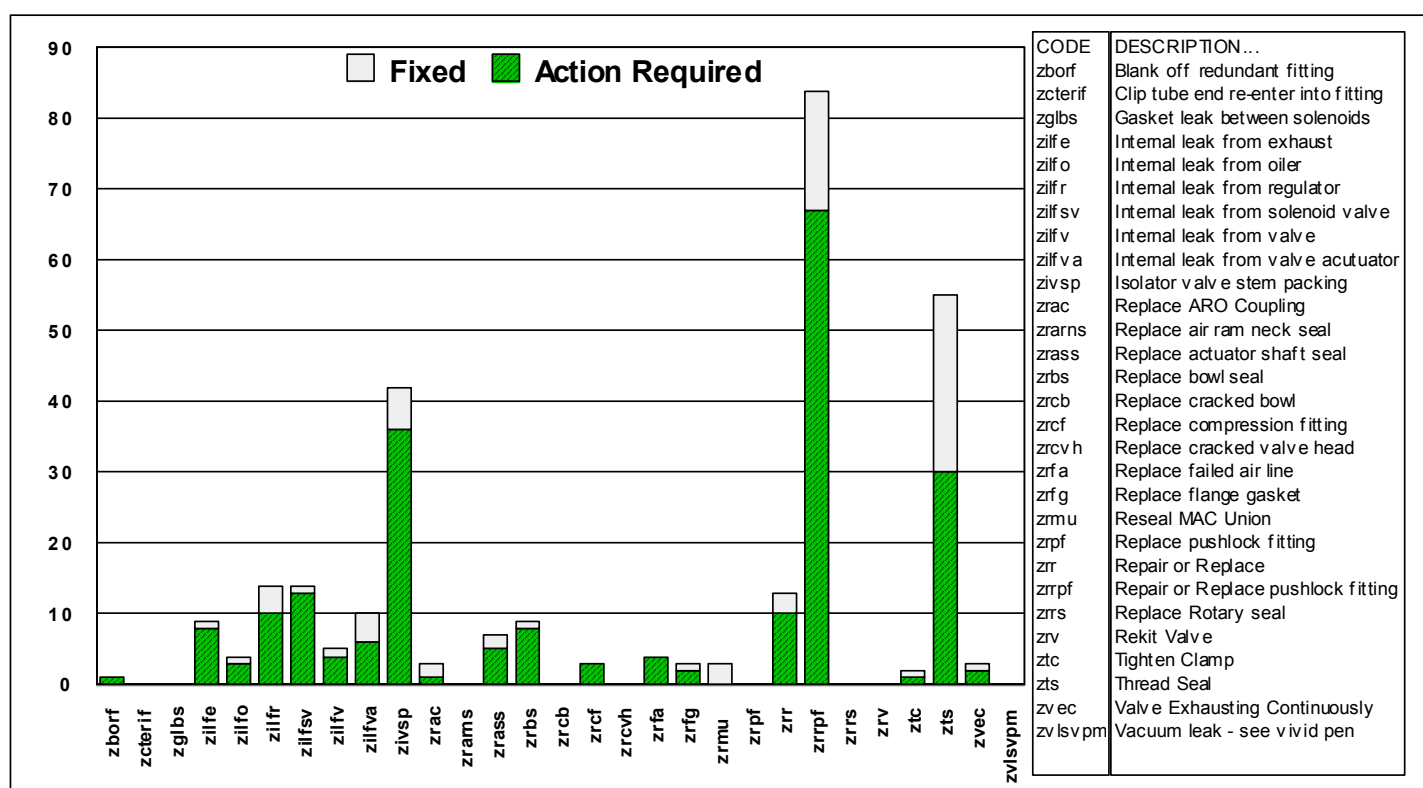
It was also noted that the number of leaking isolating valves throughout the site has dropped further from 84 to 42. This figure was 149 in the 2007 survey. Please note, a number of cabinets in Rm206 were not checked due to a pending upgrade in this area.

It was also very pleasing to again find only a small number of old tags through-out the site. These are excellent results and a credit to all the maintenance staff.

In summary:

Loss Assessment	Estimate of Air Loss (CFM)	Annual Loss (kWhrs)	Cost per kWhr	Annual Cost of Loss	Fix Rate	Estimated Immediate Savings
20.6%	344.5	383,221	\$0.150	\$57,483	25.7%	\$14,773

To assist you further in your on going maintenance program, you will see below a count of all the fix codes that appear in the attached log. This is to help your engineering staff in identifying common causes which could be included in your preventive maintenance program.



ULDS Ltd would like to thank staff and management who were directly involved during this survey for their assistance and full co operation.

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Site Survey History:

Date	Leaks	Low	Medium	Urgent	Loss Assessment	Loss (CFM)
03/2009	288	97	171	20	20.6%	344.5
03/2008	450	228	196	26	27.0%	451.5
03/2007	491	379	76	36	23.8%	397.8
06/2006	452	311	84	57	28.5%	477.4

