Case Study

Direct impact of the leak detection survey and repairs estimated at a R 661,672.00 saving per annum.

"Energy costs are monitored by Parmalat Management on a monthly basis.
The ratios of compressed air and steam compared to the volume of finished product produced are measured and compared to a set budget and industry standards.
Fixing air and steam leaks have a direct impact on these ratios."

Client background

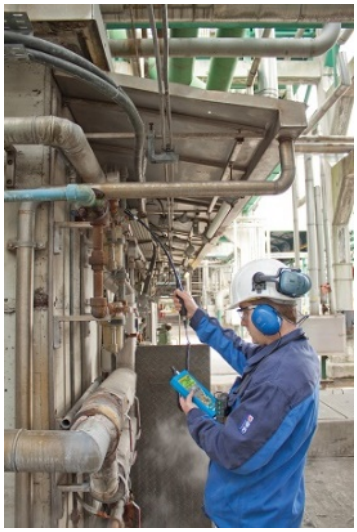
The Parmalat plant in Kyalami produces and packages a number of different yoghurt products. The client approached Martec to conduct a leak detection survey which involved the process of finding, tagging and quantifying leak loss on all compressed air lines in the factory.

Internationally as much as 40% of compressed air produced is lost therefore increasing the need to find and fix leaks.

The client is aware of the high cost to produce compressed air and steam and therefore any losses would equate to operational expenses which could be avoided.

Key challenges

Locating the exact point of the leak and ensuring personnel can find and repair the leak.



Value add

- Our recommendation is for the client conduct the leak survey bi-annually to pick up any new leaks.
- Verification on the repairs conducted to ensure leaks are fixed.
- Confirming actual savings can be achieved with the use of measurement and verification equipment.
- This data can be sent to smart devices and alarm levels set to detect an increase in compressed air usage.

Martec intervention

- Qualified personnel found and tagged 93 compressed air leaks with an estimated savings value of R 617,048.00 per annum. These leaks must be sealed correctly in order to achieve this saving.
- Four leaks of open blowing from valves were closed during the survey at an estimated cost of R 44,624.00 per annum.
- Six steam leaks were also identified.

Tools and technology

- The ASNT Certified Level 2 Inspector employed the following equipment:
- SDT270 Ultrasonic Detector
- Flexible Sensor (Airborne Ultrasound)
- Parabolic Dish
- SDT Field Leak Estimator Software