# Case Study Manufacturing | Food and Beverage Parmalat



### 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 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, 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.

The survey plus repair interventions will save the client an estimated R 661,672.00 per annum – a direct impact on their bottom line.

## Key Challenge

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





#### Value Add

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



"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 are measured and compared to a set budget and industry standards. Fixing air and steam leaks has a direct impact on these ratios."

#### 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.





# **Client Consent**

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Peter McKillop	Technical Manager	Parmalat Kyalami		19/9/2017
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A copy of the final Case Study/Client Reference will be provided to the client as reference.

