

Leading Food Producer



Food & Beverage



United Kingdom



GEM™ Steam Traps

Overview

With a global sustainability plan to achieve net zero emissions by 2050, this site invested millions (£) to enable new state-of-the-art manufacturing capabilities in accordance with green building certifications. However, failing mechanical traps were causing major disruptions to production, resulting in potential equipment damage. It was not just a case of satisfying company sustainability targets but also one of asset protection and financial viability.

Impact

- ▶ Annual energy savings of 868,487 MWh
- ▶ Annual cost savings of £108,997
- ▶ Annual CO₂ reduction of 196 tonnes
- ▶ 12 months return on investment

Solution

With a 14% failure of mechanical traps, live steam was causing the deaerator to oscillate with potentially damaging consequences to the equipment.

Recognising the GEM Steam Trap's efficiency and 10-year no-fail performance guarantee, the customer embarked on a full site conversion.

The customer opted for a Turn-key approach, trusting Thermal Energy to manage a seamless transition to GEM Steam Traps according to the factory's production schedules, remarking on the professionalism of the service received.

Thermal Energy managed the replacement of all mechanical traps with GEM Steam Traps, upgrading each location to flanged block and bleed isolation valves to enable safe servicing in line with HSE safety guidelines.

The effects of using the most efficient and reliable steam traps on the market were almost immediate, with a reduction in oscillation in the deaerator, that was no longer blowing off during production. This consequently reduced the likelihood of lasting damage.

Within the first two months, the customer saw a notable reduction in the cost of kWh/tonne of product, forecasting even greater cost reductions year after year.

GEM STEAM TRAPS

- ▶ GEM™ Steam Traps are the most efficient and reliable steam traps on the market.
- ▶ A permanent, low maintenance steam trapping solution with no moving parts to break or fail.
- ▶ Implementation of the technology typically reduces steam costs by 10% to 20%.
- ▶ Average payback ranges from one to two years.