

Leading Chocolate Manufacturer



Confectionery



Italy



GEM™ Steam Traps

Overview

This customer is dedicated to building a sustainable global supply chain; decarbonisation and net zero efforts are prioritised and pursued by a dedicated Energy Director.

Thermal Energy has considerable experience in the confectionery industry, and some of the successes were shared by industry peers directly to the customer. This strong recommendation encouraged the customer to champion GEM Steam Traps across its manufacturing sites in multiple countries.

Steam plays a critical role in food manufacturing, and the GEM Steam Trap is particularly well-suited to this industry due to its ability to operate efficiently across varying loads and accommodate processes with diverse pressure and size requirements.

Applications such as warming creams, trace heating, and roasting, benefit greatly from its adaptability and consistent performance. GEM Steam Traps are designed to handle the rigorous demands of food production environments, ensuring reliability and guaranteed performance.

Solution

An ISO-recognized efficiency test comparing GEM Steam Traps to conventional mechanical traps demonstrated a remarkable 64% improvement in efficiency.

This result led to the conversion of all drip legs at a European site to GEM Steam Traps, calculating a project payback of less than 12 months. Encouraged by these outcomes, the customer proceeded with a full site conversion at a second facility.

Unlike mechanical traps, GEM Steam Traps have no moving parts, eliminating the recurring fail-and-replace cycle that often disrupts operations. This enhances production capacity by reducing downtime and drives cost savings through decreased water consumption and reduced chemical use.

Beyond their technical advantages, GEM Steam Traps contribute significantly to the customer's ambitious sustainability goals. By improving energy efficiency and reducing waste, these traps align seamlessly with the company's commitment to decarbonisation and net-zero efforts.

This alignment has fostered a strong partnership with the company's Energy Director, paving the way for continued collaboration and support in achieving long-term sustainability objectives without compromising operational quality.



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.