

Chemical Plant



 Pharmaceuticals

 United Kingdom

 GEM Steam Traps

Overview

Energy savings of over \$100,000 a year was realized at this customer's site following the installation of 200 GEM Traps throughout the process plant. The company's energy bill has been reduced by 28% each year.

Impact

- ▶ Eliminated cost of replacing failed traps
- ▶ Short payback of 12 months
- ▶ Highly reliable - 10 year no fail guarantee
- ▶ Removal of unnecessary parts from the system
- ▶ Significantly lower condensate temperature
- ▶ Improved condensate return volume

Solution

The site is a hi-tech manufacturing facility with a capacity to produce 300 tons of products per year.

The customer's Utility Engineer & Energy Manager, who previously installed GEM Traps when employed at another leading pharmaceutical company, was aware of the energy savings that could be made using the patented venturi orifice design.

They asked Thermal Energy International to carry out a full survey of the steam system. The report showed that approximately 10% of the steam traps were failing open, resulting in 8,900 tons of steam being lost each year at a cost of \$108,000. Not only was this increasing energy and maintenance costs, it was reducing production time and creating 3,000 tons of carbon dioxide emissions each year.

The customer's US headquarters had set an energy reduction target of 25% for the site over a three-year period. By installing the GEM Traps, the site achieved its target in less than 12 months. Such was the facility's accomplishment that a senior executive visited from the US to see how the energy savings had been achieved.

"Mechanical traps fail and this has an effect on production times and costs as well as energy, maintenance and the environment. Fixed orifice steam traps do not fail open. Because of the success of the GEM Traps, we have decided to completely convert to GEM Traps in order to benefit from additional energy savings" said the customer's Energy Manager.



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