

Leading Pharmaceutical Group



Pharmaceuticals
 Italy
 GEM Steam Traps

Overview

This leading pharmaceutical group has made Thermal Energy International's GEM venturi orifice steam trap its steam trap of choice following three years extensive testing, and has instructed its staff and maintenance contractors to replace its mechanical traps with the GEM venturi orifice design as the mechanical traps fail.

Solution

Following a presentation by Thermal Energy International in 2007, a partial survey was carried out on some of the steam equipment at the 180,000 square metre site which found that around 10% of the mechanical traps had either failed open, shut or partially open.

Following these findings, the company decided to test a GEM steam trap on a metered trial. The steam consumption of the mechanical traps was recorded and in 2009 eight mechanical traps, used on heat exchangers, air conditioning units, humidification systems and drip legs, were exchanged for GEM.

Six months after installing the GEM steam traps, the company was making steam savings of 8% with low-pressure steam at 3-bar, which will provide a payback to the company in just 12-months. Following these findings, 20 GEM venturi orifice steam traps were installed in the oldest part of the production site with very positive results. Since then a total of 30 GEM traps have been installed on drip legs, kettle reboilers, heat exchangers, heating batteries and humidification systems with a further 20 traps being ordered for installation this year.

Impact

- ▶ Eliminated cost of replacing failed traps
- ▶ 12-month payback on energy saving
- ▶ Highly reliable - 10 year no fail guarantee
- ▶ Steam savings of 8%
- ▶ Significantly lowered condensate temperature



"We were conscious that mechanical steam traps create endless problems in industrial plants as a result of their poor reliability and significant maintenance requirements. With GEM we have identified a solution that encompasses energy savings and minimum maintenance" said the customer's Energy Manager.



- ▶ 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