

HOSPITAL



PROJECT BENEFITS

- ▶ Eliminated cost of replacing failed traps
- ▶ Short payback of 18 months
- ▶ 10% savings in steam consumption
- ▶ Significantly lower condensate temperature
- ▶ Improved condensate return volume



GEM™ Traps, FLU-ACE®, & CoGen Saves Hospital Tonnes

In 2009, the hospital's average steam consumption was around 295 tonnes per month with the lowest figure recorded at 282 tonnes per month. Following the installation of Thermal Energy International's (TEI) GEM™ Venturi Orifice Steam Traps in 2010 the average steam consumption was reduced to 265 tonnes per month with the lowest monthly-recorded figure dropping to 252 tonnes. Savings in energy alone would enable the hospital to receive a payback on the installation in just 18 months.

A total of 70 GEM Traps were installed throughout the hospital replacing traditional thermodynamic steam traps, which on average were either failing open, shut or half-open at a rate of 10% per annum. Together with other energy saving incentives already introduced, the GEM Traps have helped ensure that the hospital has met the Government's mandatory performance

targets for the NHS to reduce primary energy use by 15% from 2000 to 2010 in its new and existing buildings.

The customer's output was 5.1 million tonnes per annum. By 2015 the hospital reduced this to just 4.6 million tonnes due to a raft of energy efficiency measures including the installation of GEM Traps, a new CoGeneration (or Combined Heat and Power) system and a FLU-ACE® Heat Recovery System stack economizer.

The hospital's Trust has since asked TEI to install a CoGeneration (CoGen) exhaust stack condensing heat recovery system for use on its heating and hot water system. This enhancement will provide the Trust with further energy savings to add to the energy efficiency of its new CoGen system.

"Obviously our initial carbon reduction targets were very much in line with those set out by the NHS as a whole, but we are now aiming to go somewhat further than we are actually required to do via a whole range of measures. I saw GEM Traps in use during a demonstration at [another] hospital and was very impressed. We have found the savings they have made really significant, reducing our steam consumption by between 50 and 60 tonnes per month."

- Hospital's Trust Representative



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