



# DIAGEO PLC

## Runcorn, United Kingdom



### Benefits

- Eliminated cost of replacing failed traps
- Rapid payback of 6 months
- Highly reliable - 10 year no fail guarantee
- Removal of unnecessary parts from system
- Significantly lower condensate temperature

## GEM® Trap Retrofit in Bottling Plant

Thermal Energy International (TEI) installed a total of 71 steam traps through the plant, which has provided Diageo with a payback in less than 12-months and has resulted in the facility making savings in energy, replacement costs and maintenance.

As in most brewery processes, steam plays a key role at every stage of the plant's operation. Prior to the installation of the GEM Traps, each year an inspection of the facility's steam traps was undertaken to replace those which had failed open, thereby wasting expensive steam, or those which had jammed shut, risking water hammer and system failure. Aware that steam trap failure was also costing the site thousands of pounds in lost energy and increased replacement and maintenance costs, Diageo looked for a solution.

A site survey showed that a proportion of the steam traps on the site were failing fully open, some had failed closed and some were partially worn open. Not only was this increasing energy and maintenance costs but also reducing production time and having an environmental impact by creating additional amounts of CO<sub>2</sub> emissions each year.

TEI explained that by replacing the existing traps with the GEM venturi orifice design, steam traps would be prevented from blocking and impacting on production. In addition, by efficiently returning condensate back to the boilers, energy saving would be made.

**“Mechanical traps fail and this has an effect on production times and costs as well as energy, maintenance and the environment. GEM fixed orifice venturi steam traps do not fail open and because of this the plant is benefitting from improved environmental practice.”**

- Engineering Manager