

Developing a Taste for Good Customer Service

While seeking ways to prevent steam from damaging its facility, a major cereal manufacturer found energy savings through heat recovery.

As with many food and beverage facilities—especially those that make cereal, steam is a very important part of the process. Steam operates some of the equipment, heats water for the manufacturing processes, and in some cases, does some of the cooking.

An engineer at a major cereal manufacturer found the contact information for Area Manager Aspie Gowadia on the Spirax Sarco website. “The customer called me to ask if I could help him with a problem, even if the plant does not use Spirax Sarco products,” said Gowadia.

Perhaps the competing manufacturer was not able (or willing) to solve the problem. However, the Spirax Sarco team was eager to help.

The customer explained that an existing steam-pressure-powered pump from another manufacturer was not functioning properly. The pump was not discharging the condensate as it should. The overflow was going to drain, wasting valuable, hot condensate, as well as creating a nuisance and maintenance problems.

The customer was so impressed with Spirax Sarco’s steam system expertise and how quickly the problem was resolved, that Gowadia was asked if he could help with other issues. No problem.



FROM FLASH STEAM TO RECOVERED ENERGY

“We found that they were using hot water collection tanks with gas-fired burners,” Gowadia said. There were multiple pumps, control valves, and associated components, which increased operating costs. Additionally significant flash steam was venting to the atmosphere from the collection tank, indicating steam-trap failure. Not only was the flash steam wasting valuable energy to the tune of 6,000 lb/hr, but was also damaging the building.

The Spirax Sarco team analyzed the problem and designed a system to recover the heat from the vented flash steam and use it to heat water for the manufacturing processes. The system also eliminated the potential for further damage to the building that pleased senior management. Spirax Sarco recommended installing an EasiHeat heat exchange package incorporating a plate-and-frame heat exchanger. This type of heat exchanger benefits from a large heat transfer surface area, within a small footprint, that results in rapid heat transfer and a low pressure drop.

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GOOD ADVICE YIELDS GOOD RESULTS

The Spirax Sarco EasiHeat heat exchanger package was duly installed along with new piping required to accommodate system changes. Spirax Sarco's recommendations paid off—nicely. Installing the EasiHeat enabled the cereal company to take an enormous bite out of its fuel costs. "The system is working great; it has reduced our energy usage by more than \$150,000 per year," said the cereal company's facility engineer. "It has been a great investment."

The satisfied customer estimates payback for the EasiHeat installation to be less than two years. With waste heat recovery from the flash steam running at around 2,500 lb/hr, annual savings, including feedwater and boiler chemical are projected to be in excess of \$200,000 a year.

This calculation does not factor in the additional savings from reduced maintenance and repairs to both an inefficient, outdated system and the building itself.

CONFIDENCE LEADS TO TRUST

Thanks to the success of this project, the cereal company is now considering having Spirax Sarco provide steam trap surveys and comprehensive steam system audits at this and their other facilities.

For further information please contact:

T 1-800-883-4411
www.spiraxsarco.com/us

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