

**Company** - Leighton Hospital

**Location** - Crewe, Cheshire

# “Easy decision” to upgrade to Spirax Sarco’s heat exchanger systems cuts Leighton Hospital’s water heating costs by 10-15%

**Objective:** Achieve more accurate control of the outgoing water temperature, eliminate wasted energy and reduce/eliminate scheduled maintenance works.

**Solution:** Installation of Spirax Sarco’s EasiHeat systems to supply almost 90% of the hospital’s domestic hot water.

**Results:** Water heating costs cut by approx. 10-15% per annum, substantial savings on maintenance costs, and a reduction in carbon emissions expected to lower payments under the CRC Energy Efficiency Scheme.



Upgrading to Spirax Sarco EasiHeat steam-to-hot-water systems has cut Leighton Hospital’s annual water heating costs by 10-15%

Leighton Hospital has cut its water heating costs by an estimated 10-15% per annum by upgrading its hot water system to two Spirax Sarco EasiHeat™ steam-to-hot-water systems. What’s more, the upgrade is expected to deliver further savings by cutting carbon emissions at the hospital, which will reduce payments under the CRC Energy Efficiency Scheme.

The installation by Leighton Hospital, a 540-bed acute hospital in Crewe, brings the total number of EasiHeats at the site to ten, underlining the hospital’s confidence in the technology’s superior reliability and energy efficiency. Six of the existing units supply low temperature hot water (LTHW) for the space heating system in the main hospital building, while a further two units provide a combination of LTHW and Domestic Hot Water (DHW) for some of the hospital’s outbuildings. The latest EasiHeat systems will

supply almost 90% of the DHW in the main hospital building, making the transformation from calorifiers to EasiHeat steam-to-hot-water systems in the main part of the hospital almost complete.

“Our aims in installing the latest EasiHeat systems were to achieve a more accurate control of our outgoing water temperature, eliminate wasted energy due to storing large volumes of hot water, and reduce/eliminate scheduled maintenance works regarding annual inspections,” explains Brian Colley, Energy & Environmental Engineer at Leighton Hospital. “We have a lot of experience with plate heat exchange systems, which meant our decision to upgrade to the EasiHeat systems was an easy one to make – we knew they would be perfect for this project.”



## Leighton Hospital

Spirax Sarco EasiHeat is a ready-to-install system that uses steam in a compact, plate heat exchanger to deliver water on demand at a constant, stable temperature, even with the sudden, wide load changes frequently experienced in a hospital environment. As the hot water is supplied on-demand, there is no need to store it, avoiding the associated energy losses and significantly reducing the risk of Legionella.

“Before we installed the EasiHeat systems, we had to pasteurise the water by keeping it at 80°C for an hour before we could open it up onto the circuit. Then, because it is domestic hot water, we had to cool it down before it could be used, which was a huge waste of energy. Installing the EasiHeat systems means it is no longer necessary to store hot water, which will reduce carbon emissions.”

The EasiHeat systems are also expected to reduce maintenance costs at Leighton Hospital. Unlike calorifiers which are pressure vessels and must be stripped down for annual insurance inspections, EasiHeats do not need to meet this requirement, saving substantial maintenance costs.

Spirax Sarco worked closely with Leighton Hospital to make sure the switchover to the EasiHeat systems was as easy as possible. “Due to this being the primary hot water system for 90% of our hospital, the major challenges involved ensuring constant operation of the system. However, the overall scheme design, which Spirax Sarco helped to perfect, meant that very few shut-downs were needed and the hospital suffered no loss of service,” says Mr Colley.

“Our decision to upgrade to the EasiHeat systems was an easy one to make – we knew they would be perfect for this project.”

Having worked with Spirax Sarco on a number of steam-related projects, Mr Colley says he would have no hesitation in recommending the company to other organisations.

“My expectations of Spirax Sarco are always high as we have worked with the company many times before, and I am pleased to say it performed exactly as expected on this job. I would

always recommend that Spirax Sarco’s input is sought, and its advice adhered to, on any steam-related project. Our engineers have a lot of knowledge of steam and steam systems, but Spirax Sarco’s constant focus on new steam innovations and developments means it always has something new to offer product-wise or advice-wise.”

For more information on this, or any of our products or services please get in touch:

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