Domestic Hot Water Solutions Guide for Hospitals

4 common healthcare challenges and their cost effective solutions

First for Steam Solutions

EXPERTISE | SOLUTIONS | SUSTAINABILITY

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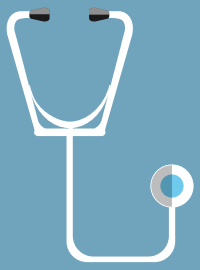
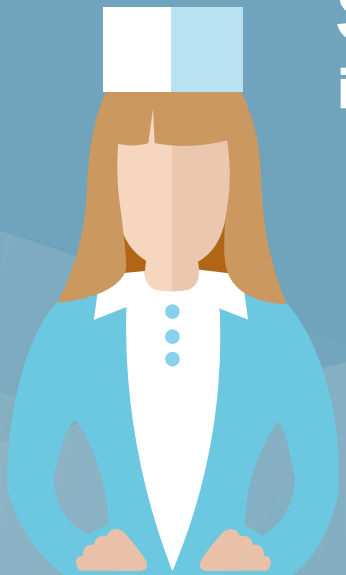
Healthcare premises are dependent upon water to maintain hygiene and a comfortable environment for patients and staff, and for treatment and diagnostic purposes. Interruptions in hot water supply can disrupt healthcare activities. Previously, the design of systems required sufficient reserve water storage and buffering tanks be available to minimize the consequence of disruption, while at the same time ensuring an adequate turnover of water to prevent stagnation in storage vessels and distribution systems.

1

“I need to keep the hot water running because patient comfort and safety is a priority”





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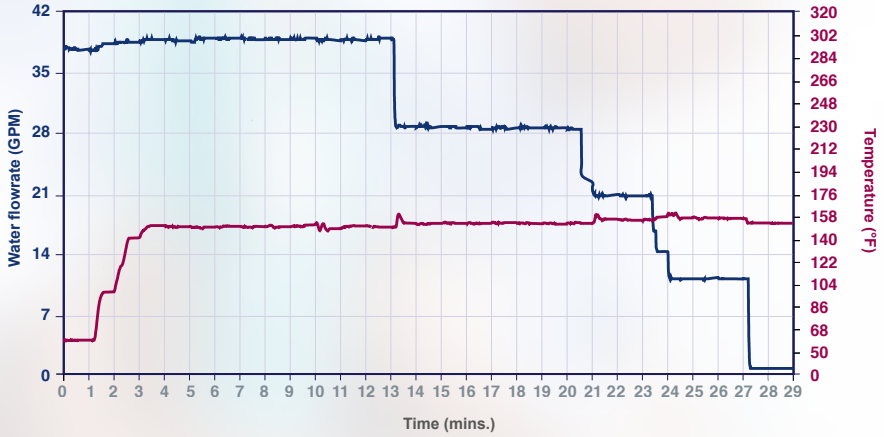
The Solution: The Spirax EasiHeat™ DHW incorporating SIMS™ technology is a complete, compact and energy efficient heat exchange package that will revolutionize your hospitals domestic hot water supply. Reducing the risk of legionella and other water contaminants, while consistently delivering hot, clean and efficient hot water no matter what the demand.

The Spirax EasiHeat™ eradicates the need for storage vessels and buffer tanks, creating accurate and instantaneous hot water. The Spirax EasiHeat™ DHW can satisfy a wide range of duties and deliver accurate stable safe secondary temperatures even with sudden and wide load changes.

The application is water heating, with a high secondary temperature rise and large sudden load changes; a duty typical of domestic hot water. The graph shows that even with the large sudden load changes, a safe, constant safe hot water temperature is maintained.



Water flowrate
This is the flowrate of cold water being delivered to the Spirax EasiHeat™ DHW.

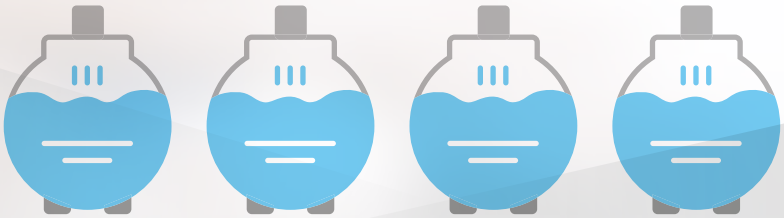
Water temperature
This is the temperature of hot water being delivered by the Spirax EasiHeat™ DHW.

2

“I have no space to expand my system”

Storage vessels and hot water tanks have large footprints, taking up limited and valuable floor space within the plant room. This can often make it extremely difficult to expand hot water capacity as your needs grow.

The Solution: EasiHeat™ packages remove the need for hot water tanks and storage vessels and are easily installed into existing pipework to allow easy expansion when necessary. Duty assist systems can also be installed to cater for predicted load demands during winter or busier periods. EasiHeat™ packages will maximize your output from a minimum footprint. The core unit only occupies 70 ft³ with even the largest output unit, fitted with all available options, only taking up 135 ft³ to save floor space in the plant room.



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3

“My storage vessels are a source of potential legionella outbreaks”

Legionella thrives in conditions where stagnant water is stored between 68°F and 140°F. Storage vessels are often a source of legionella bacterial growth. These should be cleaned and tested regularly to mitigate this risk as much as possible.

The Solution: Complete removal of storage vessels and buffer tanks is the only certain way of removing this source of legionella. EasiHeat™ Heat Exchange Packages eradicate the need for storage vessels, creating accurate and instantaneous hot water. The system can also perform a pasteurization process to keep pipes clean and patients safe.

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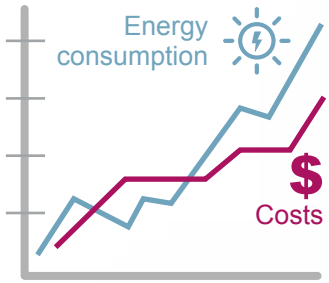
4

“My system isn’t energy efficient”



World-wide fuel prices are forecast to continue rising over the next decade forcing organization to impose more stringent energy and carbon reduction targets. Pressure is being placed on all parts of the healthcare organization to reduce costs, improve efficiency and lower carbon footprint. Utilities, especially hot water systems, are a key battle ground that most hospitals should consider when trying to make efficiency improvements.

The Solution: Correctly sized units ensure accurate control and responsiveness under all load conditions. This helps to drive optimum performance, so you can heat the same amount of water for less cost by ensuring none of the energy available in the steam goes to waste. Providing hot water on demand eliminates the need for storage, removing a possible breeding ground for Legionella bacteria, while also reducing radiated energy losses, lowering your total life cycle cost.

Accurate and reliable monitoring and measuring of your hot water systems, is provided by our new innovative control system incorporating SIMS™ technology (Spirax Intelligent Monitoring System). With its 7" colour touch screen you have complete and easy access to the data required to understand how and where you use your energy, so you can make more informed energy management decisions and increase efficiency quickly.

SIMS™ TECHNOLOGY

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