

EasiHeat™

Maximum heat transfer efficiency and optimum performance for domestic hot water, process water and heating applications



First for Steam Solutions

EXPERTISE | SOLUTIONS | SUSTAINABILITY

spirax
sarco

EasiHeat package solutions offer maximum efficiency and process uptime.

Improve temperature accuracy, energy efficiency and reliability while reducing legionella risk in your domestic hot water and heating system with EasiHeat.

Are you experiencing any of these hot water issues in your process?



Unstable temperatures



Unplanned downtime



Rising operating costs



Tracking energy & water use

Find an EasiHeat package that is right for you

Your EasiHeat will offer world-class performance, including Alfa Laval heat exchangers with intelligent insights and smart remote control features to ensure performance, responsiveness, and reliability.



Our range of hot water, dual control and heating solutions

Unleash the power of EasiHeat insights powered by CONNECT

Ensure uninterrupted operations, regulatory compliance, and long-term efficiency with near real-time insights, delivered by your connected EasiHeat.

1. Maximise system uptime and reliability

Many industries rely on continuous hot water supply for critical processes, and unexpected breakdowns can lead to costly disruptions. EasiHeat Insights detects potential issues with critical components before they lead to system failure. By identifying early signs of wear or anomalies, we help you prevent unplanned downtime and extend the life of your hot water system.

2. Minimise risk and improve compliance

Water temperature plays a crucial role in maintaining hygiene standards, and poor control can lead to serious risks, like Legionella. EasiHeat Insights alerts you to unsafe system conditions, triggering proactive intervention to ensure water temperatures remain within the safe range. This reduces the risk of health hazards, regulatory violations and contamination.

How Easiheat Insights works...

EasiHeat Insights offers near real-time monitoring and performance insights, empowering you to make data-driven decisions and maintain optimal system performance. Here's how it works:

- **Digital by design**
New EasiHeats are digitally-enabled for seamless integration and cloud connectivity.
- **Collect & analyse**
EasiHeat will automatically collect and analyse data using advanced AI algorithms.
- **Deliver insight**
EasiHeat Insights then turns data into information and provides you with notifications when specific conditions or limits are met or exceeded. These are accessed through the CONNECT from Spirax Group platform, a safe, secure and scalable IIoT platform.

3. Improve performance & energy efficiency monitoring

With rising energy prices and tight maintenance budgets, optimising performance and efficiency is essential. EasiHeat Insights tracks your performance and identifies potential energy savings. By ensuring your equipment is running at peak efficiency, you can reduce energy use and operational costs, while also extending the longevity of your system.



Turn insights into action

Efficiency, performance, maintenance and reliability are important considerations with essential systems like steam and hot water supply. Our service engineers can help give you total peace of mind:

- **Condition-based maintenance**
Transition maintenance of critical assets from reactive to proactive repair based on asset condition to improve process uptime, asset reliability, cost savings, and support resource planning.
- **First time fix**
Insights could support a first time fix. Your service engineer could arrive fully equipped with the latest insights from your system, steam expertise, and the right tools and spares to complete the job.

EasiHeat Insights is powered by CONNECT from Spirax Group: connecting our customers to actionable insights with digital solutions and services, available through our CONNECT platform.

The CONNECT platform is a safe, secure and scalable IIoT platform offering modular, configurable and value-driven

applications. The CONNECT platform gives customers seamless access to real-time data, operational efficiency insights, predictive analytics and sustainability metrics to help improve efficiency, increase productivity, optimise performance, reduce downtime and achieve operational excellence of critical processes.

For more information on CONNECT visit www.spiraxgroup.com

Insights Explained



Energy Consumption

Energy monitoring can help manage your energy use and improve efficiency. Energy use is calculated by converting power (kW) to energy (kWh) using a flowmeter on your steam or hot water.



Legionella Risk Indicator

Legionella insights are crucial for health and safety, ensuring your hot water systems reduce risk of Legionella bacteria build up. Legionella guidance monitors hot water outlet temperature to ensure it stays above 55°C for at least 60 seconds. Legionella guardian monitors the coldest point in your system to ensure it stays above 50°C for at least 60 seconds.



Gasket Wear Detection

Gasket wear detection estimates the remaining useful life of your gaskets. The calculation is based on steam inlet temperature and a runtime counter. Your maintenance team can replace the gaskets proactively to prevent failure and maintain efficient operation.



Tuning

Tuning insights optimise your control system to make sure your EasiHeat responds well to changes in hot water demand.

Common issues:

- The system doesn't stabilise around a set temperature
- There is a consistent gap between set point and water temperature
- It takes over 60 seconds to reach the right temperature
- The water temperature is too hot and destabilises the system



Scaling Detection

Scale build-up can reduce efficiency and increase maintenance costs. Steam temperature, condensate temperature, water-in temperature and flow, and hot water-out temperature calculates trends to show scale build-up, so plates can be proactively cleaned or replaced.

The graph shows heat transfer efficiency decreasing over time, suggesting scale build-up.



EasiHeat for instantaneous hot water – without storage and EasiHeat for building heating applications

EasiHeat for Domestic Hot Water

EasiHeat DHW is a complete, compact and energy efficient heat transfer solution, that will deliver a constant supply of instantaneous hot water at a stable temperature on demand (even with sudden and wide load changes) for a full range of domestic and process hot water applications up to 3500 kW.

The EasiHeat DHW unit has been developed with a series of optional modules to ensure the unit is perfect for your requirements, it can help you make valuable savings, tackle waste, minimise the environmental impact of your hot water generation, and make positive and demonstrable sustainability gains.

The energy efficient hot water system

All EasiHeat components are precisely sized and specified to ensure accurate control and responsiveness under all load conditions. This helps to drive optimum performance, so - compared with alternative solutions - you can heat the same amount of water for less by ensuring none of the energy available in the steam goes to waste.

Minimise bacteria risk

EasiHeat DHW allows energy savings to be made whilst ensuring safe water standards in your system

Instantaneous hot water on demand eliminates the need for storage, removing a possible breeding ground for Legionella bacteria, whilst also reducing radiated energy losses, lowering your cost of ownership and ongoing energy costs.

EasiHeat DHW is designed with options to reduce the risk of Legionella - these intelligent control features monitor the temperature of the water to ensure it is never in the risk zone for legionella growth, it can provide historic data to simplify reporting processes and prove the consistent safety of the water system.





Benefits of EasiHeat Domestic Hot Water

- Energy efficient – helps reduce costs and CO² emissions.
- Instantaneous hot water without storage to reduce energy losses, reducing risk of Legionella.
- Intelligent control and monitoring to help you improve efficiency and lower ongoing energy costs.

Potable water circuits

EasiHeat DHW offers a compact heat transfer solution with superior energy efficiency to help reduce fuel bills and reduce CO₂ emissions compared to many other hot water delivering solutions.

- Maximum output for minimum footprint. The core unit only occupies 2 m³ with even the largest output unit, fitted with all available options, only taking up 3.9 m³ to save floor space in the plant room.
- All the useful energy in the steam is used, eliminating the waste that occurs in more traditional systems. This reduces the amount of steam required, which in turn reduces fuel demand and the associated emissions.
- High quality, low maintenance components reduce maintenance costs. EasiHeat DHW seldom requires an insurance inspection due to the very low volume of the heat exchanger.
- Having no storage or buffer tanks also eradicates a potential breeding place for Legionella or other bacteria and dispenses with the need for regular inspections.

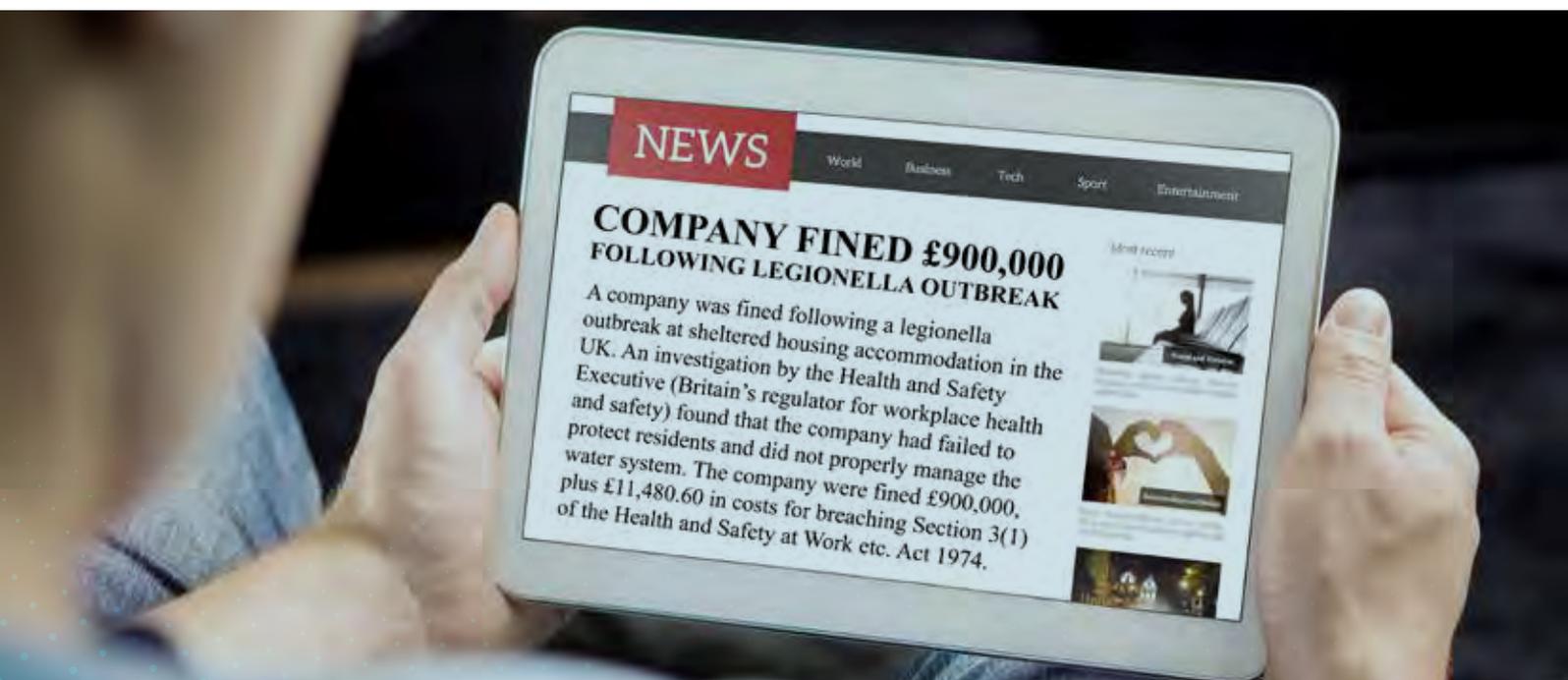
- Quicker, easier installation. EasiHeat DHW is supplied as a preconfigured, tested, pre-assembled, skid mounted unit. Offsite fabrication reduces installation time and helps with speedy, trouble-free commissioning.
- Due to its precisely matched and unique controls, you can trust EasiHeat DHW to deliver safe, accurate temperature water at the point of use.
- EasiHeat DHW can operate at low and even sub-atmospheric conditions to minimise the risk of scaling in areas where it is prevalent.

Process heating

The EasiHeat DHW design is also suitable for process applications where precise control of water temperature is required.

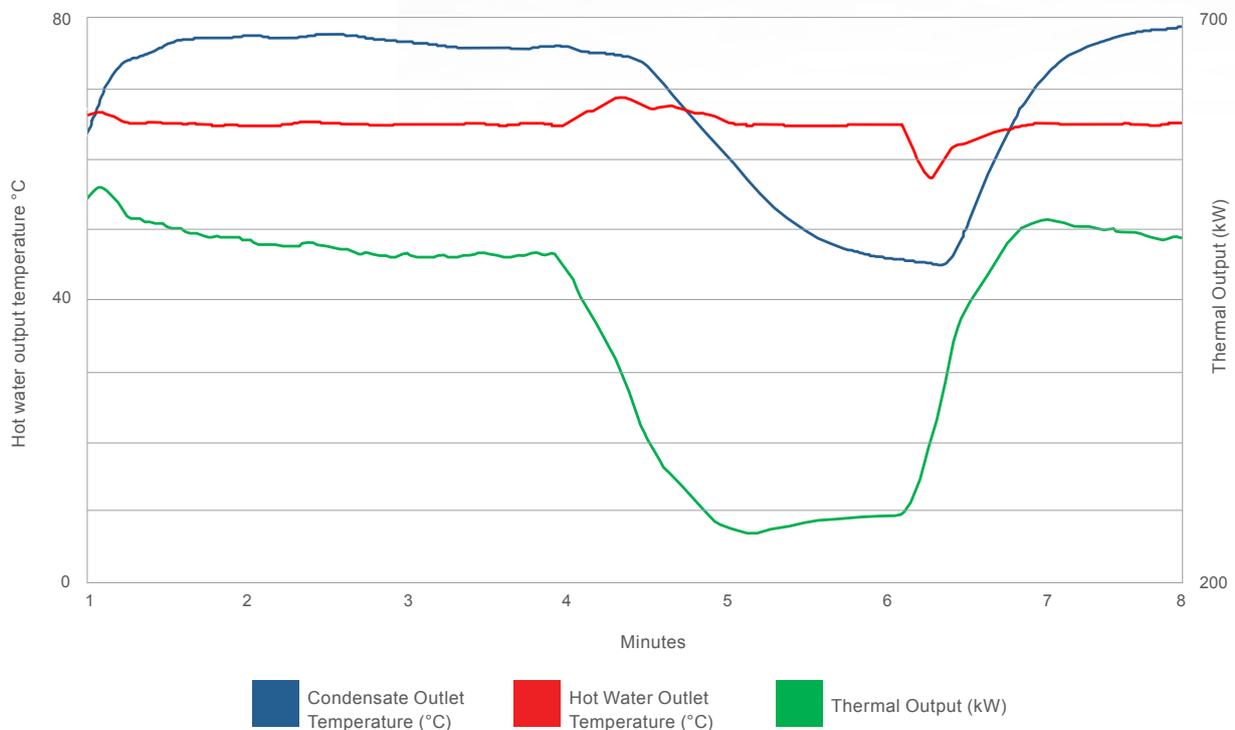
It can satisfy a wide range of duties and can operate with low temperature heating mediums for sensitive fluids where necessary and it delivers accurate stable secondary temperature even with sudden and wide load changes, without the need for a secondary circuit buffer tank.

EasiHeat DHW will control at $\pm 1^{\circ}\text{C}$. Even where there are large and sudden load changes, it is guaranteed to control at $\pm 5^{\circ}\text{C}$.



Benefits of EasiHeat Dual Control

- Energy efficient – helps reduce costs and CO₂ emissions.
- Instantaneous hot water without storage to reduce energy losses, reducing risk of Legionella.
- Intelligent control and monitoring to help you accurately control hot water temperature when duty varies quickly.



Domestic Hot Water, Dual Control with pneumatic actuation

This graph shows hot water outlet and condensate return temperatures during a dynamic load change. You can see how system responds to maintain hot water outlet setpoint temperature, as well as subcooling condensate during load changes. When the thermal output is high, the amount of subcooling is low as more of surface area is needed to meet the water temperature requirements. When the load drops, less surface area is needed to meet setpoint and more energy is recovered from condensate within the EasiHeat.

EasiHeat Heating (HTG) for building heating applications

EasiHeat HTG is a complete, compact, and ready-to-use steam to water heat transfer package that delivers superior energy efficient performance. For standard closed heating circuit applications, the EasiHeat HTG can help you lower costs, tackle waste, mitigate your environmental impact and make positive change towards carbon reduction.

The energy efficient heating solution

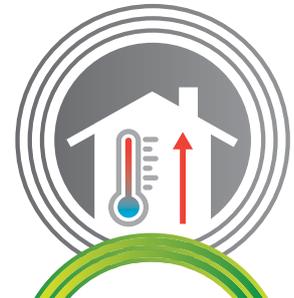
EasiHeat HTG offers you an extremely compact and energy efficient heat transfer solution. Because all of the useful energy in the steam is used in the unit, there's less waste compared with similar alternative packages, which reduces both fuel demand and your CO₂ emissions.

Advanced heating controls

Outside weather compensation automatically adjusts the heating set point, so if the outside temperature rises EasiHeat HTG will automatically lower its temperature output. This advanced control method further improves energy efficiency and maintains a comfortable working environment.



As the outside weather temperature increases, the temperature in the heating system is reduced, increasing system efficiency.



As the outside weather temperature reduces, the temperature in the heating system is increased.

The EasiHeat HTG difference

- Easiheat HTG is designed to lower costs and CO₂ emissions.
- You get maximum output for minimum footprint. The core unit only occupies 1.8 m³ with even the largest output unit, fitted with all available options, only taking up 3.9 m³ to save floor space in the plant room.
- Lower cost of ownership. High quality low maintenance components reduce maintenance costs.
- The EasiHeat HTG rarely requires an annual insurance inspection due to the very low volume of the heat exchanger.
- A quicker, easier installation. EasiHeat HTG is supplied as a preconfigured, tested, pre-assembled, skid mounted unit. Offsite fabrication reduces installation time and helps with speedy, trouble-free commissioning.
- Intelligent controls allow you to interrogate energy, CO₂ and carbon data to help you identify and implement efficiency improvements.
- EasiHeat HTG is accurately specified for your current needs at the time it is installed but can be adapted to suit future expansion by adding further plates to the heat exchanger.



Our efficient heat exchangers are designed for a wide range of processes:



Food and Beverage



Hospitals



Pharmaceutical



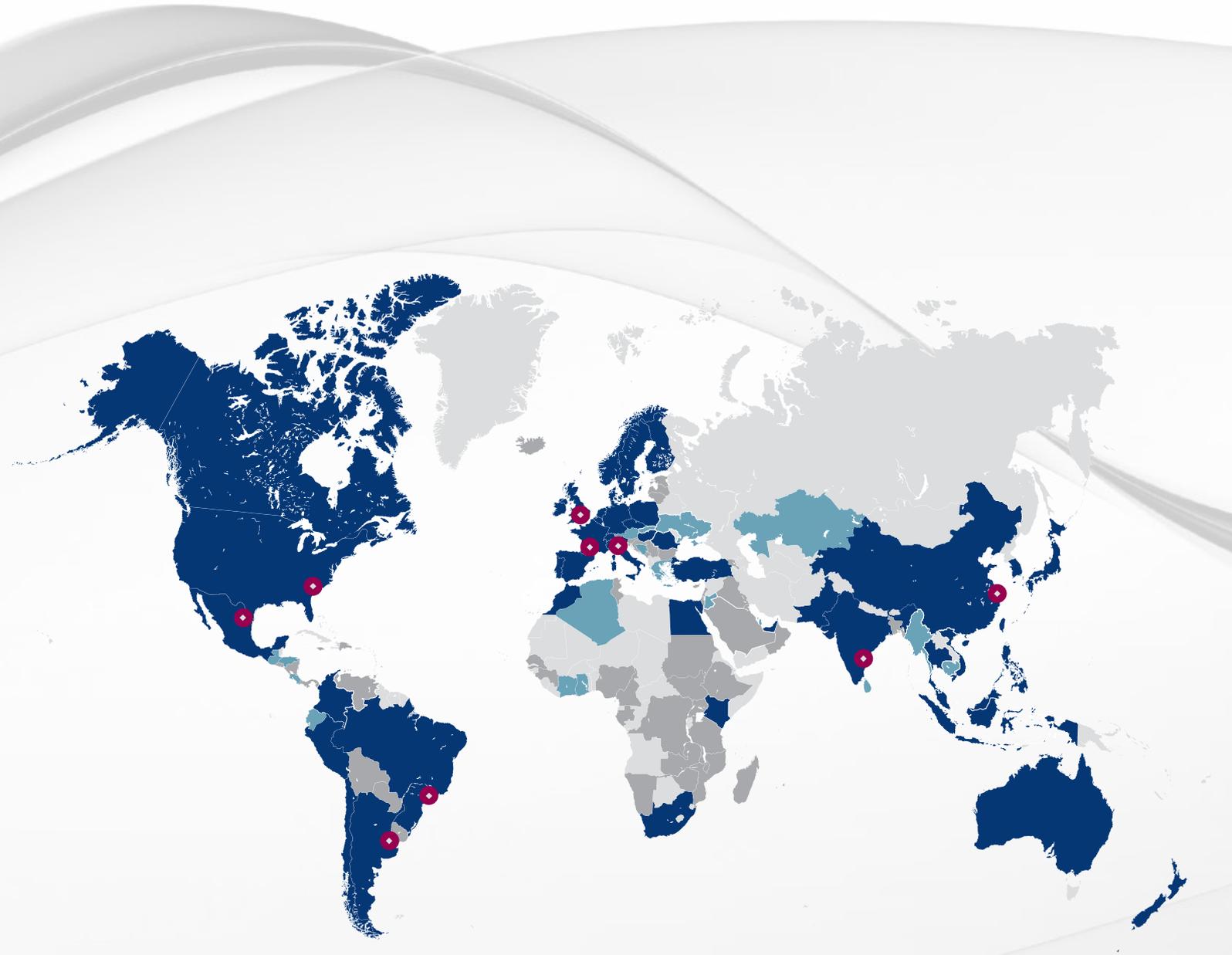
Hospitality

Spirax Sarco: Your trusted partner

As well as reducing energy consumption and improving efficiency you'll get access to Spirax Sarco's comprehensive steam system experience and heat transfer expertise.

Our engineers can perform a wide range of steam system audits and will support you with actionable recommendations for improving your performance and reducing risk in your process.

To learn how a digitally connected EasiHeat could benefit your process, contact our expert team for a demonstration.



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