

Complete Steam Trap Management

Maximize your energy efficiency and plant performance,
while meeting sustainability goals



First for Steam Solutions

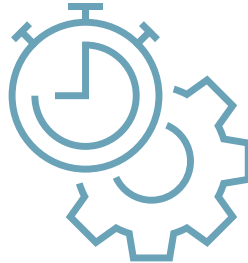
EXPERTISE | SOLUTIONS | SUSTAINABILITY

spirax
sarco

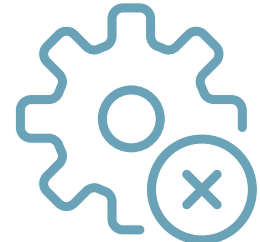
A complete offering that suits your needs



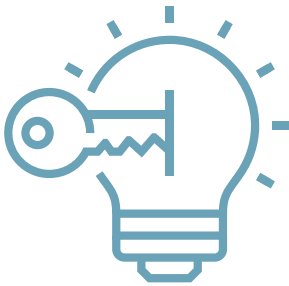
Initiatives to reduce carbon emissions



Increase system reliability



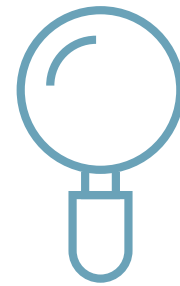
Reduction in resources for maintenance and process improvement



Access to Spirax Sarco expertise and engineering best practice



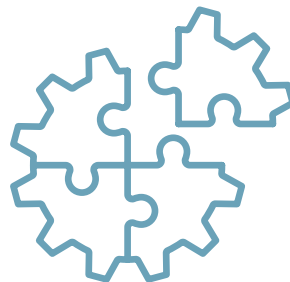
Justify improvements with an assessment of payback



Identify areas for energy optimization



Implementation of health and safety best practice



Quickly replace or repair failed parts



Management of energy use and cost through efficient equipment operation

The benefits of Complete Steam Trap Management

Ease of maintenance while ensuring maximum up time



Supply and, if required, installation of high quality replacement items that are quick and easy to maintain by either your own maintenance team or our experienced service teams to ensure reliable delivery of steam to its point of use. This reduces the risk of unplanned failures and lowers the overall cost of ownership of the steam system.

Training can also be provided to your maintenance teams to ensure smooth operation of your steam traps and overall steam system.



BEST PRACTICE STEAM TRAP MANAGEMENT ACTIVITIES, CAN GIVE AN AVERAGE RETURN ON INVESTMENT OF LESS THAN A YEAR ”

Sustainable energy savings and reduced carbon emissions



Condensate usually contains around 25% of the usable energy of your steam. Returning condensate to your boiler feed tank can save energy costs and reduce the need for replacement water and treatment chemicals, all the while maintaining production and product quality.

Returning condensate to the feed tank also reduces the need for boiler blowdown to regulate dissolved solids, which reduces energy use and CO₂ emissions in your process.

Effectively managing your steam traps will help you sustain these improvements throughout the lifetime of your steam system.

Productivity and process improvement



Correctly functioning steam traps enable the steam system to deliver the thermal energy required for your process applications to operate effectively. Condensate in your steam supply can affect the operation of applications, causing issues such as slow start up times and poor heat transfer.

Removing the condensate from your system allows the steam to perform its task within your process efficiently.

Easier to expand production



Effective steam trap management is essential if you are expanding your production line or have plans to grow your process in the future. Seamlessly connecting new and existing steam systems requires an integration partner that you can trust.

For new steam and thermal energy projects, Spirax Sarco has a specialist team dedicated to helping keep your project on track and within budget during design, installation, commissioning and ongoing support.

Improved health and safety



As with all the utilities in your plant, steam must be well managed to ensure safe operation. Steam traps that are unable to remove condensate from your system pose a potential hazard.

Effective steam trapping allows condensate to be removed from your system, reducing the likelihood of potentially hazardous situations.

WHATEVER YOUR NEEDS, CONTACT YOUR LOCAL ENGINEER TO DISCUSS HOW SPIRAX SARCO CAN HELP YOU BETTER MANAGE YOUR STEAM TRAPS

Our solutions for Complete Steam Trap Management

Whether you want to check the health of your steam traps, or partner with us to ensure your processes run trouble free, our Complete Steam Trap Management program can be tailored to suit your needs, offering a total customer solution.

A steam trap survey conducted regularly is a good starting place to better understand your steam system. It involves a detailed on-site inspection of your steam traps by our trained technicians who will assess the condition suitability to ensure optimum performance.

- Our automated, third party approved method of diagnosing the condition of steam traps provides a repeatable and unbiased judgment.
- Our expertise will be utilized to check the installation of each steam trap.
- Data is collected on site using our proprietary software and delivered to our cloud platform to allow for prompt analysis.
- A comprehensive report is provided alongside access to your data via our online portal.*

*may not be available in all regions



1

STEAM TRAP
SURVEY

Selecting and installing the most suitable steam trap ensures a more reliable, long-lasting, and efficient system. We can work with you to perform this work as efficient as possible, from offering advice and supervision, performing the necessary maintenance work on site, to project management of more complex installations.

- Supply of high quality replacement steam traps to ensure efficient operation.
- Plan and execute the work to achieve optimum performance through the consideration of best engineering practices, all within your budget.
- Support in prompt implementation of recommendations to minimize cost of delay and realize the benefits as soon as possible.
- Consideration of our universal connector product range to make maintenance easier in the long term.

*some elements may not be available in all regions



2

MATERIAL SUPPLY
AND INSTALLATION

Our Steam Trap Management service can be designed around your needs to meet the maintenance requirements of your steam traps. The service can be flexible, but would typically include regular surveys, supply of replacement steam traps and the completion of the necessary maintenance activity.

- Fixed price for the management of your trap population throughout the duration of the agreement.
- Better management of time and resources as we become your one point of contact for all steam related issues.
- The cost is typically far less than the cost of the average energy loss caused by not maintaining your steam trap population regularly.
- Performance and sustainability goals are achieved by minimizing the risk of breakdown and costly downtime.



3

STEAM TRAP MANAGEMENT

Even the most rigorous steam trap survey regime has a risk that some failures could be missed, and during this time performance of the plant could be adversely affected. The Continuous Monitoring Steam Trap Management service takes the elements in the Steam Trap Management service and adds the solution of continuously monitoring your steam traps.

- Continuous monitoring can be applied to all steam traps on site or just a selection, depending on your requirements.
- Visibility on the performance of your steam traps is provided via our online portal*, including the notification of failures.
- If required, we can also monitor your steam trap population remotely and react accordingly to any failures to minimize disruption on site.
- Steam traps that are not monitored continuously can still be regularly inspected by our trained technicians.

*may not be available in all regions



4

CONTINUOUS MONITORING STEAM TRAP MANAGEMENT

An example of how a Spirax Sarco Steam Trap Survey helped a large refinery identify the cost of energy losses and CO₂ emissions of the steam trap population.



£1,086,000 ANNUAL COST DUE TO STEAM LOSSES



(OUT OF A TOTAL POPULATION OF 8,000) WERE DETERMINED TO BE WASTING STEAM AND CLASSED AS FAILED OPEN



Total (failed open / failed closed) steam trap failure cost = £1,850,550

Steam loss of **107,000** tonnes per year



Approximately **17.8 tonnes/ year** emissions of CO₂ per failed steam trap

PLANT WIDE ANNUAL TOTAL OF **9980 TONNES OF CO₂**

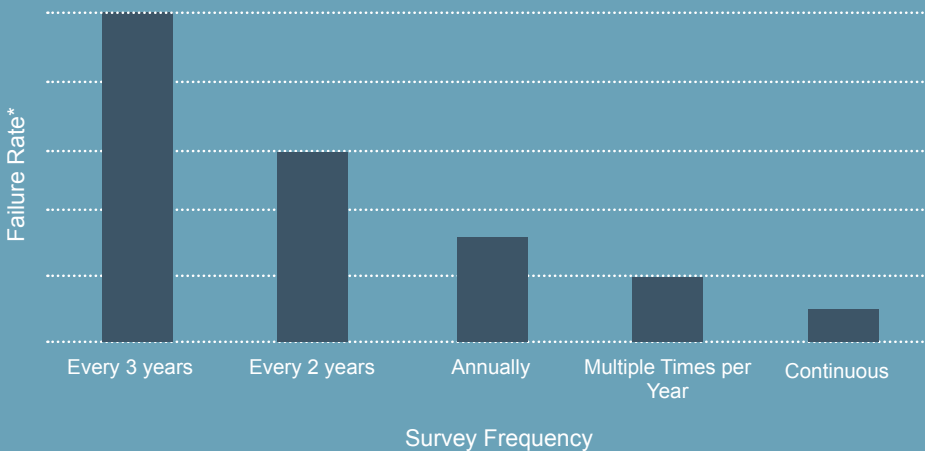


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STEAM TRAPS DETERMINED AS FAILED CLOSED AT A COST OF £765,000

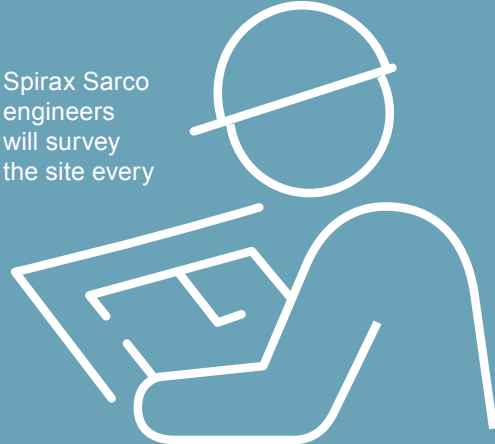
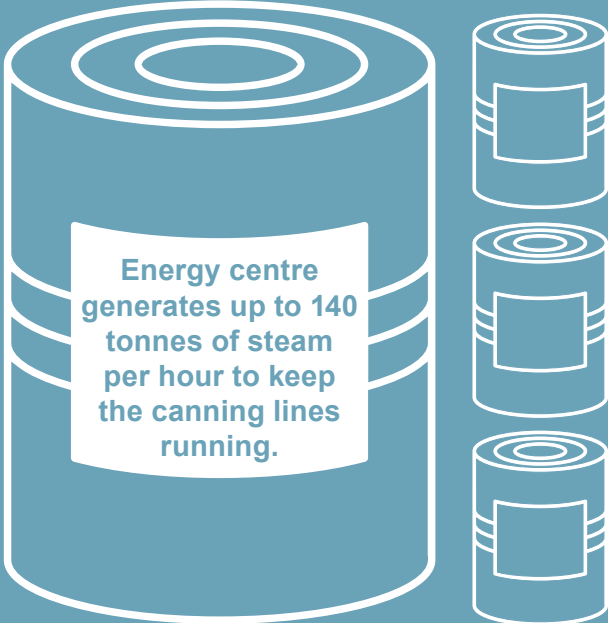
Frequently surveying the condition of your steam traps is an important activity, however rectification of the identified steam trap issues will ensure the results have the desired impact, whether that be meeting sustainability, ensuring production uptime or mitigating health and safety risks.

Failure Rate vs Survey Frequency



*failure rate will depend on site and operating conditions, quality of the steam trap, and its suitability for the application

HOW A SPIRAX SARCO STEAM TRAP CONTRACT HELPED A GLOBAL FOOD MANUFACTURER REDUCE CARBON EMISSIONS BY 200 TONNES A YEAR

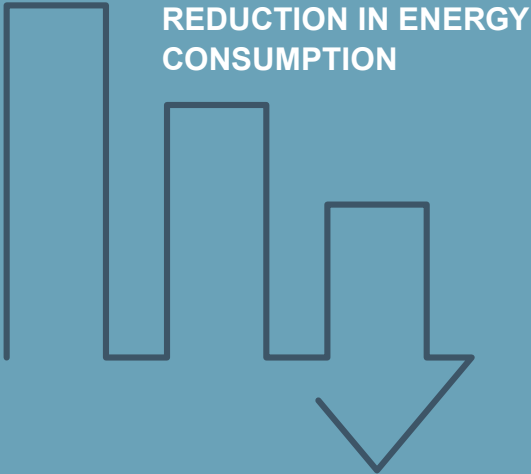


6 MONTHS

“

DID YOU KNOW ON AVERAGE, A SINGLE STEAM TRAP IN A FAILED OPEN STATE RESULTS IN CO₂ LOSSES OF 11 TONNES/YEAR ”*

4%



*losses based on steam loss of 72 tonnes/year, 10 barg boiler pressure, Natural gas fuel used, 80% boiler efficiency and 80°C feedwater temperature



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