



Spirax Sarco Services

100 years of steam expertise across industry

We have been dealing with industrial markets and their total steam requirements for over 100 years, gaining considerable expert knowledge of steam engineering and steam systems.

It has been evident in recent years that our customers' requirements have changed due to the significant increase in fuel costs and environmental issues. In addition, many of our customers have been forced to make cost-cutting exercises resulting in the reduction of maintenance teams and loss of steam engineering experience. This is where our Spirax Sarco Services have evolved to support you, by helping you to maintain performance and reduce costs, by working alongside your engineering and maintenance teams to improve and sustain your plants efficiency.

Our services are tailored and integrated to suit your resources, plant requirements, and budget. Qualified and experienced engineers will work with you to implement the improvements to your system and then help you to maintain the resulting performance gains which usually give very rapid returns on your investment.

Spirax Sarco Services



Assessments
Identify, quantify and recommend solutions



Installation and commissioning
Solution implementation



Service

Maintaining plant performance

Benefits:

Spirax Sarco Services can help to maintain your steam system at its optimum level, ensuring that steam reaches the point of use at the correct quantity, quality, and pressure.

Health and Safety	Increased Turnover	Increased Profit
Helping you comply with regulations / legislation.	Reduced downtime through preventative maintenance.	Reducing energy wastage and emissions.
Providing a safer work environment.	Reduced product rejects by ensuring steam reaches point of use at correct conditions.	Reducing stock holding through rationalization of steam equipment and using a single supplier.
	Faster warm-up times through good engineering practices.	Lower fuel bills through improved energy efficiency.
		Reduced administration costs.
		Accessing steam expertise through Spirax Sarco without the extra overhead.

Our aim is to reduce your total cost of ownership through improved efficiency of your steam system.

Assessments (surveying for areas of improvement)

Spirax Sarco has the experience and expertise to identify areas in your steam system where improvements can be made. Through discussions and agreement, we will help you determine and prioritize which assessment(s) are required to improve your systems' reliability, performance and cost-effectiveness.

Designed to fit your needs

Fact-finding

Discussion, 'walking the plant' and assessing your needs and the areas for improvement

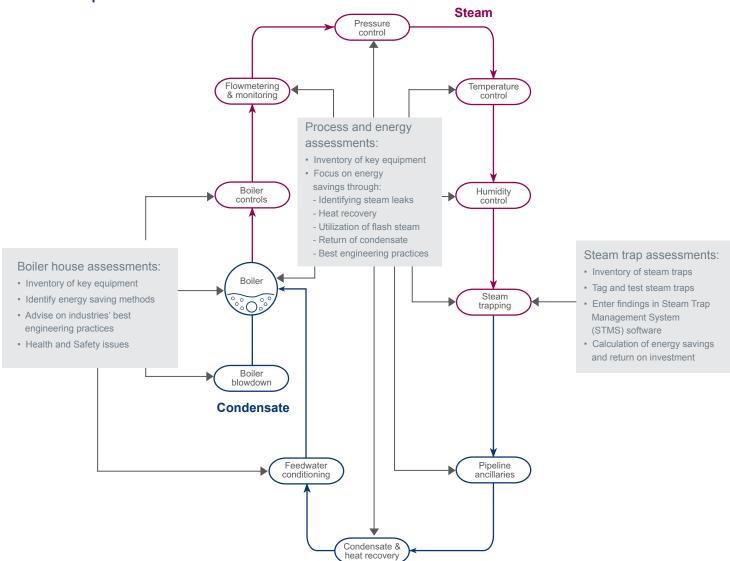
Proposal

A complete proposal is presented

Agreement

After assessing the proposal, agreement is obtained determining the work required and priorities

Examples



First for Steam Solutions

Assessment deliverables

You will receive a written report, dependent on the assessment, typically covering:

- Inventory of equipment assessed.
- · Description of problems identified.
- Recommendations aimed at improving:
 - Energy / emission losses / water conservation.
 - Steam generation and distribution.
 - Best engineering practices / correct applications.
 - Health and safety.
 - Heat recovery / return of condensate.
- · Cost of implementing report recommendations.

- Potential savings (the cost of doing nothing) based on:
 - Energy savings.
 - Water / effluent costs.
 - Production losses (where information is made available) based on improved warm-up times and reduced downtime by ensuring steam reaches the point of use at the correct quantity, quality and pressure.
 - Product rejects (where information is made available) resulting from steam / condensate problems.
- Return on investment.

USA

case study

Major cereal manufacturer

Objectives: Reduce energy costs

Action: Spirax Sarco conducted a full steam assessment.

Results: Improvements identified:

Installed EasiHeat Heat Exchanger package which reduced the energy

usage by more than \$150,000 year

Payback period: Less than 2 years







Installation and commissioning (solution implementation)

Whatever your need we can help you implement the improvements identified from an assessment. Our team works with you to plan and execute the work that will bring your system to its optimum performance within your budget. The faster the recommendations are actioned the sooner you will realize the benefits in your business, therefore minimizing the cost of delay.

Installation and commissioning available

Implementation	Details
Project Management	In many global areas, we offer Project Management services tailored to your specific requirements.
2. Turnkey Installation	We can arrange for approved subcontractors to carry out the work required, which we can inspect as part of a Quality Assurance exercise following the installation.
3. Basic product installation	Our service engineers (dependent on Spirax Sarco company) can carry out installation of Spirax Sarco products.
Commissioning and start-up	Ensures newly installed equipment operates at its maximum potential.
5. Installation advice	Our sales and service engineers can advise your maintenance teams on good engineering practices and on the installation of Spirax Sarco products.

Benefits:

• Rapid implementation of assessment recommendations:

Avoiding the cost of delay.

Reduced risk:

Installation handled by experienced specialists to avoid post installation problems.

Reduced time and cost:

Experienced installation teams are used ensuring minimized downtime.

Capacity management:

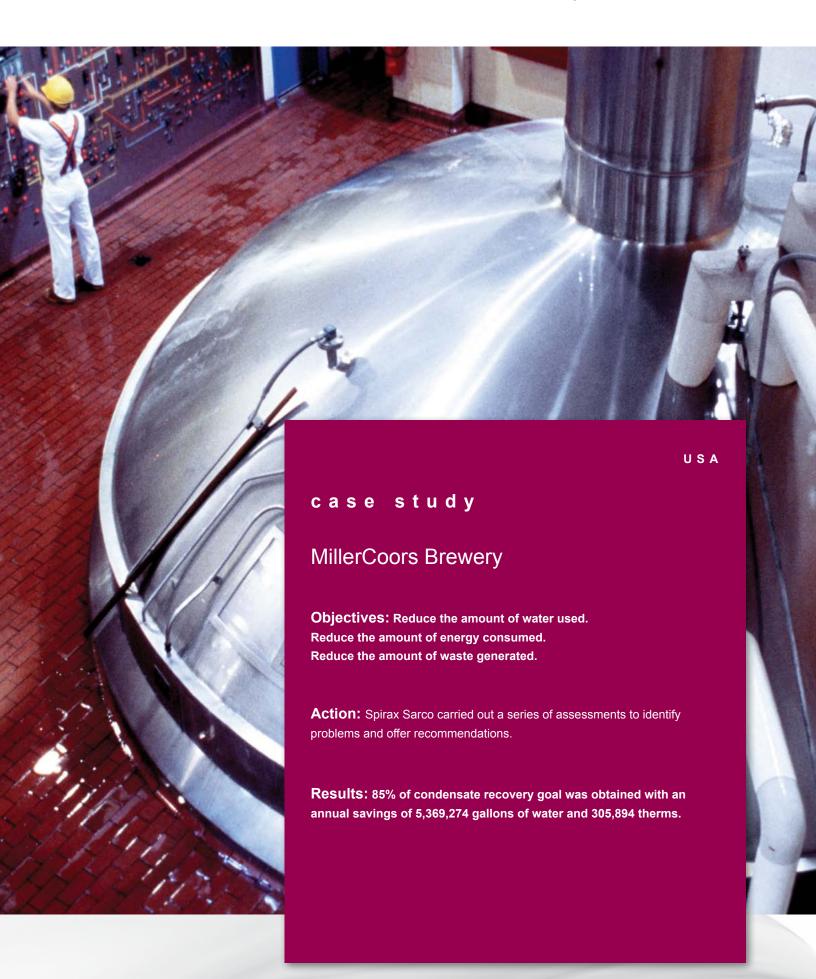
No need to take valuable team members off core functions to complete the installation.

Quality procedures:

Spirax Sarco can perform quality checks as part of the installation so you have the reassurance that these procedures are covered and documented.

Clear reporting / accounting:

The whole process is clearly and concisely documented for you.



Service (maintaining your plants high performance)

Having invested in your steam system by bringing it up to its best operating efficiency, it makes economic sense to maintain it at that level, making life simpler for you and your team. This is where outsourcing the maintenance and service work offers the most cost effective solution. Our engineers will help you to put together an agreement that balances your maintenance / service requirements within your budget. You also have the reassurance that all our products come with a warranty and are supported by a global network of highly trained and experienced service engineers.

One of the larger benefits we've been able to see is an increase in our production rate and being able to push more products through as a result of a better heat system.

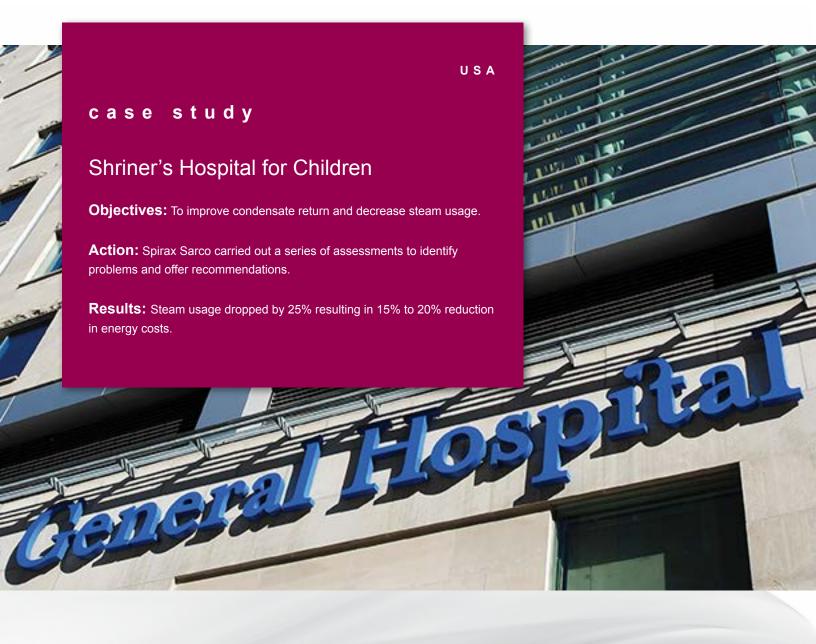
Mark Koehn, BP.

The range available

Service function	Details
Service agreements	Many Spirax Sarco companies offer Service Agreements enabling you to focus on core business activities, while we focus on aspects of your steam system. Examples of Service Agreements include: Flowmetering Controls Steam trap management Engineered systems
Recalibration	Certain Spirax Sarco equipment such as flowmeters and control equipment requires regular calibration to maintain accuracy and correct control function.
Repairs, breakdowns and trouble shooting	Spirax Sarco offers repair services, either on site, or through our many service departments around the world. We have a team of Service Engineers who can rapidly respond to your requests.
Warranty	All Spirax Sarco products come with a warranty. Any equipment found to be faulty through manufacturing defects will be replaced within the stipulated warranty period.

Benefits:

- Maintaining most efficient levels of plant performance.
- Preferential call out and repair service (if it is part of the terms of the Service Agreement).
- Preventative maintenance carried out at your convenience.
- Easier to budget through regular payments.
- Reduction in breakdowns and downtime.
- Savings and benefits become visible through monitoring and progress reports, leading to a reduction in total cost of ownership.



Supporting your business and the environment

Spirax Sarco assesses hundreds of steam systems annually in the USA and has identified the actions required to modernize plants, using latest best practices, technologies and products, saving 20.7 billion pounds of steam energy and reducing carbon dioxide emissions by 1.4 million tons per year, equivalent to taking 257,000 cars off the road. With Spirax Sarco Services, the savings to both your bottom line and the environment are just waiting to be realized.



USA

case study

Oil refinery

Objectives: Reduce energy costs.

Action: Spirax Sarco carried out an assessment to identify problems and offer recommendations.

Improvements identified: Spirax Sarco demonstrated savings with annual steam trap audits.

Results: Solutions reduced annual operating costs, achieving \$778,000 in the Oil refinery's first year and reaching 4.7 million within 5 years.

With a new steam trap program in place, the plant's failure rate reduced from 5.5% to 1.5% within 5 years.







Spirax Sarco, Inc. 1150 Northpoint Blvd., Blythewood, SC 29016 T 800-883-4411 F 803-714-2222 www.spiraxsarco.com/us