Steam System Services
Working in partnership to deliver a cleaner more efficient future
Steam System 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 Steam System Services have evolved to support you, by helping you to maintain performance and reduce costs, by working alongside your 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.

Steam System Services

Audits
Problem & potential solution

Installation and commissioning
Solution implementation

Service
Maintaining plant performance
**Benefits:**

Steam System 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.

<table>
<thead>
<tr>
<th>Increased Turnover</th>
<th>Increased Profit</th>
<th>Health and Safety</th>
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<tbody>
<tr>
<td>Reduced downtime through preventative maintenance.</td>
<td>Reducing energy wastage and emissions.</td>
<td>Helping you comply with regulations / legislation.</td>
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<td>Reduced product rejects by ensuring steam reaches point of use at correct conditions.</td>
<td>Reducing stock holding through rationalisation of steam equipment and using a single supplier.</td>
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<td>Faster warm-up times through good engineering practices.</td>
<td>Lower fuel bills through improved energy efficiency.</td>
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<td></td>
<td>Reduced administration costs.</td>
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<td></td>
<td>Accessing steam expertise through Spirax Sarco without the extra overhead.</td>
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“Our aim is to reduce your total cost of ownership through improved efficiency of your steam system.”
Audits (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 prioritise which audit / audits are required to improve your systems’ reliability, performance and cost-effectiveness.

Our audits are designed around your needs

Examples of our audits

- **Steam energy audits:**
  - Inventory of key equipment
  - Focus on energy savings through:
    - Identifying steam leaks
    - Heat recovery
    - Utilisation of flash steam
    - Return of condensate
    - Good engineering practices

- **Steam trap audits:**
  - Inventory of steam traps
  - Tag and test steam traps
  - Enter findings in Steam Trap Management System (STMS) software
  - Calculation of energy savings and return on investment

- **Boiler house audits:**
  - Inventory of key equipment
  - Identify energy saving methods
  - Advise on good engineering practices
  - Health and Safety issues

First for Steam Solutions

Expertise | Solutions | Sustainability
Audit deliverables

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

- Inventory of equipment audited.
- Description of problems identified.
- Recommendations aimed at improving:
  - Energy / emission losses.
  - Steam generation and distribution.
  - 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.

NESTLÉ, SOUTH AFRICA

Case study

Food manufacturer

Objectives: Reduce energy costs

Action: Spirax Sarco conducted a full steam audit.

Results: Improvements identified:
26% decrease in steam usage was realised after only 1 year.

Water consumption decreased by 18% due to better condensate return.

Payback period: 2 years
Installation and commissioning (solution implementation)

Whatever your need we can help you implement the improvements identified from an audit. 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 realise the benefits in your business, therefore minimising the cost of delay.

Installation and commissioning available

<table>
<thead>
<tr>
<th>Implementation</th>
<th>Details</th>
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<tbody>
<tr>
<td>1. Project Management</td>
<td>In many global areas, we offer Project Management services tailored to your specific requirements.</td>
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<tr>
<td>2. Full installation work</td>
<td>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.</td>
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<tr>
<td>3. Basic product installation</td>
<td>Our service engineers (dependent on Spirax Sarco company) can carry out installation of Spirax Sarco products.</td>
</tr>
<tr>
<td>4. Commissioning and start-up</td>
<td>Ensures newly installed equipment operates at its maximum potential.</td>
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<tr>
<td>5. Installation advice</td>
<td>Our sales and service engineers can advise your maintenance teams on good engineering practices and on the installation of Spirax Sarco products.</td>
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Benefits:

- **Rapid implementation of audit 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 minimised 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.
DREHER BREWERY, HUNGARY

Case Study

Brewing industry

Objectives: Eliminate waterhammer in steam and condensate loop.
Reduce large volume of live and flash steam losses.
Reduce natural gas and steam consumption.
Elimination of operational problems due to wet steam.

Action: Spirax Sarco carried out a series of audits to identify problems and offer recommendations.

Results: Natural gas consumption before project: 11,691,900 m³
Natural gas consumption after first year: 9,704,000 m³
Natural gas consumption after second year: 1,739,600 m³
Payback period: 3.5 months
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.

“Savings that go just beyond steam loss, 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

<table>
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<th>Service function</th>
<th>Details</th>
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<tr>
<td>Service agreements</td>
<td>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:</td>
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<td>• The boiler house</td>
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<td>• Flowmetering</td>
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<td>• Controls</td>
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<td></td>
<td>• Steam trap management</td>
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<td>• Engineered systems</td>
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<td>Recalibration</td>
<td>Certain Spirax Sarco equipment such as flowmeters and control equipment requires regular calibration to maintain accuracy and correct control function.</td>
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<tr>
<td>Repairs, breakdowns and trouble shooting</td>
<td>Spirax Sarco offer 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, normally within 24 hours.</td>
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<tr>
<td>Warranty</td>
<td>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.</td>
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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.

**Case Study**

**Printing industry**

**Objectives:** To provide a turnkey unmanned boiler house for the steam requirements of the printing presses.

**Action:** Spirax Sarco designed, supplied, and installed the boiler house ahead of schedule, and as a result were asked to undertake the steam distribution services.

**Results:** Spirax Sarco delivered the project within budget and three weeks ahead of schedule, and were also awarded the long term service agreement for the boiler house, steam distribution main and all ancillary items on the presses.
Spirax Sarco supporting your business and the environment

Spirax Sarco typically audit over 40,000 steam traps per year in the UK, identifying approximately 94,500 tonnes of steam wastage per annum, which in turn equates to a reduction of 15,000 tonnes of CO$_2$ per year. Around the rest of the world we audit over 500,000 steam traps per year, where customers usually realise substantial savings far outweighing the cost of the audit and remedial work.

**S A N K Y O Y U K A K O G Y O K K , J A P A N**

**case study**

Oil products company

**Objectives:** Reduce energy costs.

**Action:** Spirax Sarco, in conjunction with Nisseki Oil, carried out a turnkey project involving a steam trap and energy audit of the plant, supply, and installation of replacement steam traps.

**Improvements identified:** 30% of steam traps on site failed leading to significant losses.

**Cost of equipment (including installation):** £13,000

**Measured energy savings after one year:** £100,000

**Payback period:** 1 year and 4 months
Did you know...

Spirax Sarco have worked for global companies such as Coca-Cola, Heinz and BP.

For more information, please visit our website at www.spiraxsarco.com