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VISIT YOUR NEAREST SPIRAX SARCO TODAY!

Whether it is for some advice or a discussion on optimising your steam plant, you are most welcome to visit any of our Spirax Sarco offices and approved distributors.

With over 40 Spirax Sarco trained professionals in this region ready to volunteer their expertise and services, we are confident that you will find the consultation with us greatly rewarding and beneficial to your company.

Website: www.spiraxsarco.com/sg Email: spiraxsin@sg.spiraxsarco.com

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STEAM EXPRESS

Improving Plant Efficiency thru' the 'TRI-Relationship'

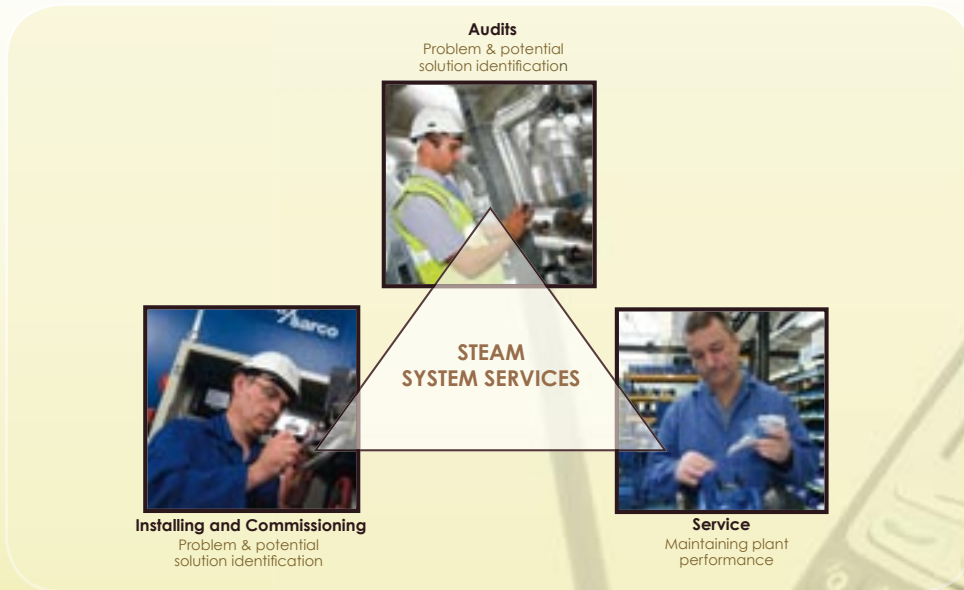
With increasing environmental issues like rocket high fuel prices and the gloomy economy, companies are more conscious with their operation cost, efficiency and effectiveness so as to sustain their competitiveness in the market.

If you share this common view and are fretting how to go about it, Spirax Sarco's Steam System Services may be the answer you are looking for.

Spirax Sarco's Steam System Services are tailored and integrated to suit your resources, plant requirements and budget. A team of 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.

The Steam System Services are made up of 3 primary building blocks namely Steam System Audits, Installation & Commissioning and Service. The diagram (on page 2) illustrates their "TRI-Relationship".

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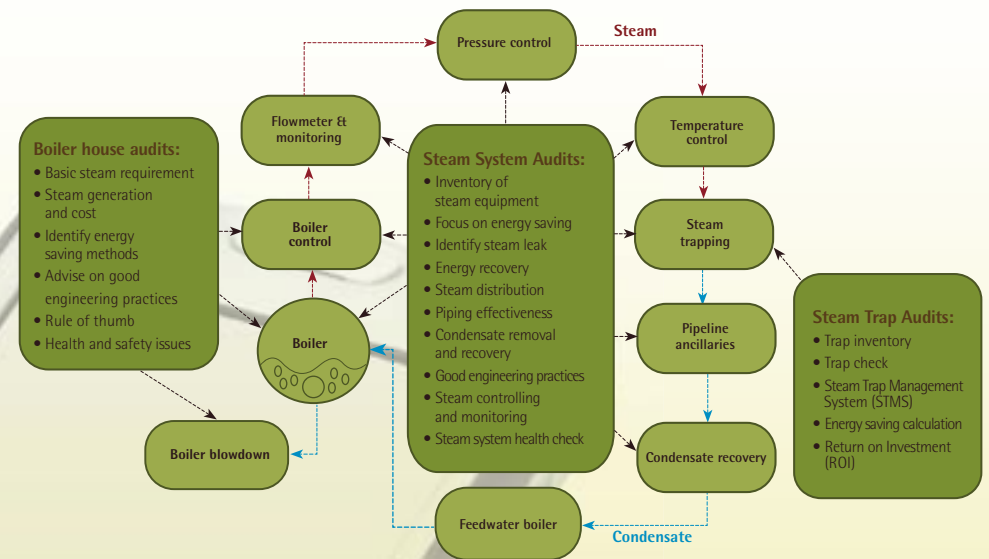


This 'TRI-Relationship' can help to maintain your steam system at its optimum level, ensuring that steam reaches the point of use at the correct quantity, quality and pressure.

Of the 3 primary building blocks, the more commonly seen activities in the plants are Installation & Commissioning and Servicing. In this article, we would like to highlight the third building block- Steam System Audits.

The following illustration (page 3) provides an overview on the Methodology and Work Scope for a Steam System Audit.


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Methodology and Work Scope for a Steam Audit

Upon completion of the audit, our experienced engineers would have identified areas in your steam system where improvements can be made. We will then present a written report, depending on the audit finding. The report will typically cover:

- **Inventory of equipment audited**
- **Description of problems identified**
- **Recommendations aimed at improving efficiency**
- **Potential savings**
- **Cost of implementing the recommendation**
- **Return on investment**

Thereafter, we will help you determine and prioritise which audit(s) are required to improve your systems' reliability, performance and cost-effectiveness, through discussions and agreement. 

Call your nearest sales office for more details on the Steam System Services (contact on back page).

SX80 and SX90 Electronic Process Controller

Spirax Sarco is pleased to introduce two electronic process controllers putting you back in control of your process plant.



The SX80 is a user-friendly, flexible and accurate temperature controller offering accurate control of your key processes.


In just one 1/16th DIN unit, the SX80 has valve motor drive output and analogue DC outputs so that it can be adapted to any actuator hardware. Its universal process input and 24Vdc power supply make it ideal for any sensor.

The onboard custom messages show scrolling text of plant conditions to keep operators up to date on the current situation.



The SX90 is an easy-to-use, feature-loaded and extremely flexible 1/8th DIN controller providing solutions for a vast range of demanding plant control applications.

Features include universal input, two analogue outputs, three relay outputs, logic inputs, potentiometer input, an isolated remote set point input and comms.

Scrolling text messages make it simple to keep up to date with events. An onboard transmitter power supply eliminates the need for extra equipment, and with quick start codes for set up, the SX90 is up and running very quickly. 



Key Features	Key Benefits
Easy comprehensive operator information with custom messages.	Provides clear information of plant conditions with scrolling text.
Quick and easy commissioning with one-shot auto-tuning.	No need for expert control knowledge.
4-20mA and valve motor drive outputs in one single model	Provides complete flexibility.
24Vdc transmitter power supply.	Reduces equipment costs.
Quick code set-up.	Easy set-up of the most common applications.
Additional features for SX90	
Extra analogue and relay I/O for set-point selection, alarms and events.	Easy to adapt to differing process needs.
Analogue remote set-point input and serial communications.	Integration with PLCs, PCs and other controllers.

The Power of Plant Audit

One of our valued customers in Indonesia, who is in the Food & Beverage industry, encountered some production challenges.


They experienced high product rejects as a result of wet steam and inefficient heat transfer. On top of that, they had to operate an additional boiler to compensate for steam leaks and excessive flash steam loss.



Testimonial

Our Spirax Sarco Indonesian team visited this customer, listened to his concern and proposed to conduct a comprehensive steam system audit. The objective of the audit is to evaluate the current steam system performance and identify areas where improvement can be made to achieve better plant thermal efficiency and cost savings.

After a few rounds of discussion on our recommendation, derived from the result of the steam audit, the customer accepted our proposals. Working together, we achieved a drop in product reject, a rise in fuel saving, negate the need of additional boiler and reduced flash steam at the open condensate tank.

The greatest value Spirax Sarco gained from this experience is the achievement in providing this customer a solution that lead to improve plant efficiency and productivity and in turn cost savings. 

Q : “We have a problem in steam quality from the boiler; steam output is still wet even though we have set the pressure up to 10 Bar. Can the problem be solved by using an Economiser?”

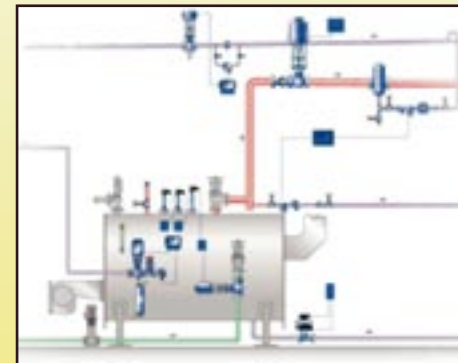
At the output port from boiler, can the use of flue gas to reheat the boiler feedwater help?”

Bima Hersatriyawan
PT.SOHO Industri Pharmasi


A : “Wet steam from a Steam Boiler is normally caused by several factors, including High Peak Demands due to an overloaded system, high Boiler TDS level & high water levels in the boiler, and running the boiler at a pressure lower than its rated pressure.

An Economiser uses flue gas to heat up the feedwater before it is introduced into the Boiler. By doing so, the boiler does not need to work as hard to produce steam and hence energy savings can be achieved. However, although it does shorten the boiling time, an economiser **does not directly improve the quality of the steam leaving the boiler.**

It would be recommended that a steam meter is employed to monitor demand patterns to determine if the boiler is under-sized during peak loads, so that you can understand exactly what is going on.



Boiler System

The TDS level should also be checked to ensure that it is not excessively high where automatic TDS blow-down would definitely help. Another improvement would be to install a separator immediately after the boiler take-off; this will remove the water from the steam and allow dry steam to be passed on to the plant, but it will **NOT** overcome the problems of too high a demand, and your plant will still suffer from steam starvation. Having said this, a steam separator in these circumstances is always good practice and, if it was possible to shed some non-critical loads during times of high demand, this might be a solution to reduce the gravity of the problem. 

In this column, we feature customers' questions and answers provided by our Technical and Training Manager, Mr Chng Poh Beng.

Simply send your questions marked “Dear TC” to StephanieCheong@sg.spiraxsarco.com or to fax number 65-6459 6854. Kindly indicate if you do not wish to have your name and/or your company's name published. We reserve the right to edit the questions and not to publish them. If your question is published in Steam Express, you will receive a corporate gift.

