

BLUE STEAM

Your regional magazine

How Spirax Sarco deals
with safety ?

p 2

Safety Examples

p 3

News World

p 4

Product : Safe Block

p 6

Case study

p 7

Steam game

p 8

**Make
Safety matter
for you !**

Safety : what you have to know!



Nils ZENNER
Regional HSEQ
Manager

Nowadays, safety is a key subject for many industries, especially in the engineering sector such as Spirax Sarco. Nils Zenner, Regional HSEQ Manager, agreed to share his knowledge with a view to capture “hot topics” of interests.



Why is safety becoming an even more important topic today ?

Safety was always important, but it is rapidly escalating up the priority chain because it not only helps to keep employees safe and minimise risk, it has established links with both productivity and quality. If you want to keep your productivity high and quality consistently above target then safety plays more of a key role in establishing this than was considered previously. Quality directly correlates with maintenance of your manufacturing system and safety correlates with maintenance - preventative maintenance. Align these elements and Safety can have a positive impact on Quality and Productivity.



**SAFETY IS ALWAYS LINKED
TO QUALITY**



What are the main risks linked to a steam system ?

Well, as you would imagine, steam systems are synonymous with

heat. Pipes which carry steam are very hot which need care and attention to avoid risk of burns. Condensing water in the pipes can lead to a phenomena called 'water hammer' which can be designed out of the system. Water hammer is where water droplets are entrained with steam along the pipes at high speed.

The impact this can have on your system over time can lead to significant amounts of erosion of the surfaces at best and or worse the droplets can coalesce, causing impact damage to fittings and equipment. Water hammer is noisy, so can easily be identified though it needs specialist insight to understand where and how it is forming and to organise a solution to prevent it. It's advisable to carefully consider an optimized layout at steam take offs and condensate collection and recovery points for the benefit of system reliability, quality and more importantly safety.

What actions are taken to ensure customers safety ?

We train our Engineers to identify areas of concern with a view to establish improved safety and reliability which will lead to quality improvements.

How safety is embedded in Spirax Sarco's teams and daily work ?

Safety is one of Spirax Sarco's main missives, we want to ensure our engineer's safety when they work. Before they start to work, they conduct a dynamic risk assessment in order to be aware of the risks and hazards within the working environment and to operate safely and respectfully.

In every Spirax Sarco teams, we have a local person responsible for EHS*. They regularly assess their engineers and technicians, to be sure that they are working in a safe way knowing this will have a positive impact with the consumer.

**EHS : Environment, Hygiene and Safety*

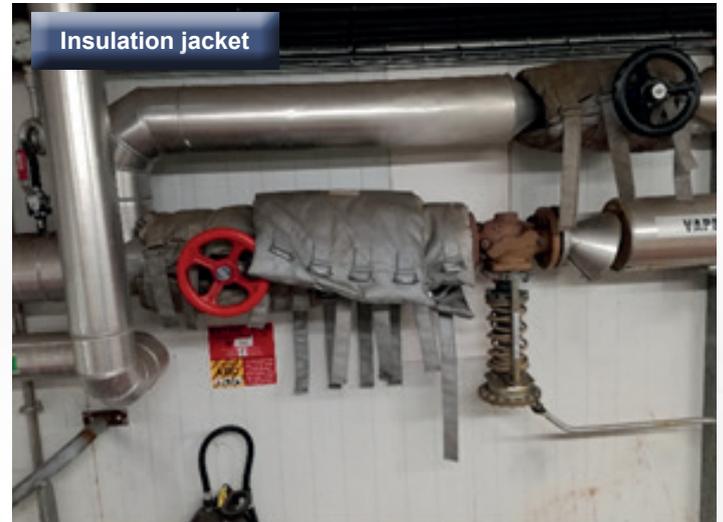
Do you have a few tips for our customers ?

- Safety is always linked to quality so pay attention to it
- Maintain your steam system and plan to avoid safety and quality issues
- Contact Spirax Sarco engineers as soon as you hear waterhammer or spot something abnormal
- Carefully consider the discharges (steam and condensate) and where these are located to minimise risks.

Examples

An insulation jacket which has not been put back on the pipe on which it must be.

One of our engineer in Spirax Sarco France noticed that an insulation jacket was not in the place it was meant to be. He explained to the customer what would be the main risk (e.g burning) so that the customer can take the appropriate action to remove this risk.



A safety valve located in the wrong place

Safety valves are often forgotten given that they don't release steam often. However, it is very important to pay attention where we install them.

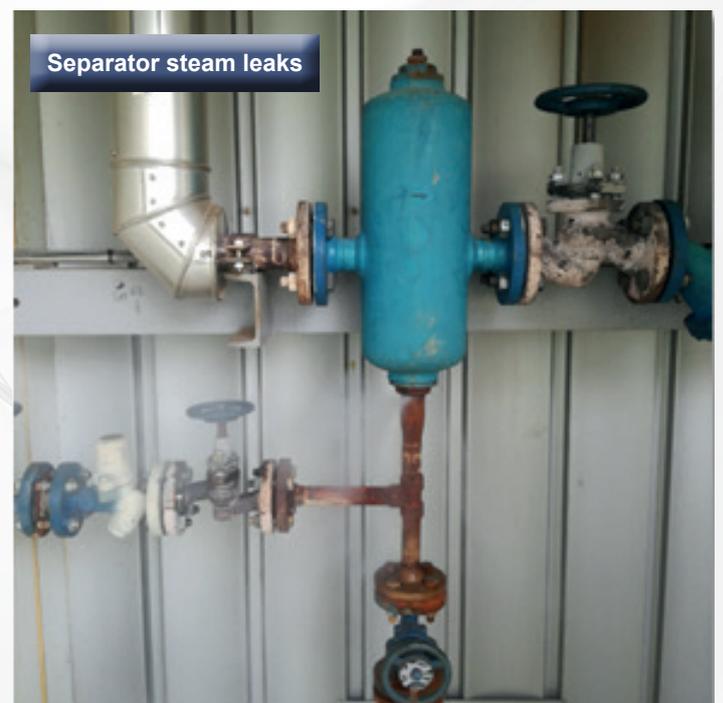
In this case, if the safety valve open, there is a risk that steam could hit somebody's legs which can cause serious burns.

A Spirax Sarco engineer, made the customer aware of the risks and advised him on a safer solution.

A steam leaks due to a failed separator

A Spirax Sarco engineer noticed this important steam leak due to a failed separator at a customer site. This leak is obviously very dangerous for anybody operating in the area with a serious risk of burning.

The customer decided to take action : he fixed the separator and bought an insulation jacket.



News World

South Africa

Safety first...

Are you aware of our accreditations ?



Management System
ISO 9001:2015
ISO 14001:2015
OHSAS 18001:2007



www.tuv.com
ID 9105016191

Spirax Sarco South Africa's scope of operations is the design, manufacture, installation, commissioning, service and repair of steam products. The company is committed to prevent injuries and ill health, to institute a pro-active approach to a programme of continuous improvement and provide products and services, which meet or exceed the customer's expectations and Provide Real Opportunities to Manage, Improve and Sustain our Environment (PROMISE).

The company shall implement and maintain a Safety, Health, Environment and Quality Management System (SHEQ) under the ISO 9001, 14001 and OHSAS 18001 requirements. We will also provide a framework for setting and reviewing objectives through management review meetings. The top management of the company is fully committed to our SHEQ policy and will provide adequate resources to maintain compliance

Safety first...

How do you get rid of your condensate that you can't recover?

East Africa

"I recently visited a customer who does dairy processing and what I encountered was quite risky. At the furthest point within its processing area is a drain pocket with Spirax Sarco TD 42L trap set. This drain is hidden by big tanks used for storing milk upon arrival. Below the tanks, there are also steam traps. I had no idea what type of TD that was installed at the end of line. As part of my duty, I had to check the condition of steam traps in the factory. There was spillage on the floor but I couldn't find the source. While I was doing the usual risk assessment before the intervention, the steam trap opened, and the condensate spilled on the floor.

The customer argued that the amount of condensate was very little and there was no need to recover it, which made sense because of the distance from there to the boiler. But it was such a huge safety concern. This can cause serious injuries to workers and visitors who may not be aware of it. A simple step such as connecting a ½" pipe and discarding the condensate to the drain can resolve this hazard. Safety at work isn't "rocket science". The simplest of the things in the long run keep workers safe. I am glad the customer connected a pipe to the drain and the issue was resolved."



Elly ODHIAMBO
Sales Engineer
Spirax Sarco East Africa.



Are you sure you work
safely...

Spirax Safebloc™

Double Block and Bleed

Bellow Sealed Stop Valve

A single solution for safe double isolation

The Spirax Safebloc™ (DBB3) is a unique patented design from Spirax Sarco, which provides safe double isolation and bleed options within the space of a single valve. Its unique space saving design will be of great benefit to new projects and will help many sites to upgrade their systems to provide safe isolation of their plant.

Key features

- Unique steel double globe valve designed specifically for steam, gas, liquid, condensate and water systems.
- Compact design allows easy replacement of a standard single isolation valve without the need for any pipe modifications.
- Bleed port option for confirmation of upstream valve closure and downstream depressurisation.
- Reduction in time and cost of installation whilst offering reduced leak paths over traditional fabricated installations.
- Proven zero leakage bellows design - eliminates fugitive emissions.
- Users are demanding double isolation to meet health and safety guidelines.
- Can be installed in any flow direction.



For more information, please visit www.spiraxsarco.com or see contact details at the end of the magazine

Case Study

Product quality and food safety increased using Spirax Sarco clean steam filters

The issue:

Dairy companies often inject steam directly into milk during their processes. This procedure can cause risks with product quality and food safety.

Our customer was aware of these issues and contacted us to help identify possible points of risk and suggest improvements in their steam system in order to minimise these.



Safety and quality are always linked



The solution:

Our aim was to help our customer control product quality by safely removing impurities from processed steam. After our audit of their system, we supplied and installed culinary steam filters (CSF16) at DN150. These filters were placed in specific areas of the steam system, minimising the risk of particulate contamination from entering the process.

Our customer's need to conform to the most stringent standards of hygiene and contamination control. It is therefore critical that the quality of the steam they use and the performance of the steam filters installed within the steam production system, supports the need to consistently produce contaminate-free products. Hence our recommendation of the CSF16.

The results:

The CSF16 filters removed 100% of all visible particles and 99% of 0.01 micron particles. They also removed liquid condensate at the same efficiency as solid particles.

This performance gives our customer confidence that their process will be protected from the risk of particulate contamination. They are now happy that the steam being used to inject into the milk is of high quality, it is safe to use and it helps ensure product quality is maintained.



Industry: Food & Beverage

Place: Spain

Objective: Improve product quality and increase food safety

Solution: Install culinary steam filters (CSF16)

Results: 100% of all visible particles removed and 99% of 0,01 micron particles

Liquid condensate removed at the same efficiency as solid particles

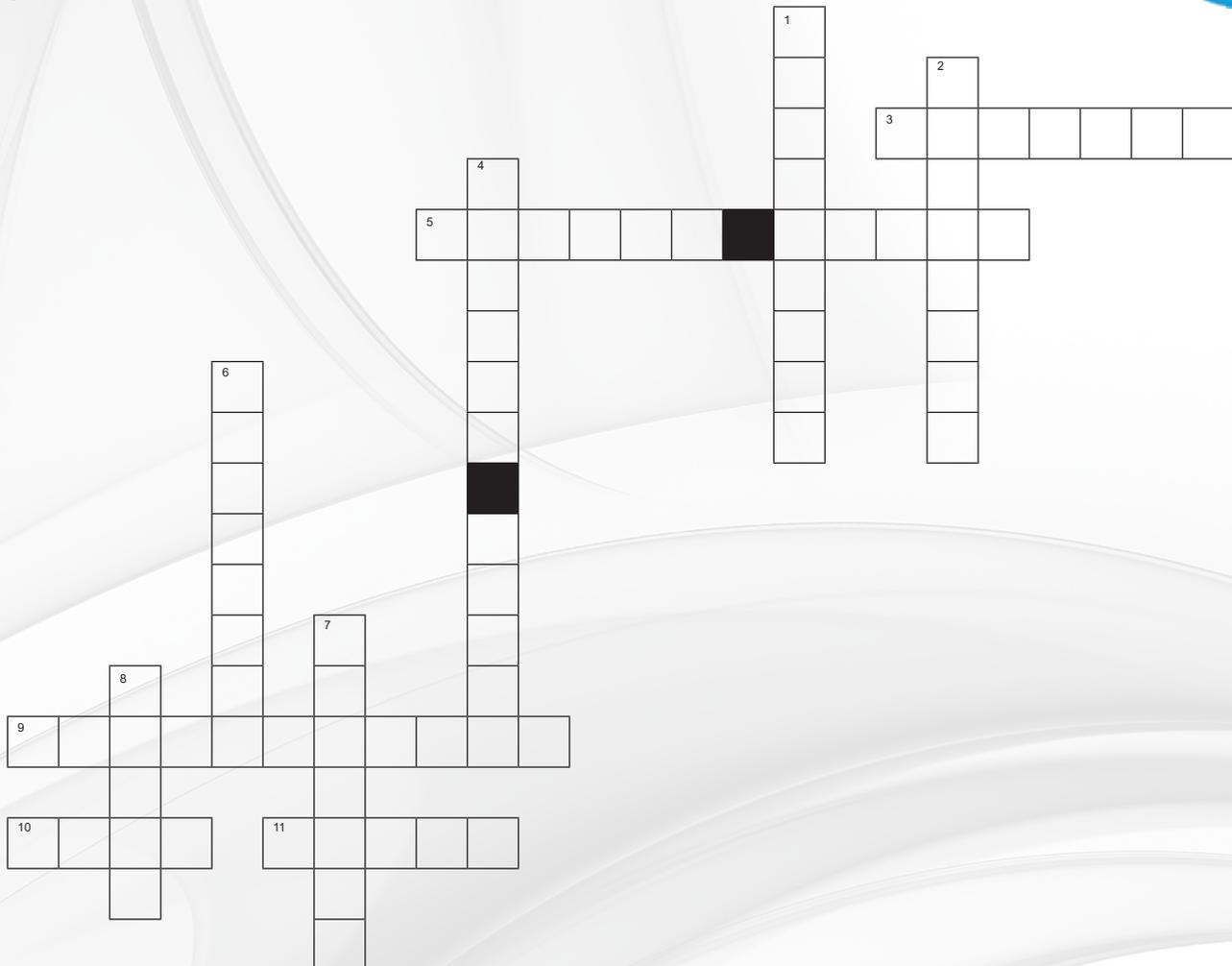


CSF16 Strainer

Steam Game



Try to find the words!



Horizontal

3. Main risk linked to steam
5. Another name for risk assessment
9. Noisy phenomenon which can severely damage your installation
10. When steam is released where it shouldn't
11. Burnings, contamination, waterhammer...

Vertical

1. Safeblock provides double these
2. Type of steam used in food and beverage industry
4. Safety element which can be dangerous if not located in the right place
6. CSF16 is one of them
7. Always rhymes with safety
8. Spirax Sarco is the specialist of this



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