

BLUE STEAM

Your regional magazine

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Control your steam system
Control your future

Transform your performance with better control

With the routine wear and tear of traditional control valves often leading to downtime and under performance, it's not surprising that you may be struggling to run your process efficiently.

Accurate temperature and pressure control sits right at the heart of the steam system and can make a real difference to product delivery, process uptime, compliance and efficiency, to name a few. This can only happen, however, if your control valves are able to perform precisely and efficiently, while standing the test of time. Let's not forget that the cost of unplanned downtime can far outweigh any initial cost savings at the time of purchase. Valves can of course be refurbished but for more critical processes, it is vital that they are as simple as possible to maintain. As ever process is indeed key, so a modern approach could provide just the answer.

A new approach

Spira-trol™ is a control valve with a difference and can transform just how efficiently you can get your process from A to B. It has been designed as a flexible alternative to many of the application specific control valves on today's market; helping you to manage your process with ease. Providing control for pressure, temperature and flow, Spira-trol will help you to boost your production and reduce potential downtime, ensuring that you can always deliver quality results, fast and effectively. Here are some of the considerations to take into account if you're looking to get the most from your control valve.

1. Durability

The dream for most plant managers is a 'set and forget' system, and Spira-trol is exactly that; minimal adjustment once in-situ. With only bonnet nuts holding all components in place, the modular system is as easy to fit as it is to maintain, while its cage retained seat means you can maintain the valve without removing it from the pipeline – and with no need for special tools.

The result is that winning formula of minimised downtime and maximum productivity.

What's more, if internal components are designed to withstand a wide range of industrial fluids, your valve is more likely to last longer and perform better.

Spira-trol's internals are manufactured from 431 grade stainless steel, suitable for steam that is highly corrosive.

Much simpler and less frequent maintenance significantly reduces the likelihood of outages, leaving you and your plant perfectly capable of hitting those all-important targets.

2. Precision

Why complicate things with a bespoke valve for each process, when a whole host of industrial requirements can be served by a flexible alternative?

Matching valves to characteristics of their load can be a difficult challenge for many, but our specialists can help size a valve to suit the characteristics of your individual application, ensuring accuracy is achieved at all times.

Spira-trol is a smart solution which can offer precise feedback on your process.

By using accurate information received from the valve, you can determine temperature, flow and countless other statistics to really optimise production

3. Efficiency

Nowadays we are all conscious of our impact on the environment. That's why pneumatically and electrically actuated valves can offer great benefits, as they can help your plant to consume less energy and produce fewer carbon emissions, while smart positioners can aid accurate control valve positioning. A bellows sealed bonnet will also help to deliver zero losses.

If your control valve is too large for a given duty, it will operate more closely to the seat and therefore experience more wear. Similarly, incorrectly sized valves may also be subject to cavitation and noise in the flow. Trim components are therefore an important factor to keep in mind. They can reduce noise emissions and anti-cavitation because the large gallery area reduces flow, velocity and therefore noise, providing an overall improved working environment.

By taking a more modern approach to transfer steam and other industrial fluids, your whole plant will reap a host of benefits.

Take control of your Steam system health

Did you know that a few small changes to your controls could boost productivity?

1 Could your process be more efficient?

Review the link between your control valves and condensate removal

Fix unstable temperatures which can wear down your components and waste energy

2 Could your process be more accurate?

Plan regular component calibration

Check you have the correct actuator installed and review your signal conditioning often

Consider real time diagnostics

Make sure your system adjusts to suit any new operating conditions or demands

3 Could your process be more reliable?

Make sure your valves meet normal demand, not peak demand or start-up events

Consider a planned preventative maintenance program (PPM)

 Check your control valves are fit for purpose

Pay attention to pipe and component erosion, seal leaks, the system tripping out, valves operating close to the seat, or pressure safety valves lifting

Arrange specialist steam training for your team

To arrange an audit of your steam system, contact Spirax Sarco



Kenya

Environmental concerns force the industrial manufacturer to review their mind-set

Over the past couple of years, the Government of Kenya has passed some stringent laws over logging of trees for firewood in the effort to save the ever-so shrinking forest cover and conserve the environment. However, many steam using companies have relied on firewood as the only source of fuel for their boilers, due to its low cost and abundance of supply.

Now more than ever, energy as a core cost of production has been put under critical monitoring and control. Manufactures from Tea factories to Dairies and Breweries are decided to invest heavily in energy saving measures in order to stay afloat. It is for this reason that Spirax Sarco East Africa identified a need among their customers for capacity building through knowledge sharing to help them identify areas in their respective plants where energy can be saved and how to go about it.

Spirax Sarco Training on Energy Saving Through Condensate Recovery

In May 2019, Spirax Sarco East Africa invited up to 15 participants from various industries to take part in a two-day training hosted at a city hotel. The participants included Shift Engineers, Maintenance Manager, Utility Managers and Planning Engineers among other, from various industries across the whole country.

Our objective was that by the end of the two-day training, participants could go back to their work stations and do things differently having learned to identify where & how energy can be saved in order to help their companies realise sustainability and process improvement.

"The course on steam trap monitoring and that on mechanical pumping of condensate was of great benefit to me. I have learned a lot to help me improve the percentage of condensate being recovered at the hospital." said one of the Utility Engineers from Nairobi Hospital.

The two-day course was intense but well planned and executed by all the engineers at Spirax Sarco East Africa with the support of the top management. From the many case studies that the team presented on solutions for energy recovery, the participants were able to look back at their own facilities and relate to where each solution would fit.

It was refreshing to hear from the Kenya Breweries team report that the company had recently won an energy award for implementing a Spirax Sarco solution for condensate recovery in 2018. Having installed a new CRU package, the company was able to improve their condensate recovery from 70% to 85%.

This was the first group training for our customers since becoming an operating company in 2017 and a very successful one indeed! There will be others planned later in 2019 and subsequently every year as per the training timetable that shall be available to our customers on our website in future. Stay informed at www.spiraxsarco.com/ke.



Spirax Sarco East Africa team and the training attendees



J. Mburu Spirax Sarco Sales Manager, giving a course during the training



South Africa

Spira-trol™ control valve proven performance at a South African Food & Beverage manufacture

In South Africa, a large food & beverage manufacture heats oil to 185°C through a shell & tube heat exchanger using 17 barg saturated steam. The condensate is sent to a chamber, where the level is being controlled by a known manufacturer control valve. The control was poor, due to the incorrect type of trim in the valve. Thus causing heating problems in the heat exchanger and production losses. The pressure drop across the valve and the condensate flashing after the valve was also causing damage to the control valve. Some of the valves in this application have only lasted 3 – 6 months.



Using Spirax Sarco sizing suite a DN50 PN40 anti-cavitation linear trim control valve was sized to meet the customer's process requirements. The KL Spira-trol valve is not only performing very well but we still didn't observe any damage to the valve after 8 months of installation. It is important to always use a sizing program to size and select a control valve. It is also important to select the correct trim inside the control valve body. Check our website to know more about our control solutions and our sizing software - www.spiraxsarco.com/za

Industry : Food & Beverage

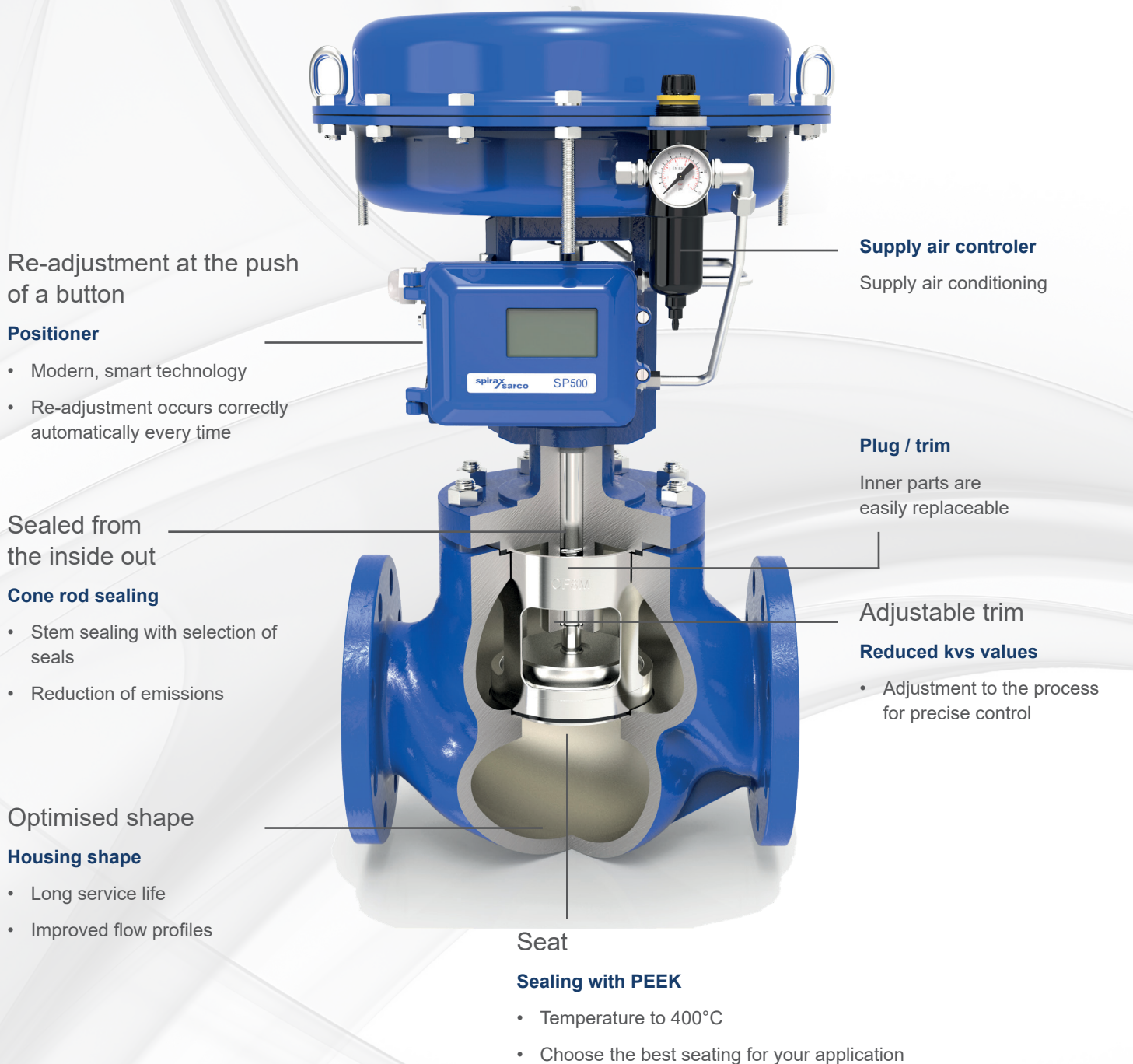
Place : South Africa

Objective : Avoid production losses due to a poor control

Solution : DN50 PN40 anti-cavitation linear trim control valve

Results : No production loss anymore

Spira-trol™ – quick and easy optimisation



Re-adjustment at the push of a button

Positioner

- Modern, smart technology
- Re-adjustment occurs correctly automatically every time

Sealed from the inside out

Cone rod sealing

- Stem sealing with selection of seals
- Reduction of emissions

Optimised shape

Housing shape

- Long service life
- Improved flow profiles

Supply air controller

Supply air conditioning

Plug / trim

Inner parts are easily replaceable

Adjustable trim

Reduced kvs values

- Adjustment to the process for precise control

Seat

Sealing with PEEK

- Temperature to 400°C
- Choose the best seating for your application

Case example 1

Used by leading food and beverage manufacturers and pharmaceutical companies in their steam systems

Case example 2

A customer with maintenance staff and a well-equipped workshop is trained by us on the maintenance of our control valves and actuators

Technical zoom

Spira-trol™ valves – are maintenance-friendly

Quick and easy maintenance

Spirax Sarco is expert in the field of steam controls. We specialise in control fittings in steam and condensate technology. Why not take advantage of our experience and know-how. Our Spira-trol series of control valves have been developed to meet the highest process requirements for the industry of today and tomorrow.

Time is money. A good service life, with quick and easy maintenance and no specialised tooling required, coupled with our modular design and readily available spares help you to reduce the cost of ownership, saving you money and maximizing the availability of the system or plant. This can have a huge positive impact on return of investment (ROI).



Benefits to you

- Lowered total cost of ownership
- Long service life due to extremely resilient seating materials
- Quick commissioning function of the Smart actuators / positioners
- In-line maintenance increasing up time of plant
- Low operating costs due to longer service life
- Quick module spare parts availability

Features

- Clamp in place seat design enables quick and easy maintenance
- No special tools required for maintenance
- Modular design of interior trim
- When used with Smart actuators, recalibration of the valve is simple and reliable
- Metallic seats can be replaced with specialist soft seats
- Trims can be perfectly matched for your application



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Control your future**



✉ Spirax Sarco Egypt LLC
19 Farid St, Heliopolis
behind Le Méridien Heliopolis Hotel
Cairo - Egypt

☎ (+202) 24 17 44 91

🖱 Info@eg.spiraxsarco.com