# OEM Steam Solutions Food & Beverage Overview

Optimising the performance of your steam system



First for Steam Solutions





### **Delivering customer value**

As a provider of total steam solutions we are constantly striving to add value by ensuring you have the support and technical solutions required to optimise your equipment performance.

We supply solutions to a broad range of OEM industries, with strong focus on food & beverage including sub-industries such as:

- Dairy
- Brewing
- Bakery Products
- Packaged Food

Focusing our expertise on these sectors means we can add value through our:

- Understanding of both your needs and those of your customers
- Knowledge of your customers industries, processes and applications which can help you to optimise your machines steam system design
- Globally recognised brand that is highly valued by the steam user market, which in turn can add additional value to your equipment





Products



Packaged Food

### How can we help you?

### Optimising your solutions...

We can help maximise the performance of your solutions whilst ensuring design specifications and local regulatory requirements are met. With over 100 years' of steam experience, you can rely on us to take care of all your steam system needs.

WITH THEIR DEEP STEAM KNOWLEDGE, SPIRAX SARCO ARE ABLE TO OFFER THE GLOBAL SUPPORT REQUIRED TO HELP ME AND THE TETRA PAK BUSINESS THROUGHOUT OUR SOLUTIONS' LIFECYCLE -FROM DESIGN TO SUPPLY, TO COMMISSIONING AND AFTERMARKET SERVICES.

Lars Hansson – Global Product Manager, Tetra Pak Processing Systems



### **Optimising your solutions**

At Spirax Sarco we recognise that the reliability of your equipment is of the upmost importance. This is why quality and reliability are at the heart of our products and solutions.

Our expert sales engineers can support you and your customers with their in-depth steam engineering knowledge, allowing them to provide you with effective solutions from one supplier, supporting your Total Cost of Ownership (TCO) reduction goals.

This approach allows us to offer outstanding customer value, ensuring you satisfy the needs of your customers and optimise their equipment's steam system performance.

# Our design and engineering capabilities

We don't just provide products. We can provide you with industry leading engineered solutions that save you time and money during your design, procurement and production phases.

#### Our solutions are designed to:

- Meet local and global regulatory requirements for your end user industry and market
- · Meet all global certification requirements
- Provide system components that fit within your existing designs

### Engineered to order solutions

As a solutions provider, we understand you may require engineering changes to our standard products, or the development of engineered systems designed to meet your specific needs. Therefore, we work with you to provide customised solutions, options may include:

#### Design

- Configuration
- Design changes

#### Connection variants

· Flange and connection changes

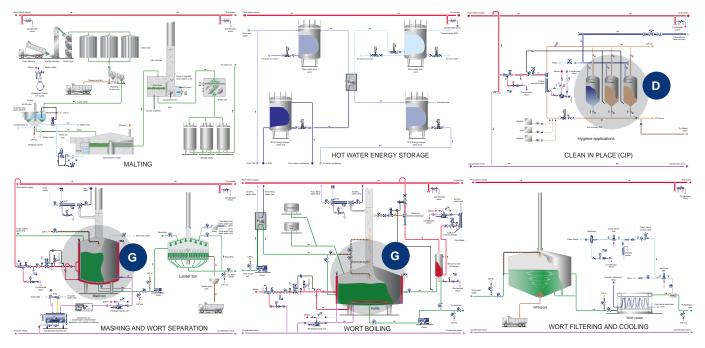
#### **Product finishes**

- Plating
- · Specified paint colour or unpainted

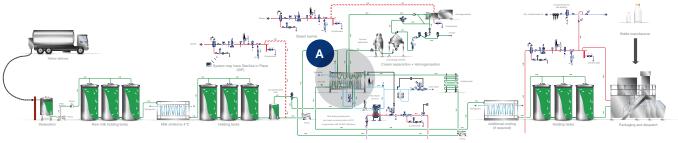
#### Engineered Systems, Assembly, Test and Packaging

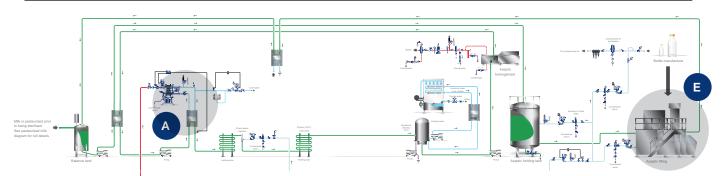
- Loose assembly
- · Certification packs to match specific requirements
- · Cold water hydraulic testing
- · Dye penetrant inspection testing
- Non-destructive testing
- Cut-sections
- Inspection
- · Labelling/tagging
- · Packaging
- Sub-assemblies
- Packages

### BREWING



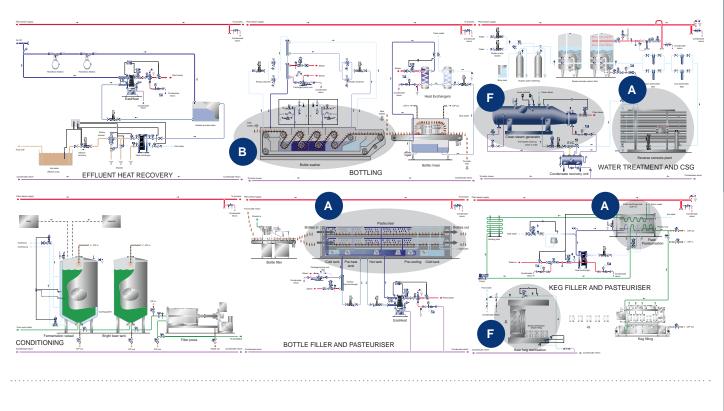
### DAIRY

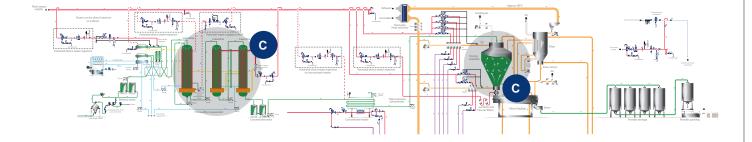


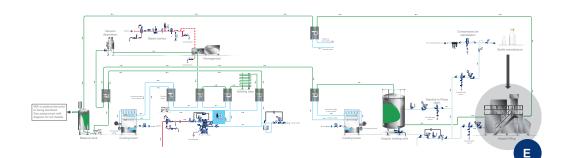


## Process Technology









# **Solutions**

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### 1. Heat Exchange & Recovery

#### Overview

Our range of steam heat exchange solutions are expertly designed to achieve maximum efficiency, accuracy and safety wherever there is a need to heat, cool, condense or evaporate liquids.

By offering innovative solutions we can simplify your procurement, design and installation processes, reducing total cost of ownership as well as providing specialist technical support globally for you and your customers.

#### Is this solution right for me?

- We understand that you often have to meet exact requirements for your customers, so we offer complete flexibility and choice.
- Our pre-assembled packages give you the advantage of easy commissioning, easy installation, rapid start-up and low ownership costs.
- Alternatively, we can provide un-assembled kits/clusters of equipment to meet your individual requirements. Either way, you are guaranteed the highest level of service and technical support for the life of the unit.



#### Spirax Sarco Offerings

- Innovative solutions to streamline your procurement and design processes.
- Compact, space saving solutions to minimise your equipment footprint.
- High heat transfer rates and efficiency, reliability and longevity.

### Summary

We have a choice of steam heat exchangers to meet a wide range of applications. Our global, highly experienced engineers will support you with engineering advice, and our globally recognised brand and reputation can add additional value to your equipment.

### 2. Condensate Removal

### Overview

Efficient condensate management can help your customers reduce their operating costs and improve steam plant efficiency. Our engineers can optimise your equipment's performance and improve longevity by removing and extracting condensate, in turn delivering significant energy savings to your customer.

### Is this solution right for me?

 A Spirax Sarco condensate recovery system offers a short return on investment and helps your customers meet their sustainability targets.

- Accurate temperature control improves product quality.
- Condensate extraction protects equipment from corrosion and waterhammer and therefore maximises equipment reliability and safety.

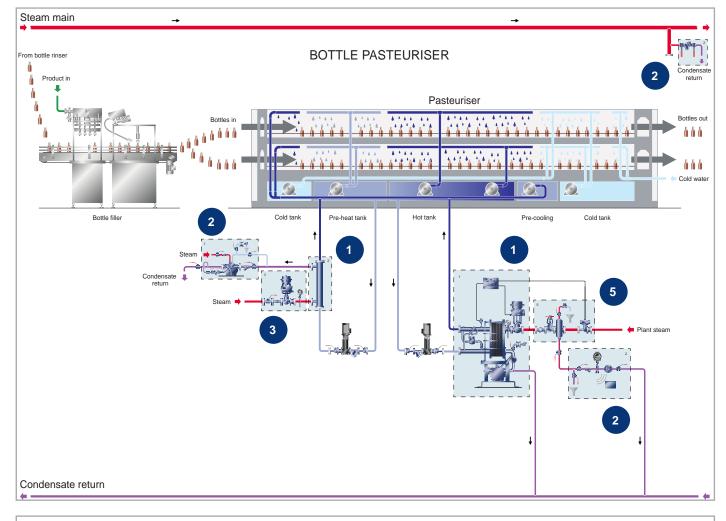


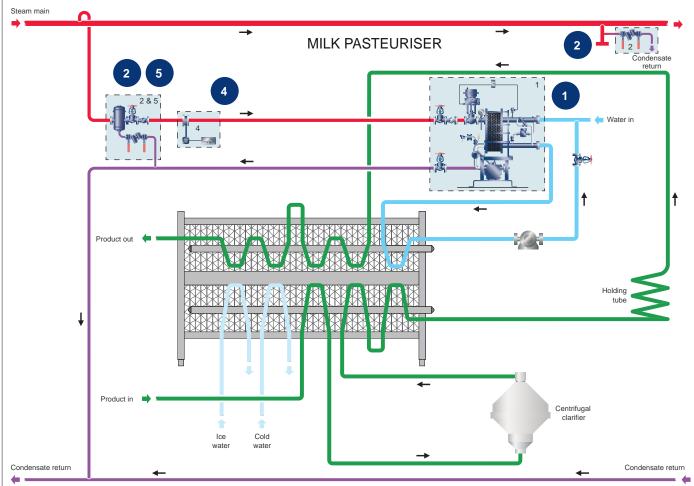
### Spirax Sarco Offerings

- Mechanical fluid pumps to recover condensate under all operating conditions.
- Steam Traps available individually or as a pre-assembled module, improving equipment/plant reliability.
- Automatic pump traps extracting condensate under all process conditions, optimising your machine performance.
- Packaged pump units complete pre-assembled packages, for quick commissioning, design and procurement.

### Summary

Our condensate removal solutions will optimise your equipment's performance and reliability whilst streamlining your design and procurement processes.





### 3. Pressure & Flow Control

### Overview

For the majority of applications, whilst high pressure steam is used through the distribution network for maximum efficiency, there is a need to reduce steam pressure and control temperature and flow for your equipment. It is also imperative to protect your equipment from excess pressure with the provision of necessary safety equipment.

### Is this solution right for me?

- Optimises your equipment performance through accurate control of process variables.
- Provides system integrity and enables you to meet all compliance and safety standards.
- Lower total cost of ownership of equipment through reduced maintenance requirements.



### Spirax Sarco Offerings

- A wide range of matched safety, temperature and pressure control valves to meet both your needs and those of your customer.
- A wide range of resources to help you size and select a fit-for-purpose solution for your application.
- Proven reliability and reduced maintenance requirements, providing you and your customers with peace of mind.

### Summary

Spirax Sarco design and manufacture to international standards, and have highly trained controls specialists globally. This enable us to give you the highest quality of service and a flexible supply chain to serve your local markets.

### 4. Metering

### Overview

Temperature controlled steam applications have widely fluctuating loads due to process variations. By accurately measuring your entire steam flow you can monitor machine performance and identify potential energy saving and waste reduction opportunities for your customer.

#### Is this solution right for me?

- Provides the ability to monitor and manage equipment remotely to maintain optimal machine and plant performance.
- Enables accurate control of energy to the process to ensure product quality and avoid product spoilage.
- Supports your customers' sustainability targets by providing insights into the energy useage of your equipment.

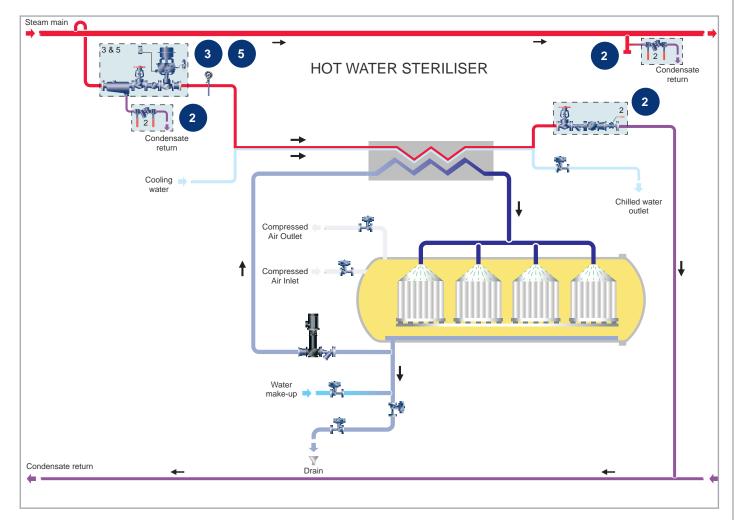


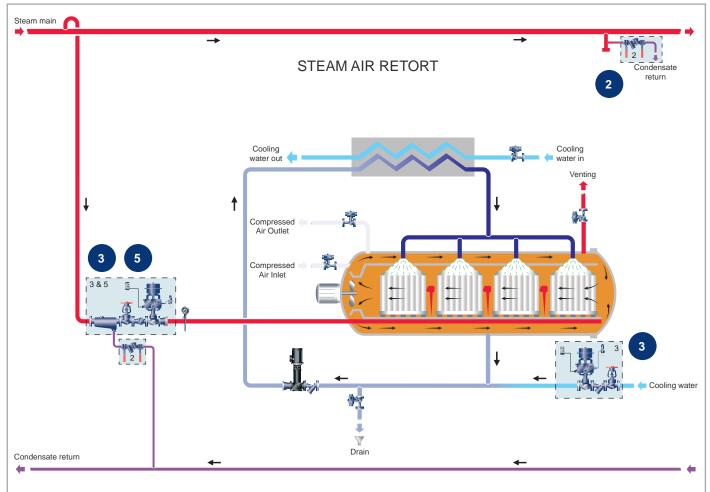
### Spirax Sarco Offerings

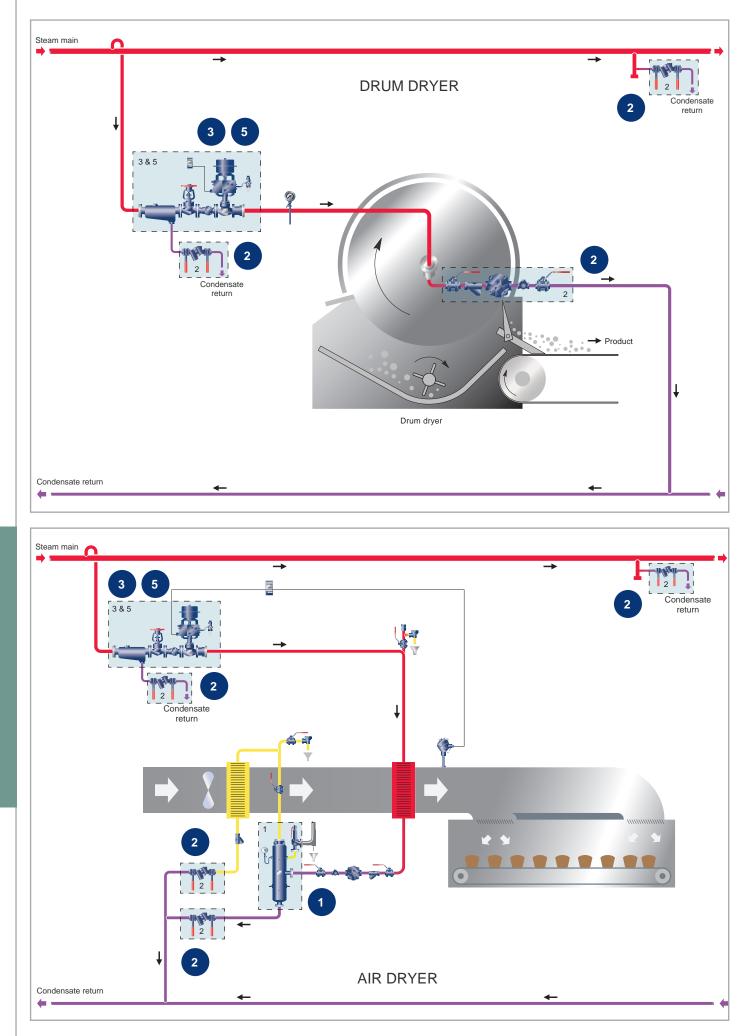
- A wide range of flow meters offering varying turndown capabilities to match your process application.
- Minimal installation requirements optimising the footprint of your equipment.
- A range of digital communication protocols to meet your customers' requirements

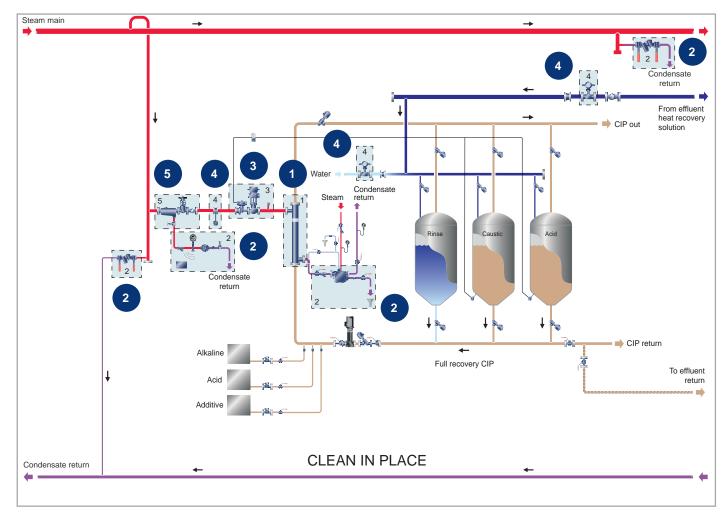
### Summary

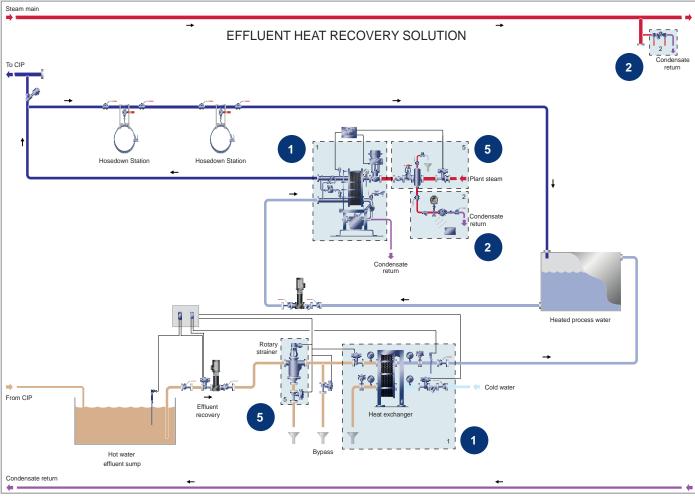
Our flowmeters have an unrivalled reputation for accuracy, turndown and reliability. A comprehensive selection of communication options for local or remote monitoring is available across all of the range.











### 5. Separation & Filtration

### Overview

Steam quality is essential for ever more stringent compliance standards, product quality and system performance. By ensuring you have the correct steam quality, you can maximise process productivity and product quality.

#### Is this solution right for me?

- Supports your ability to conform with regulatory standards for culinary steam.
- Provides a high grade of steam for sterilisation processes
- Maximises the energy content of steam by improving steam quality to optimise machine performance



### Spirax Sarco Offerings

- A wide range of separator and filtration options to meet your specific application requirements.
- Fully traceable and certified product range to meet regulatory demands.
- A range of different materials and connections to meet your equipment's performance specification.

### Summary

With increasing regulatory and consumer demands for a higher quality product we offer a range of separators and filtration equipment to improve steam quality to the required grades.

Our technical experts can help you optimise your design to ensure that you and your customers benefit from higher quality steam to comply with local regulations and achieve maximum product quality.

### 6. Clean Steam Generators

### Overview

Clean steam is providing the answer for many applications in the food & beverage industries where standards are increasingly demanding and public concerns on the safety of food consumption has made steam quality of paramount importance. Our Clean Steam Generator (CSG) range can help meet those standards and ensure you deal with your customers concerns in a safe manner.

### Is this solution right for me?

- Our Clean Steam Generators help control and maintain the product quality within your applications by ensuring high quality steam is produced.
- They are designed to be compliant to local standards (e.g. EC1935, GB4806.1) ensuring the steam is safe to be in contact with the product.
- Our CSGs are available in multiple variants ensuring you're able to provide a compact solution to your customers.

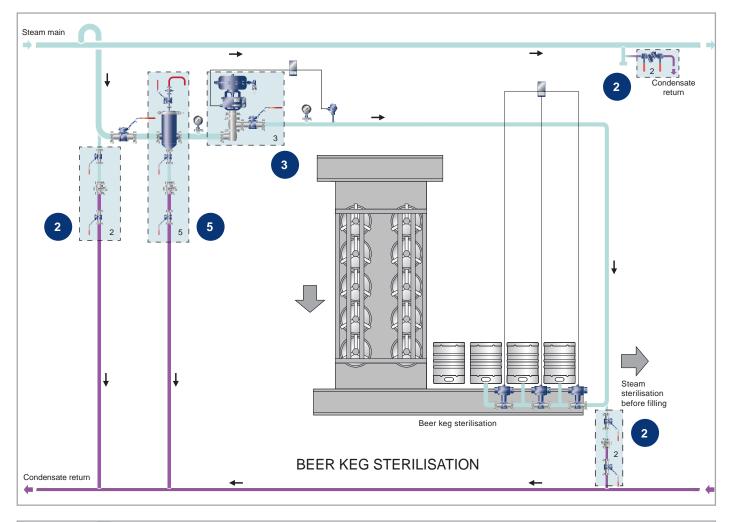


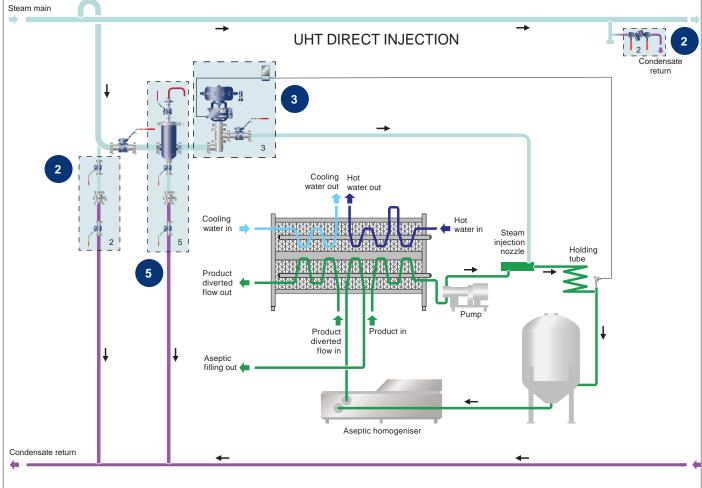
### Spirax Sarco Offerings

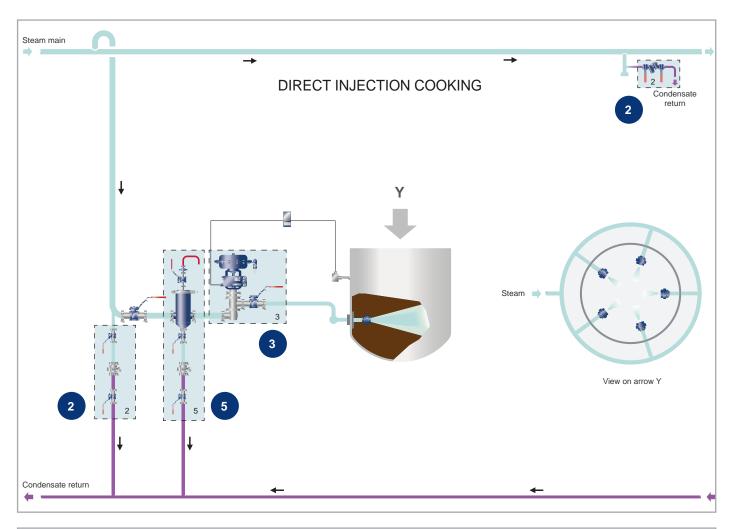
- Innovate solution compliant to the latest food safety regulations
- Available in a compact version, minimising your equipment foot print
- Steam expertise to support the appropriate sizing and selection of generator ensuring it meets the needs specification for use on your equipment

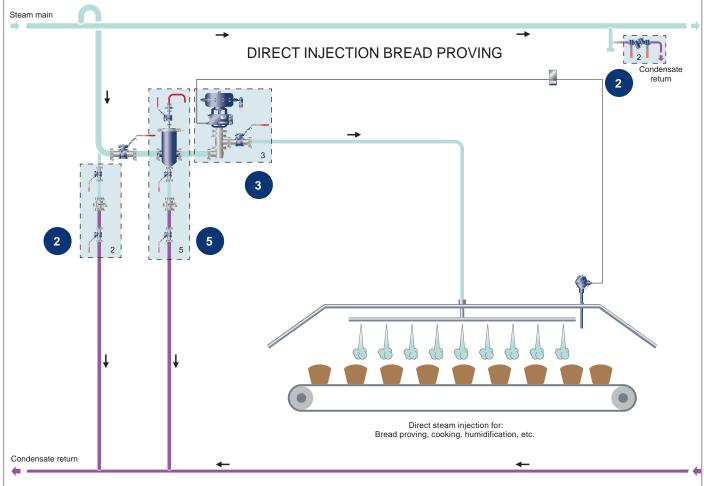
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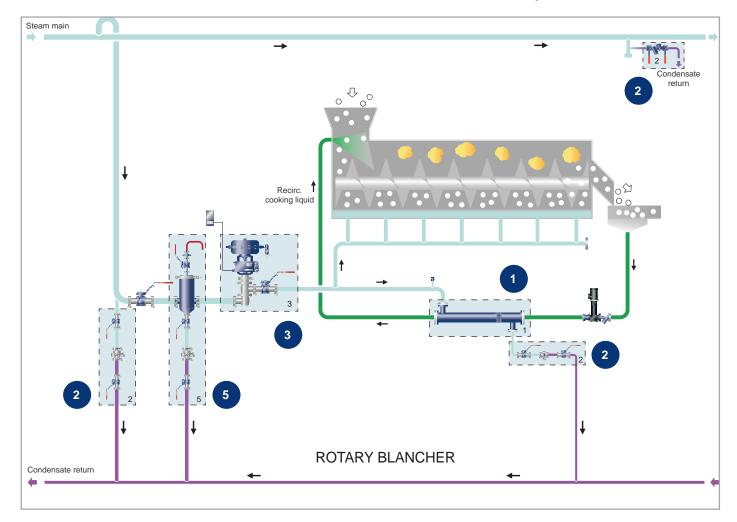
We have a range of clean steam generators to meet your applications needs. Supported by our world leading steam expertise you can be assured that the steam quality will meet your equipment's requirements, delivering high quality steam to your customers, mitigating risk and satisfying local safety regulations and organisational standards

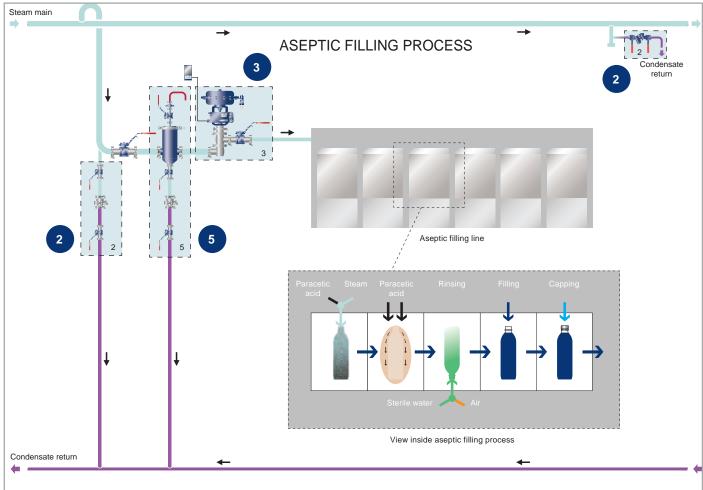


















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