OEM Steam Solutions

Delivering value for you and your customers







Tetra Pak needs a steam knowledge partner who understands our applications and is able to offer solutions that are fit for purpose. As Global Product Manager, I work closely with Spirax Sarco to manage our selected portfolio. 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



Delivering customer value

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

We supply solutions to a broad range of OEM industries, with strong focus on four main industries: food & beverage, pharmaceutical, oil & gas and chemicals.









Pharmaceutical Oil & (

Chemicals

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 optimize your machines steam system design
- Globally recognized brand that is highly valued by the steam user market, which in turn can add additional value to your equipment

How can we help you?

Optimizing your solutions...

We can help maximize the performance of your solutions while 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.

Global support for you, your equipment and your customers...

Global support is available throughout the lifecycle of your equipment, from design, to commissioning and aftermarket services.

Supply chain reliability...

We provide a reliable and agile supply chain that will bring you efficiencies in your design, production and purchasing processes. Our global spares network provides the aftermarket supply chain needed to support you, your equipment and your customers wherever they are in the world.

Optimizing your solutions

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

All products are developed using a stringent stage gate product development process. Dedicated research teams ensure our products and solutions are innovative, industry leading and deliver maximum value to you and your customers.

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 using our unrivaled range of products.

This approach allows us to offer outstanding customer value, ensuring you satisfy the needs of your customers and optimize 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 customized solutions, options may include:

Design

- Configuration
- Design changes

Connection variants

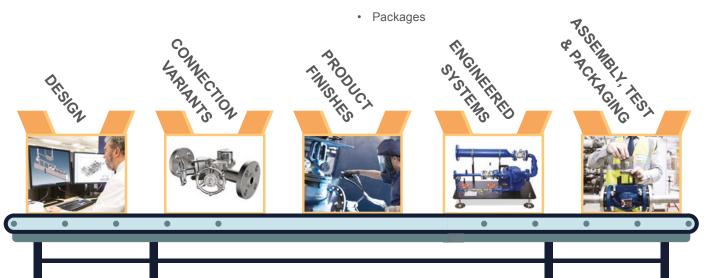
· Flange and connection changes

Product finishes

- Plating
- · Specified paint color 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



Typical applications:

FOOD & BEVERAGE

SIP / CIP machine / modules

Distillation and evaporation

Retorts & sterilizers

Steam peeling

Meat rendering

Ovens

Granulate drying

PHARMACEUTICAL

WFI machines

Temperature control units

Bio reactors and fermenters

Autoclaves & sterilizers

OTHER

Boilers / waste heat boilers

Tire manufacturing

Textile machines / dyeing / continuous dyeing

Ballast water sanitization







Global **support** for you, your equipment and your customers

Whatever your challenge, we can help you in achieving the best solution possible:



- 1,100 dedicated industry sales engineers
- Operating in 46 countries around the globe
- Over 100 years of steam experience
- Over 40 training centres

46 Operating companies

185 Local sale offices

52 Distributors

Across 6 continents

Global reach with a local service

You have direct access to our global network of local sales and service engineers. They are on hand to support you, your equipment and your customers during the design, commissioning and aftermarket phase of your projects.

Specialist knowledge and technical expertise

We have skilled specialists in OEM and end user steam applications and systems in all 46 countries in which we operate, ensuring your equipment is optimized to meet the steam needs of your customers.

Improving your engineering teams steam knowledge

We can provide support in enhancing your design teams steam knowledge to improve the efficiencies of your design process through direct training supported by our learning resources and design tools.



Resources & software tools

We can help you streamline your design process and operations through various tools, all of which are available on our website:

- · CAD library
- · Product Related Software
- · Steam engineering tutorials
- Calculators
- · Unit converters
- · Steam tables

CAD library





You can download a complete library of product and application drawings in AutoCAD or ClipArt format.

Benefits to you:

- Instant access to over 2,500 Spirax Sarco 3D product models
- · Browse or search by keyword or product nomenclature
- Download models individually or in batches using Model Basket
- · Autodesk DWG, ACIS SAT and STEP files available
- · Ability to preview a model prior to download
- · Access to technical information documents
- · Additional models can be produced on request

Supply chain reliability

For over 100 years we have partnered with our customers to achieve and surpass their commercial targets. We design and manufacture over 3,500 product lines via our 9 manufacturing sites across 4 continents:





We are able to provide you with a sustainable, reliable and responsive supply chain that:

- Is agile and exceeds your delivery performance KPIs
- · Improves your supply chain efficiencies
- · Supports your global aftermarket requirements no matter where you and your machines are in the world

The highest standards in design and manufacturing

We design our products to ensure they meet many local design standards, such as:

- ✓ CRN
- ✓ IBR
- ✓ GOST
- ✓ ASME
- ✓ ASME BPE

All our products are manufactured to stringent quality management systems with full international and local regulatory compliance that include:

- ✓ QMS BS EN ISO9001
- ✓ EMS BS EN ISO14001
- ✓ H&S Management Systems OHSAS18001
- ✔ Pressure Equipment Directive modules (various modules)
- ✓ ATEX IECEx Management Systems
- ✔ Functional Safety Management System
- ✓ UKAS Accredited (0714) Meter Calibration facility
- ✓ KOSHA Safety Certification
- ✓ National Board
- 100% production product testing on all products



An extensive product portfolio

We can be your single source of products and provide:

- A broad product range that supports improvement in your design
- Solutions for all of your operating conditions and application needs
- A global manufacturing network with local stocking policies, so you can be assured that we can support your delivery performance aspirations



Sustainable supply chain

We are working with our suppliers to ensure the sustainability of our supply chain. We have embedded sustainability criteria into our purchasing processes and expect high standards from our suppliers.

Our Supplier Sustainability Code specifies that our suppliers must not use forced, bonded or non-voluntary labor, should establish recognized employment relationships in accordance with national laws and exercise clarity in relation to wage levels. Suppliers must ensure that their activities are safe for the health of their employees, contractors, the local community and users of their products, and they must proactively prevent work-related injuries and illnesses through identifying, evaluating and limiting or mitigating risk.

We expect our suppliers to work within the laws of their country, conduct business free from bribery or corruption, and adhere to the UN Guiding Principles on Business and Human Rights, as well as the Core Conventions of the International Labour Organization. Our suppliers are also expected to take steps to mitigate their environmental impacts, improve product quality and source responsibly.



Modern slavery and human trafficking

We pride ourselves on setting high standards for sustainable and ethical business practices in all our operations worldwide. Included in those high standards is a commitment to respecting and protecting the human rights of all individuals, and combating all forms of modern slavery or human trafficking in all parts of our business organization, including our supply chain. We are continually developing and improving our business practices and policies in line with that commitment. We support a strong, collective stand to identify, prevent and raise awareness of modern slavery and human trafficking practices in all parts of the world.

Product responsibility

Our robust research and development practices ensure that our products are safe for our customers to use, manufactured using ethically sourced raw materials, are as environmental friendly as possible and deliver outstanding in-service performance. We incorporate sustainability factors into our product design processes, including energy efficiency, emissions, serviceability, recyclability and the availability of compliant and ethically sourced materials, avoiding the use of hazardous materials.



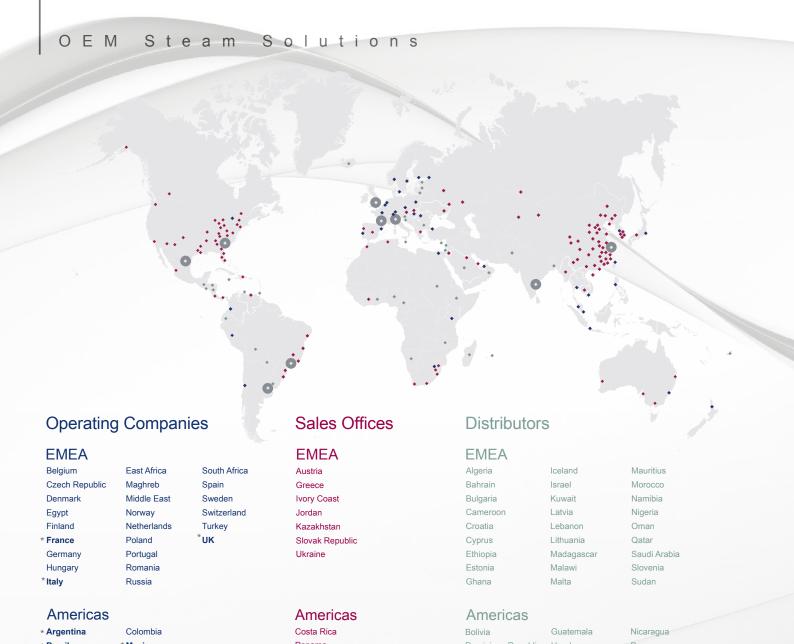




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* Brazil * Mexico Canada Chile *USA

Asia Pacific

Australia New Zealand * China Philippines Hong Kong Singapore * India South Korea Indonesia Taiwan Japan Thailand Malaysia Vietnam

* Manufacturing sites

Panama

Asia Pacific

Cambodia Myanmar

Dominican Republic Paraguay Ecuador Trinidad and Tobago El Salvador Netherland Antilles Uruguay

Asia Pacific

Bangladesh Pakistan Fiji







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