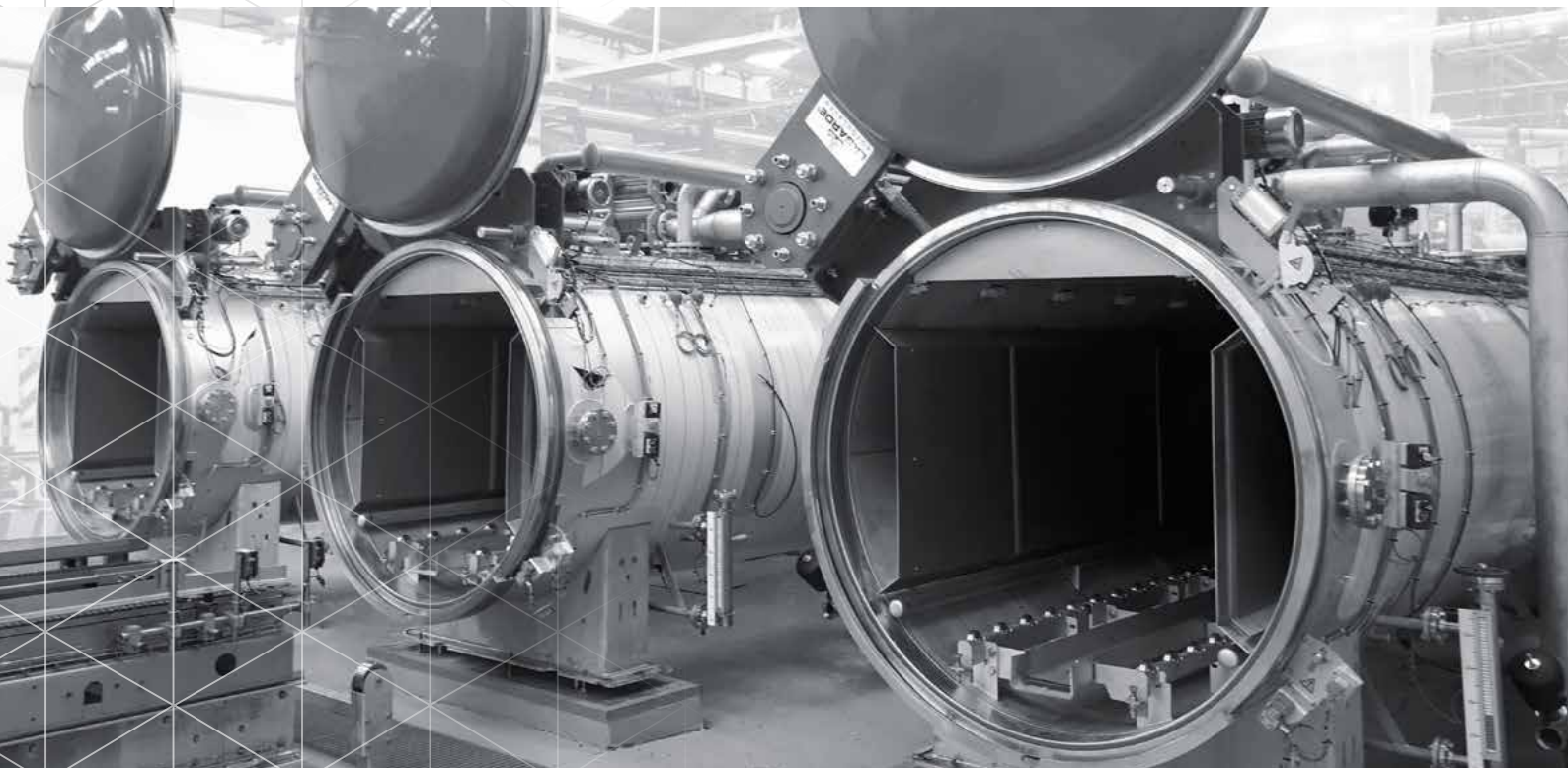




**Thermal  
Process  
Systems**



**When it comes to thermal  
processing for food,  
we supply outstanding  
machines and targeted  
solutions.**

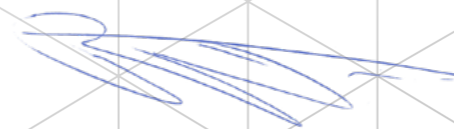
*Advanced thermal processing for the food industry*

# The new way to look at pasteurization and sterilization of food

In a world where food patterns are constantly changing, the main factor, ensuring food safety remains a primary requirement. To achieve microbiologically safe products, we employ various technologies and solutions to meet the highest standards of food safety. At Thermal Process Systems, we have a long history of experience in this field.

*"We are delighted to share our experience  
with our customers"*

To gather knowledge, we have our own innovation hub where we test the latest possibilities to achieve effective pasteurization or sterilization while considering taste, quality, and minimizing energy and water consumption. We are happy to share our knowledge with you to create the best solution in thermal processing.



Ir. Rik Valk,  
CEO Thermal Process Systems BV



The market is constantly evolving and requires specific, intelligent solutions. These solutions are essential to ensure food safety and optimise production processes. Our goal is to be the best and consistently maintain our status as industry leaders in this ever-evolving field of work. We work on this daily by following market developments, listening to our customers, and responding accordingly to ensure innovation. We are fully committed to serving our customers, and our involvement begins with helping you choose the right technology. We ensure this technology is efficiently integrated into the production process and prioritise long-term support. Additionally, we provide on-site support during startup and production. All of this enables us to fully understand this business and these production situations and allows us to act quickly when problems arise, resulting in our industry's lowest operational costs and downtime.

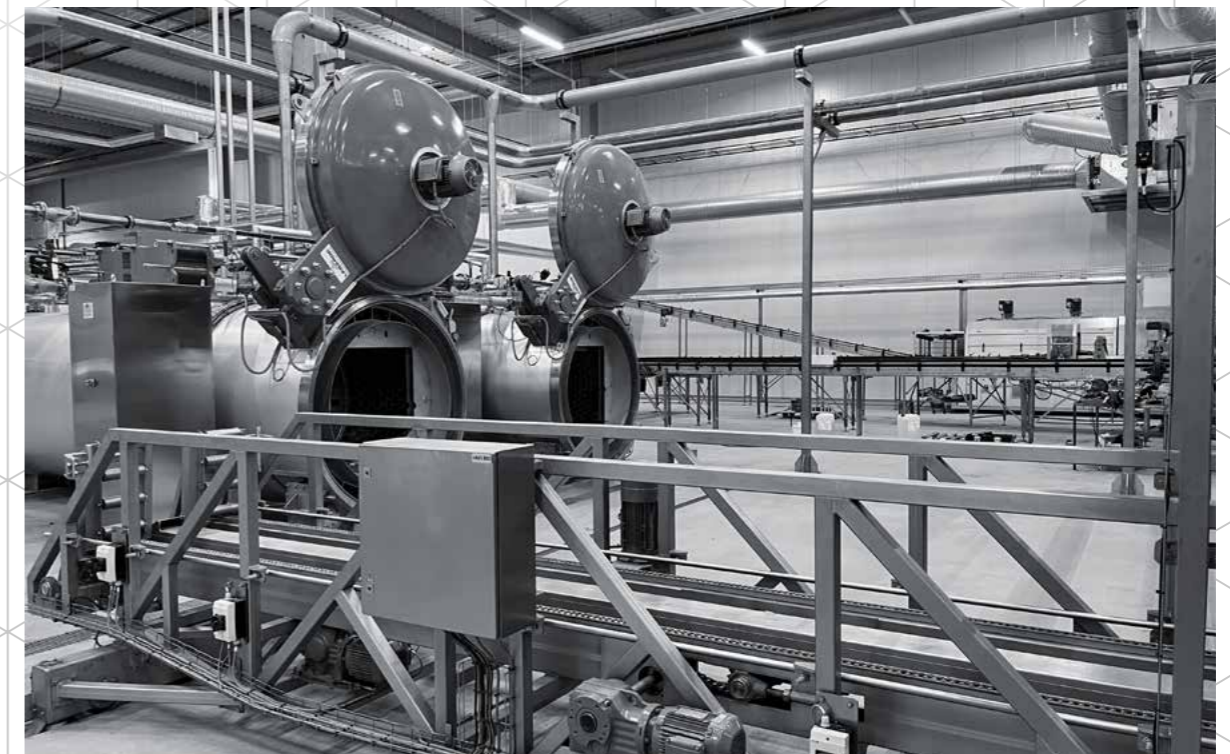
***Our goal: to be the best in thermal food processing***

## **By working with us, you get:**

- Lowest operational energy costs
- Full-service support
- Lowest maintenance costs
- Consistent quality
- A reliable production process

## Complete support from project development to operational assistance

In the initial engineering phase of food processing, we contribute to developing tailored solutions. This facilitates the seamless integration of thermal processes throughout the entire processing workflow. We provide support in choosing the right technology, process parameters, utilities, and 3D renderings, as well as installing and commissioning the system, including post-commissioning support, if desired. Additionally, we offer comprehensive maintenance and services, and provide spare parts and training programmes to optimise the use of the production line. We are available 24/7 for our customers to ensure production continuity.



## Over 30 years of specialisation in pasteurisation, sterilisation, cooking, and cooling

We specialise in thermal and disinfection processes in the food industry and have extensive and specific knowledge of safe food processing. This allows us to prevent errors that could lead to critical food safety situations. Thermal or preservation procedures are essential in food processing. Our focus is managing the sterilisation, pasteurisation, and cooling of food products from start to finish. Our experience ensures that the integration of all necessary processes runs flawlessly and thermal unit operations perform optimally within the overall production process.

## Optimal operational ease is what matters

All our solutions are developed with ease of use in mind. We offer energy-efficient, water-saving, and highly automated solutions with clear instruction manuals as needed.



## Consistency in production quality

Thanks to the reliability of our solutions, the production quality around the delivered processes remains consistent, contributing to the overall consistency of the end product. This is a key factor in the process, allowing us to meet the highest possible standards.

## Familiar with specific requirements for different products and packaging

We offer customised solutions for various types of packaging. Whether solid or liquid food, everything requires its own thermal processing. We work with food products in cans, glass, aluminium containers, flexible packaging, doypacks, PP, PE, or PVC bags, hard plastic bottles, or innovative materials. We have a deep understanding of these processes, guaranteeing optimal handling with a focus on food safety and cost-efficiency.

# Complete solution for thermal processing in the food industry

Providing the right machines for thermal treatment is only part of our service. We offer a complete package of services. We ensure that processing your products is worry-free. Providing peace of mind is our motto. Minimising downtime and avoiding high costs.

# SERVICES

## Machines for every production line

We focus on heat treatment in all its aspects, as well as alternative disinfection methods involving microbiological reduction. We also offer solutions for cooling after sterilisation or pasteurisation. We supply both static and rotating autoclaves, proven technology with a high level of standardisation but with flexible customisation possibilities. Our projects range from manual and semi-automatic to fully automated production lines.

We provide in-container solutions as well as solutions for the thermal treatment of bulk products, such as blanchers, cookers, coolers, and steamers. Thanks to our extensive expertise, all our machines seamlessly connect within the production line.

## TPS Knowledge Base

We provide our customers with a knowledge base containing all relevant information for the operational continuity of thermal processes. This knowledge base is consistently updated with accurate information about your machinery and its operation.

SERVICES



## TPS Project Management

By being involved early in the development and construction of the production line or installation, TPS simplifies the final installation and prevents costly adjustments later on. Thanks to our knowledge and the ability to develop projects in 3D and as P&ID schematics at an early stage, a clear overview can be created. If desired, TPS can oversee the entire project so that you can continue focusing on your production activities.

## TPS (Post) Commissioning Service

With the TPS Commissioning Service, the transition from setting up and connecting the machines to a fully functional and, where possible, automated production line is fully supported. Even after commissioning, TPS offers a smooth transition to full production. During the Post-Commissioning Service, we pay attention to all aspects relevant to implementation that have not been addressed during the startup and development phases of the production lines. Process optimisation is part of this service.

## Certifications

The machines we offer and how they are manufactured are certified by leading organisations. We collaborate with ISO 9001-certified companies. Most of our autoclaves, processes, and PLC control systems fully comply with CE or 21 CFR Part 11 (FDA) standards. Additionally, our machines are equipped with CE or ASME labels, depending on the country of delivery. We always meet the appropriate certifications and standards.

SERVICES



## TPS On-Site Support and Service

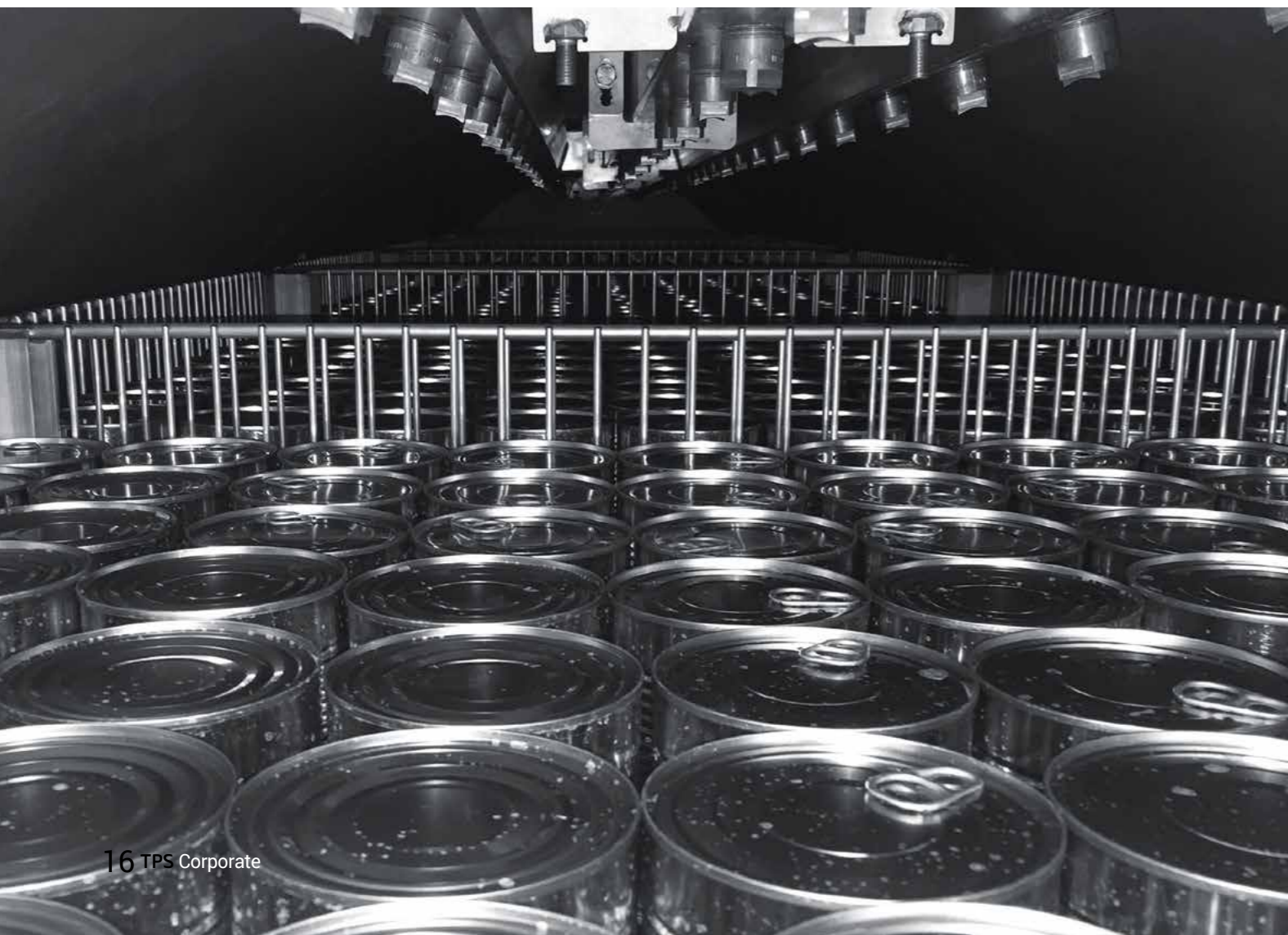
During the startup of the production process, our technicians support you in ensuring optimal performance. We also provide long-term services for thermal process solutions, allowing you to produce worry-free. Our solutions are designed for long-term durability and cost-effective maintenance.

## TPS Service Support

We offer preventive maintenance services to prevent machines and production lines from coming to a halt. These preventive maintenance include the replacement of parts in a timely manner. Because this service can be scheduled, it is highly efficient. Additionally, with TPS Service Support, we provide a parts-replacement service. With many parts in stock, we can respond quickly and minimise downtime.

*"Most parts are readily available in stock."*

SERVICES





## TPS Consultancy Pilot Plant

Our customers can use our fully equipped industrial-scale test facility. Together with our engineers, the commercial feasibility and quality of our customers' products are tested. With this test facility, we optimise the production process down to the smallest detail and provide complete insight into energy consumption. Providing consultancy services to assess and evaluate your thermal processes for energy efficiency, consistent product quality, and process optimisation is an integral aspect of our service offerings.



## TPS Training Programs

With our comprehensive operator training programmes developed by us, errors are prevented, and machines are operated correctly. This also contributes to extending the lifespan of the machines. These training programmes can be taken at our facility in Belgium or on-site. The training programmes can be supported by exclusive instructional videos provided to our customers. Refresh training sessions are also offered regularly to keep knowledge up to date.

SERVICES

# Specific solutions for every segment and market

Every industry and production process in the food processing industry has specific characteristics where our steam/air autoclaves or other solutions are highly applicable. We operate in various sectors, including vegetables and fruits, potatoes, rice, meat, meat replacements, soups and sauces, coffee beverages, and pet food. Our expertise covers a wide range of processed products.

# MARKETS

## Potatoes and Vegetables

We have very specific applications for pasteurised and sterilised products for the potato industry. This also applies to a wide range of vegetable and fruit products. Regardless of the processing method, from canned to vacuum-packed, pre-cooked, and sous-vide, we always focus on optimal food safety and extended shelf life.

## Soups and Sauces

Soups and sauces generally undergo a thermal process. We provide a solution, whether inline pasteurisation, more flexible sterilisation or pasteurisation in an autoclave. Specifically for these products, we can also supply rotating autoclaves that achieve higher quality in less time through rotation. For soups and sauces, we also offer solutions for various types of packaging, from liquid soup in a bag to high-viscosity sauce in a glass jar.

MARKETS

## Rice, Baby Food, and Ready Meals

We have specific offerings for these products, such as rotating autoclaves for microwave rice bags to pre-cooked rice, rice bowls, or rice as an ingredient for baby food or ready meals. Baby food is a product with very high-quality requirements. That's why we offer smart solutions for automated glass, containers, or sprout pouch processing, ensuring utmost safety.

## Coffee Beverages and Sweetened Milk

We offer sterilisation solutions for special beverages such as coffee drinks or sweetened milk. For this in-container processing, we provide highly automated rotating sterilisation solutions. This is suitable for products in aluminium cans and glass bottles, as well as in sprout pouches. Thanks to rotation during the process, there is optimal mixing of the products, preventing the separation of components and unwanted caramelisation. The application is assessed based on the specific product.

MARKETS



## Proteins: Meat, Fish, Poultry, Meat Alternatives

For the meat, fish, and poultry sectors, we supply autoclaves/retorts for both products packaged in cans and vacuum-sealed products processed using sous-vide technology. We also offer cooking solutions for sausages, hot dog sterilisation, slow-cooked meat, and pasteurisation of meat replacements. With all these applications, we can handle a wide range of protein-based foods properly and ensure long-lasting and consistent quality standards.

## Pet Food

Our machines and solutions offer an optimal and energy-efficient production process in the pet food sector. Our solutions are highly effective thanks to the short processing time we achieve during sterilisation. Our autoclaves are suitable for cans, pouches, and aluminium packaging, and we can sterilise all products, from chunks-in-gravy to pâté and pet treats.

MARKETS



# TPS simplifies the final installation and prevents costly adjustments later on

We offer solutions to companies in various sectors of the food processing industry. Each industry and production process has specific characteristics where our steam and air autoclaves can be an excellent solution.

# GLOBAL PRESENCE



TPS has offices in Europe, North America, and Asia to provide global support. Additionally, we offer global partnerships through a refined network of specialists. Our headquarters and innovation hub for large-scale tests are located in Europe (Belgium). Our office in the United States serves the American continent. Asia and Australia are supported through our office in Vietnam.

**Thermal Process Systems  
is active on 4 continents:  
Europe, Asia, Africa and America**





**Thermal  
Process  
Systems**

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