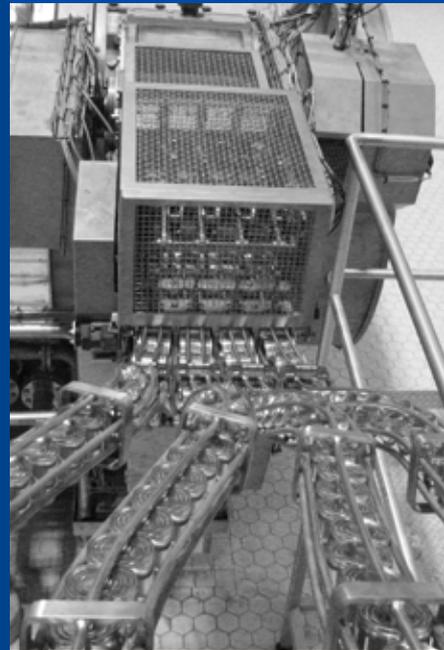
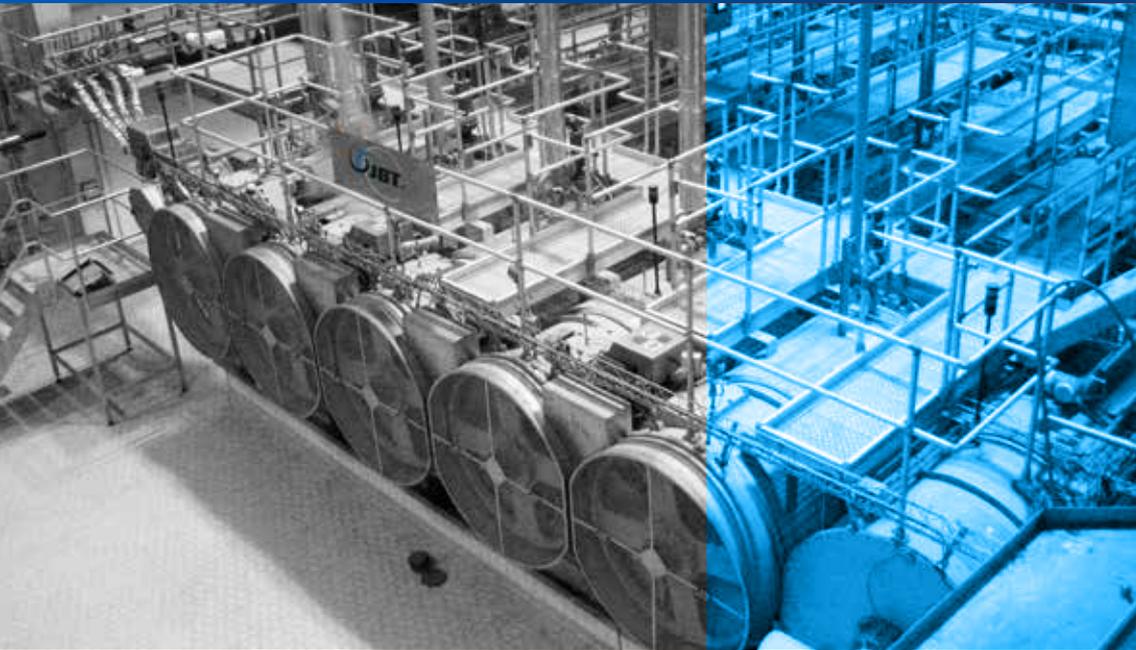


Continuous Rotary Pressure Sterilizer



There simply is no better way to sterilize high volumes of foods in cylindrical metal containers.

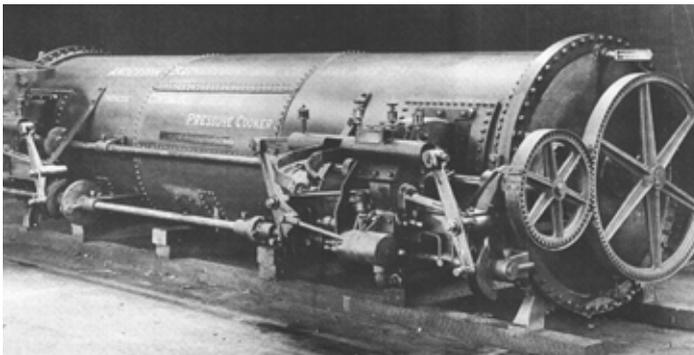


Custom-fit configuration

Depending on the thermal process of a particular product or can format, JBT engineers a custom-fit configuration to ensure product uniformity and quality.

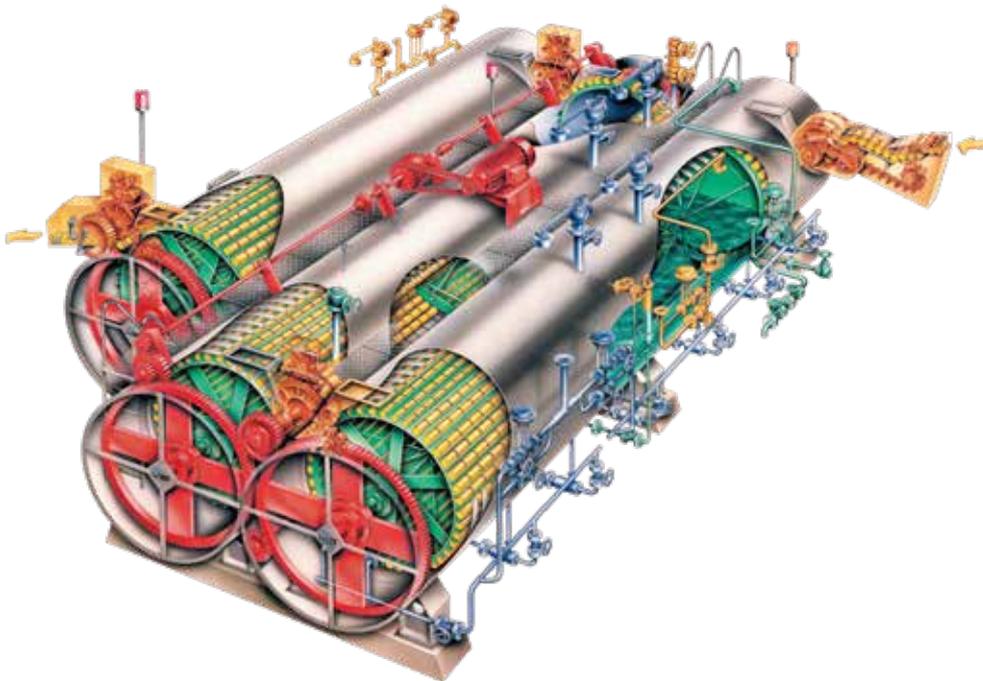
“Practice makes perfect”

Since 1921, more than 7,500 JBT Continuous Rotary Pressure Sterilizers have been placed into production around the world and are today processing over half the world's canned foods. An estimated 100 billion food cans are globally produced every year, to preserve a broad range of ready meals, vegetables, soups, sauces, milk, non-carbonated beverages, etc. More than 50% of the world's canned foods are sterilized on the JBT Rotary Pressure Sterilizer.



Year-by-year JBT has advanced the rotary sterilizer technology to offer high, consistent product quality at the lowest cost per unit produced. Today's rotary pressure sterilizer technology allows processors to handle traditional and modern, stackable, lightweight and easy open-end cans.

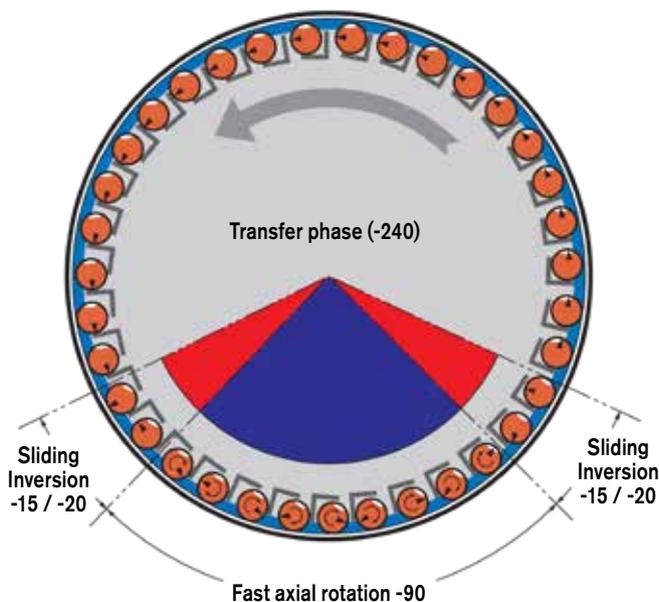
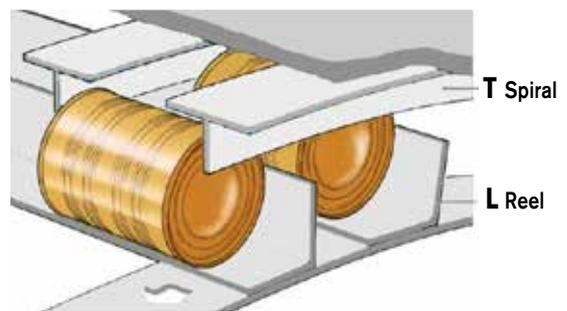
There simply is no better way to sterilize high volumes of foods in cylindrical metal containers.



For better performance and less maintenance the single, longitudinal shaft is nowadays replaced by drive motors and counter shafts directly placed on the bull gear.

A simple and extremely efficient operating principle

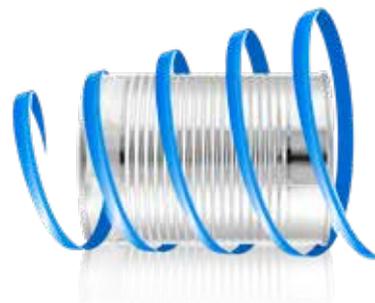
Closed cans enter the sterilizer directly from the closing machine with minimum waiting time. A feed device delivers the cans into the revolving reel of the first vessel. The reel, working in conjunction with the stationary spiral, advances the cans through the vessel. Cans never stand still. The continuous spiralling motion and rotation of the container through the vessel provide an even cook to every container. Every can is treated individually and undergoes exactly the same thermal process. At the end of the cooking process the cans are transferred to a water-filled cooling vessel where a similar process efficiently cools them.



Increased heat penetration & reduced cooking time

The Continuous Rotary Pressure Sterilizer agitates the can, permitting short-time, high-temperature cooking and rapid, efficient cooling in an automatic, continuous operation.

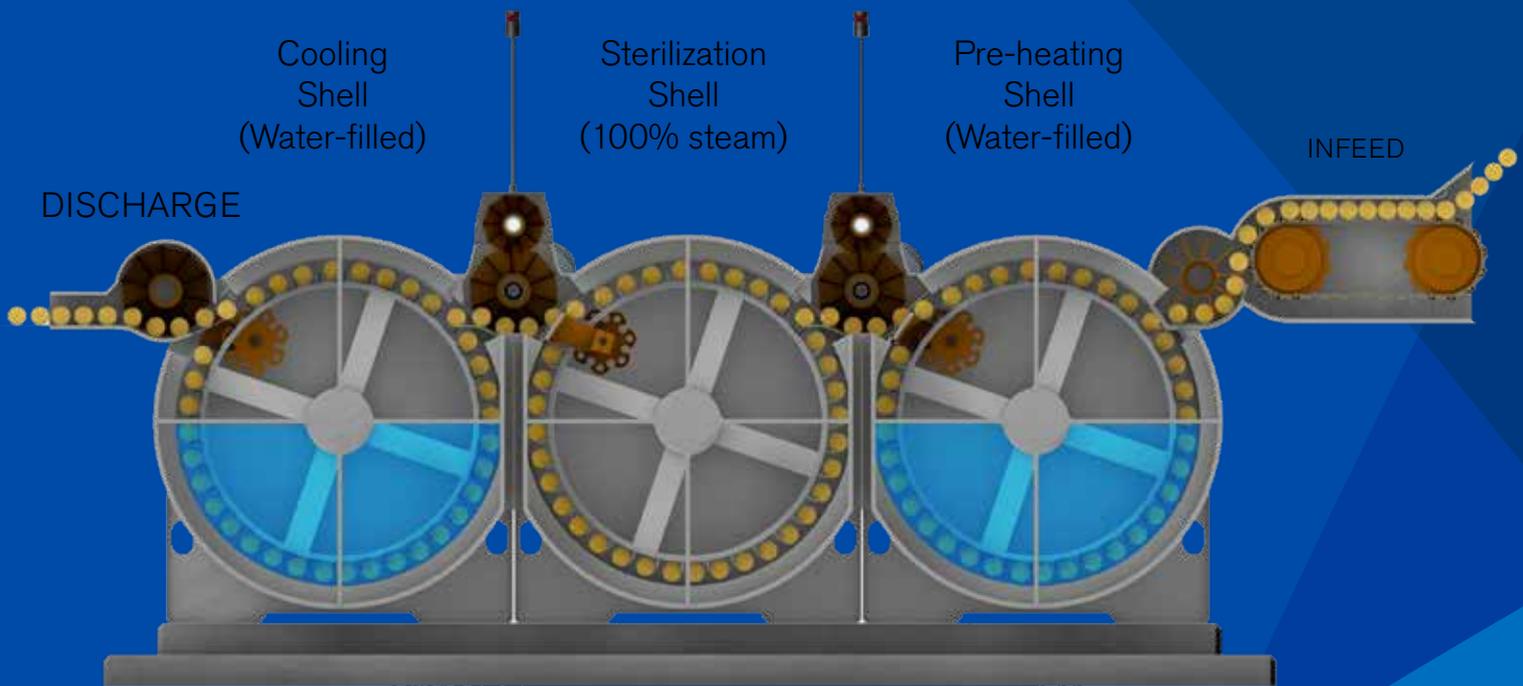
For each turn of the reel, the can undergoes a 3-phase movement cycle. This intermittent axial agitation induces convection heating and results in faster cooking and cooling of the product.



Some of the products currently processed in JBT Rotary Pressure Sterilizer



- ✓ Fruit
- ✓ Ready meals
- ✓ Pastas
- ✓ Sauces
- ✓ Seafood
- ✓ Soups
- ✓ Nutritional drinks
- ✓ Infant formula
- ✓ (Evaporated) milk
- ✓ Cream
- ✓ Vegetables
- ✓ Vacuum packed corn
- ✓ Mushrooms
- ✓ Pharmaceuticals
- ✓ Meats
- ✓ Juices
- ✓ Rice based foods
- ✓ Congee



The lowest cost per unit produced High and consistent product quality

Low labour cost

The JBT Continuous Rotary Sterilizer offers important advantages to substantially lower labour cost. Cans are directly transferred from the seamer to the rotary sterilizer and automatically transferred through cookers and coolers shells. All critical machine functions are displayed on a centralized control system. Machine operation is completely automated. Moreover, multiple rotary sterilizers can be supervised by only one operator.

A new, optional menu-driven control system offers automatic start-up and an optional process recipe change-over, further reducing labour requirement and eliminating the risk of human error. Finally, JBT provides turnkey installation and start-up services with detailed operator training classes.

Low energy and water consumption Small carbon footprint

The rotary sterilizer operates in a continuous, steady state mode and offers the highest line efficiency and availability and the lowest steam, water, air and electricity consumption per unit produced. Faster heat penetration, resulting from continuous product agitation and higher processing temperatures, drastically reduces the processing times required.

An optional venting supervision system makes it easy for operators to verify proper functioning of the vents on the cooling shells, reducing energy consumption.

Ceramic insulating safety coating enhances operator safety, reduces energy losses and provides protection against external corrosion.

An optional energy recovery system, recovers heat from the cooler in the pre-heater to drastically reduce the overall steam consumption and lowers cooling water loss.

The optional automatic start-up and recipe change-over feature avoids operator error and assures consistent, energy-, air- and water-efficient machine start-up and change-over from one process recipe to another. The optional menu-driven control system puts the machine automatically in "Eco Mode" during extended interruption of supply of cans, minimizing energy and water consumption.



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REINIGEN :	EDITTEER :	OMSCHRIJVING :		NIEUW BEWAAR :	
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		Risicofactor	Delta +	Delta -	Delta -
Snelfeed	Blikken / Minuut	+90,0	+10,0	+5,0	-10,0
COOKER	Water mm	+920	+70	+50	-100
	Temperatuur °C	+135,0	+1,5	-1,0	-1,5
	Druk BAR	+2,75	+0,20	+0,15	-0,20
KOELER 1	Water mm	+700	+70	+50	-100
	Inlaat Temp °C	+92,0	+20,0	+15,0	-4,0
	Uitlaat Temp °C	+73,0	+5,0	+4,0	-15,0
	Druk BAR	+2,90	+0,20	+0,15	+0,00
KOELER 2	Water mm	+820	+70	+50	-100
	Inlaat Temp °C	+50,0	+20,0	+15,0	-4,0
	Uitlaat Temp °C	+40,0	+5,0	+4,0	-15,0



To meet the industry's need for reduced energy and water consumption, ever-lower cost per unit produced and high, consistent product quality and safety, JBT continues relentlessly to advance the rotary sterilizer technology. These innovations allow canners to address new consumer needs, packaging trends and market opportunities in the most effective and cost-efficient way possible.

High reliability and availability
Reduced machine maintenance

Since 1921, JBT has relentlessly advanced the JBT Continuous Rotary Pressure Sterilizer technology to ensure and further improve sustained, trouble-free operation. The application of high-grade materials, the application of high-quality, proven designs and the smart use of new technologies go a long way to ensure maximum reliability and availability and low and easy maintenance.

An optional automatic lubrication system allows full automatic lubrication of the machine. JBT offers a broad range of food-grade lubricants specifically designed for the JBT Continuous Rotary Pressure Sterilizer. In a production environment that is becoming ever more demanding, the JBT low-wear rotary transfer valves, newly designed reel and automatic shell deflection monitoring system (optional) assure even longer machine life and lower maintenance costs. JBT's corrosion control experts help customers to maximize the life of their shells.

Product uniformity
High product quality and safety

Every can is cooked and cooled in the same manner and receives exactly the same thermal process for consistent product quality. Reduced processing time helps preserve the natural flavour, nutrients and appearance of the product.

High processing speed

Higher line speeds require either more shells or shells with a larger holding capacity. To be able to offer the most cost-effective solution for each application, we have added extended length and larger diameter shells to our portfolio.

Gentle container handling

Gentle mechanical handling greatly minimizes can damage. This makes the system particularly suitable for processing traditional but also modern light-weight, stackable cans with conventional or easy-open end. Also double necked-in sleeved or labelled cans can be processed on JBT's latest generation of Continuous Rotary Pressure Sterilizers.



Flexibility

Line layout flexibility

When multiple cooking or cooling vessels are required for longer processes or special preheating requirements, the vessels can be directly connected or located independently. Many shell configurations are possible, from 2 to 7 shells. Our modular and therefore flexible design allows for easy future modifications of an existing system by adding vessels.

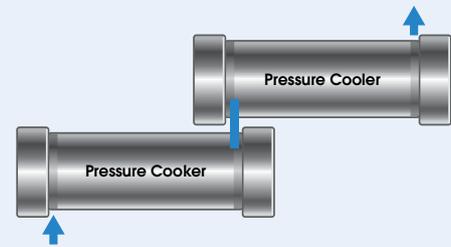
Small footprint and easy installation

This system requires a limited industrial floor space considering a production process up to 1,500 containers per minute (90,000 cph). Apart from the limited footprint, the installation of a Continuous Rotary Pressure Sterilizer in most cases does not require any major modifications to the building available.

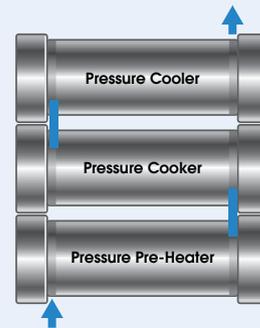


Other possible features

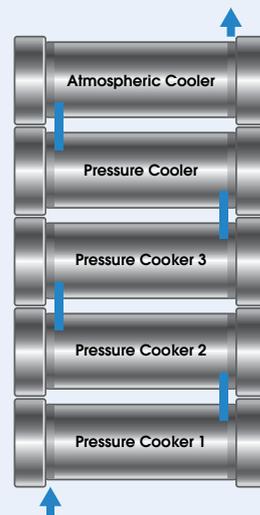
- Pressure vessels in 1481 mm (58 5/16") and 2845 mm (112") diameters
- High capacity 15.8 m (52') long vessels
- Speeds of up to 1,500 containers per minute (90,000 cph)
- Handling of containers with easy open ends
- Handling of stackable cans
- Handling of light weight cans
- Handling of lithographed cans
- Handling of double necked-in sleeved cans
- Multiple can size combinations
- Multiple can processing lanes
- Construction allowing for processing temperatures up to 144°C (300°F)
- Overpressure systems for delicate containers
- Automatic lubrication systems



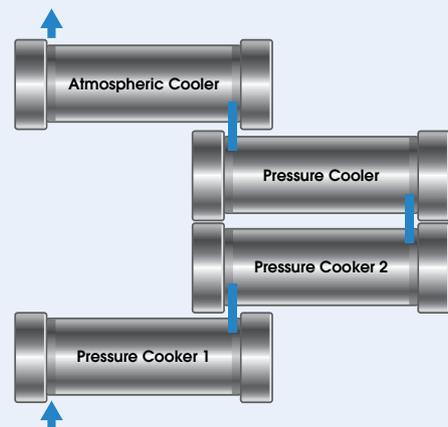
2 SHELLS IN LINE



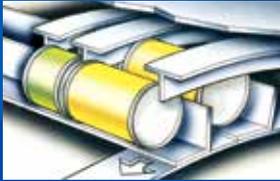
3 SHELLS IN BLOCK



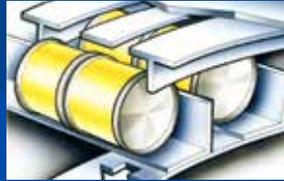
5 SHELLS IN BLOCK



COMBINATION IN LINE & IN BLOCK



Asymmetrical twin spiral



Double can handling

Product and container Flexibility

JBT Continuous Rotary Pressure Sterilizer lines allow a combination of can sizes to be processed in one single unit.

Single Can Combinations		
A1 211 x 400 (68,5 x 101,5 mm)	&	E1-UT 300 x 401-408,75 (76,2 x 103,2-116 mm)
UT 300 x 408,75 (76,2 x 116 mm)	&	A21/2 401 x 411 (103 x 119 mm)
1/2E 300 x 405 (75,5 x 109,5 mm)	&	1/1E 400 x 411 (102 x 119 mm)
A21/2 401 x 411 (103 x 119 mm)	&	16oz 404 x 700 (108 x 178 mm)

Double Can Combinations		
Double Can (DC)	Single Can	
1/4 DC 300 x 207 (75,5 x 62 mm)	&	1/2 300 x 405 (75,5 x 109,5 mm)
8 oz DC 300 x 208 (76,2 x 63,5 mm)	&	UT 300 x 408,75 (76,2 x 116 mm)
1/2 Basse DC 401 x 206 (103,2 x 64 mm)	&	1/1E 400 x 411 (102 x 119 mm)
1/1E DC 400 x 411 (102 x 119 mm)	&	3/2 400 x 615 (102 x 176 mm)

Multi spirals line system (Twin-Triple-Quattro available)

Multi spirals allow high-speed processing. Two, three or four cans go through the entire process in parallel.

In addition, delicate products can be run with high output levels: by reducing the rotation speed of the shell, the product is subjected to less agitation, therefore keeping a consistent quality.

Multi spirals allow also multiple products/can sizes to be processed simultaneously in one single unit.

Double can handling system

Two short cans or one taller can with roughly the same can diameter and with lengths in the approximate ratio of 2:1 can be processed together in the same spiral.

Feed & discharge systems

Two-grade feed & discharge and multiple infeed systems allow the processing of different cans with different cooking times without having to operate change-overs or to speed up the machine, or reducing cooling time.

Modern Process Control Systems

JBT provides various PLC-based options for controlling rotary lines. The options include a touchscreen Operator Interface. The screens are menu-driven and include a process overview, operator controls for local PID tuning, a customized recipe management system and diagnostic screens for troubleshooting. The Operator Interface also includes displays for current and previous alarms. Other customized features can be provided on demand, such as trend graphs and detailed troubleshooting.

In the US, in order to meet the development guidelines of FDA 21 CFR Part 11, JBT's proprietary LOG-TEC Momentum process control system is an advanced control platform utilizing Windows-based host software, allowing for user-friendly utilities that operate in a standard Windows Environment. LOG-TEC complies with the Code of Federal Regulations (CFRs) for validation requirements including: Electronic Signature, Audit Trail, Electronic Record Review and Data Storage. Its accessible, open architecture and software is designed for secure lockdown.





Thermal process expertise at your service, around the globe

Our mission: to provide you with maximum uptime and smooth operation. Therefore, you can count on JBT for technological support, installation supervision, training and after-sales support anywhere in the world.

More than 50% of the world's shelf-stable foods are filled, seamed or sterilized on JBT equipment. With several thousands of canning lines in operation worldwide, JBT is the world's leading supplier of integrated processing solutions for metal, glass and plastic containers. From single machines to complete processing lines, we enhance product value and safety. JBT equipment captures the quality, nutrition and taste of your product at the lowest cost per unit produced.

Process Technology Centre at your service

JBT's PTCs in Europe, Asia and the Americas provide a broad range of added-value services to improve processing and packaging techniques. JBT has the staff, equipment and experience to perform the required heat penetration, temperature distribution and process validation studies in our pilot facility or right in your own plant. The JBT Pilot Sterilizer simulates rotary, hydrostatic or still processing for all can sizes and speeds and is used for heat penetration tests, container performance testing and product quality evaluation. JBT is a USDA/FDA-recognized process authority.





Global Service and Support Minimize downtime and control your budget

Your business earnings and profits are directly related to how much you can produce in a given time period, which in turn depends on the performance, reliability and availability of your equipment. This requires each machine to be regularly serviced and optimized.

JBT offers OEM parts for repairs and maintenance. The stock counts over 6,000 parts with most items available for shipment within 24 hours.

JBT's continuing commitment to its customers includes a staff of highly experienced field technicians available 'on call' around the world to service your equipment.

In addition to a full line of OEM parts and skilled field technicians, JBT offers JBT-branded lubricants and cleaning products, specially formulated to keep your equipment running smoothly.

Finally JBT provides a broad range of services to keep the sterilizer in good condition such as electrical & controls upgrade kits and a corrosion monitoring program.

The JBT PProCARE service agreement offers you scheduled preventive inspections and maintenance of your equipment,



PProCARE®

The smart way to produce more tonnage per day

minimizing unexpected and budget-shattering costs for reactive maintenance. A PProCARE service agreement is designed to give you a predictable monthly cost, based on actual equipment use, and simple administration. PProCARE offers peace of mind that you can produce as planned with optimum performance from your equipment throughout its working life.

COUNT ON JBT TO HELP PROTECT YOUR INVESTMENT

JBT's greatest value in PRoCARE® services comes from preventing unexpected costs through smart, purposeful, and timely maintenance based on unmatched knowledge and expertise. PRoCARE service packages are offered as a maintenance agreement in various service levels, depending on your production and cost management requirements.



JBT DIVERSIFIED FOOD & HEALTH

FRESH PRODUCE TECHNOLOGIES | FRESH-CUT, ROBOTICS, STEAMING | FRUIT AND VEGETABLE PROCESSING | SECONDARY PROCESSING | ASEPTIC SYSTEMS | FILLING AND CLOSING | IN-CONTAINER STERILIZING | TRAY SEALING | SECONDARY PACKAGING | HIGH-PRESSURE PROCESSING | POWDER PROCESSING | TUNA PROCESSING

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We're with you, right down the line.™

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