



Research & Technology Center

Madera, California (USA)



In-Container Sterilization
Yes we can...

A pilot plant dedicated to serve our customers

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Packaged Food & Beverage

The JBT Research & Technology Center (RTC) in Madera, California provides:

- A wide range of processing authority consulting services recognized by FDA, USDA and California Almond Board
- In-container and aseptic processing expertise
- North American staff of seven highly experienced thermal processing experts

In-container Sterilization Systems

Thermal process work can be performed either in your laboratory, your factory or in our 8,000 ft² pilot facility in Madera.

In particular, our R&TC has the capability to mix, blend and batch products in our Kitchen/Formulation area, perform thermo-bacteriological and heat penetration studies in a laboratory sterilizer, and create process reference letters for filing with FDA as needed.

The lab is equipped with the most modern measurement technology for thermal process data collection and analysis - both for continuous and batch systems. Pilot equipment for food product preparation, filling and seaming on a semi-industrial scale is also available.

Our process technology scientists and technicians possess extensive knowledge of continuous rotary sterilizers, hydrostatic sterilizers and batch sterilizers.



SuperAgi-Multifunction Sterilizer

The **simulation capabilities** are:

- Steritort (Continuous Rotary Sterilizer, Hydrostatic Sterilizer)
- SuperAgi-Multifunction Sterilizer (Stationary Waterspray, Agitating Waterspray, Water immersion, Partial immersion, 100% steam)
- Simulation for 112 and 84 inch diameter continuous rotary cooker/coolers
- Multipurpose Laboratory Pressure Sterilizer (Stationary Waterspray, Agitating Waterspray, Hydrostatic Sterilizer, Stationary Steam).

In addition to heat penetration and cooling rate studies, the Multi-Purpose Laboratory Sterilizer can be used to study product quality and container integrity under a variety of processing conditions.

Variable simulation parameters for the Multi-Purpose Laboratory Pressure Sterilizer include temperature and pressure ramp rates during come-up, sterilization and cooling. These temperature and pressure profiles can be modified within the control system to an infinite number of testing permutations.



Continuous Rotary Sterilizer



Hydrostatic Sterilizer



Multi-Purpose Laboratory Sterilizer



Megatort 112 Inch Diameter Steritort

PRODUCT FEATURE	PROCESSOR BENEFIT
New Performance Technologies including Log-Tec™ Momentum delivery systems	Most precise process modeling, lethality tracking & encrypted operational documentation to support design approval processes
Unique steam and steam-water spray process	Most reliable temperature distribution regardless of package type or configuration
100% self-contained, skid mounted	Reduced installation and start-up costs
Stainless steel construction	Longer machine life; Reduced clean-up and sanitizing costs
Plate heat exchanger with closed loop recirculation system	Sterile cooling water reduces treatment costs and eliminates the need for chlorine

Capabilities and Consulting Services

- Heat Penetration
- Data Evaluation
- Pressure Profile Development for Flexible Containers
- Lid Deflection Studies
- Temperature Distribution Studies
- Venting Studies
- Thermal Process - Plant Audits
- Aseptic System Audits
- Biological Process Validation
- Spore Count Reduction
- Inoculated Pack
- Heat Resistance Studies
- Process Deviation Evaluation
- Control Systems Validation
- Surface Pasteurization (nut crops)

Customer Support

JBT provides advanced world-wide process authority and validation services in support of aseptic processing and filling technologies. Services include compliance/regulatory audits, aseptic thermal process design, validation of low-acid aseptic filler technologies, and complete FDA-product filing support.

Aseptic Processing

- Thermal Process Deviations
- New Aseptic System and Product Process Support
- Contamination Audit
- Troubleshooting
- Aseptic processing training (from management to operators)

In-Container Processing

- Development of thermal processes for specific product/container combinations
- Find process solutions for all types of containers
 - Cans
 - Plastic
 - Tetra Recart
 - Glass
 - Pouch

Kitchen/Formulation Area

The product preparation area includes:

- Mixing equipment
- Steam jacketed kettles
- Lab closing machines
- Pouch sealer
- Walk-in refrigerator and freezer



Microbiology Laboratory

The laboratory grows and maintains crops of heat resistant bacterial spores for biological validation studies. Including:

- Spore count reduction studies
- Inoculated packs
- Spore heat resistance studies
- Thermal death time studies



WE ARE YOUR SINGLE SOURCE FOR PROFITABLE PROCESSING SOLUTIONS

JBT is a leading provider of integrated food processing solutions. From single machines to complete processing lines, we enhance value and capture quality, nutrition and taste in food products. With a local presence on six continents, JBT can quickly provide our customers and partners in the food processing industry with the know-how, service, and support needed to succeed in today's competitive marketplace.

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

OUR BRANDS



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We're with you, right down the line.™

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