



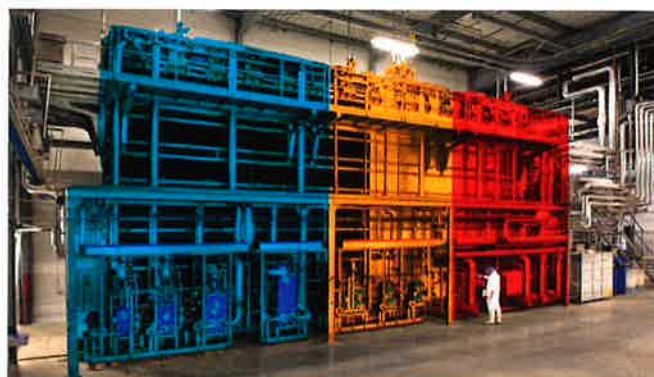
Continuous Hydrostatic Pasteurizer (CHP) and Continuous Hydrostatic Sterilizer (CHS) by STERITECH



Our systems Continuous Hydrostatic Pasteurizer (CHP) and Continuous Hydrostatic Sterilizer (CHS) include 3 sections: 1st section for temperature build-up, a central section for heat treatment, and a 3rd section for cooling. Each area is further subdivided into several columns, in which specific temperature and pressure levels can be set separately*.

Your products will be placed in rows inside gondolas, and moved through the columns to be pasteurized or sterilized, then cooled. An integrated conveying system, with automatic product loading/unloading, connects the units to your production lines.

* patented system



Scope of equipment

Continuous high-throughput pasteurization (CHP) or sterilization (CHS) process, for all types of product and packaging

Products and packaging

- Food and pharmaceutical products of high volumes requiring steady rate
- All types of packaging: metal box, bags, plastic trays, aluminum trays, jars...



Continuous Hydrostatic Pasteurizer (CHP) and Continuous Hydrostatic Sterilizer (CHS) by STERITECH

Main advantages

Worldwide unique product versatility

Independent temperature and pressure adjustment in each column make it possible to suit virtually all types of product, and provide these patented systems very high flexibility!

Highest output per m²

80% floorspace reduction

Cost effectiveness

- Independent adjustment of temperature/pressure setup in each column provides optimal heat exchange and distribution, with no pressure/steam loss.
- Saving of energy

Highest productivity in the world

- Up to 17,000 kg/hour over 32 m²
- Up to 45% reduction of cycle time
- No waiting time for products on loading

Product safety and quality

- Application of FIFO Principle ("first in, first out")
- Traceability of each gondola
- Greater product homogeneity and quality

Features

Custom-made system with dimensions, parameters and installation according to your specific products and operations:

- thermostatic columns of 4,000 to 10,000 mm of useful height
- reduced floorspace requirement
- back-pressure up to 1 bar per column, adjustable separately in each column
- product infeed and delivery at front/rear of CHP/CHS unit
- product loading/unloading in continuous flow (FIFO)
- certifications EC, TUV, SVTI, ASME

Control software Trilogy 4.0

Control and supervision are automated, made simple, secured and designed according to your products:

- 19" touch-screen monitor
- real time control of all parameters
- display and storing of all curves and recipes, parameters, defects, etc.
- self-diagnostic, remote maintenance
- networks PROFINET, PROFIBUS, ETHERNET
- management of users
- more (see product datasheet Trilogy 4.0)



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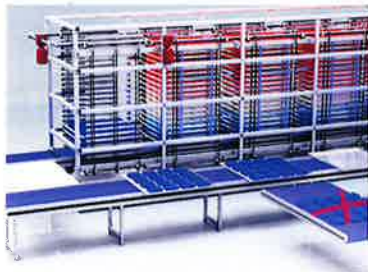


Continuous Modular Pasteurizer by STERITECH



The Continuous Modular Pasteurizer (CMP) unit allows to pasteurize your products on flat plates, on a continuous and flexible basis. It may include 4 modular sections:

- 1st section to pasteurize your products up to 90 - 95°C
- 2nd section to pre-cool fully your products at 30 - 40°C
- 3rd section to cool products to 4°C temperature
- the 4th section is highly innovative: it allows to store your products automatically in the event of production line shutdown, keeping them at 4°C

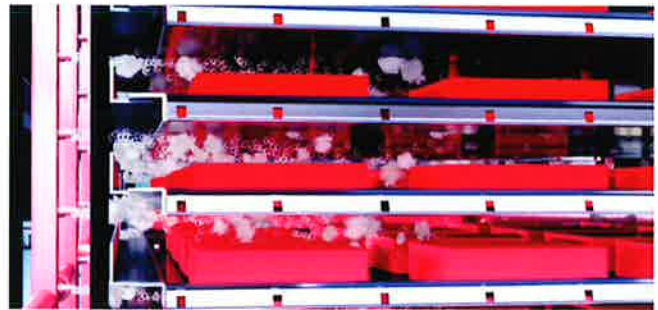


temperature out of the heated area

Each section may include several elevators, which can be used or "by-passed" between plates in variable steps likely

to be increased. This provides great flexibility of unit operation.

Each elevator comprises a set of vertical tubes, with spray nozzles arranged around each plate to ensure even spraying of products.



These nozzles are fed by a pump which recovers water at the bottom of each section, maintains it at the desired temperature through heat exchange, and forwards it to the spray nozzles. Water is then recycled on a continuous basis.

The unit is connected to your production line and your packing facility by conveyors.

Scope of equipment

Continuous high-throughput pasteurization process, for all types of product and packaging

Products and packaging

- Food and pharmaceutical products of high volumes
- All types of packaging



Continuous Modular Pasteurizer

by STERITECH

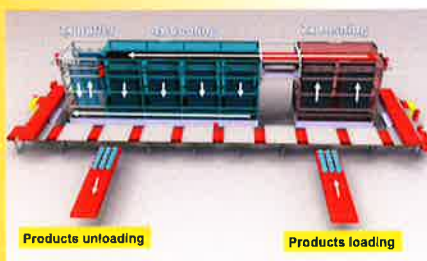
Main advantages

High flexibility

- adjustable temperatures
 - * $\leq 90^{\circ}\text{C}$ (hot section)
 - * $3 - 4^{\circ}\text{C}$ (cold section)
- suitable for all types of packaging with different forms and sizes
- adjustable cycle times
- various elevators can be "by-passed"
- elevators can be loaded in one step out of two or three (according to product and time cycle)
- plate cycle time of 10 seconds (or more)

Modular design

- each section is an assembly of identical elevators.
- the size of each section is adjustable to suit your needs



Product safety and quality

- application of FIFO Principle ("first in, first out")
- plate traceability
- greater product homogeneity and quality

Savings

- no waiting time: the products are fed into the pasteurization section without delay
- products do not cool as they are processed immediately
- greater product homogeneity and quality
- fully automated pasteurization line
- reduced floorspace requirement
- energy savings and recovery

Increased capacity and profitability when coupled with Serial Tower

Features

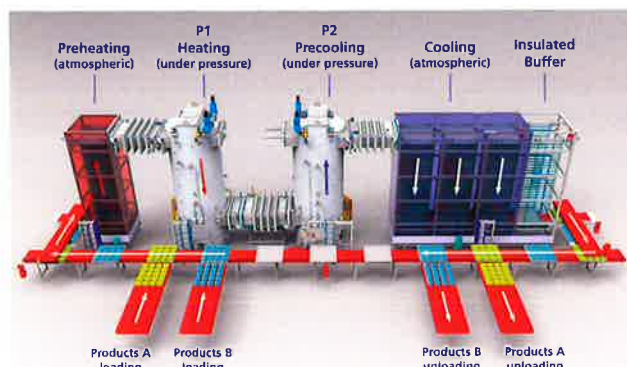
Custom-made system with dimensions, parameters and installation according to your specific products and operations:

- elevators of 4,000 to 8,000 mm of useful height
- reduced floorspace requirement
- product loading/unloading in continuous flow
- certifications EC, TUV, SVTI, ASME

Control software Trilogy 4.0

Control and supervision is automated, made simple, secured and designed according to your products:

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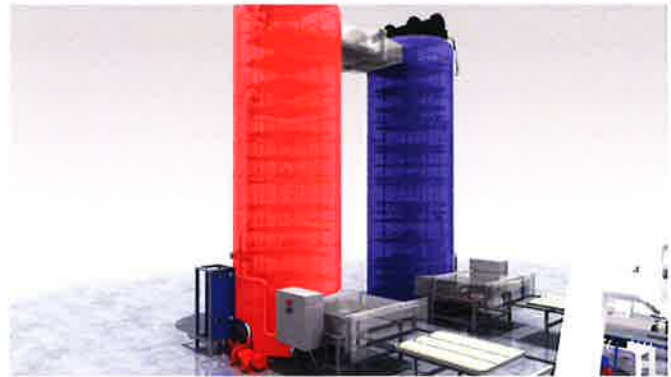


Serial Tower by STERITECH



Serial Tower unit is a continuous pasteurization/sterilization system with products placed on plates. It comprises at least 2 towers, one for heating and one for cooling, in which the product plates go through. During this motion, the system sprays hot, then cold water, ensuring perfect heat exchange by means of tubes distributed between the plates at each level.

The integrated conveying system ensures automatic processing of plates from product loading to delivery.

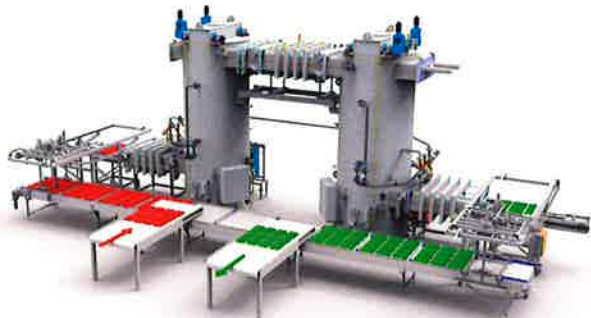


Scope of equipment

Product heat processing in continuous flow

Products and packaging

- Food and pharmaceutical products of high volumes
- Flexible packaging of all types, forms and sizes, provided the product can be placed on the plates



Serial Tower

by STERITECH

Main advantages

Integrity of flexible packaging preserved

- thanks to back-pressure provided by Serial Tower

Time-savings in production

- no more loading/unloading of baskets
- no idle time before sterilization
- no more storage in cold room until cooling cycle ends

Productivity gains

- the required temperature and pressure conditions are maintained on a permanently basis in the 2 vertical towers
- 30% time-saving compared to the use of autoclaves, due to the absence of heating/cooling stages in each new cycle
- increased rates (1,000 to 3,000 kg/hour on 30 m²)

Increased profitability

- labor cost savings, since the line can be fully automated
- floorspace savings (- 35% compared to an automated line with autoclaves)
- 23% steam saving, and 15% energy saving compared to an equivalent line of autoclaves
- water saving thanks to permanent recycling in loop through the 2 towers.

Increased food safety

- heat treatment is controlled with great accuracy, adjusted in real time and strictly identical for all the products, which provides greater quality and homogeneity
- product shelf life increases and their organoleptic qualities are preserved
- full product traceability is provided for each plate

Increased capacity and profitability when coupled with Continuous Modular Pasteurizer (CMP)

Features

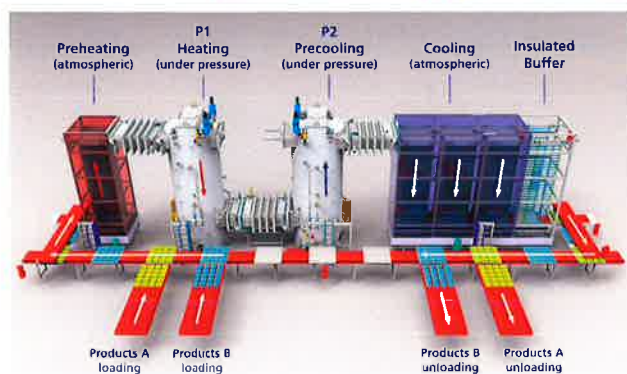
Custom-made system with dimensions, parameters and installation according to your specific products and operations:

- stainless tanks of 2,000 or 2,500 mm in diameter with 5,000 to 9,000 mm useful height
- plates of 1,200 X 1,200 mm or 1,600 X 1,200 mm
- floorspace of 30 m² (not including conveying)
- adjustable back-pressure to 2 bars in standard unit
- input/output pressurization hopper
- 2, 3 or 4 towers may be available on line
- certifications EC, TV, SVTI, ASME

Control software Trilogy 4.0

Control and supervision are automated, made simple, secured and designed according to your products:

- 19" touch-screen monitor
- API SIEMENS
- control of all the parameters in real time
- display and storing of all curves and recipes, parameters, defects, etc.
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