



PET-Asept L

Wet bottle sterilisation for aseptic products



Absolute product safety, even under extreme conditions



The PET-Asept L system has proved its worth among beverage producers all over the world. It provides reliable results, even under problematic ambient conditions and, at the same time, requires amazingly low maintenance.

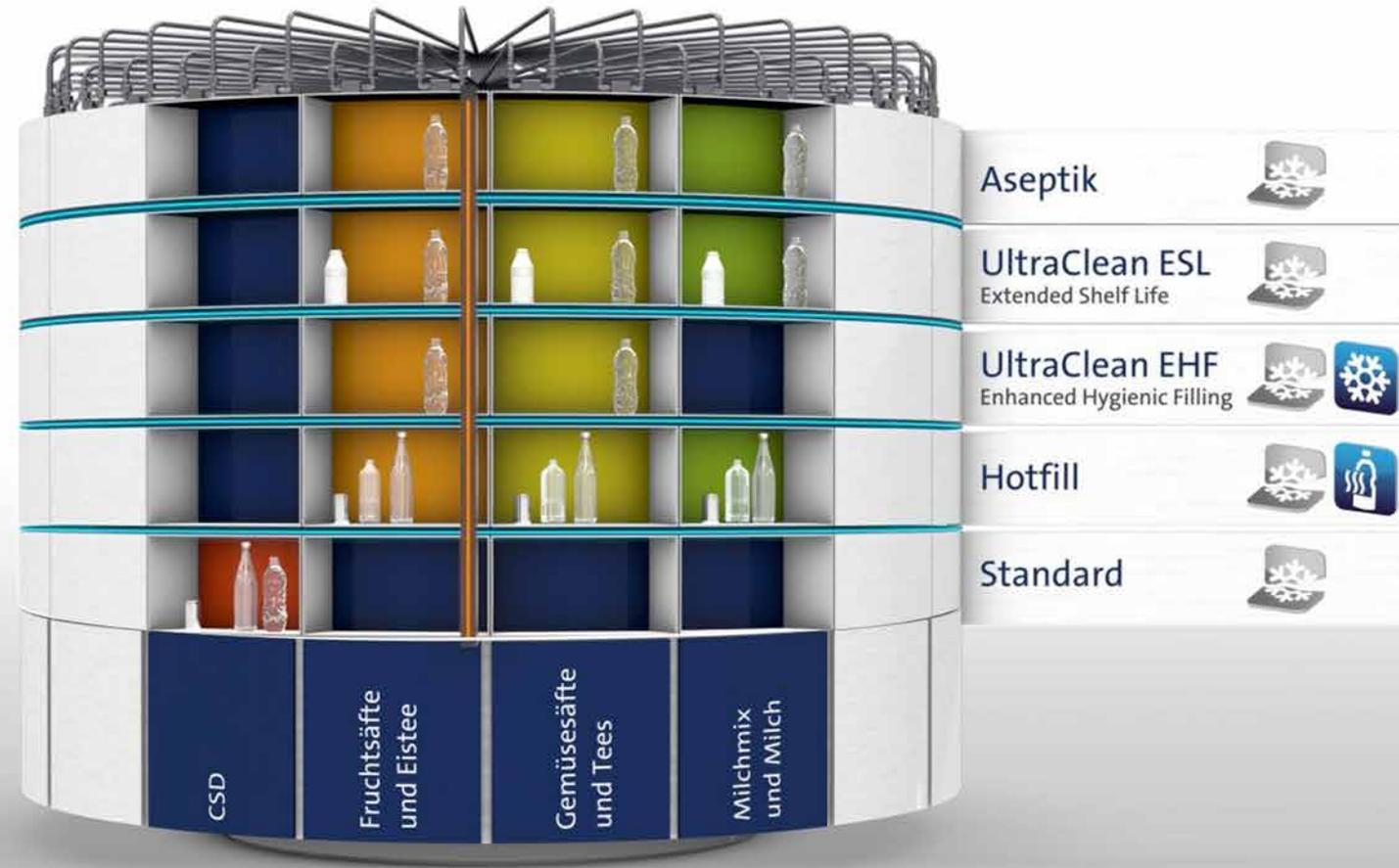
At a glance

- Latest version of a system proven all over the world
- Aseptic filling of all products
- Suitable for all bottle shapes
- Bottle sterilisation by means of peracetic acid (PAA)
- Output up to 65,000 bottles per hour*
- Re-use of rinsing water
- Integrated, decentralised ventilation technology by Krones
- Also available as PET-AseptBloc L with blow moulder



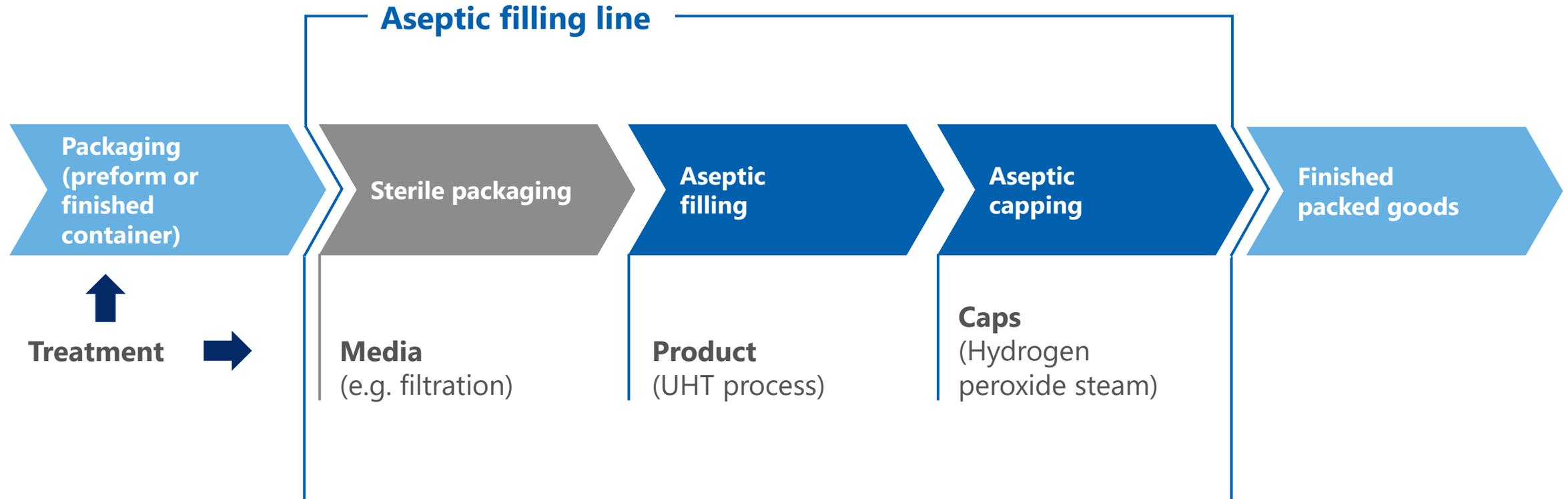
L: Liquid | * Basis: 500 ml bottle

Microbiological sensitivity of beverages



The key components

Container steriliser

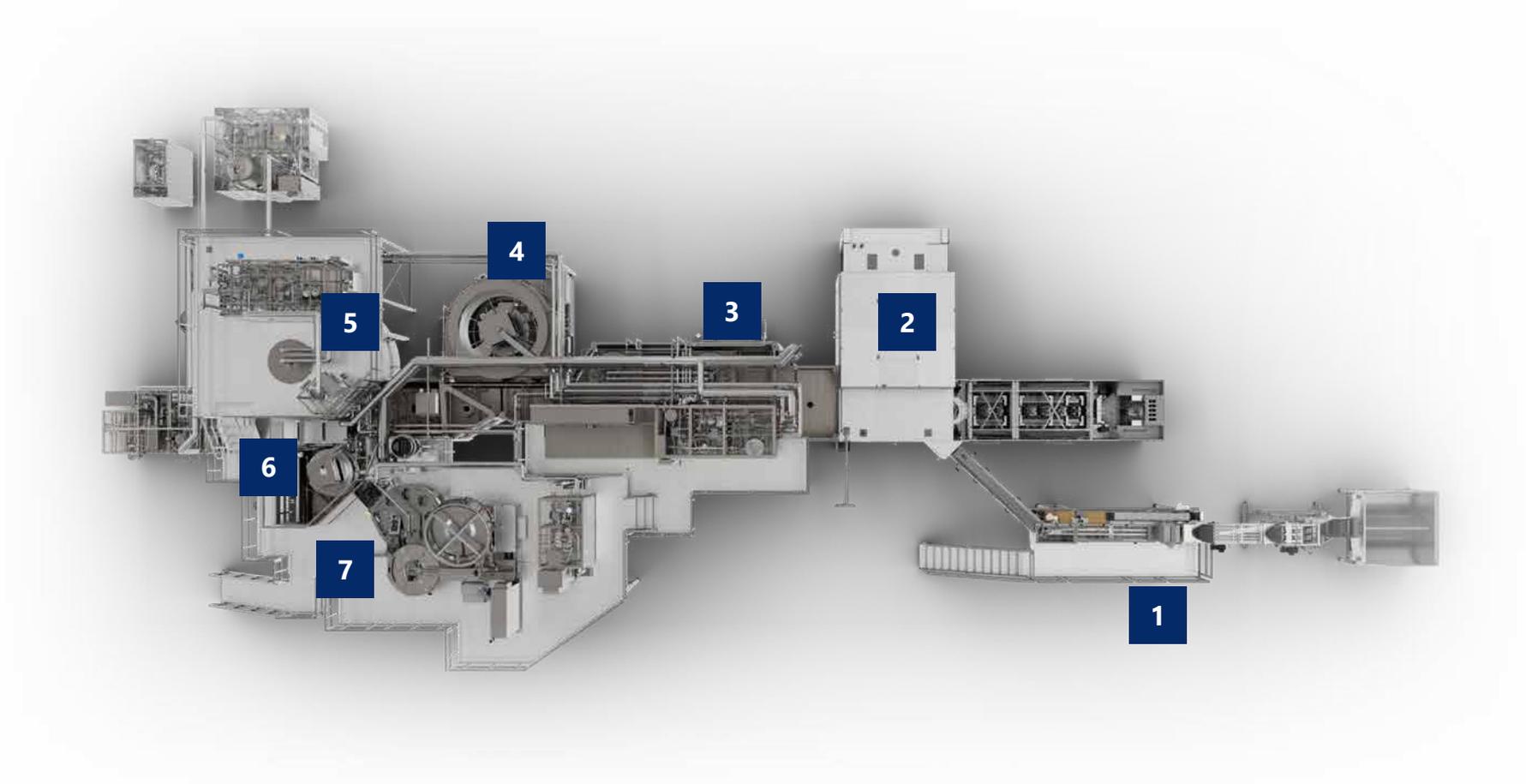


The structure

PET-AseptBloc L with blow moulder



- 1 Preform feed system
- 2 Blow moulder
- 3 Container steriliser
- 4 Rinser
- 5 filler
- 6 Capper
- 7 Cap sterilisation module



The key components

Container steriliser



Interior treatment of the containers

- Steam as carrier and activator of peracetic acid
- Spreader-shaped nozzles for thorough cleaning of the neck area

Exterior treatment of the containers

Continuous exterior treatment with liquid peracetic acid at a temperature of 45 and 60 °C

At a glance

- Re-use of the liquid peracetic acid from steriliser and rinser for the exterior treatment of the containers
- Best draining properties thanks to a Kronos Tabletec table top inclined on one side
- No use of surface-active agents



Container sterilisation



The key components

Rinser



- Removes residual peracetic acid from the containers
- Efficient single-channel full cone nozzle with adjusted dimensions
 - Without CIP cups
 - Open SIP in the isolator
- Reduced water consumption
- Time saved during rinsing and cleaning
- Recycling of the peracetic acid
- Recycling of sterile water



The key components

Aseptic filler



Method of operation

- The appropriate filling valve for the most wide range of products – still and carbonated
- It is also suitable for beverages with (fruit) pieces of a size of up to 10 x 10 x 10 millimetres

Cleaning and change-over

- The filler has its own CIP module – thus no separate CIP system is required.
- The filling valves are sterilised with steam.
- The isolator room is sterilised with peracetic acid.
- Handling parts change-over is possible up to a defined output in an automatic way.
- After an intervention into the isolator, there will be an intermediate sterilisation with peracetic acid within 30 minutes.



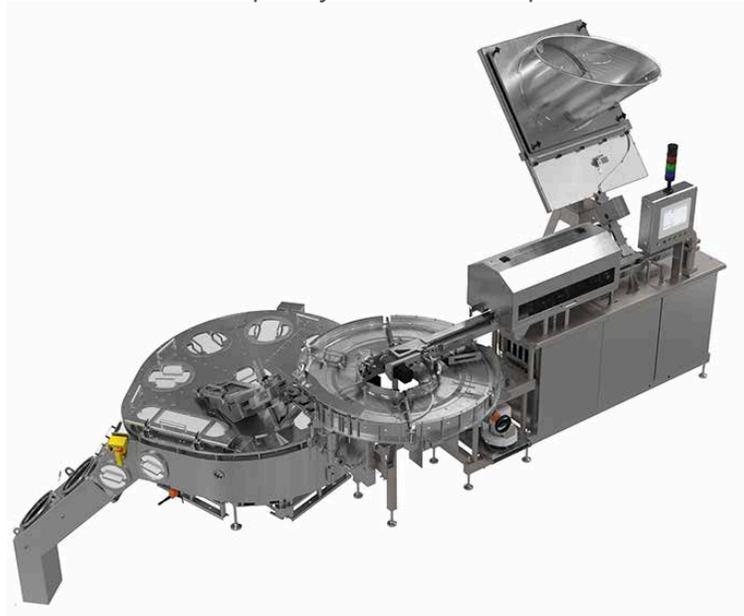
The key components

Cap conveyor



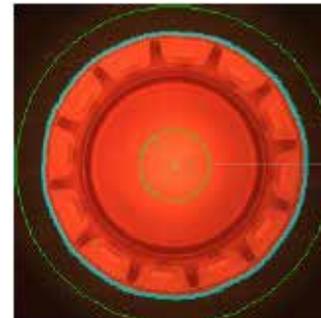
Sorting and buffering

- The best sorting concept for all caps is selected from the large variety of Krones sorting variants.
- One camera inspects the caps after sorting – rejection of inappropriate caps prevents product and bottle losses.
- The cap buffer ensures sufficient buffer capacity, – if, for example, the block has to be emptied.

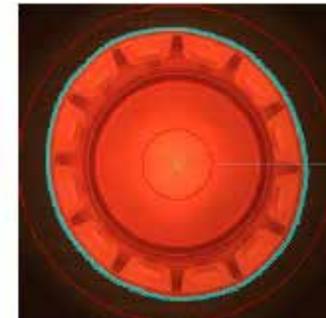


Examples of inspections

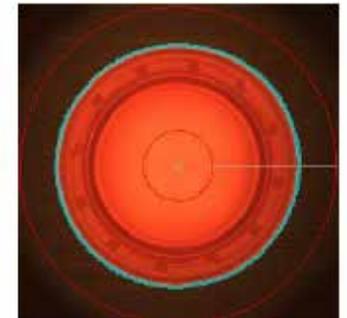
Tamper-evident ring



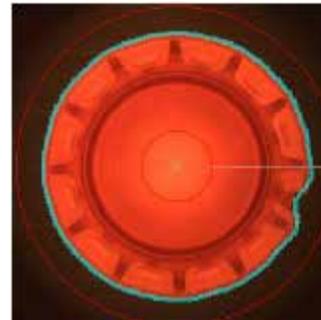
Without damage



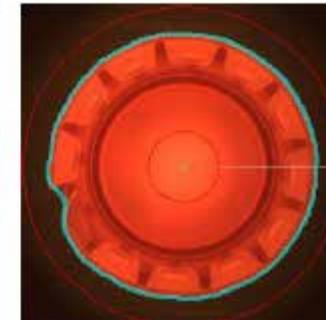
Oval



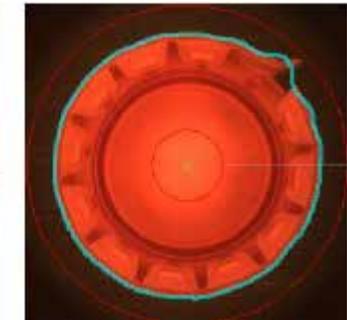
Missing



Vertically interrupted



Bent inward



Bent outward

The key components

Cap sterilisation module – two variants



After cap inspection, the caps are sterilised with the appropriate system.

Cap inspection unit checks caps for:

Deformation, ovality, intact cap tamper-evident rings and correct orientation

For all sterilisable caps: dry cap sterilisation by means of H₂O₂

Technical features

- Simple mechanical design
- Sterilisation of the caps by means of hydrogen peroxide steam
- Short treatment time at high temperature
- Treatment with the precise number of caps:
The last cap for the last bottle



For submergible caps: PAA immersion bath

Technical features

- Simple mechanical design
- Cap sterilisation by means of liquid peracetic acid
- Spraying with sterile water and blow-drying with sterile air



The key components

Aseptic capper



Technical features

- Every capping head has its own separate servo drive.
- A transfer tunnel separates the sterile area from the outside area.
- The proper technique for every cap – overcaps with round bottle possible!

Cleaning and change-over

- The open design enables excellent cleaning of all capping heads.
- The handling parts adjustment system operates fully automatically up to a defined speed.



Hygiene

- The Krones aseptic capper is always in a hygienic design and meets even the most difficult hygiene requirements.
- All drives are outside the isolator.
- A liquid seal system seals all of the capper carousel's rotational movements.
- The movements of the capping head are sealed with bellows.
- Depending on the type of cap, a chuck-cone capper or a gripping-head capper are used.



The peripherals

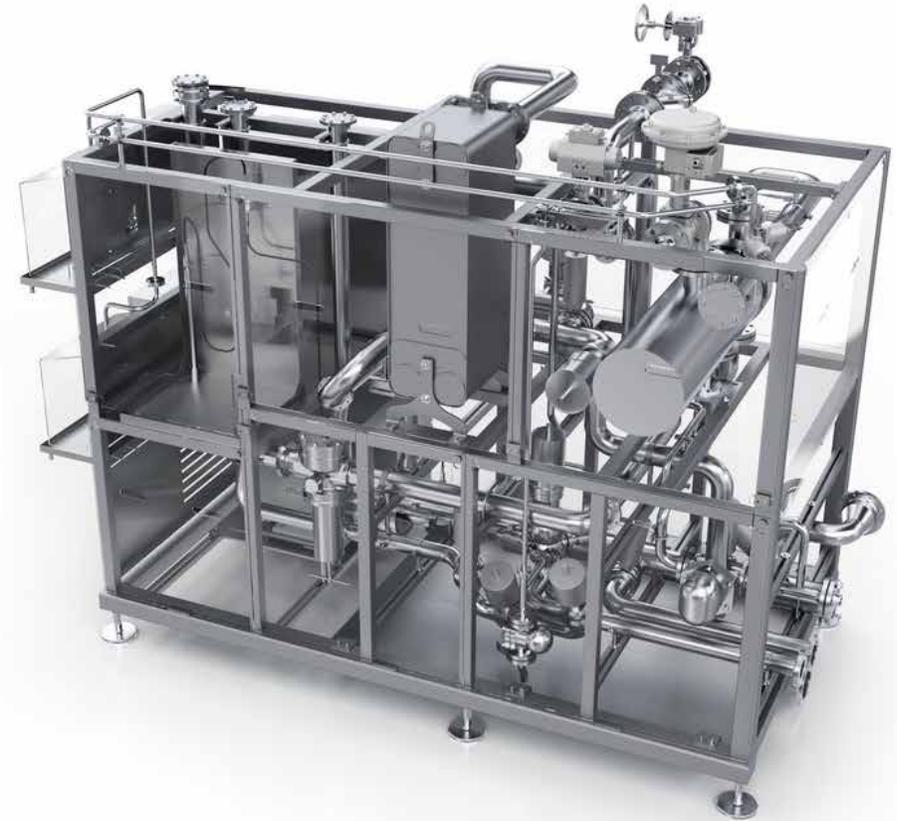
CIP module without tank



The PET-Asept L is equipped with its own CIP module. Special features: it works completely without CIP buffer tank because the machine housing of the block also buffers the CIP fluid.

Benefits to you

- Thanks to the fact that no buffer tank is required, about 85 percent of the installation surface and 40 percent of space-consuming volume can be saved.
- No separate valve manifold is required for the CIP return flow.
- All media are provided just in time.



Dimensions: 3.1 m x 1.7 m x 2.6 m (L x W x H)

The peripherals

Sterile water UHT system



- Depending on the requirement, it provides 5 to 12 m³ metres of sterile water per hour
- Kills germs by means of thermal treatment
- Equipped with a connection for surface disinfectants
- Enables quick chilling of the bottling system after steam sterilisation to production temperature, for instance for CSD or cold chain products

Benefits to you

- The sophisticated unit arrangement reduces the installation surface by 45 percent and the space-consuming volume by even 60 percent.
- The thermal treatment guarantees a safe sterile water production with low operating costs.



Dimensions: 2.4 m x 2.4 m x 2.7 m (L x W x H)

Product treatment system

VarioAsept UHT system



As little as possible, as much as necessary – this is the declared goal of the product heating process in terms of the parameters time and temperature. The VarioAsept UHT system masters this challenge with flying colours.

At a glance

- Output range: Between 3,500 and 60,000 litres per hour
- Proven design which ...
 - meets the highest hygiene requirements.
 - treats the product extremely gently.
- With Krones tubular heat exchangers, developed by Krones process equipment experts
- In-house laboratory for product analysis
- Perfectly matched with the Krones aseptic fillers



Benefits to you



Smaller installation surface

- Linear machine design
- Integration of the valve block into the machine frame
- Unburdened rinser
- Reduction of the sterilisation modules from three to one
- Integrated, decentralised ventilation technology – no additional controller required

Highly efficient and safe sterilisation

- Spreader-type nozzles for reliable interior treatment of the containers – even in the neck-finish area
- No surface-active agents required
- Hermetically isolated sterile areas

Reduced operation and maintenance work involved

- Tabletec table top inclined to one side
- Integration of the valve block into the machine frame
- Capper in hygienic design

High output

- Minimum loss of product during type change-over by product supply to the filler from the top
- Reduced SIP time by steam sterilisation of the filling valves
- No CIP cups therefore faster and easier operation
- Product change-over: from the last bottle to the first within a mere 150 minutes

Energy efficiency and environmental friendliness

- No surface-active agents required
- Re-use of rinsing water
- Reduced air consumption thanks to a single-channel rinser with improved nozzles
- Lower energy consumption thanks to a modified ventilation system

Requesting a new machine

You can easily send a request for a non-binding quotation in our [Krones.shop](#).



Everything from a single source



Training courses at the Krones Academy – trained personnel will increase your line efficiency

The multifaceted offer by the Krones Academy ranges from operation, servicing and maintenance courses through to management training. We will gladly also create your individual training programme.

KIC Krones cleaning agents make your machine shine

An immaculate production environment is essential if your product is to shine. KIC Krones provides you with the optimum cleaning agents and disinfectants for each individual production step.

KIC Krones lubricants – for each production step

Whether for gears, chains or central lubrication systems – our greases and oils are true all-round talents. They can reach every lubrication point, protect your line and ensure gentle treatment for your products thanks to their food-grade quality.

Krones Lifecycle Service – Partner for Performance

It goes without saying that also after the purchase of new machines, Krones takes care of your lines: The Krones LCS experts are always there to help you reaching your goals and turn your wishes into optimal LCS solutions.

Evoguard – excellent valve technology throughout the line

The Evoguard valve series comprises a modular system with hygienic and aseptic components which contributes to an increased performance at every point of the production line and has the perfect solution for every process step.

Evoguard – pumps for absolute process reliability

In addition to separation and shutting off, one thing is particularly important for a plant: the reliable feeding of your product. This is why Evoguard also offers innovative centrifugal pumps in addition to high-quality valves.

**SOLUTIONS
BEYOND
TOMORROW**

