PET-Asept D

Compact and completely dry for all aseptic products

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The dry zero-risk solution

PET-Asept D takes the consistent road from the very beginning. The system relies one hundred percent on a dry sterilising medium and germs are not given a chance.

At a glance

– Filling of aseptic products
– Suitable for all bottle shapes
– Bottle sterilisation by means of hydrogen peroxide (H_2O_2)
– Output range from 12,000 to 36,000 bottles per hour*
– Particle filling of up to 10 x 10 x 10 millimetres possible
– Also available as PET-AseptBloc D with blow moulder
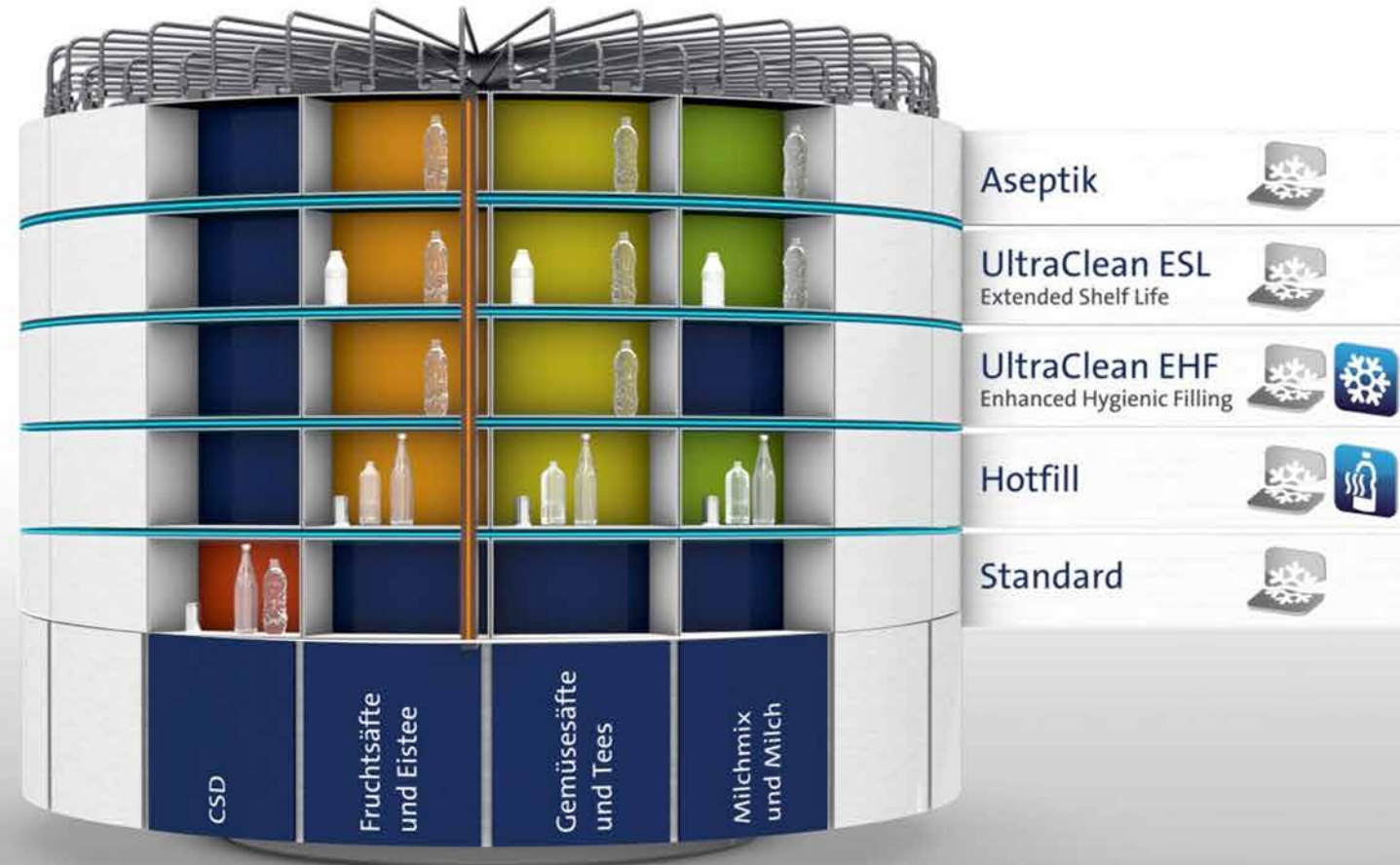
Solutions for various outputs

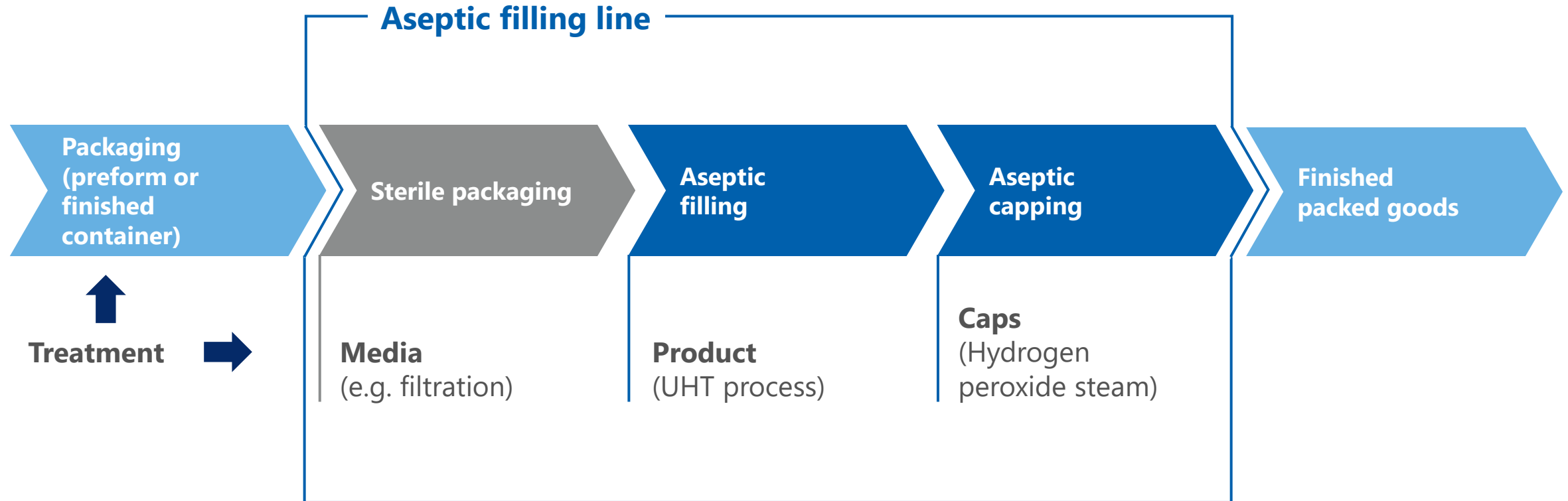12,000 bottles per hour*   36,000 bottles per hour*

D = Dry | * Basis: 500 ml bottle

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Microbiological sensitivity of beverages

The key components
Container steriliser

Aseptic filling line

| Packaging (preform or finished container) | Sterile packaging | Aseptic filling | Aseptic capping | Finished packed goods |

Treatment

Media
(e.g. filtration)

Product
(UHT process)

Caps
(Hydrogen peroxide steam)

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Variant
PET-Asept D without blow moulder

1	Valve manifold
2	Aseptic filler
3	Aseptic capper
4	Cap sterilisation
5	Cap buffer system
6	Cap sorting
7	Air handling unit
8	Blowing out with sterile air warm/cold
9	Container decontamination

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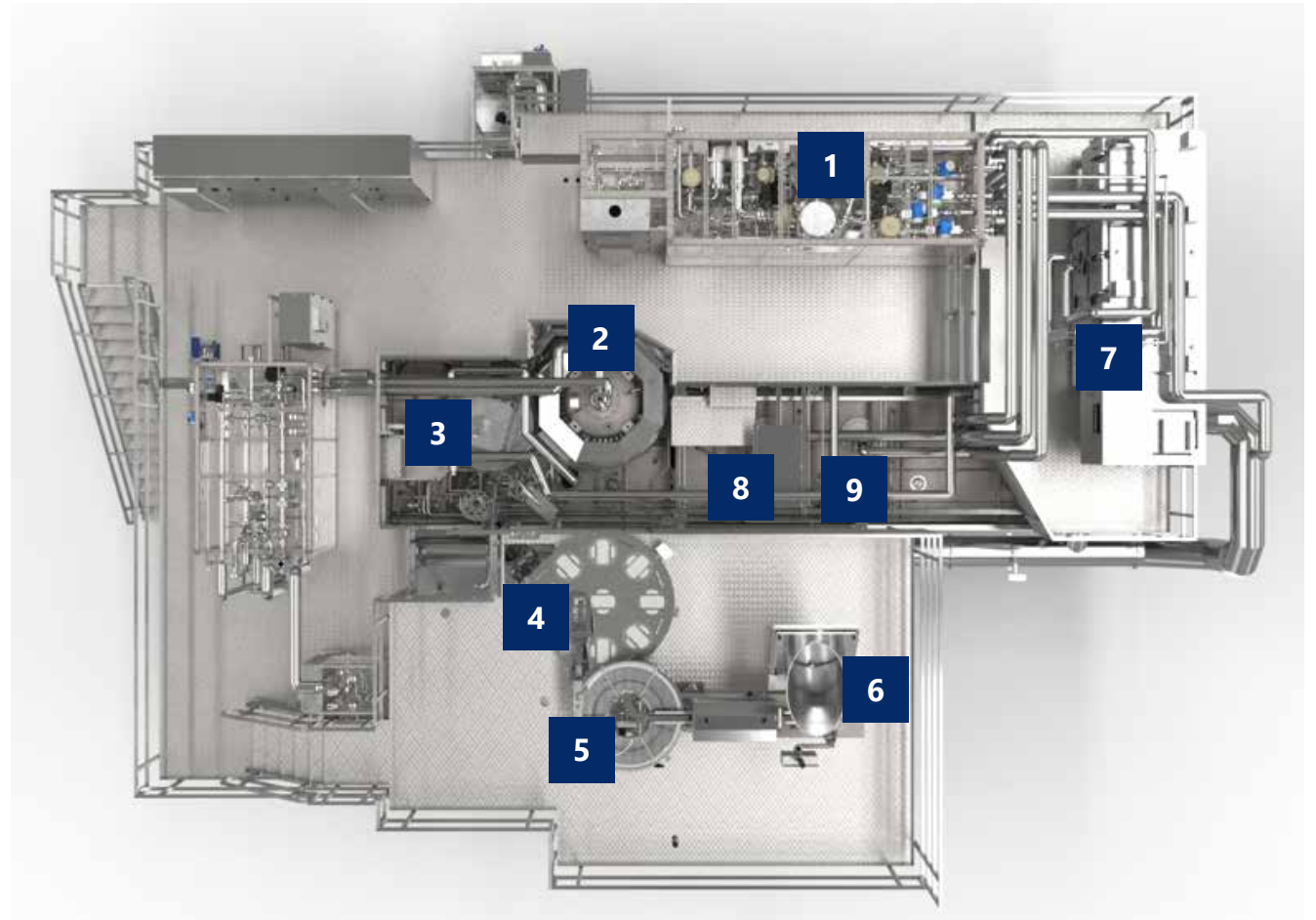
The process
Cleaning and sterilisation of the system

– Cleaning cycle: "Last bottle – first bottle" in 150 minutes

– Maximum production time without intermediate cleaning: 1 week

– After handling parts and mould change-over, only 60 minutes intermediate cleaning required

– Also available with MouldXpress robot and automatic handling parts adjustment* in filler for fully automatic handling parts change-over without intermediate cleaning
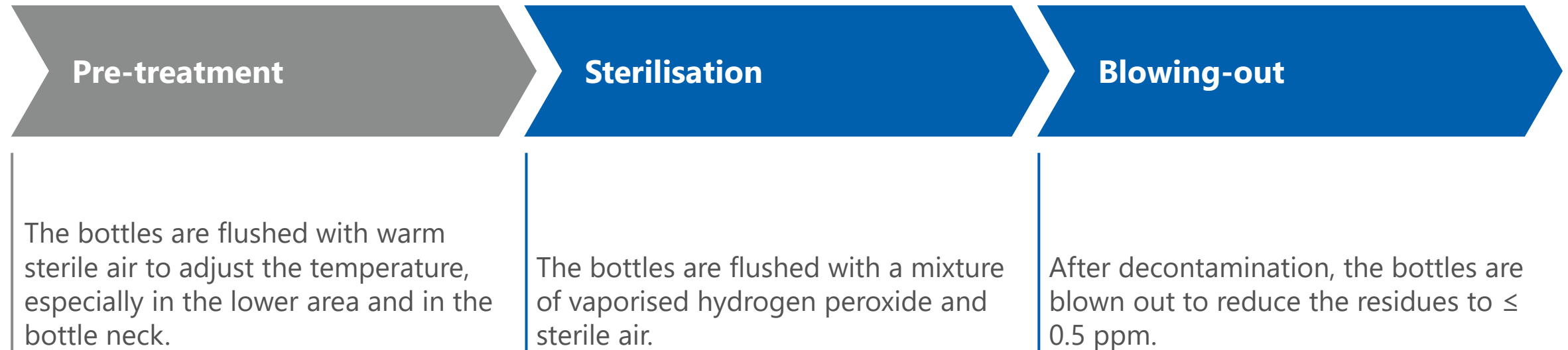
| CIP filler | CIP isolator chamber | COP isolator chamber | COP steriliser internal | SOP isolator chamber | SOP steriliser external | Preparations for production |

Parallel processes for fast cleaning
The system is ready for operation after a mere 150 minutes!

* up to a defined output

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The key components
Container steriliser

Pre-treatment	Sterilisation	Blowing-out
The bottles are flushed with warm sterile air to adjust the temperature, especially in the lower area and in the bottle neck.	The bottles are flushed with a mixture of vaporised hydrogen peroxide and sterile air.	After decontamination, the bottles are blown out to reduce the residues to ≤ 0.5 ppm.

Warm gas for warm bottles implies: no condensation!
Faster and more efficient sterilisation process

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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 gaseous H_2O_2 – a fully dry method.
– Handling parts change-over is possible up to a defined output in an automatic way.

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The key components
CapAsept D cap sterilisation module*

Cap treatment system

- Cap blower using ionised air right in front of the unit
- Sterilisation by gaseous H_2O_2
- No back-up pressure acting on the caps – no deformation
- Clocked feed of the caps on demand: No bottle – no cap
  - Gentle on resources
  - Optimum treatment of the caps – no over-treatment

Flexibility

Flat caps and sports caps can be processed with the same handling parts.

Hygiene

Particles fall through the perforated plate and are flushed during the cleaning process.

* D=Dry

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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 carrousel'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.

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The peripherals
Air handling unit
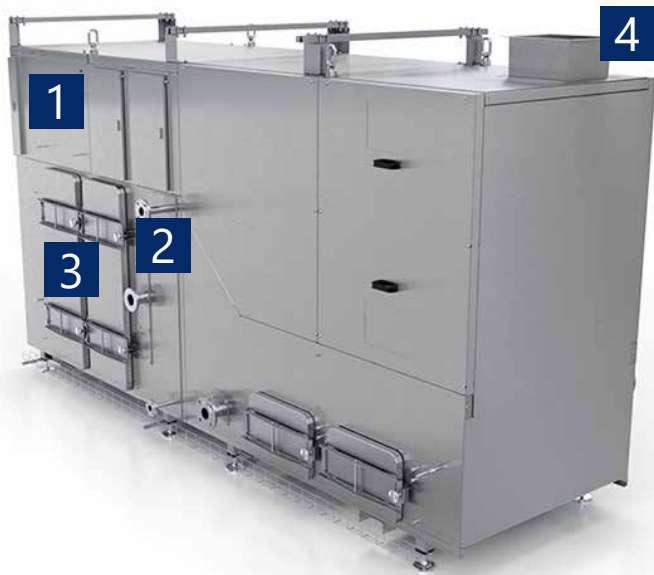
1	Preliminary filtration	**3**	HEPA filtration
2	Air treatment system	**4**	Exhaust air

In the new, central Krones air handling unit, the entire air treatment system is combined to create one single functional unit. This way, it is no longer necessary to work with a large number of filter fan units which are placed on the machine housing.

– All filters and ventilators in one unit

– Piping as integrated component of the air handling unit

– Centralised exhaust air pipe system

– Direct air guidance, no pressure cascade required

– Simple sterilisability of the HEPA filters

Benefits to you

– Optimum accessibility

– Complete filter exchange of the air handling unit in less than 30 minutes

– Time savings of up to 90 percent during restart

– Only one exhaust air pipe system required for the entire block

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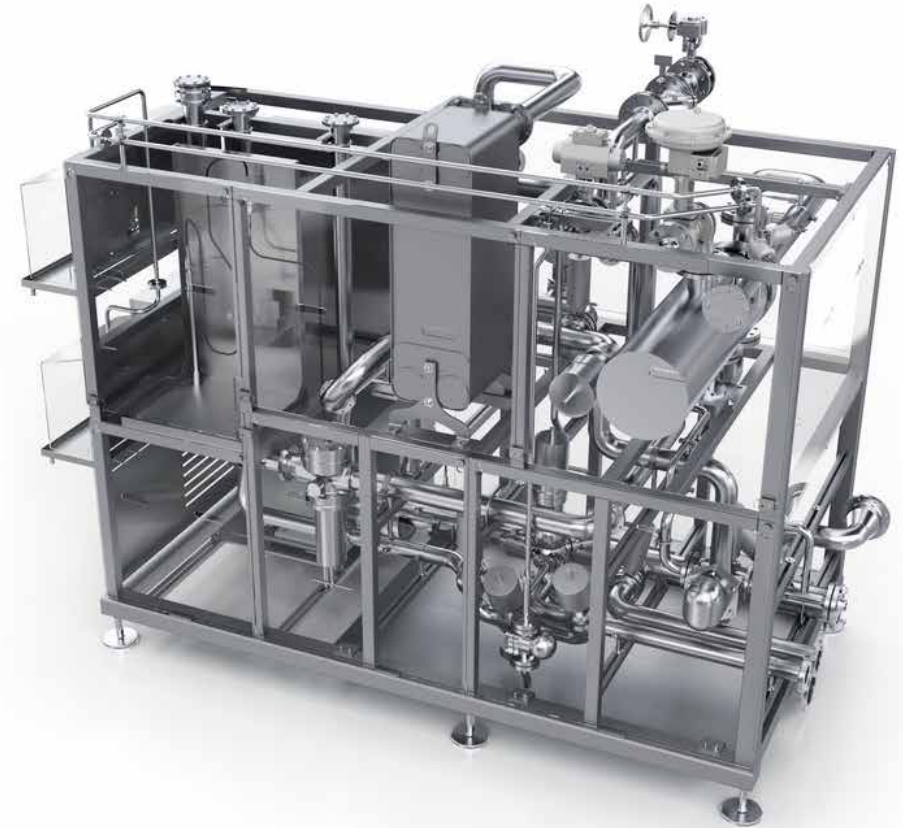
Dimensions: 3.1 m x 1.7 m x 2.6 m (L x W x H)

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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)

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Benefits to you

Pinpoint production

Filling to the last drop: The system uses the remaining product quantity in order to calculate exactly how many more PET containers and caps are still to be sterilised.

Fully-automatic change-over

Handling parts change-over at the filler and the capper can be performed up to a defined output without any manual interference.

Broad spectrum

The line covers outputs of 12,000 to 36,000 bottles per hour and is also suitable for filling products containing particles.

High availability

The PET-Asept D system produces continuously for up to one week at a time! The subsequent cleaning cycle from the last to the first bottle is done within 150 minutes.

No condensation

Clever: The treatment of warm bottles with warm gas prevents the occurrence of condensation. A fast and efficient sterilisation process results.

Requesting a new machine
You can easily send a request for a non-binding quotation in our Krones.shop.

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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.

High-quality components
from Evoguard and Ampco

Are you looking for shut-off, separation or control valves? For hygienic or aseptic applications? Would you like to have pump technology that perfectly fits into your machines? You will find exactly what you are looking for at Evoguard and Ampco Pumps. The two Krones subsidiaries cover the entire spectrum of process technology components that you need for high-quality production.

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SOLUTIONS BEYOND TOMORROW

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