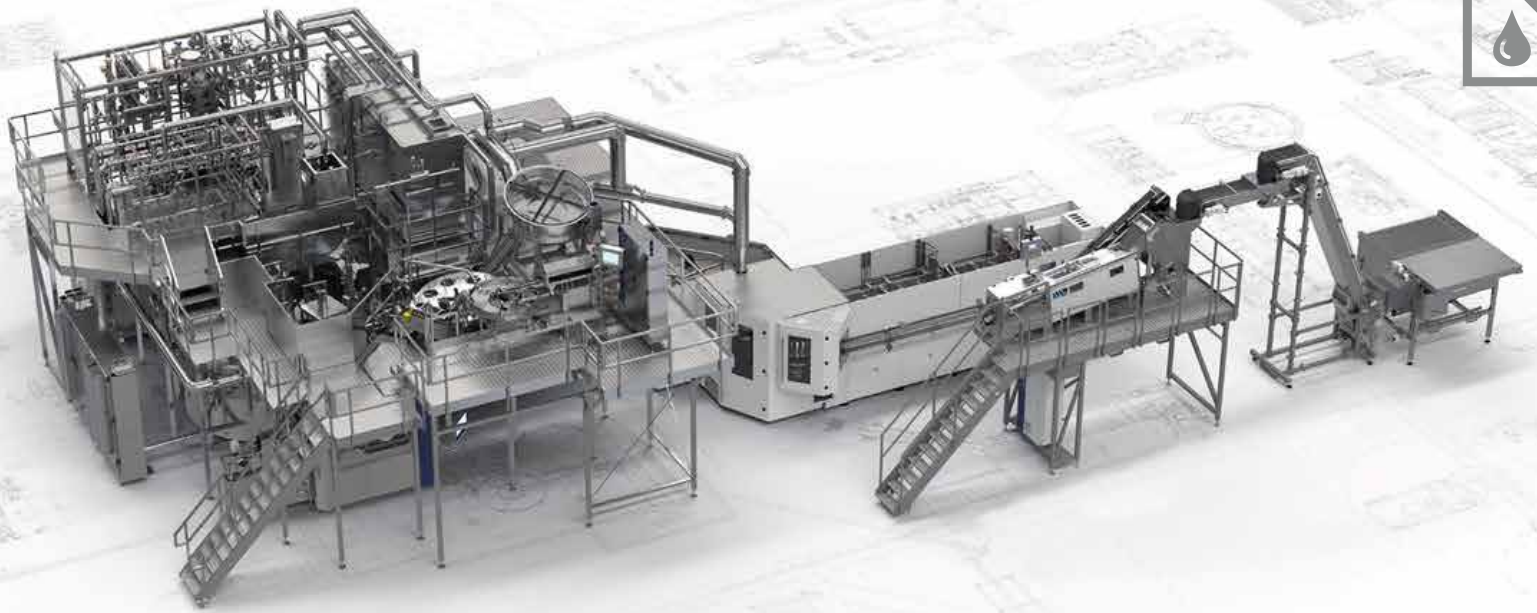


Contipure Bloc P

Ultrahygienic block for sensitive products

KRONES

A protected atmosphere for your product

The Krones family includes experts for all kinds of different sterilisation methods and products to be filled. One of them is the Contipure Bloc P**: It is specialised on sensitive products and fully meets their requirements.

At a glance

- Design:
  - Preform sterilisation module
  - Blow moulder
  - Aseptic filler and capper
- Suitable for:
  - Aseptic filling
  - Sensitive products
  - Round, square and rectangular PET containers
  - Standard and lightweight containers
- Output: Up to 72,000* containers per hour

* Depending on the container size and product | ** P=Performance

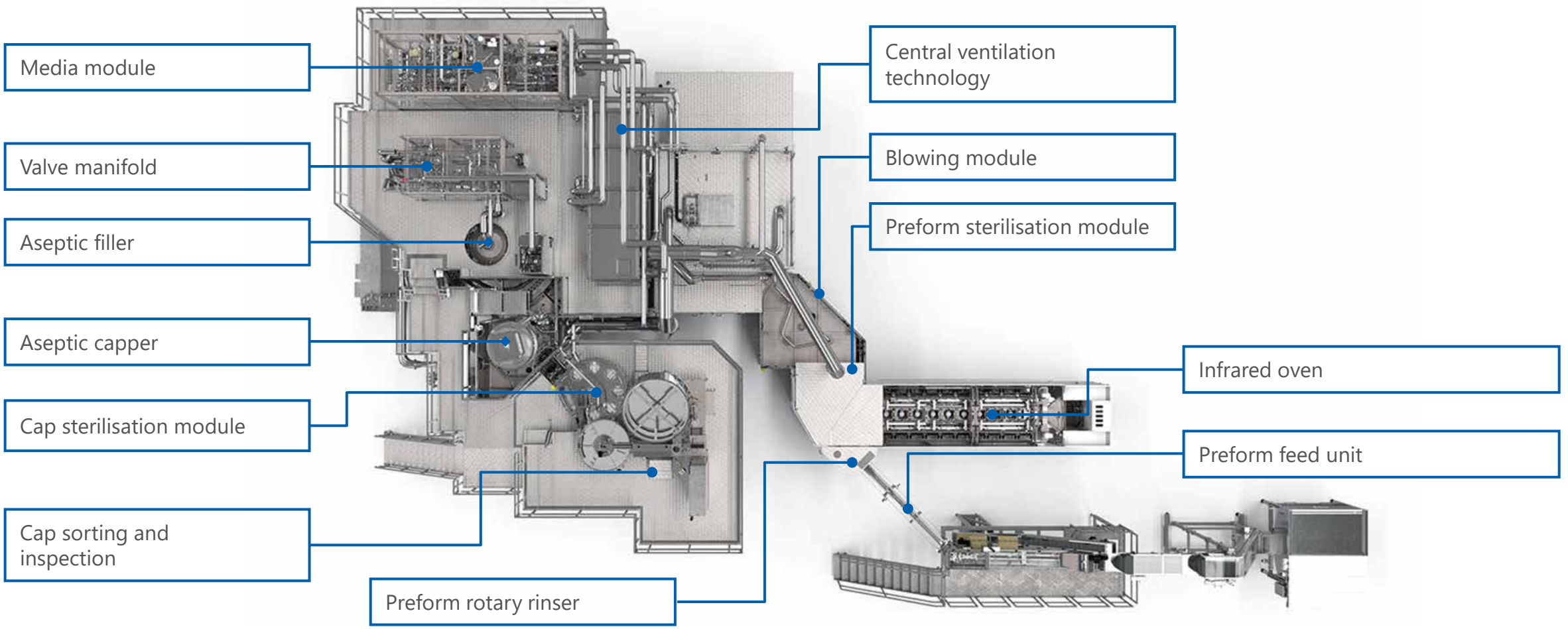
Buying time during cleaning

The performance variant uses hot caustic for machine surface disinfection and reliably sterilises the product channels with steam. This process guarantees microbiologically safe filling in the fastest cleaning and sterilisation times.

The benefits

- Time span from the last to the first bottle:
  - only 90 minutes – including cleaning and sterilisation
  - Saving a full hour compared to other systems
- Only 30 minutes intermediate sterilisation after manual interventions in the block
- Handling parts change-over at the blow moulder:
  - Without intervention in the sterile area
  - Therefore no intermediate sterilisation required

The key components



The key components
Contifeed preform feed system

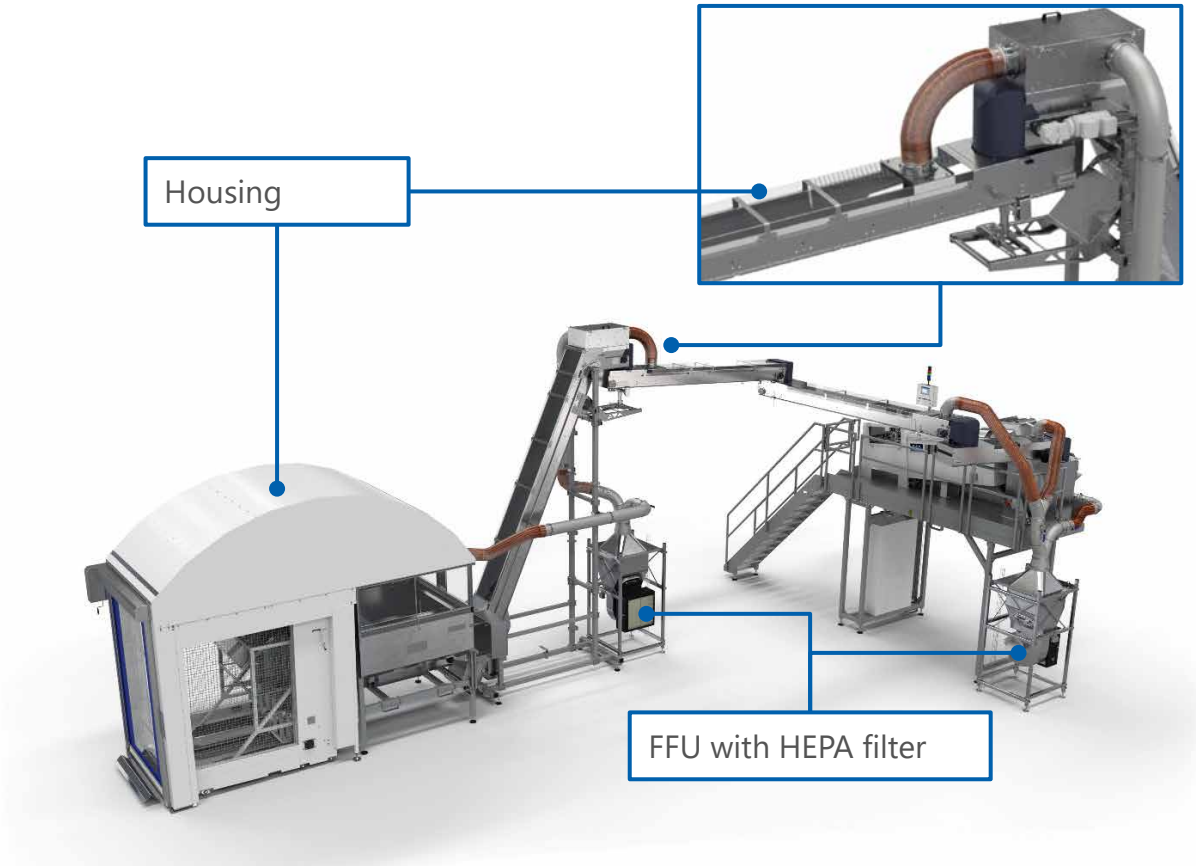
– Thanks to hygienic design optimal for the Contipure AseptBloc
– Variants adjustable depending on the installation position

Optional

– Completely closed preform feed system
– With fan-based air treatment system (FFU) with HEPA filter

Benefits to you

– Controlled air exchange
– Significant reduction in the number of particles inside the preform feed system
– Separation of the preform feed system from the existing ambient conditions



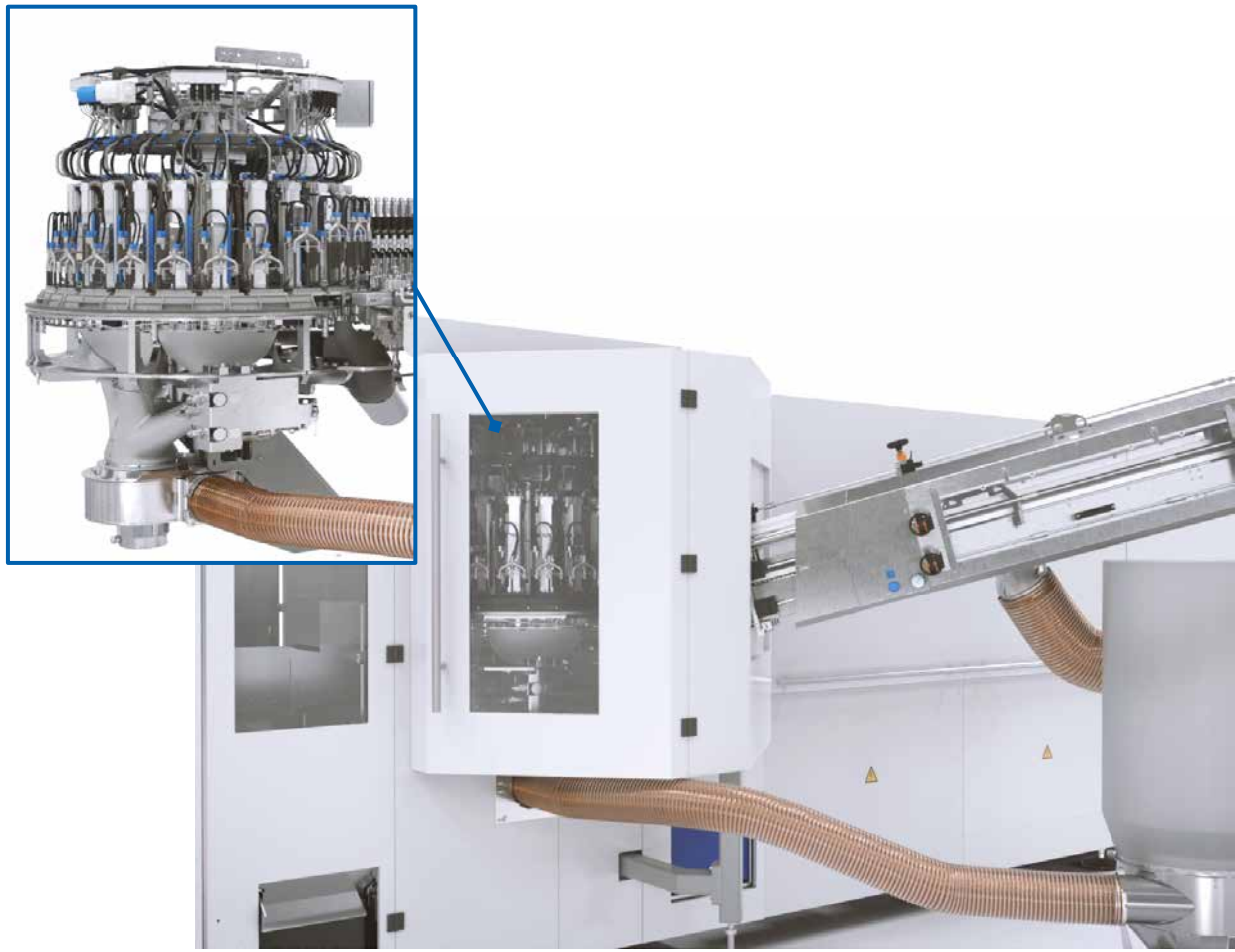
The key components
Prejet preform rotary rinser

Technical features

- Compact one-starwheel concept at ground level
- Method of operation:
  - Immersion of the rinser lances in the preforms
  - Blowing out of the particles with pre-filtered and ionised sterile air
  - At the same time as the particles are blown out: Extraction of the mix of air and dirt

Benefits to you

- Low space requirement with good accessibility
- No unnecessary transfer points as the existing infeed starwheel is used as rotary rinser
- Low number of handling parts, quick tool-free change-over
- Very good cleaning performance
- Low air consumption



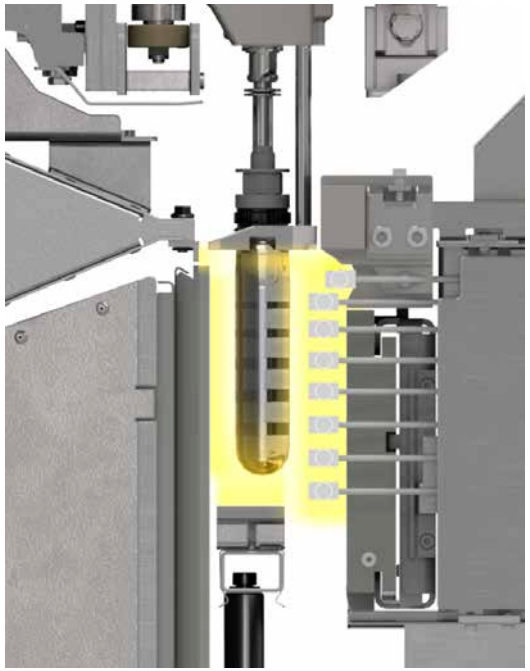
The key components
Infrared oven

Technical features

- Servo-controlled oven of the Contiform standard series with efficient and pre-filtered preform air cooling system
- Option: Tool-free quick-change of the protective plates of the oven heating mandrels
- Optimised in terms of energy:
  - Smaller distances between heaters and longer infrared radiators
  - Use of parabolic mirrors

Benefits to you

- No critical control point (CCP) in oven
  - Easy operation
  - No risk of corrosion thanks to the sterilising medium
  - Handling of preforms made of 100 rPET
  - No revalidation required if the preforms are changed
- Significantly improved hygiene thanks to additional air filters
- Reduced change-over time and energy costs



The key components
Contipure D* preform sterilisation module

Technical features

- The module is between infrared oven and aseptic blowing module.
- Via nozzles, a targeted and directed feed of gaseous hydrogen peroxide (H_2O_2).
- This provides an overflow and thus results in simultaneous internal and external preform sterilisation.

Benefits to you

- 360° treatment for the sterilisation of the complete preform surface at once: inside, outside and neck-finish area
- High-performance preform sterilisation up to log 6
- No sterilisation blind spots thanks to three-starwheel concept
- No further contact with the preform inner side wall after sterilisation
- Particularly suitable for lightweighting: Sterilising preforms stops them from shrinking. This is not the case when completely blown bottles are sterilised

* D=Dry

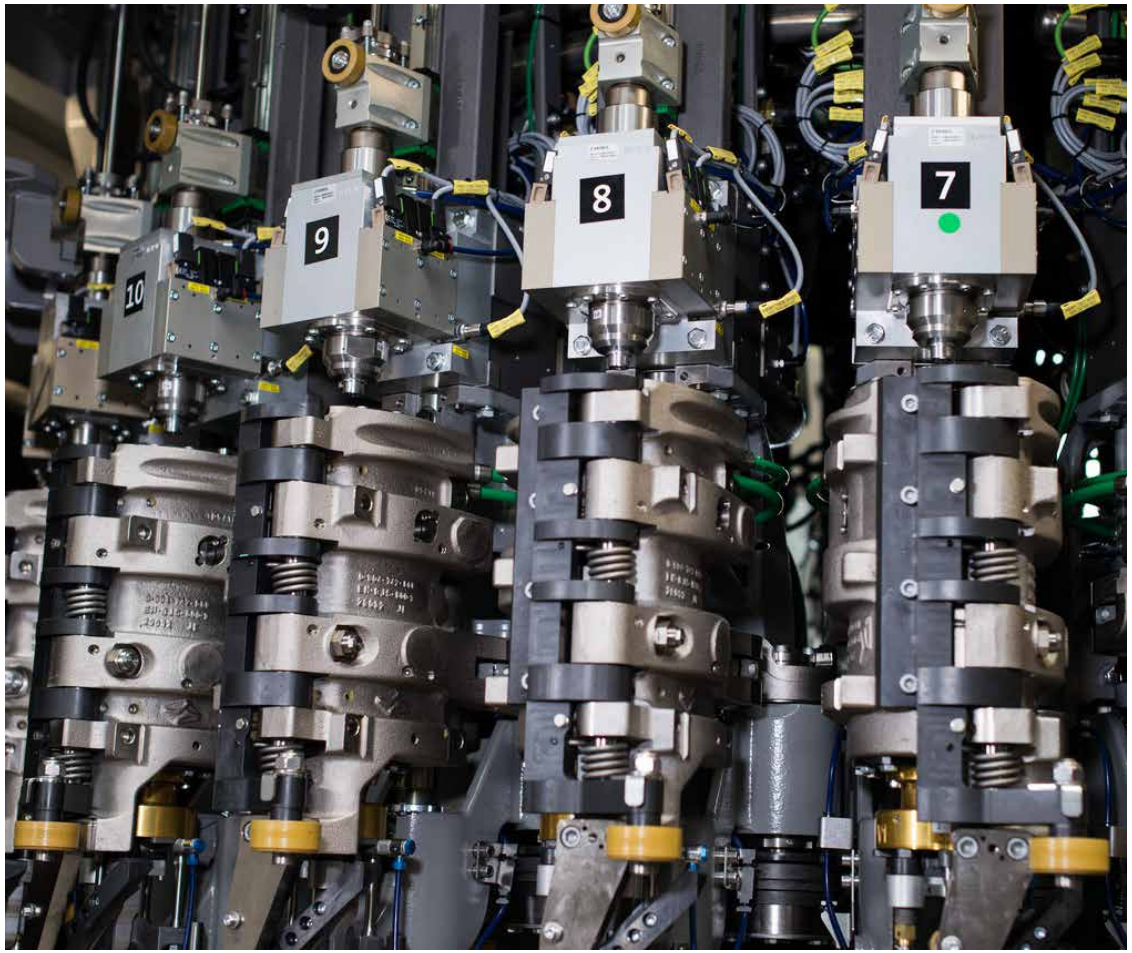
The key components
Blow moulder

Improved hygiene standard

– The air used for stretch-blow moulding the PET bottles is filtered beforehand using a pre-filter unit with autoclaveable filters.
– A fine dust filter is also installed on the heating module to ensure that dirt particles such as coal dust, pollen or plant spores are filtered from the ambient air.

Increased flexibility

Through the blow mould change-over concept, optionally available with robot



KRONES

The key components
Aseptic filler

Method of operation

- The appropriate filling valve for the widest 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

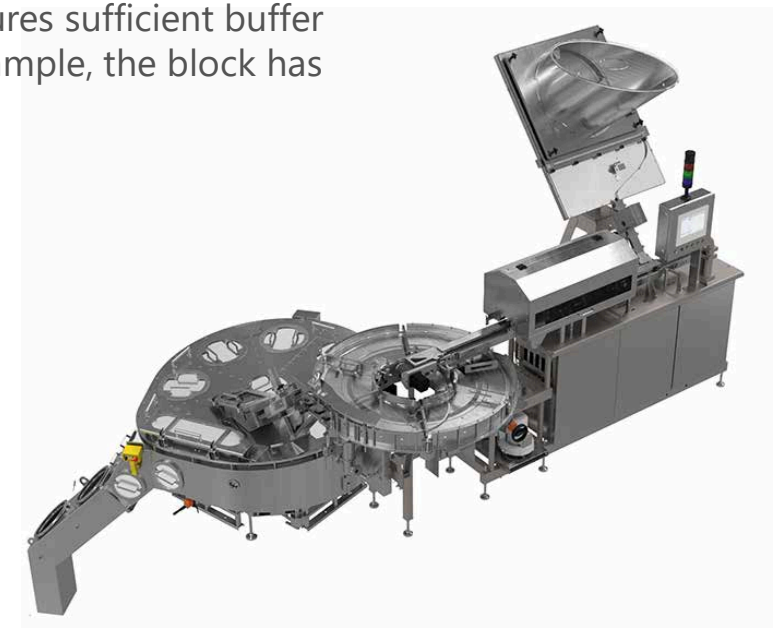
Benefits to you

- 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 hot caustic.
- Handling parts change-over is possible up to a defined output in an automatic way.
- If there is an intervention into the isolator, intermediate sterilisation with hot caustic is performed within 30 minutes.
- Time span from last to first bottle is possible within 90 minutes depending on the product.

The key components
Cap conveyor

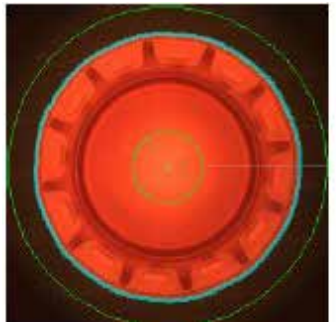
Sorting and buffering

- The best sorting concept for all caps is designed 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.

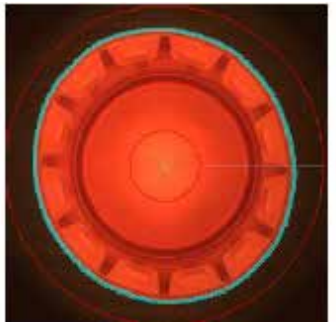


Examples of inspections

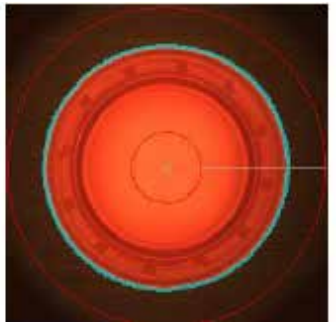
Tear-off ring:



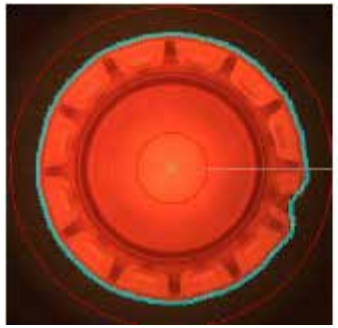
Without damage



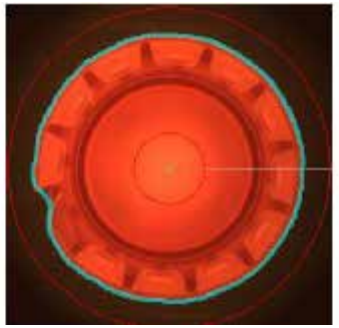
Oval



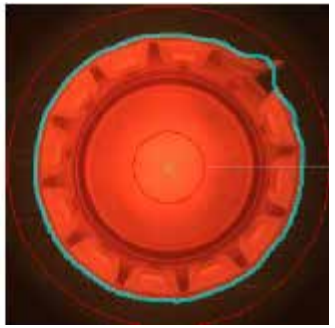
Missing



Vertically interrupted



Bent inward



Bent outward

KRONES

The key components
CapAsept D cap sterilisation module*

* D = Dry

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.

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.

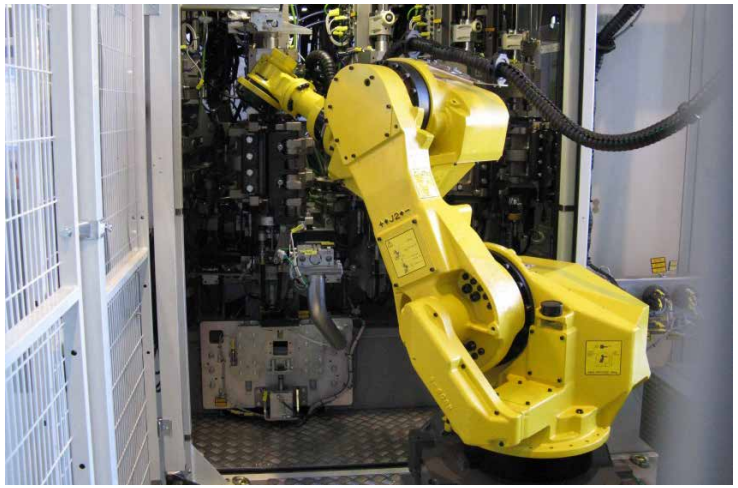
Hygiene

- 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 cone capper or a gripper capper are used.

Automation options for type change-over

Blow moulder

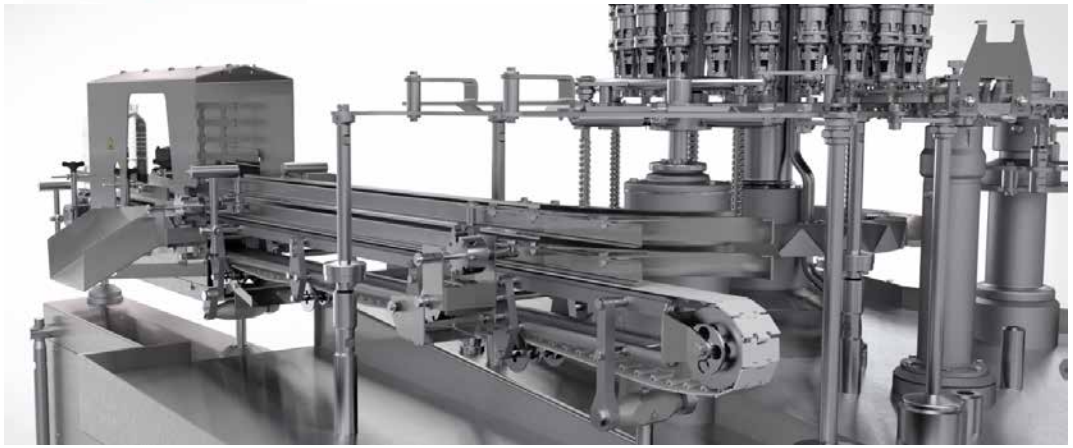
- Quick-change system
  - Tool-free mould change-over: approximately one minute per mould
- MouldXpress Robot
  - Fully automatic mould change: less than 30 seconds per mould



Filler

Capper handling parts and discharge conveyor height adjustable

- Automatic mould changer up to a defined output
- Change-over at the blow moulder without intervention in the sterile area: no intermediate sterilisation required, even for change-overs with different container heights



KRONES

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.

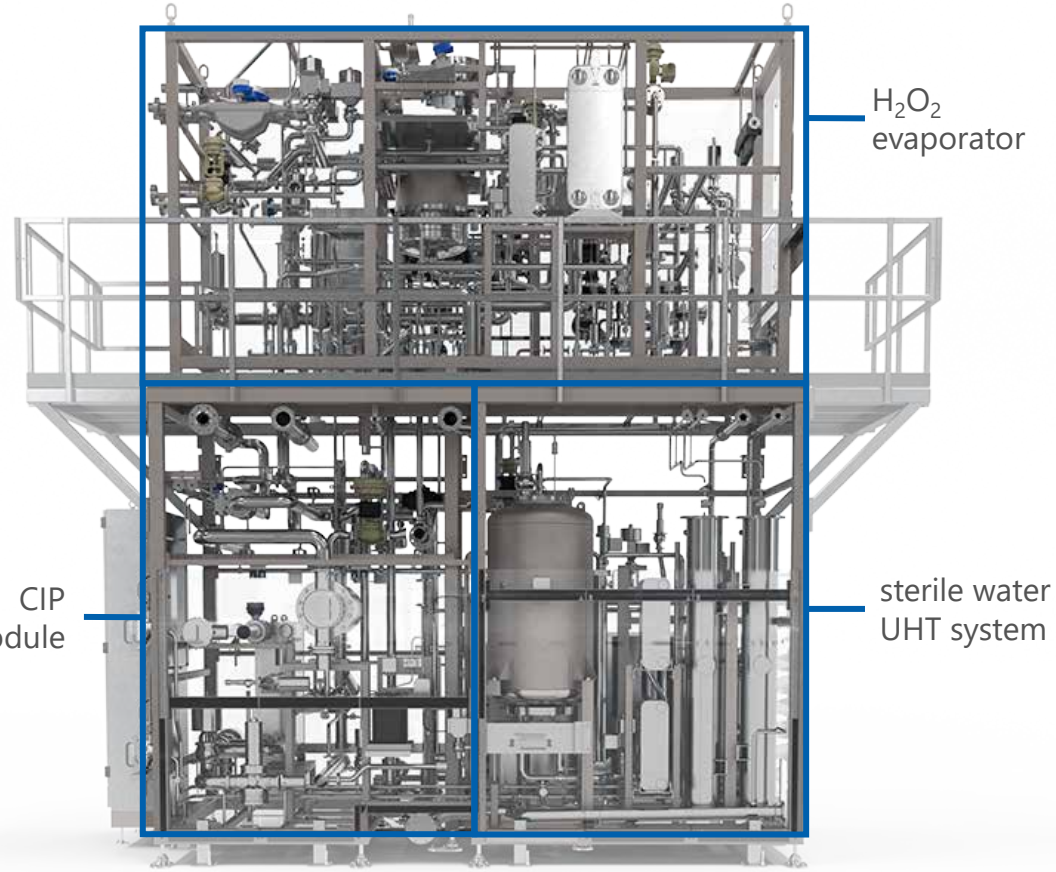
- All filters and ventilators in one unit
- Piping as integrated component of the air handling unit
- Centralised exhaust air pipe system
- Direct air guidance, no pressure cascade required
- Simple sterilisability of the HEPA filters

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

KRONES

The peripherals
Media handling



Media arranged clearly and compactly in one module

The media module combines the H_2O_2 evaporator, CIP module and sterile water UHT system in the smallest of spaces.

Benefits to you

- One connection point per medium: Simplifies both planning and installation, and saves piping
- One draining point for the complete filler
- Simple and very efficient cleaning concept
- Fully automatic and self-sufficient media delivery just-in-time
- Small footprint with clear and straightforward design guarantees good accessibility for measured-value checking and maintenance

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

Triple protection

The all-round treatment with gaseous H_2O_2 sterilises the entire preform surface at once: Inside, outside and in the neck area.

Gentle preform treatment

The sterilisation of the preforms hardly leaves any residues: This is because the surface enlarges by many times and the residues of the sterilisation medium are diluted accordingly.

Flexible production

The optional automation package allows change-overs to be performed on the entire block in under 20 minutes – including the emptying and starting up of the machines. This means that you gain an additional two hours of production time with each change-over – and operators have their hands free to perform other tasks.

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.

High availability

The complete block production can run for up to 120 hours at a time – and only a short 90 minute sterilisation break is required before it is back in action and ready for the next round. Intermediate cleaning after manual interventions also only takes 30 minutes.

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.

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.

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.

SOLUTIONS BEYOND TOMORROW

KRONES