

Sensofill™ FMa
Combi Sensofill™ FMa
Combi Predis™ FMa

Aseptic filling solutions





We know what

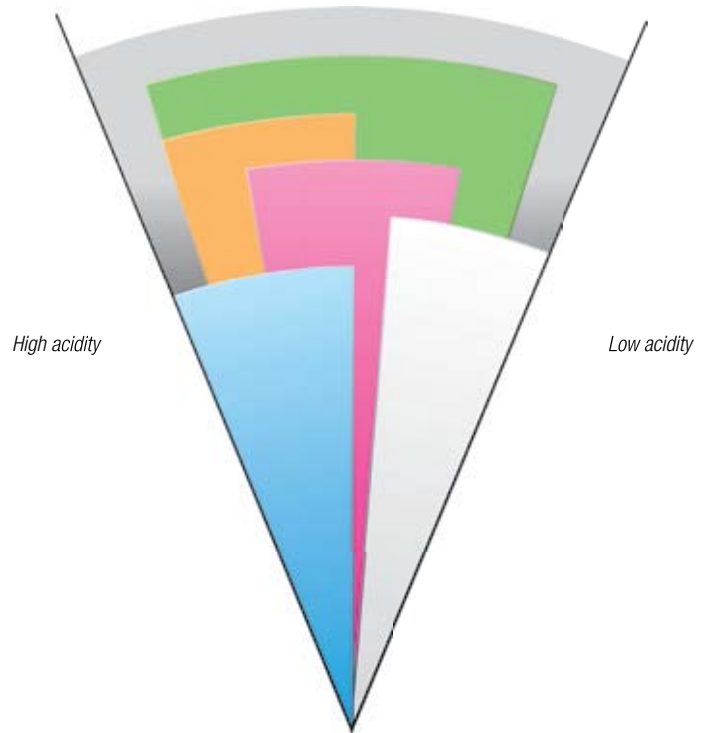
Sensofill™ FMa, Combi Sensofill™ FMa and Combi Predis™ FMa are Sidel's new aseptic filling solutions for your sensitive products.

A comprehensive offering which enables customers to select the best option for their needs.

We meet your expectations with total food safety, plenty of flexibility, benefits in terms of Total Cost of Ownership (TCO) and a focus on the environment.

Fill any package shape and size with any product.

Distribution at room temperature



Legend

- Tea
- Fruit juices & smoothies and fruit purees
- Flavored mineral waters
- Milk
- Isotonic drinks

FOOD SAFETY IS INCREASINGLY IMPORTANT TODAY. ASEPTIC FILLING IS THE IDEAL WAY OF PRESERVING SENSITIVE PRODUCTS WITH AN EXTENDED SHELF LIFE, GUARANTEEING MAXIMUM SAFETY AND PERFECT PRODUCT QUALITY EVEN WHEN STORED AT ROOM TEMPERATURE.

you need

STILL BEVERAGES



- High speed production
- microbiological stability
- seasonal consumption.

FRUIT JUICES & SMOOTHIES AND FRUIT PUREES



- "O₂ barrier" and head space control
- vitamin preservation
- pulp and foam control
- medium speed production
- highly flexible packaging (bottle and cap)
- preservation of taste and flavor
- high viscosity.

DAIRY PRODUCTS



- Total bacteriological safety
- cap security
- foam management
- medium speed production
- light barrier
- abrasion.

Aseptic filling according to Wet Technology

SENSOFILL™ FMA: BOTTLE STERILIZATION

Three factors guarantee absolute bottle sterility and total security of the final product:

- unique multiwheel system
- the power of high pressure sterilization with peracetic acid (PAA)
- the effectiveness of rinsing with two pulsations of sterile water.

The multiwheel system guarantees internal and external bottle sterilization with an effective combination of mechanical and chemical action (PAA), and what's more...

High pressure, temperature and repetition of the treatment guarantee that even the neck of the bottle is perfectly aseptic.

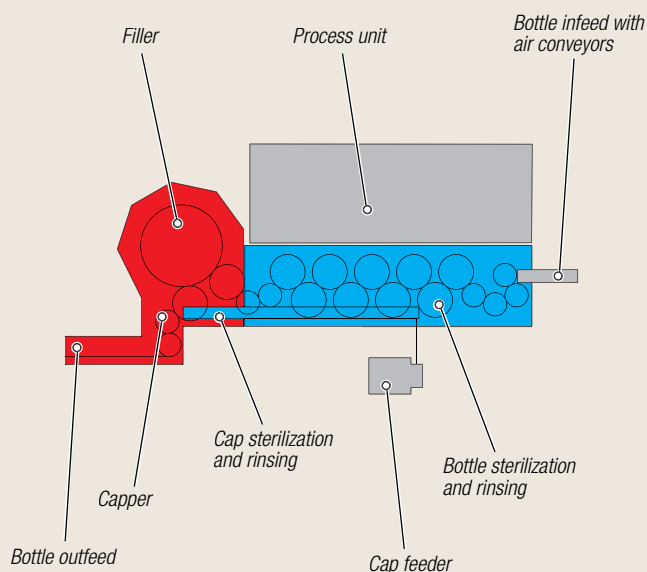
Rinsing with a double pulsation of sterile water under high pressure eliminates all residues of peracetic acid from the bottles before filling.

COMBI SENSOFILL™ FMA: MAXIMUM EFFICIENCY CONCENTRATED IN MINIMUM SPACE

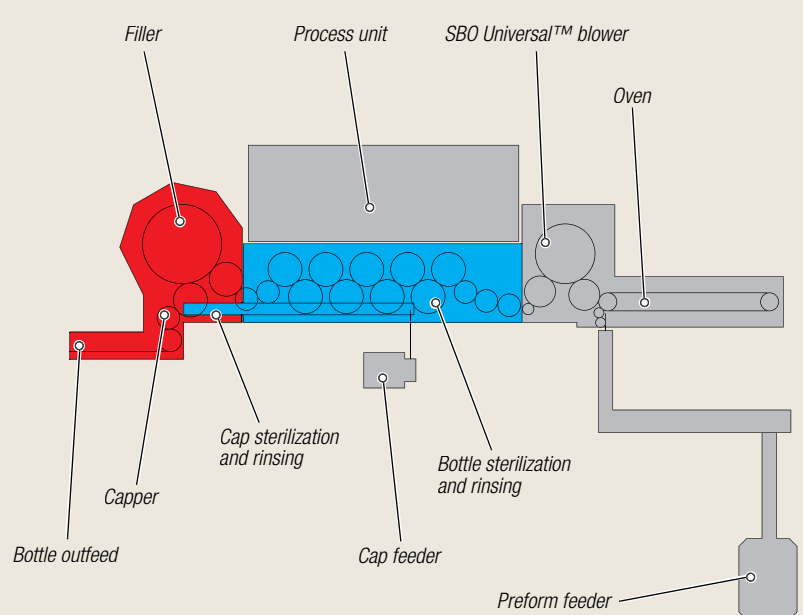
Sensofill™ FMA can also be integrated with an SBO Universal™ blower, offering all the benefits of the Combi system.

Sidel has installed more than two hundred Combi lines worldwide.

Sensofill™ FMA



Combi Sensofill™ FMA



Sidel

Dry Technology

COMBI PREDIS™ FMA: PREFORM STERILIZATION

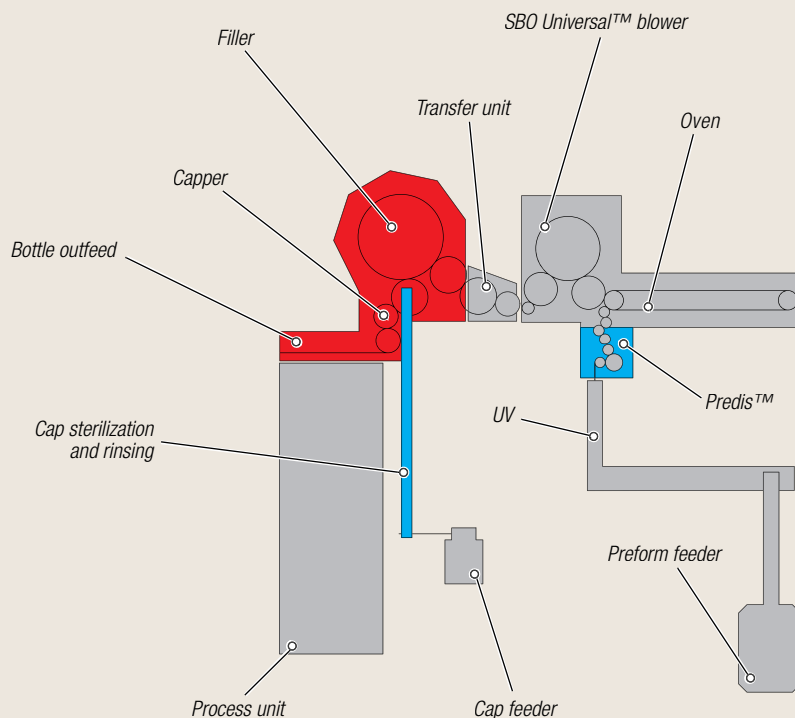
Combi Predis™ FMa replaces bottle rinsing with dry preform sterilization using hydrogen peroxide (H₂O₂). Even distribution of the sterilizing agent over the inside of the preform by condensation, subsequent transition

of preforms through the blow molder oven and heat conditioning ensure that the hydrogen peroxide is effective.

This solution guarantees complete sterility without consuming any water and using only negligible amounts of chemical agents.

It also requires less floor space and less machinery.

Combi Predis™ FMa



The heart of the three solutions: the aseptic filler and capper

SANITATION FOR COMPLETE FOOD SAFETY AND QUALITY

Sidel never compromises when it comes to final product safety. Sensofill™ FMa, Combi Sensofill™ FMa and Combi Predis™ FMa have a number of features further raising the high quality standards offered today:

- external cleaning cycle (COP) by a hot alkaline solution
- unidirectional, oriented air flow to protect the product from contamination during filling
- isolator structure perfectly sealed to minimize formation of microorganisms in the joints.

PRODUCTIVITY

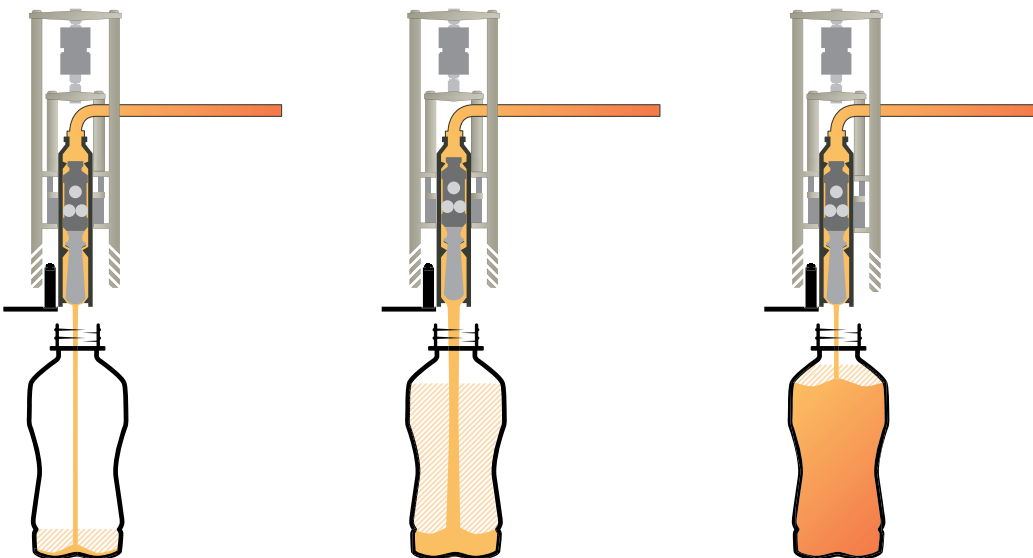
- Up to 120 hours of uninterrupted production: perfect machine sterilization, protection of the environment created by the isolator and by sterilization of the outside of the bottle make shutdowns for intermediate cleaning unnecessary
- sterile production can continue even with package format or product changes
- optimization of internal and external machine cleaning times due to overlapping cycles.

FLEXIBILITY

- Bottle format changeovers are very rapid and easy, and do not result in loss of sterility
- new cap sterilization process makes it easy to change cap size too, using the same equipment
- there are various solutions for product changeovers, depending on compatibility between products and your specific needs.

EASE TO USE AND TO MAINTAIN

- Machine maintenance and repair work is simplified due to ergonomic design: for example, the entire surface above the filler is easily accessible to the operator
- new operator panel with more intuitive graphics
- new software permits complete traceability by recording all critical parameters (CCP)
- new program helps the operator perform preventive maintenance.



THE BENEFITS OF THE VALVE

- The valve is designed and built without a membrane to guarantee easy cleaning and total protection of product sterility
- during the internal cleaning cycle, the speed of the sanitizing solution is more than 1.5 m/s
- filling takes place through a two-speed system; one of the many resulting benefits is minimization of foam formation and head-space
- the valve permits pulp treatment and small package formats.

Filling takes place through a two-speed system, resulting in extremely accurate filling and other benefits.

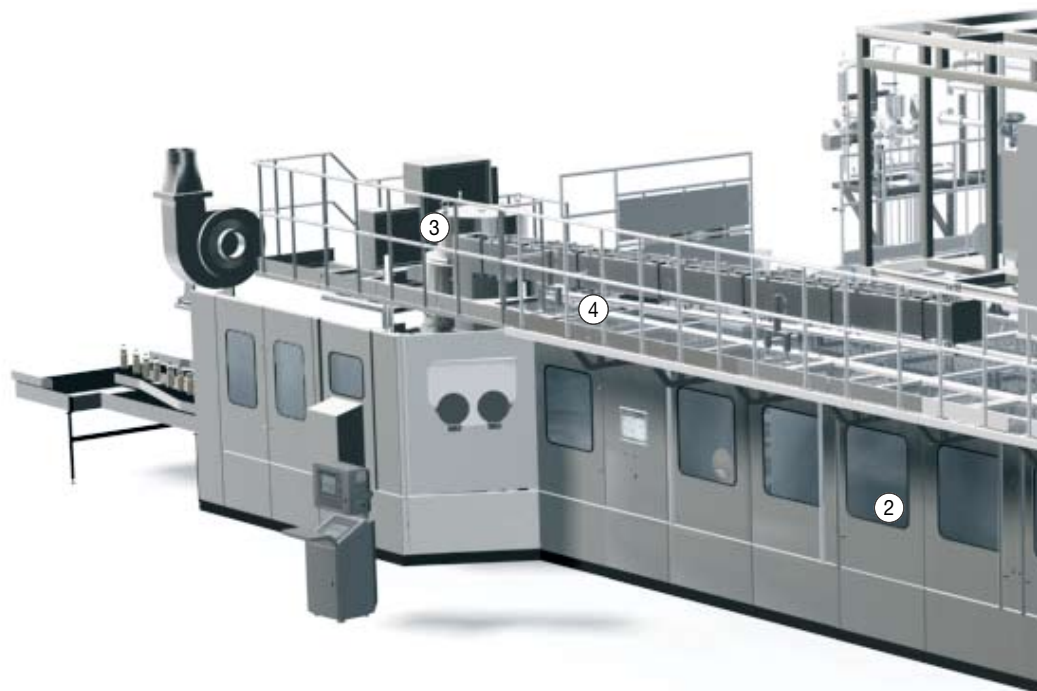
1	3
2	

- 1 - Filling carousel
- 2 - Changeover with sterile glove
- 3 - Bottle outfeed



Sensofill™ FMa

Complete flexibility

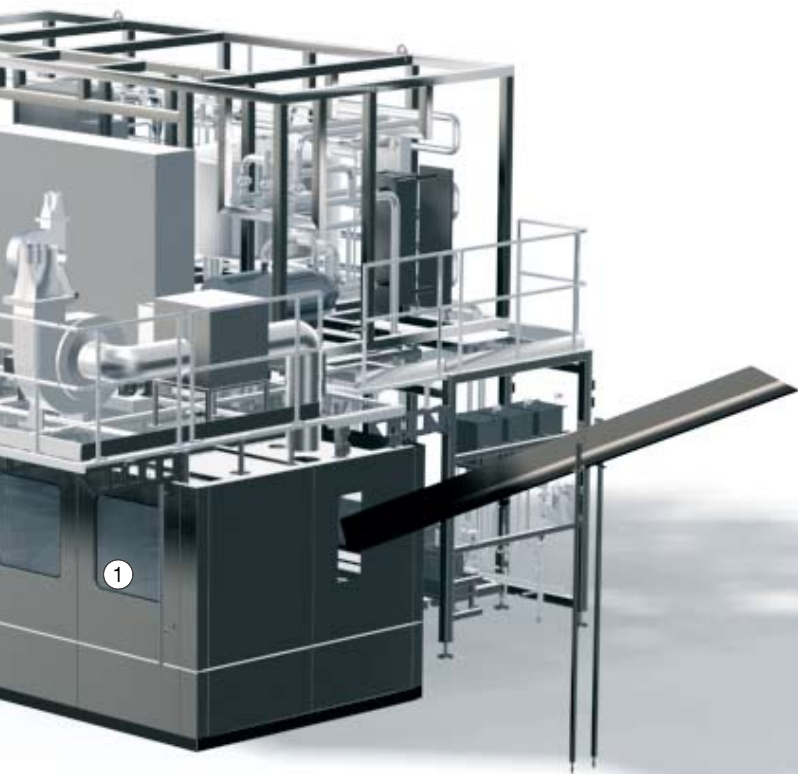


TOTAL FOOD SAFETY AND QUALITY

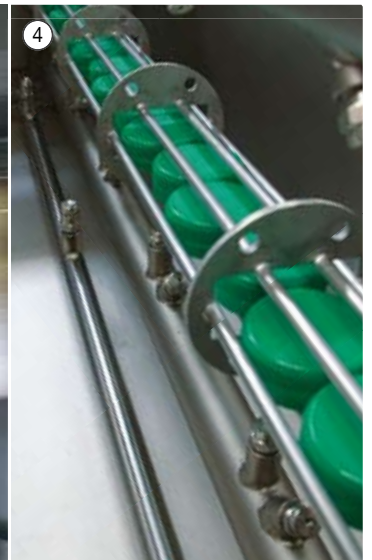
- Absolute bottle sterilization is guaranteed not only by the conventional chemical effect of peracetic acid but also by the mechanical effect of high pressure
- maximum efficacy in sterilization of the outside of the bottle; temperature, concentration and time values are the same as in internal sterilization
- complete sterilization of the neck of the bottle with the multiwheel system
- minimization of any chemical residues and of water consumption thanks to double pulsation rinsing
- simple nozzle design to guarantee constant dependability of sterilization and therefore of the final product.

FLEXIBILITY

- Light-weighting potential due to an optimal combination of temperature, time and PAA concentration
- wide choice of preforms enabled by the versatility of the new neck-grip transfer process.



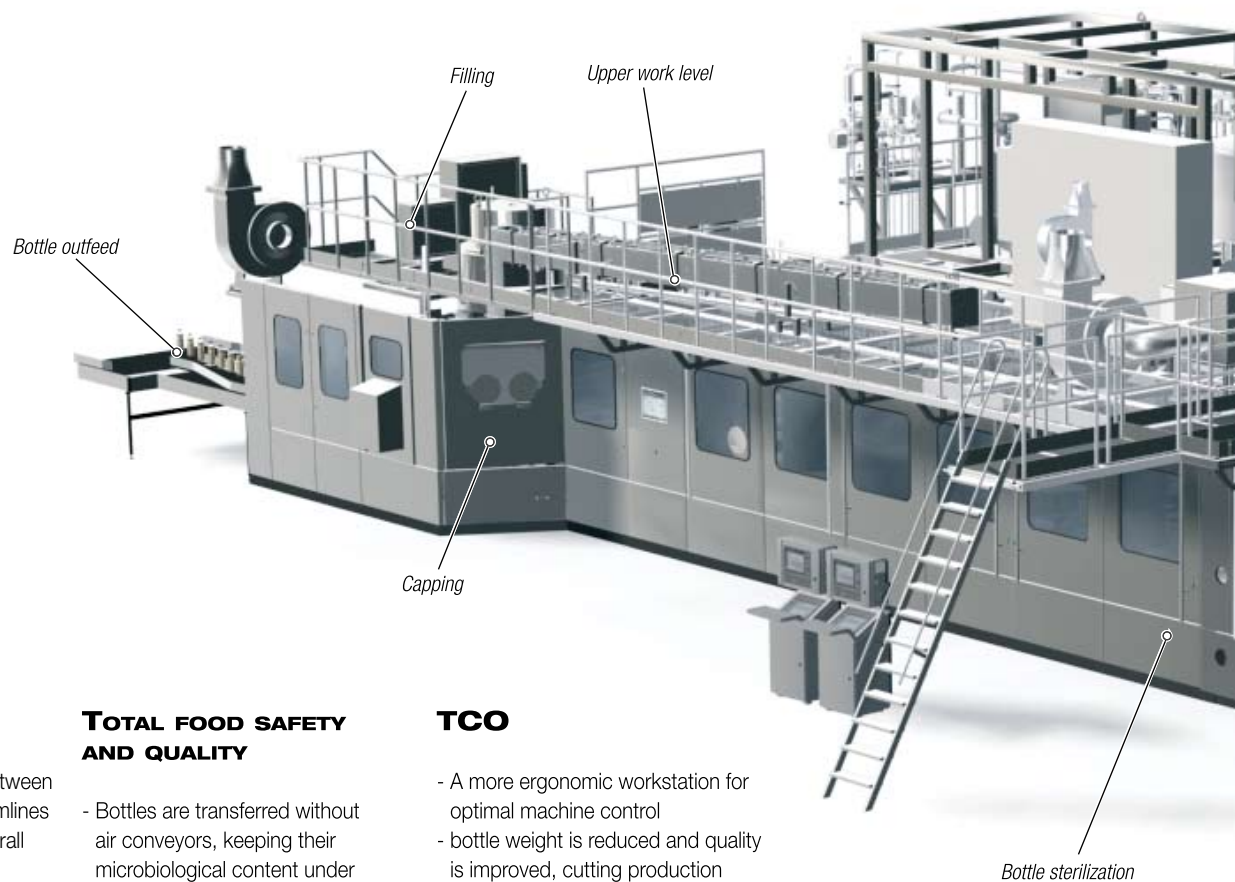
- 1 - The multiwheel bottle sterilization system
- 2 - High pressure bottle sterilization
- 3 - Aseptic filling
- 4 - Cap sterilization



Combi Sensofill™ FMa

Integrated production

Combi Sensofill™ FMa relies on the same wet sterilization technology as in the stand-alone version to guarantee maximum microbiological security with the smallest footprint possible.



PRODUCTIVITY

- The absence of conveyors between the blower and the filler streamlines production and increases overall efficiency.

FLEXIBILITY

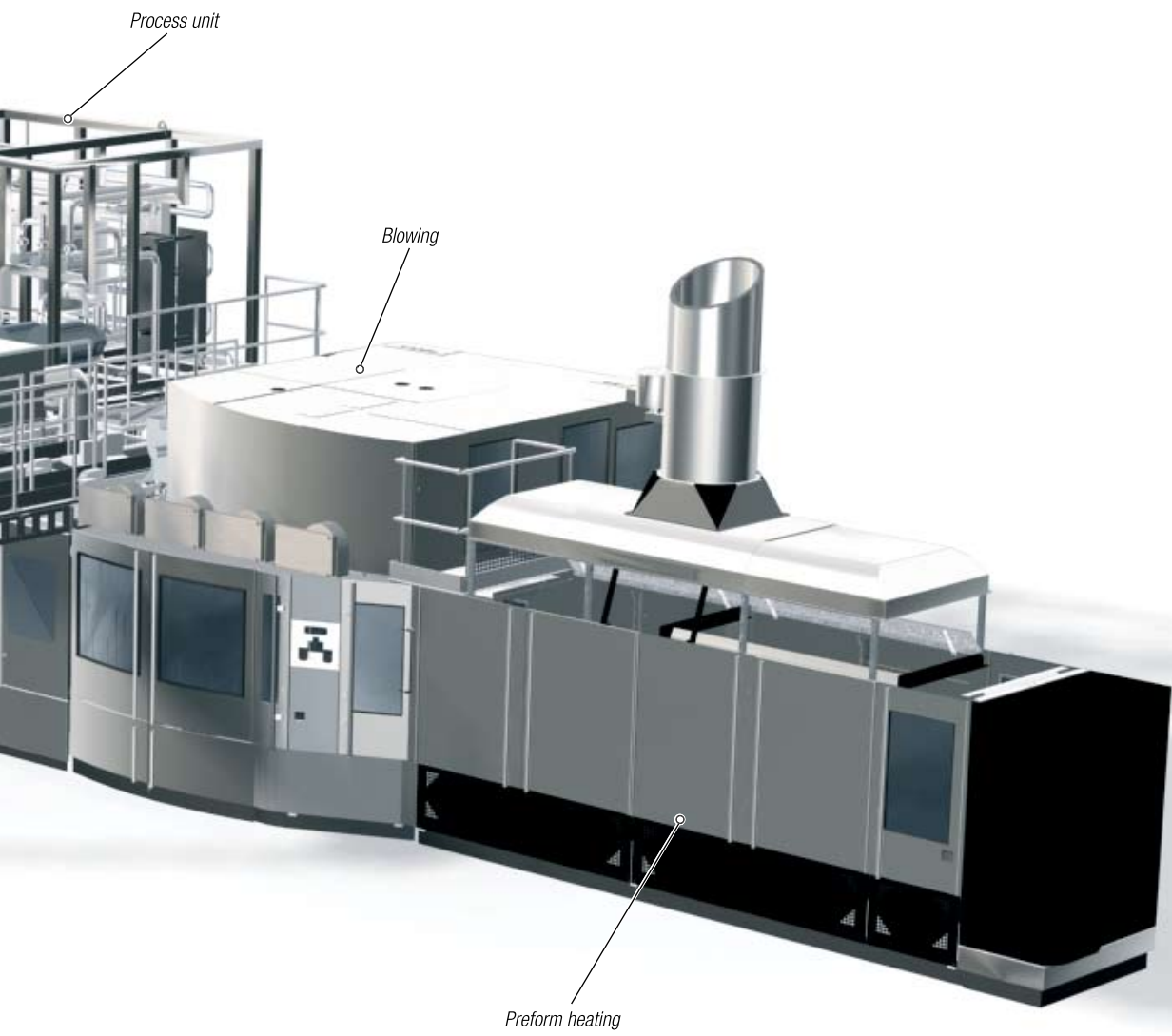
- There are no limits on package shape: the positive transfer of bottles from the preform inlet to the filler offers great freedom.

TOTAL FOOD SAFETY AND QUALITY

- Bottles are transferred without air conveyors, keeping their microbiological content under control before they enter the aseptic filler.

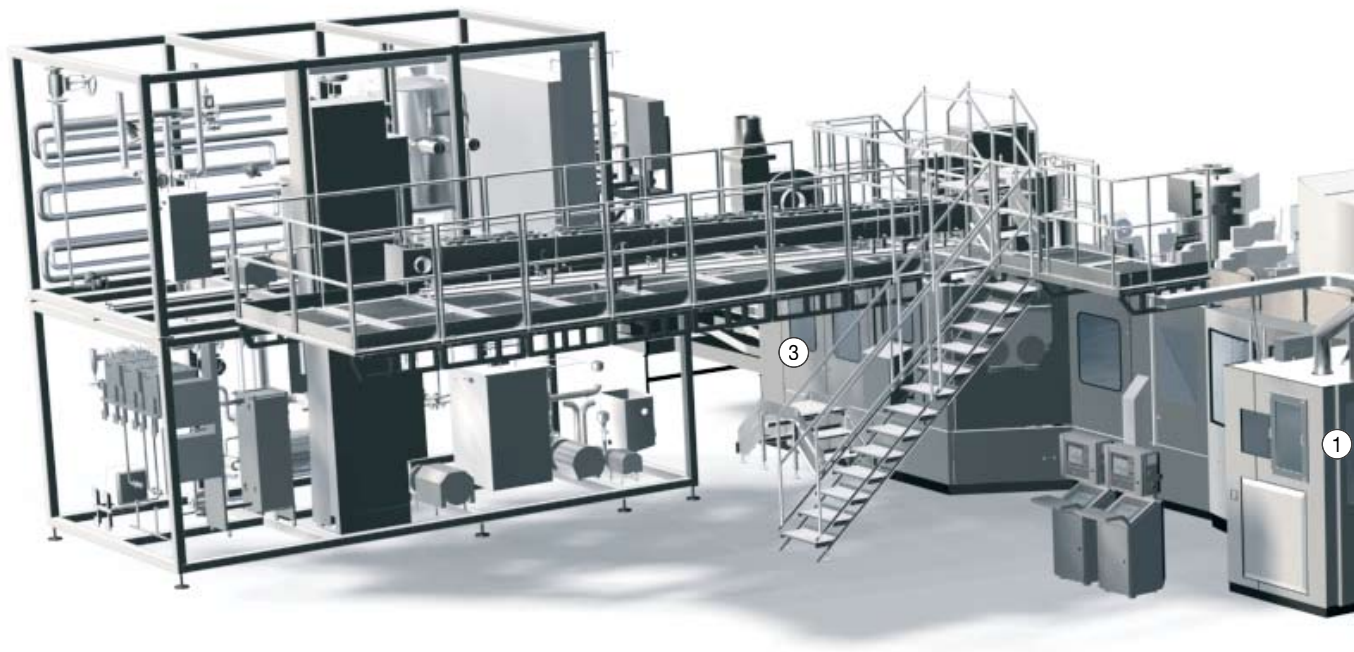
TCO

- A more ergonomic workstation for optimal machine control
- bottle weight is reduced and quality is improved, cutting production costs
- reduced maintenance and part costs
- minimal floor space.

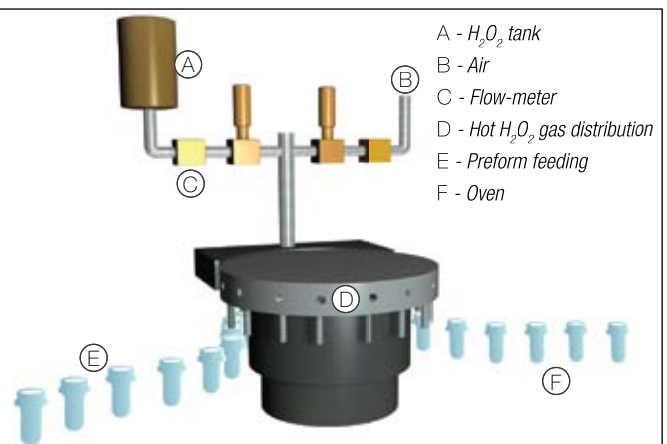


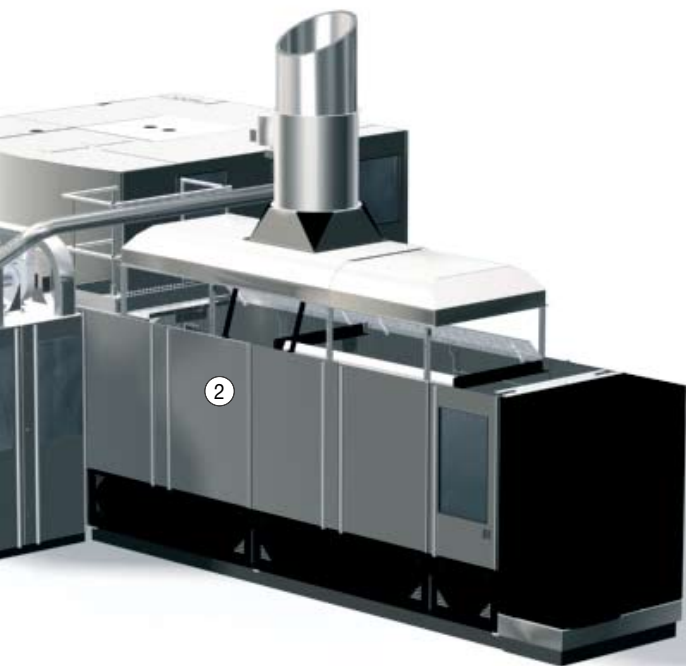
Combi Predis™ FMa

Economical and sustainable



Preform sterilization with Predis™





Passage of preforms in the blow molder oven



Aseptic filling



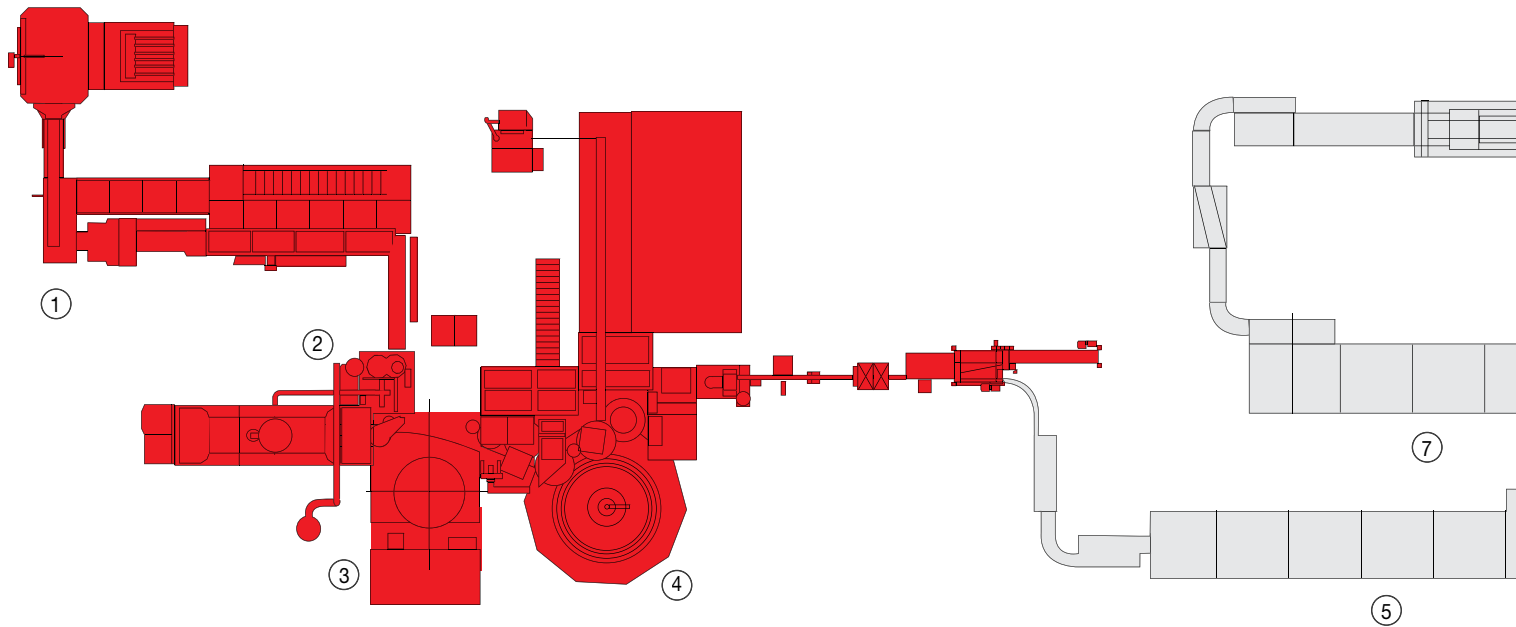
TCO AND SUSTAINABILITY

- Hydrogen peroxide vapor (H_2O_2) is used for dry sterilization of preforms, eliminating additional water and energy consumption and the need for chemical agents
- high temperature sterilization of preforms rather than bottles opens up new possibilities for light-weighting
- Predis™ reduces the number of machines and the amount of space required.

TOTAL FOOD SAFETY AND QUALITY

- 100% of all preforms are sterilized with even distribution of hydrogen peroxide on their inner walls and activation by heat in the blow molder oven
- sterilized preforms are blow molded with sterile air
- bottles are then transferred to the aseptic filler gripped by the neck in a controlled atmosphere.

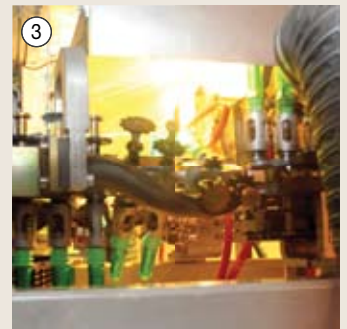
Aseptic line



Preform infeed



Predis™



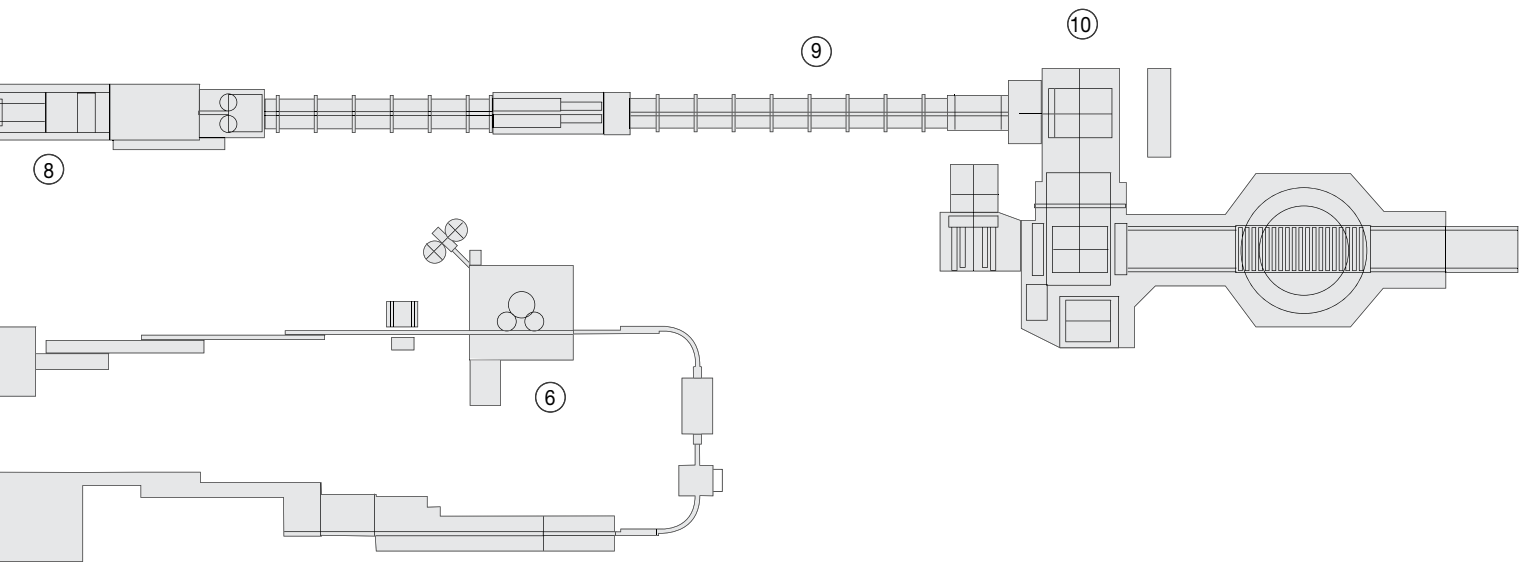
Blower



Labeler



Accumulation table



4
Filler



5
Accumulation table



8
Packaging machine



9
Pack conveyor



10
Palletizer

