СИСТЕМЫ УПАКОВКИ И РАЗЛИВА STERILCAP VHP, VISITRON

Технические характеристики

STERILCAP VHP R

Rotary sterilization unit for both sport and flat caps, designed with buffer capability for optimized efficiency and optimized TCO.

Sterilcap VHP R is a caps sterilizer based on a decontamination effect of H2O2 in vapor form at the required concentration and temperature, where the treatment process duration allows to guarantee up to 6 log reductions. The design of the chutes inside the module ensures that all the cap surfaces are properly exposed to prevent any shadowed area. Sterilcap VHP R is located on the top of the filler in order to feed the capper by gravity and has a very compact layout. Decontamination parameters guarantee a gentle treatment without removing the caps slipping agent.
Since GEA Sterilcap VHP R is based on a dry sterilization technology, it does not require any water consumption.
Sterilcap VHP R is also capable to treat both sport and flat caps in the same unit, moreover it is able to perform a fast changeover without losing sterility.
The system represents the perfect cap sterilization solution to be coupled with the GEA dry sterilization platforms GEA ABF, GEA DBF and GEA Whitebloc, in order to allow the usage of one single chemical sterilizing media. It also can be coupled with any other GEA aseptic filling solution.
In addition to an excellent sterilization performance, the Sterilcap VHP is designed to create a buffer of caps to guarantee the necessary accumulation required by a blow fill solution: in case of cap jamming on the sorting chute, the number of caps inside the unit allows the aseptic blow filling bloc to be emptied without any loss of preforms or bottles. In the event of production interruption, the gentle treatment based on low temperature and low chemical concentration allows to maintain the caps inside the module without needing to discharge the caps which can be used as soon as the production starts again.

Sterilization performed by step-by-step movement.
Long treatment time allows very low concentration and temperature preventing any cap deformation.

STERILCAP VHP R

Features

Suitable for both flat and sport caps.

Up to 6 Log on *B.atrophaeus* for aseptic HA and LA applications.

No water consumption.

No condensation and risk of residue for total product safety.

Decontamination and buffer phases integrated in one unit.

Configuration

Compact layout.

Integrated H2O2 sterilizing solution preparation and dosing allowing stand alone configuration.

Possible retrofit on PAA wet aseptic line for dry solution and sport caps handling.

Caps handling

Sport and flat caps automatic changeover without losing sterility and with no need for mechanical intervention.

Gentle treatment which avoids slipping agent removal.

VHP treatment

Sterilizing volume physically isolated.

Effective VHP treatment with an **all over uniform H2O2 concentration and distribution**.

Long treatment time allows very low concentration and temperature ensuring complete and constant control on dimensional deformation of caps without overheating and overstressing the caps and no need of additional rinsing for cooling.

STERILCAP VHP L

Robust but gentle decontamination treatment for aseptic and ESL applications.

Specifically designed for both aseptic and ESL applications, the GEA Sterilcap VHP L is a H2O2-based dry sterilization module offering a wide range of decontamination target levels to meet a variety of shelf-life requirements.
Despite being a robust decontamination treatment, the GEA Sterilcap VHP L is a gentle technology. The caps are handled using only the VHP flow and the slope of the sterilization chute, avoiding any deformation of the cap shape.
No water consumption is required during production making it suitable for sustainable solutions in the sensitive beverages market.
The GEA Sterilcap VHP L is a compact solution which can handle both flat and sport caps without requiring any format changeover optimizing the productivity of the line, and can be retrofitted to existing plants.

Sterilizing chute.
The compact and easy accessible sterilizing chute allows homogeneous internal and external decontamination process.

VHP mixture preparation unit.
The H2O2 sterilizing solution preparation and dosing unit integrated in the sterilizing module allows the standalone configuration.

STERILCAP VHP L

Features

Both flat and sport caps can be treated.

Up to 6 Log on *B.atrophaeus* for aseptic HA and LA applications.

No water consumption.

No condensation and risk of residue for total product safety.

Easy process due to few critical parameters.

Caps handling

No mechanical devices for feeding the caps, which are gently moved thanks to the slope of the chute (compact and easily accessible through a window) and the thrust of the VHP.

Gentle treatment at low temperature and low concentration which avoids slipping agent removal and cap deformation or distortion.

Configuration

Compact layout.

Integrated H2O2 sterilizing solution preparation and dosing allowing stand alone configuration.

Possible retrofit on PAA wet aseptic line for dry solution and sport caps handling.

VHP treatment

VHP low temperature for caps treatment.

No caps rinsing needed: VHP flowrate combined with air flow allows to evaporate H2O2 before capping.

No caps loss during production stand-by thanks to sterilizer internal low temperature: in case of production interruption, VHP flow is by-passed and deviated to a second parallel circuit with no overexposure of VHP for caps.

STERILFOIL VHP

Unique module for H2O2 sterilization of aluminum foils.

The Sterilfoil VHP L provides customers with a safe and hygienic sealing system for HDPE and PET containers. Sterilfoil is a simple, linear system mounted on top of the capping area and integrated within the microbiological isolation area of the machine.
The system uses vaporized hydrogen peroxide (VHP) technology to provide a highly effective microbiological sterilization solution for aluminum foil closures.
A compact sterilization chute allows simultaneous internal and external foil decontamination. The foils are pushed forward in a pressurized VHP flow guided through shaped rails to reach the induction heads turret located in the filler sterile isolator.
The Sterilfoil VHP L is combined with a rotary sealing turret designed by GEA and integrated inside the microbiological isolation area.

Highly effective microbiological sterilization.
Compact decontamination chute for combined internal/external treatment of aluminum foils.

Versatile solution for HDPE/PET bottles applications.
Foil infeed system and GEA patented induction sealing turret of GEA aseptic sterile solution.

STERILFOIL VHP

Features

Up to 6 Log on *B.atrophaeus*.

Flexible treatment for aseptic high acid and low acid application.

No water consumption.

Highly effective microbiological decontamination.

VHP treatment

Compact sterilization chute for internal and external decontamination.

Pressurized VHP is used to push forward foil lids and sterilize them at the same time.

Sterilization chute is heated up to maximize temperature uniformity and to avoid H2O2 condensation along the surfaces and on transition areas.

Configuration

Compact layout.

Integrated H2O2 sterilizing solution preparation and dosing.

Positioned on top of the capping area and integrated within the microbiological isolation area of the equipment.

Combined with a rotary sealing turret designed by GEA and integrated inside the filler microbiological isolation area.

GEA Visitron Filler ALL-IN-ONE

An ‘all-in-one’ rinse, fill and close solution for cans, glass and PET bottles

A flexible, time-saving multi-

rapid changeover, multipurpose rinse, fill, close solution for cans, glass and PET bottles

Flexibility is a must for beverage manufacturers and breweries who need to stay competitive in today’s fast-moving global markets. Hours of time spent reconfiguring and adjusting complex filling equipment to switch between different bottle and can formats equates to reduced throughput and lost profits.

GEA VIPOLL has addressed this challenge by developing of the ALL-IN-ONE filling system, which can disinfect, rinse, fill, and close a wide range of PET and glass bottle and can formats. Supplied as a complete turnkey solution, the ALL-IN-ONE makes it easy for an operator to switch between different bottle and can formats in just 20 - 30 minutes (depending on the filler size), without the use of tools, which reduces down time and productivity loss.

Key design features

The space-saving ALL-IN-ONE unit represents an ideal choice for small- and medium-sized plants, including craft brewers, who can carry out all necessary functions, from rinsing to sealing, on just one machine. The unit’s small footprint is ideal for where space is at a premium, and reliable, user-friendly operation means that maintenance time is also kept to a minimum.

The ALL-IN-ONE system features a multifunctional carousel-type rinser that is equipped with universal grippers and filling valves, plus a capper for crown caps and can lids. The capping turret carries the capping heads for crown caps, and capping units for cans. An additional capping turret can be configured into the housing for PET bottles. Depending on filler size, the turret can be set up to process three different caps (aluminium screw caps, crown corks and plastic caps) without changing the capping heads.

Key operating features

- The machine can be completely washed using water or foam.
- All containers are transferred into the rinser/fi ller/capper/seamer block via a low infeed, which means that the same depalletizer for glass and cans can be used.
- Both volumetric fi lling, and exchangeable or height-adjustable fi lling tube options are available.
- Full automation and user-friendly programming help to ensure precise fi lling for every bottle and can, which reduces product loss.
- Double air pre-evacuation for all formats helps to minimize oxygen pick-up and foaming during fi lling, for great product handling and better fi lling results.

Hygiene without question

Designed to ensure the highest level of hygiene at every step, the ALL-IN-ONE machine is constructed from stainless steel, and features sloped surfaces to reduce the risk of microbiological contamination. Cabling is retained inside of the machine housing, and there is no use of plastic pneumatic tubing, which further minimizes the contamination risk. The ALL-IN-ONE technology is also equipped with a bottle burst system for increased safety. CIP is enabled in every machine, automatic insertion of CIP dummy bottles and clean room housing are also options.

ALL-IN-ONE at-a-glance

- Carry out rinsing, fi lling, capping and seaming of cans, glass and PET bottles using just one machine.
- Switch between bottle and can formats in just 20 – 30 minutes (depending on the fi ller size), without the use of tools.
- Process from 3,000 to 25,000 cans and/or bottles per hour.

Rinsing

Smart options for saving resources

Before fi lling, all containers need to undergo rinsing to remove dust, dirt, and other potential contaminants. The rinsing nozzles on the ALL-IN-ONE ensure that every internal part of the con-tainer is reached, without wasting media. This increases effi cien-cy as well as saving resources.

The rotary two-channel rinser is equipped with universal grippers for diff erent can diameters, glass bottles and PET bottles, and is ideal for applications were two diff erent rinsing media are used.

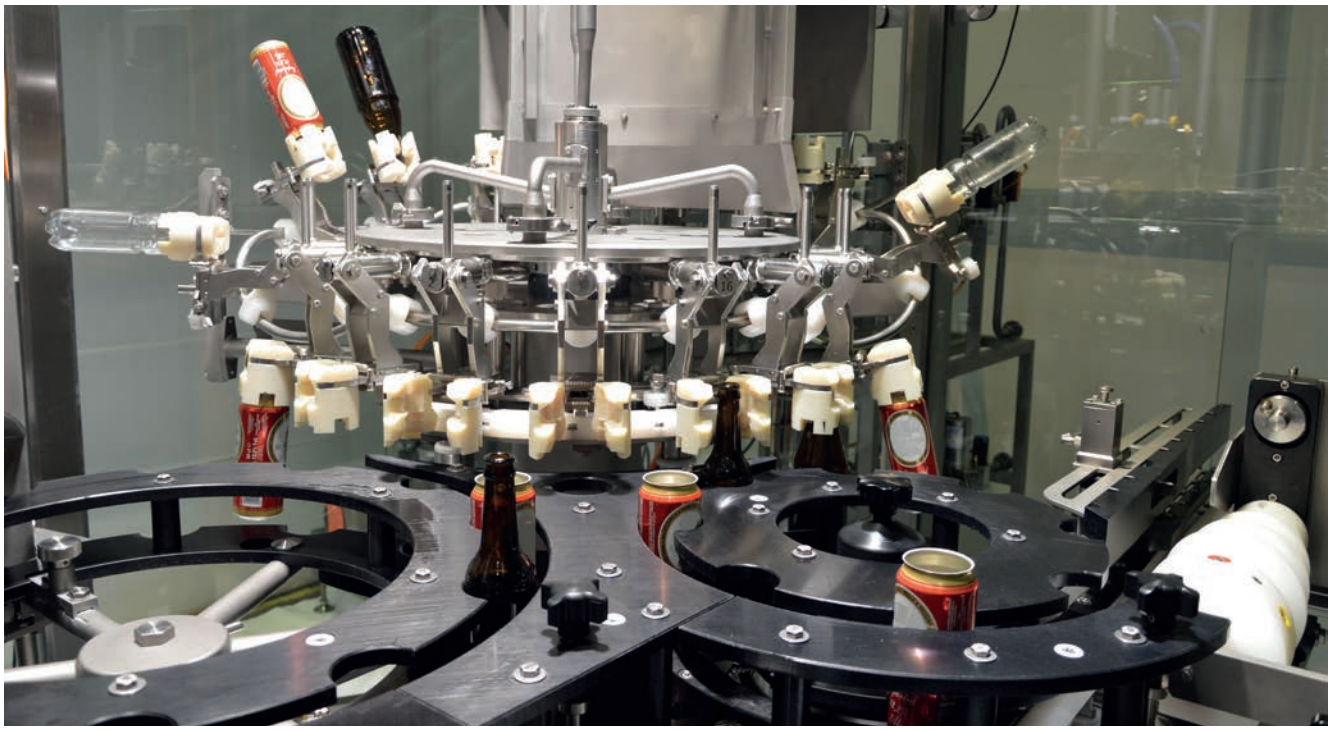
The system is compatible with a wide range of treatment media, including disinfectants, sterile water or sterile air. Bottles can be preheated in the rinser for hot-fi lling, which helps to reduce the likelihood of bottle breakage due to temperature diff erences, and improves fi lling results.

The ALL-IN-ONE machine can also be confi gured with an op-tional water recirculation system that collects the rinsing water and reuses it for the can/bottle shower in the and optionally also for cooling the vacuum pump. This reduces water consumption and wastage and can improve sustainability while reducing operating costs.

An optional mechanical or electrical “no bottle no spray” control function for the rinsing settings prevents nearby bottles from being sprayed. This saves on water, but also keeps neighboring bottles dry, which means there is less likelihood of problems downstream, for example, when applying self-adhesive labels.

Benefits

- Switching between containers requires only changes to the in-feed screw and format parts but not to the grippers on rinser.
- Optional water recycling system means reduced water con-sumption and also less waste water.
- Compatible with a wide range of treatment media, including disinfectant, sterile water or sterile air.
- Versatile confi guration options allow bottle preheating in the rinser, for hot fi ll applications.



Filling

Smart, intuitive multi-tasking

The ALL-IN-ONE is available as stand-alone unit that can be inte-grated into an existing fi lling line. The system is ideal for fi lling a wide range of non-alcoholic and alcoholic beverages, including still and sparkling wines.

All containers, including cans, undergo double air pre-evacuation to help ensure minimal oxygen pick-up and minimal foaming during fi lling. Versatile fi lling valves can fi ll still, carbonated, alcoholic or non-alcoholic products into glass, can and PET con-tainers. Only minimal changes to the setup are required when changing from one format to another or between diff erent con-tainers, which saves on time, reduces the likelihood of operator error, and so helps to keep lines working to design capacity. The most fl exible confi guration can fi ll a range of both hot and cold products, including hot juice, cold juice, carbonated products, or water.

Special options for the ALL-IN-ONE:

- High grade ultra clean execution.
- Dedicated confi gurations for sensitive products (milk, yogurt, juices).
- Hot fi ll with product recirculation – for vegetable/fruit juices and smoothies.
- Confi guration for diverse hot fi ll/cold fi ll applications
- Confi gurations with either servo-motor drives, or gear transmission systems are available.

Switching formats

Several recipes and product fi lling parameters can be preprogramed into the system’s PLC. This makes changing formats fast and intuitive. Simply select a recipe on the touchscreen, and the machine will automatically adjust the rinser/fi ller/capper height. Changes to the infeed screw, stars, and outfeed screw can be made without tools, and once the cap and lid supply units have been emptied the system is ready to start fi lling the new products into the new containers.

Closing

Versatile configuration for capping and seaming

The ALL-IN-ONE features a fully automated capping system for precise alignment of different sizes of caps and lids. Highly flexible, the solution makes it possible to handle and cap various closure types on one turret, in different combinations. The capper is automatically turned to match the container and cap setup, and the combined capper/seamer automatically activates every second capping or seaming head when closing different closure types.

The basic ALL-IN-ONE model for lower capacities is designed to cap one type of lid and one type of crown cork on the same turret. For larger capacities another capping or seaming turret is added. The advanced model offers greater versatility and can deliver a wide range of lid types and closures from the lid/cap supply system to the capper/seamer. The simple lid supply system, introduced by GEA VIPOLL, can be upgraded to disinfect the lids, and there is also an option for disinfecting caps.

Helping to keep your production processes agile and responsive to changing market demands, a second turret can be added to accommodate additional closure types.

GEA VISITRON FILLER C

A multipurpose can filling solution
for non-sensitive beverages.

A FLEXIBLE, FAST FILLING SYSTEM

Taking the time and tedium out of
rinsing, filling and closing different
can formats.

Staying competitive in today's fast-changing global bever-age markets means keeping up with consumer trends and offering high quality products, from cider and champagne, to herbal teas and fruit juices. For manufacturers this means staying highly flexible, and keeping process lines running at optimum efficiency and productivity.

Here at GEA we know that time spent reconfiguring plant for product changeovers and switching between different can sizes equates to reduced throughput and lost profits. So, to help you stay agile and efficient, we have developed the Visitron Filler C, a smart, hygienic, all-in-one platform for rinsing, disinfecting, filling and closing a wide range of can formats.

Supplied as a complete turnkey solution, the GEA Visitron Filler C helps to reduce downtime and product loss, by mak-ing it quick and easy to format changeovers, while reducing contamination risk and saving on resources. And because your needs may be many and varied, the Visitron Filler C system is highly adaptable. With the ability to volumetrically fill non-sensitive beverages into cans from 150 mL (slim) to 1 L (king size), the Visitron Filler C can process 5,000–50,000 cans per hour, and can also be linked and synchro-nized with a GEA VIPOLL gravity rinser, or rotary rinser, and with a GEA VIPOLL can seamer, or compatible equipment from approved third-party suppliers. For some applications you can switch between different can and lid sizes in just 20 minutes, without tools.

RINSING

Essential, effective, and resource efficient

Before filling, each container must be rinsed to remove dust, dirt and other potential contaminants. The Visitron Filler C filler/seamer units can be equipped with either a classic gravity rinser, or a rotary version. The rotary rinser is compatible with a wide range of rinsing media, and feature nozzles that are designed to ensure that the entire internal surface of every container is reached. This increases efficiency and saves resources, without wasting media.

A rotary two-channel rinser is ideal for applications that use two different rinsing media, such as disinfectants, sterile water or sterile air. The universal grippers can handle a wide range of can diameters, and with this configuration there's no need to add additional lines or change the chutes for different can sizes.

The Visitron Filler C can also be configured with a recirculation system that collects the rinse water and reuses it for the can shower in the machine's outfeed and, optionally, to cool the vacuum pump. This reduces water consumption, which improves sustainability, and lowers operating costs.

FILLING

Maximum throughput and user-friendly operation

The Visitron Filler C is available as standalone unit that can also be integrated into an existing filling line. The versatile system is ideal for filling a wide range of still or carbonated non-alcoholic and alcoholic beverages. Both servo motor drives or gear transmission systems are available, so you can make the best choice for your product lines and budgets.

Switching format parts
Easy to operate, the Visitron Filler C features a user-friendly PLC, so you can program several recipes and product filling parameters directly into the system, which makes changing formats fast and intuitive. Simply select a recipe on the touchscreen and the machine will automatically adjust the rinser/filler/capper height.

Only minor set-up changes are required when changing from one can format to another, which saves time, reduces the likelihood of operator error and could improve operational capacity.

Changes to format parts can be made without tools, and once the lid supply unit has been emptied (for example, when swapping to another lid size), the system can be ready to start filling into the new containers.

Making product quality a priority
The Visitron Filler C carries out double air pre-evacuation of all cans, to ensure minimal oxygen pick-up and maintain high levels of product quality. Instead of the conventional system of flushing the can with carbon dioxide (CO_2), the can is pressed against the filling valve and any remaining air is evacuated by a special system that also ensures the can is not crushed by the vacuum. This reduces CO_2 consumption as well as minimizing O_2 content, to support beverage quality.

CLOSING

Flexible lidding system minimizes product loss and saves time

By combining seaming applications, the Visitron Filler C saves both time and reduces the need for manual intervention during changeovers. Only the format parts need to be exchanged as everything else is programmed into the machine and automatically selected.

Our technology features a flexible lid feeding system, for buffer times of approximately 20 minutes. Simply select the appropriate recipe on the touchscreen, and the machine automatically selects the required height. Programmed to accommodate a variety of containers, the Filler C will position itself to close the selected container type, with only brief operator intervention required to prepare and ready the lid supply system. The simple lid supply system can also be upgraded to disinfect the lids.

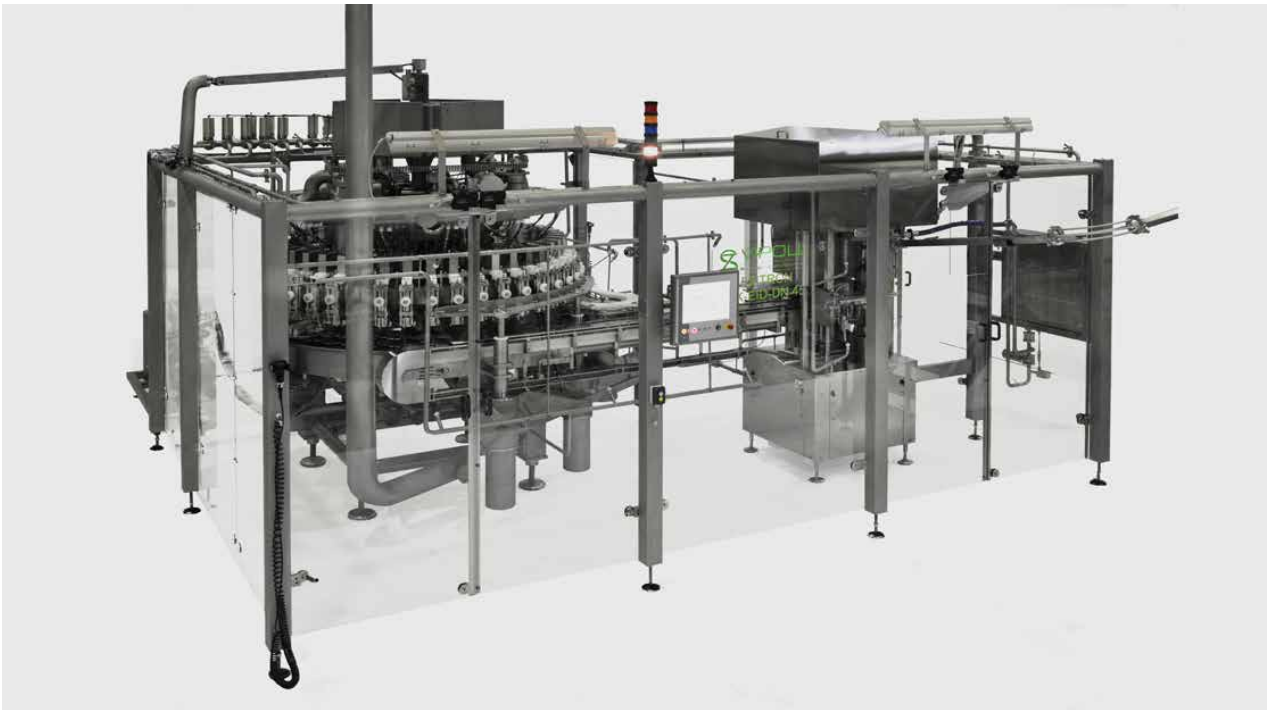
Reduced changeover times
We've designed the Visitron Filler C to make your processes more efficient. So, while you may need to change the chucks and rolls, infeed supply and pick-and-place star when switching from one lid size to another using conventional seamers, you'll find the process a whole lot easier with the Visitron Filler C.

Our basic filler/seamer model is designed to handle one type of lid, but we can offer mechanical changeover of rolls and chucks, to accommodate different lid types. The advanced model offers even greater versatility and can deliver a wide range of lid types from the lid supply system to the seamer.

Less product loss
The Visitron Filler C also features a unique seaming system that can handle cans with different lids on a single, combined turret. During the seaming process the cans start to rotate as soon as the lid has been applied, which minimizes product loss.

Our clever engineering means you can expect far quicker changeover times, without the need to make so many ongoing adjustments:

- The same pick-and-place star can be used for 200 and 202 lids (slim and standard cans).
- A variety of seaming applications can be combined on one turret.
- Throughputs with two different applications, such as slim and standard, can be up to 12,000 per hour.
- Single seaming at throughputs >12,000 cans per hour: chucks and rolls can be exchanged manually.



GEA Visitron Filler G

Glass bottle fi lling solution for non-sensitive beverages

Rinsing

All containers need to undergo rinsing before filling to remove dust, dirt, and other potential contaminants. The Visitron Filler G machines are compatible with a wide range of rinsing media, including ionized air, sterile water, disinfectant, or alcohol. We can also configure an optional water or disinfectant recirculation system that saves on water or disinfectant usage, and so reduces costs and waste.

The two-channel rinser is perfect for applications where two different rinsing media are used, and the universal grippers will safely handle different shapes and sizes of bottle. The rinsing nozzles will ensure that rinsing media reaches every internal part of the container.

An optional “no bottle no spray” control capability for the rinsing settings will automatically stop the rinser from spraying if no bottle is present. As well as saving water this keeps neighboring bottles dry, which means that there is less likelihood of problems downstream, for example, when applying self-adhesive labels.

For hot filling applications we also offer single- or double-stage bottle preheating on the rinser. Preheating can significantly reduce the likelihood of bottle bursts due to temperature changes when otherwise filling a cold bottle with hot product. At each stage the bottle is preheated inside, and outside if required, using hot / warm rinsing media, to ensure that even the most vulnerable bottom parts of the bottles are warmed up prior to filling.

Filling

We are confi dent that the Visitron Filler G family of machines represents an ideal solution for fi lling a wide range of non-alcoholic and alcoholic beverages, both still and sparkling. You can choose between several diff erent fi lling systems, from a simple cost-eff ective setup with exchangeable fi lling tubes, to
a more sophisticated system that off ers greater fl exibility and faster change-over times. Double air evacuation is standard, to help ensure minimal oxygen pickup and so help to maintain product quality. Whichever confi guration you chose, and whether you opt for manual, or automatically adjustable fi lling tubes, changing between formats is fast and easy, thanks to quick release mechanisms that don't require tools. Optional magnetic grippers (universal format parts instead of classic format parts) for bottles with up to 40 mm diameter variation, increase
fl exibility even further.

We understand that no two customers will have the same needs or budgets, so we've developed systems that can be tailored to match just about every requirement. We off er machines that are driven using either servo motors, or gear transmission systems. There's also the option of a highly accurate level correction phase, for when you need to precisely control product levels
to prevent overpressure – for example, when carrying out hot fi ll, or when using natural corks for wine. And when even more fl exibility is important, we can build in a volumetric fi lling system with fl ow measurement. Hot fi lling is an optional upgrade for all available fi lling systems.

We have also designed a dedicated fi lling system for spirits that features automatically adjustable fi lling tubes, and a special valve design that makes it easy to fi ll even viscous liqueurs. Our technology avoids the need to use a vacuum during the fi lling process, which reduces foaming and means that there should be no loss of aroma or alcohol in the fi nal product.

The Visitron Filler G has been designed to help make life easier for operators, and especially when changing formats. With a simple user interface, diff erent recipes and product fi lling parameters can be preprogramed into the system's PLC. Simply select a recipe on the touchscreen, and the machine will automatically adjust the rinser/fi ller/capper height. Changes to the infeed screw, stars, and outfeed screw can be made without tools, and once the cap unit has been emptied the system is ready to start fi lling the new products into the new containers.

Closing

Different bottle types use different closures, so we've made sure that the Visitron Filler G can handle a diverse range of caps, including alu-screw caps, crown corks and PCO caps. The open design of the cappers means that the equipment can be easily and thoroughly washed.

We can configure a capping turret that is ideal for any throughput within our capacity range. If you need greater complexity and a space saving solution, we can configure up to three different applications on a single turret, without mechanical changeover.

- Combining three different applications on a single turret will enable a throughput of up to 8,000 bph
- Combining two different capping applications on a single turret makes it possible to achieve a throughput of up to 12,000 bph
- Single applications with throughputs above 12,000 bph are possible on a dedicated capping turret

Quick-change capping heads are available to make things efficient and simple when you do need to make that switch, and we can also integrate capping applications from different manufacturers. And if you think that you may need another capping application in the future, we can build a bigger housing and just leave an empty space so that an additional capping turret can be added in at a future date.

Some of the advantages of combining different capping applications on a single turret include:

- Cost savings because you don't have to purchase a bigger machine with additional capping turrets
- Flexibility to switch easily between closure types
- Smaller footprint
- Faster format change

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