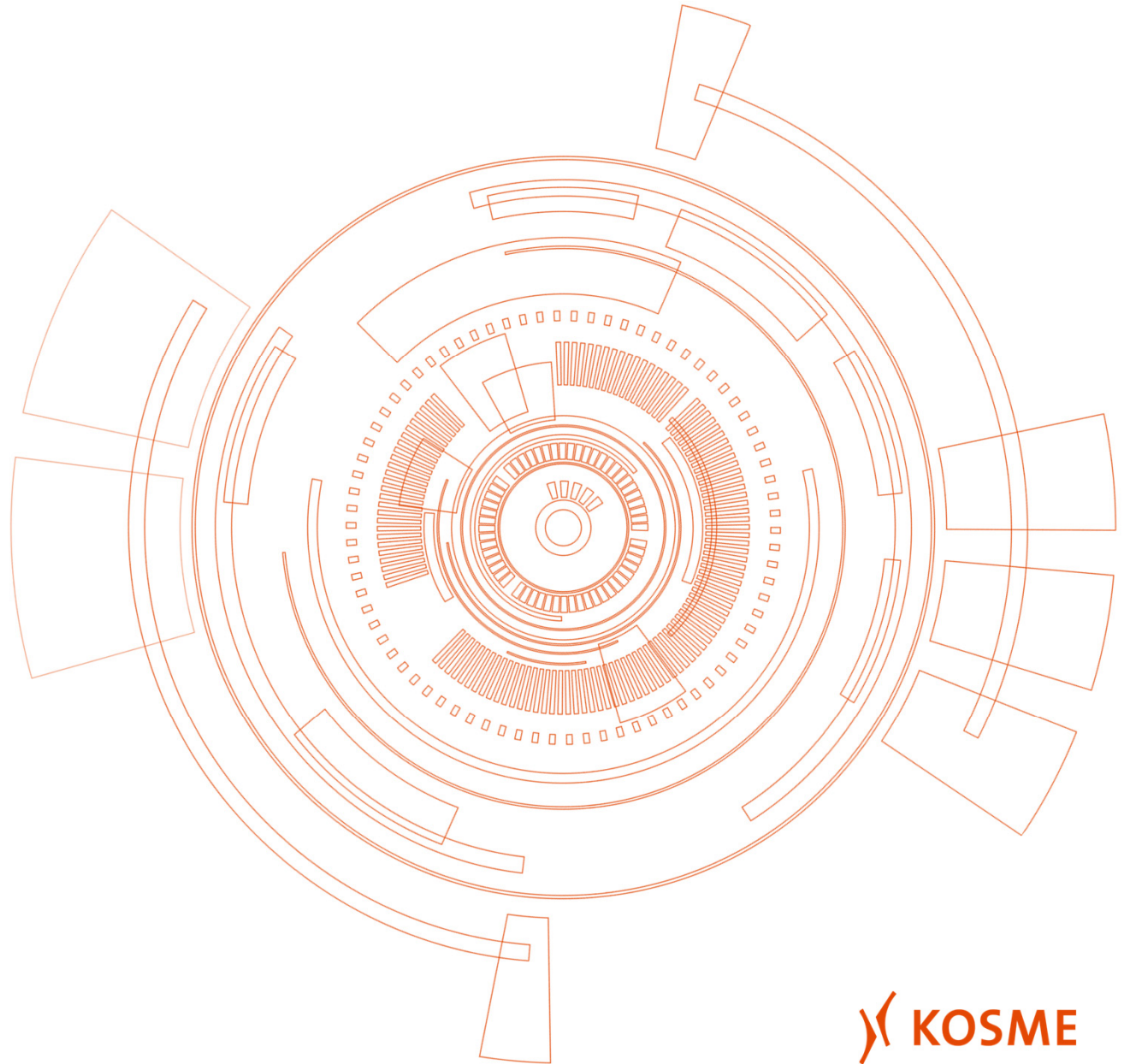


SynchroBloc

Blow-moulder and filling block





SynchroBloc: the block solution with stretch blowing machine and filler

The SynchroBloc is a new single-block solution designed to combine directly the KOSME technologies of blow moulding and bottle filling without requiring air conveyors.

- The single-block solution for stretch blow moulding and filling offers substantial advantages for customers:
 - Layout simplification thanks to the elimination of the conveyor between the blow moulder and the filler
 - Plant and operation costs reduction
 - Water and energy savings
 - Shorter changeover times and quicker maintenance
- Only one operator required





Line example

Stretch blowing machine

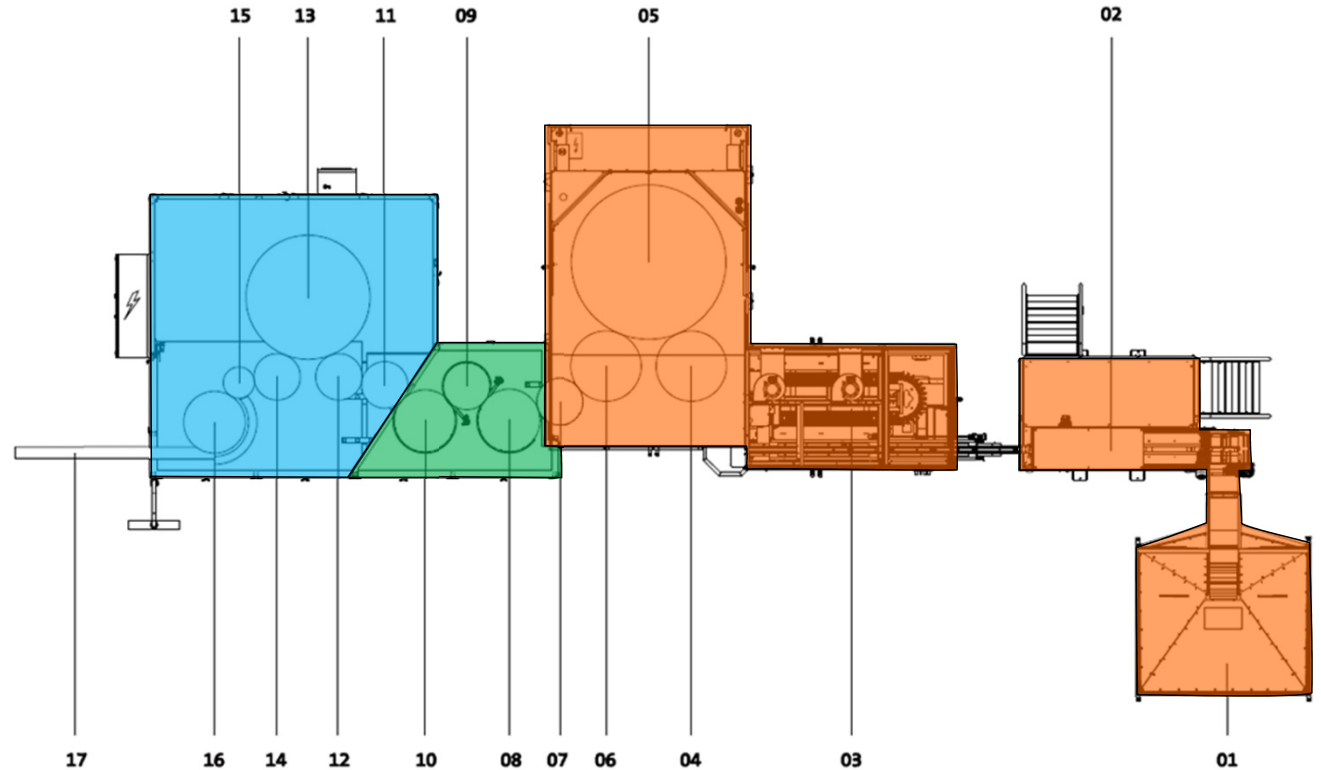
- 1 Preform conveyor
- 2 Preform sorter
- 3 Heating module
- 4 KSB transfer gripper
- 5 Stretch blowing machine
- 6 KSB transfer gripper
- 7 Transfer gripper

Transfer table

- 8 Transfer gripper
- 9 Transfer gripper
- 10 Transfer gripper

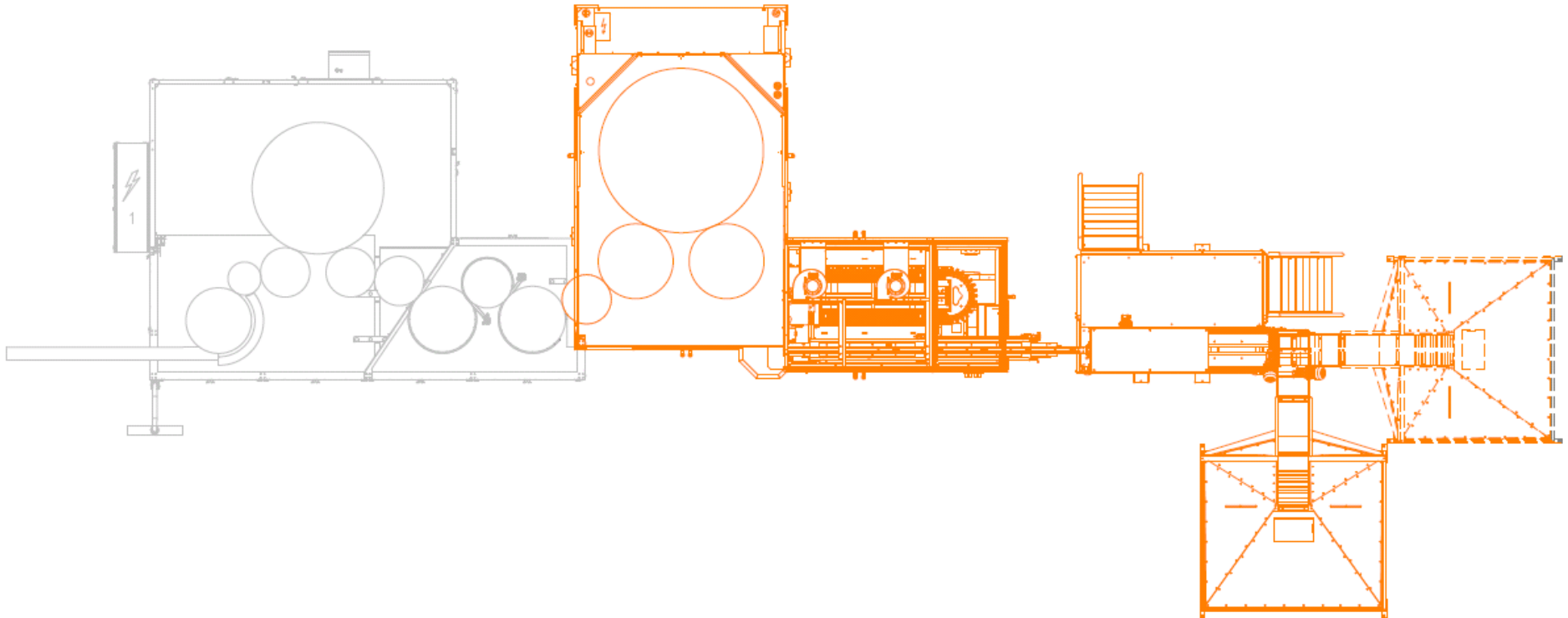
Filler

- 11 Transfer gripper
- 12 Infeed Star
- 13 Filler carousel
- 14 Transferring starwheel
- 15 Capper carousel
- 16 Outfeed Star
- 17 Container conveyor belt





Machine components



Stretch blowing machine



KOSME stretch blowing machine KSB R

- Greater production efficiency thanks to a reduction of downtimes, which is made possible by the new patented sealing system coupled with a quick vent unit
- Simplified preform system to ensure maximum reliability
- Production systems with reduced energy consumption during heating and stretch blow moulding
- High work flexibility and repeat accuracy
- Maximum accessibility, user-friendly operation and maintenance procedures
- Quick format changeover





Format changeover: easier and quicker

Quick mould changeover

For a quick changeover between different sizes

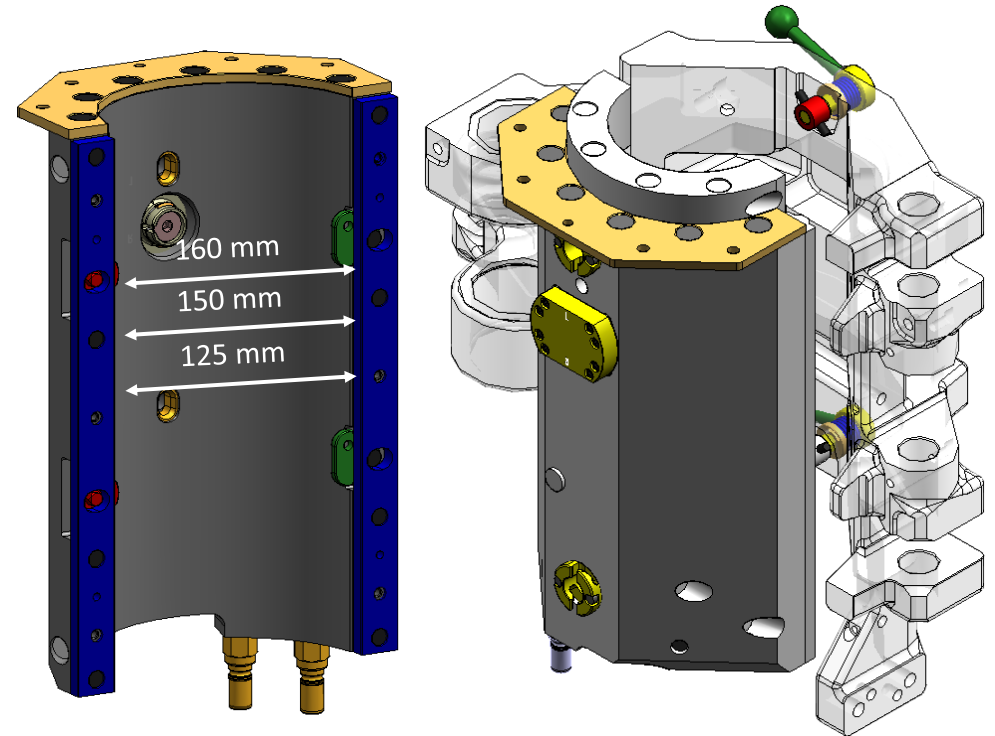
Quick mould changeover*

Mould and bottom changeover in less than one minute

Quick format part changeover*

Quick changeover of the preform grippers, shield plates and transfer clamps during neck change

- **Thanks to a combination of different quick-change systems, the unit can be set for a new format in an extremely short time.**



* Optional



Blow process: optimal quality results with minimum air consumption

Valve block

Minimised clearance volume, reduced to just ca. 125 millimetres

Air Wizard Plus

Air Wizard Plus with intermediate pressure levels for the internal recovery of up to 35% of compressed air

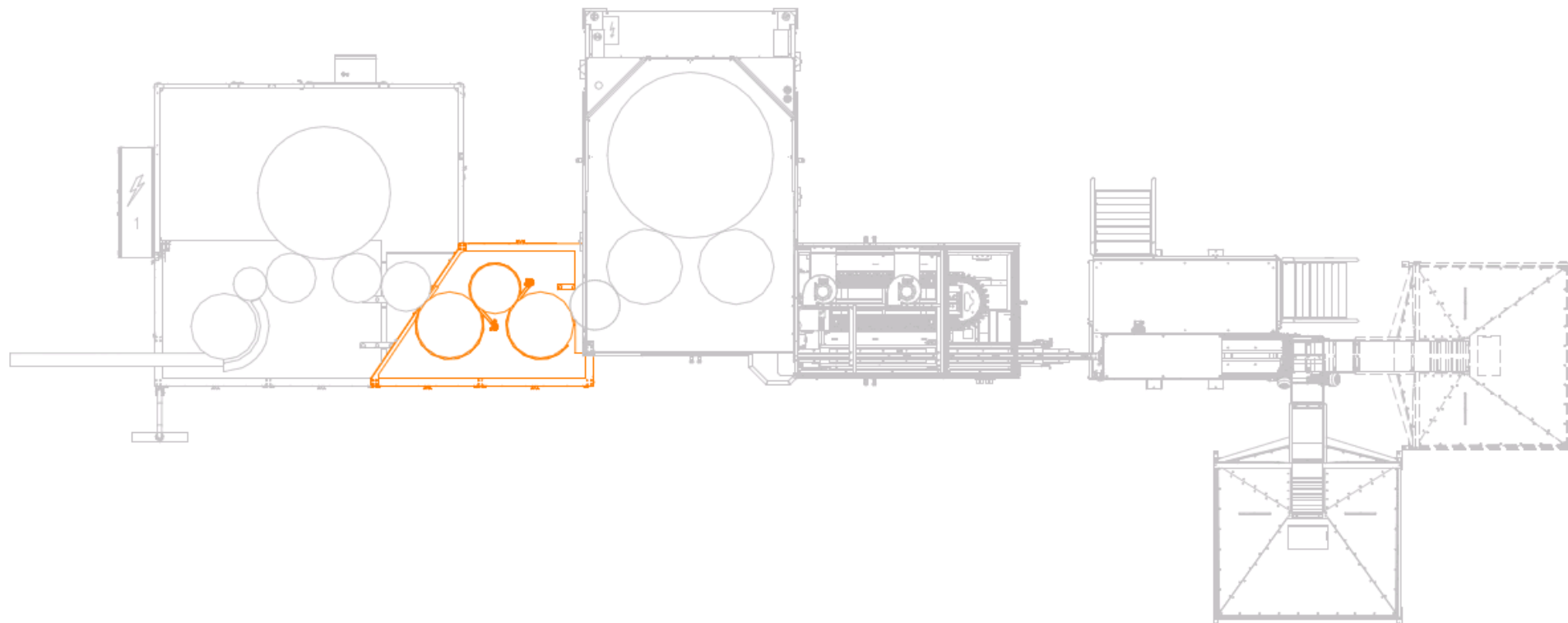
Stretching system

- Electromagnetic stretching system without compressed air consumption during the blow process
 - Flexible configuration of the stretching speed
 - Automatic calibration of the stretching path
- **Air consumption reduced by up to one third (if compared with the S3 Series without Air Wizard)**





Machine components



Transfer table



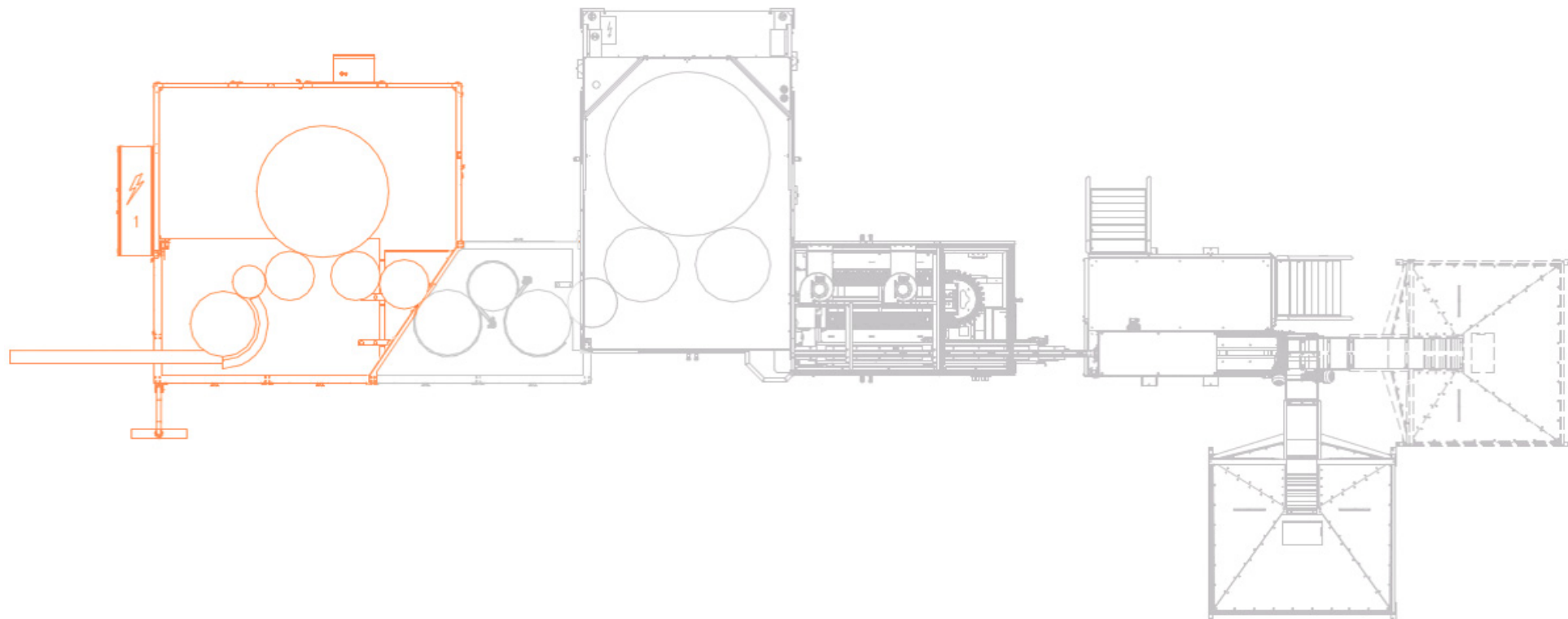
Transfer table

- The transfer table dramatically reduces the time needed to convey and cool the bottles. It offers substantial advantages thanks to the low total space requirement, which can be significantly reduced thanks to the elimination of the air conveyor.
- High precision thanks to the KRONES grippers for transferring the bottles from the blow area to the filling area





Machine components



Filler



Volumetric filling system

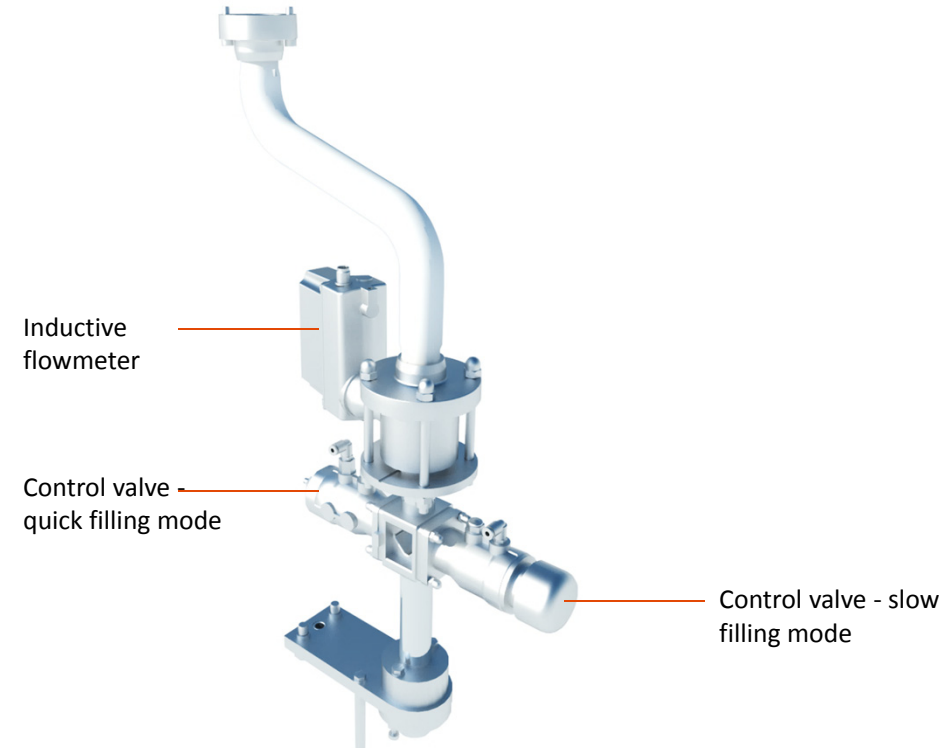
- Functions of the electro-pneumatic control of the filling valve
- Filling through gravity with full-jet process
- Measurement of the charge through measuring devices with inductive flowmeter
- Contactless filling
- Function with two filling speeds
- Design without lifting cylinder
- The products must have a conductivity $> 40 \text{ microS/cm}$
- The materials that come into contact with the product are made of AISI 316, EPDM, PTFE and PEEK





Volumetric valve VFJ (40400K) for still water

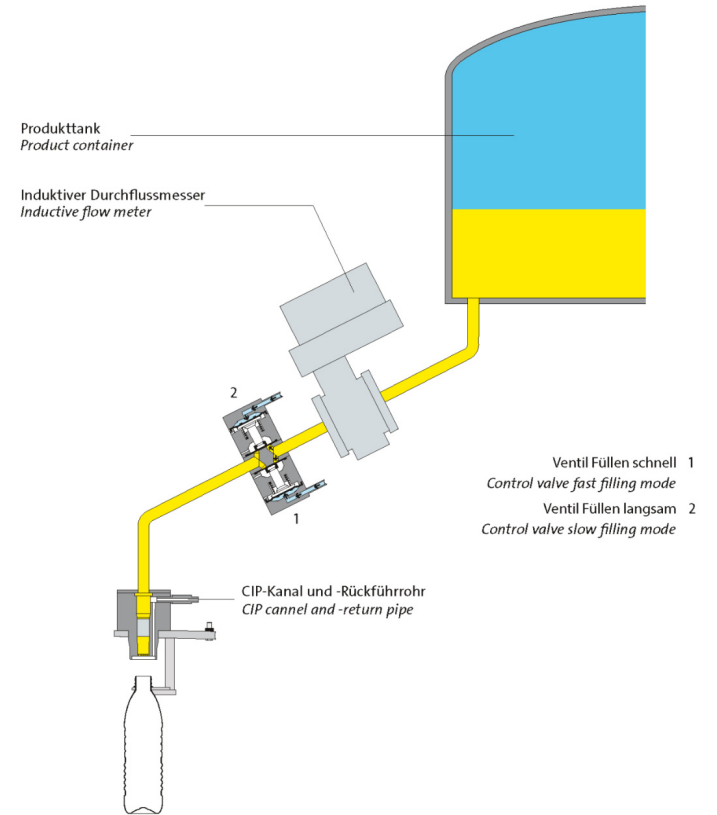
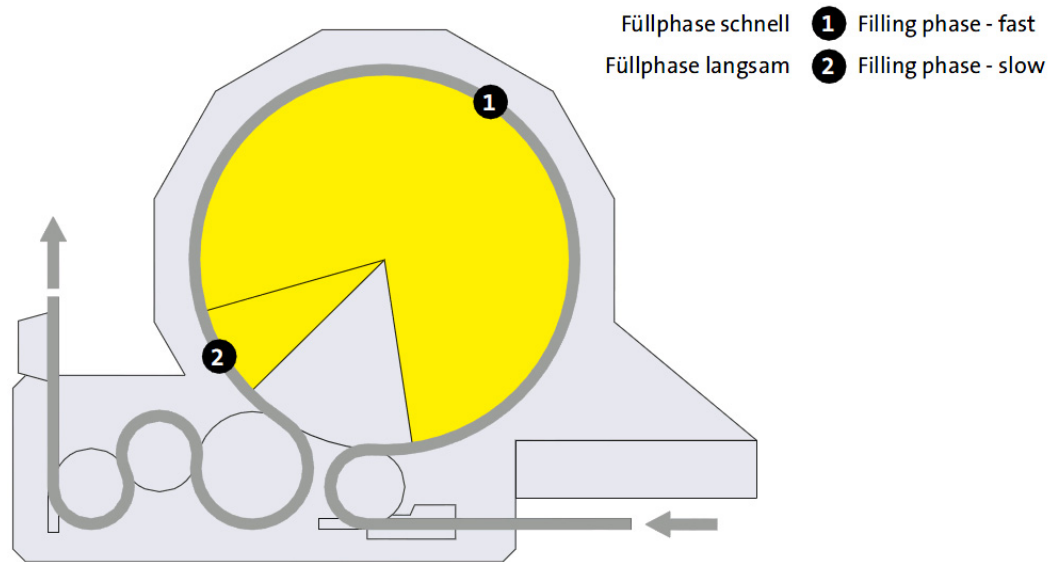
- High microbiological safety thanks to contactless filling
- The filling flowmeter determines precisely the relevant quantity
- Two possible filling speeds to ensure perfect flow characteristics
- Hygienic design
- Close-circuit CIP with manual feed of dummy bottles (automatic feed available as an option)
- Functions of the filling valves with electro-pneumatic control
- Possibility of filling still products such as water, flavoured water, juice, etc. (the products must not contain pulp nor fibres).
- Optional: In case of water with a conductivity <40 microS/cm, it is possible to use a mass flowmeter.





Volumetric filling system VFJ

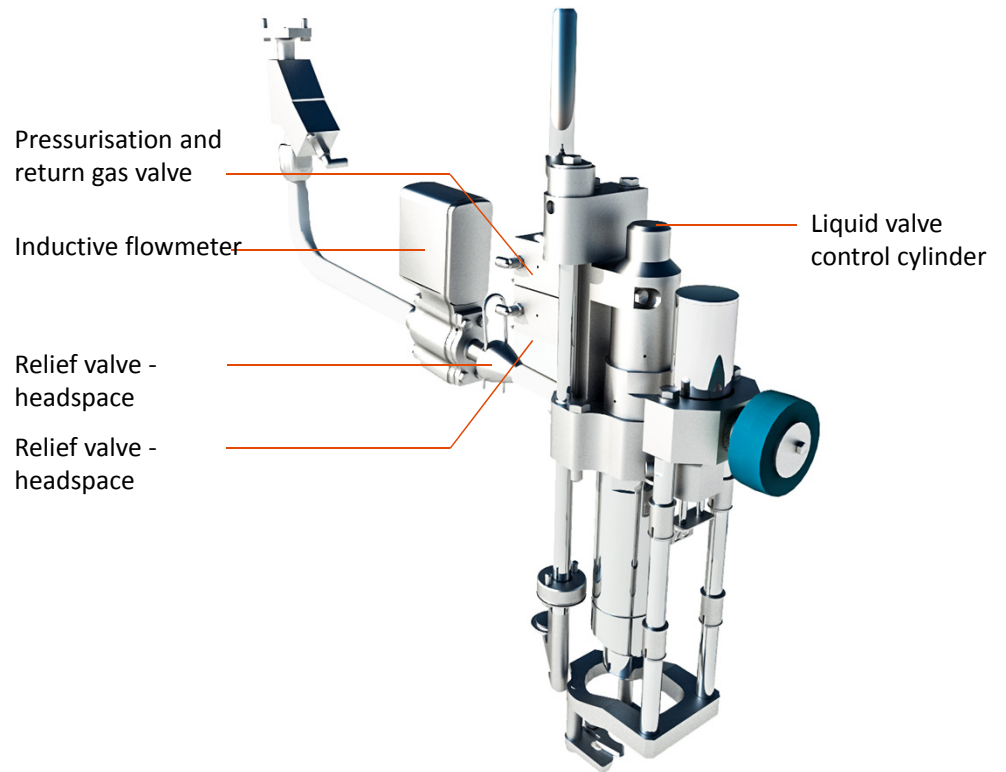
– Filling phases:





Volumetric valve VFS (42356K) for carbonated and still water

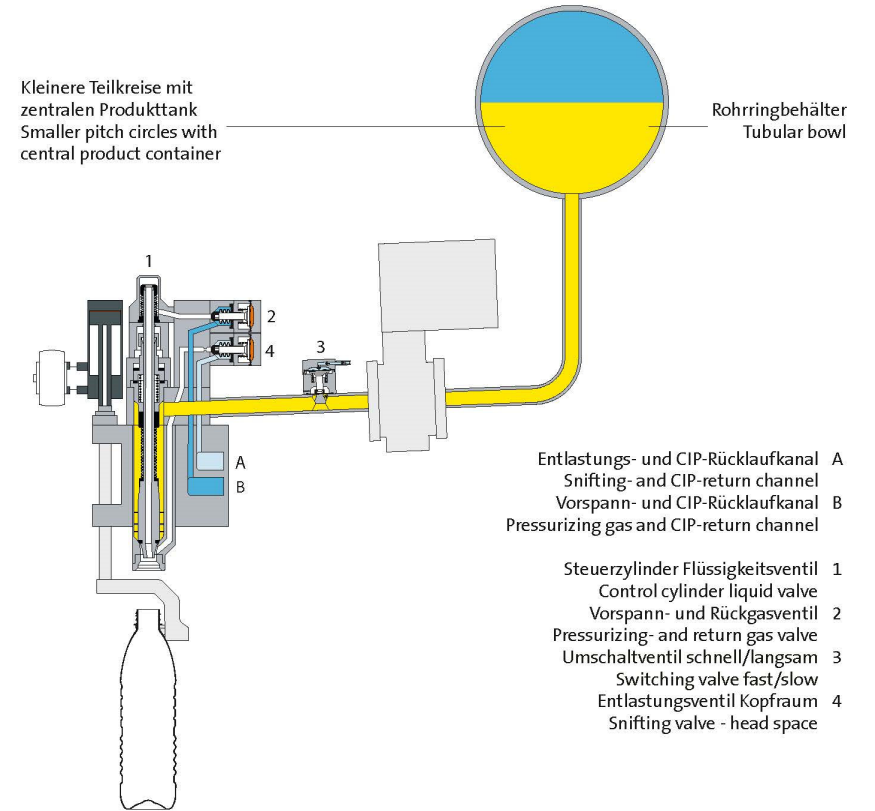
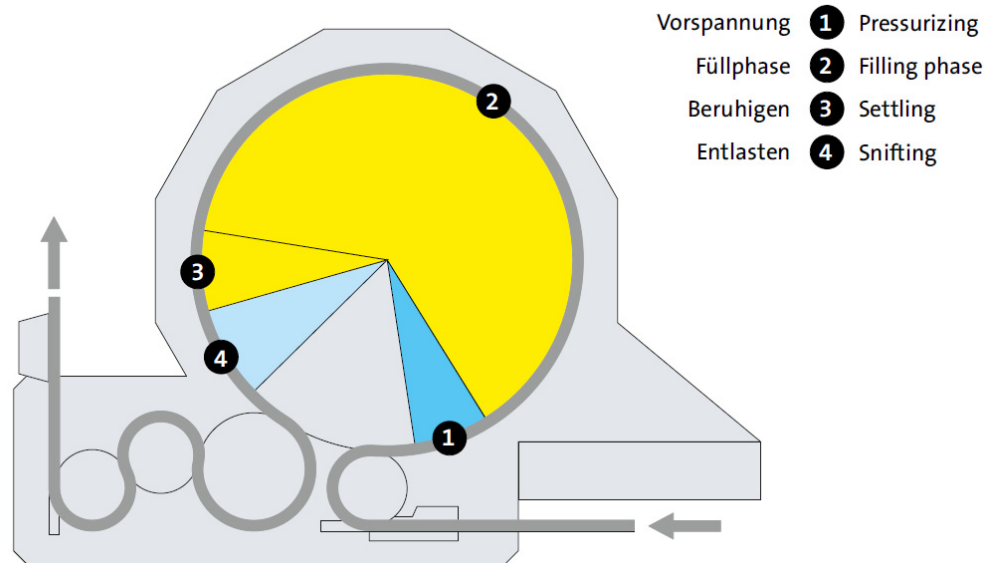
- Accurate determination of the filling quantity thanks to the inductive flowmeter
- Two possible filling speeds to ensure perfect flow characteristics
- Low-foam and low-turbulence filling process thanks to the valve whirl inserts
- Hygiene and filling stability thanks to separate gas channels for pressurisation and depressurisation
- Option for pressureless filling of non-carbonated beverages
- Hygienic design
- Electro-pneumatically controlled filling valve functions





Volumetric filling system VFJ

– Filling phases:





Cappers

- All our fillers can be set for any possible application with capping towers.
- The new modular design allows you to easily combine different capping towers.
- Towers available in versions entirely made of AISI 304 stainless steel (cleanable version).





Advantages

- Compact system
- High filling angle thanks to the technical measurement of the flow value
- Easy charge programming
- High hygienic standards in the filling area
- Easy installation of dummy bottles for CIP processes
- Materials for reliable hygiene
- Maximum efficiency
- Extremely flexible system
- Optimized accuracy of the filling process





Sharing one passion.

