

KRONES VarioClean
The CIP system



Optimal cleaning for processing section and bottling systems

KRONES VarioClean

The VarioClean CIP system offers coherent cleaning processes which ensure trouble-free and microbiologically safe operation of a production line. Whether manually or fully automatic, the cleaning concept is designed to perfectly suit the line components to be cleaned. The individual sizes and their speeds cover all tasks required in a bottle cellar, syrup room, or dairy plant. The required number of tanks can be varied depending on the number of media. The tank size and the number of CIP admission pipes are determined by the size of the line and the individual machines to be cleaned.



*VarioClean with
three tanks*

The configuration of the CIP system depends on the following criteria:

- Product
- Centralised or decentralised arrangement of the CIP systems
- Manufacturing and bottling processes
- Number of machines to be cleaned
- Line layout
- Degree of automation of the upstream and downstream machines

Possible configurations

- Flow rate:
From 10 to 90 m³/h
- Nine different tank sizes:
from 1.5 to 24 m³
- One to six admission pipes for cleaning media

Application

Interior cleaning of filler, rinser, syrup room, mixer, flash pasteuriser, pipes and tanks

Output range

Adjusted to the product performance of KRONES processing and bottling technology, these systems are equipped with different admission speeds:

- VarioClean 15
- VarioClean 30
- VarioClean 45
- VarioClean 60
- VarioClean 90



VarioClean in a wine bottling line



VarioClean in a beer bottling line

Design features

- Stainless steel pipes, material AISI 316L
- Stainless-steel tanks, material AISI 304
- Pumps, heat exchanger and control cabinet mounted on a tubular frame
- Hygienic version of fittings, pumps and sensors
- Temperature and conductivity measuring at the return pipe
- Analog touch-screen operating concept at the CIP line and the other machines of the bottling line
- Safe access to the user interface using individual transponders
- Interface to the production data acquisition system

Additional equipment

- Stainless-steel tanks, material AISI 316L
- Flow meters
- PLC for fully-automatic operation
- Connection to line data storage system (LDS)
- Double-seat valve manifolds for fully-automatic operation or manual panel with pivoting bends

Possible cleaning media

- Recovery water
- Caustic
- Acid
- Hot water
- Disinfection solution
- Fresh water

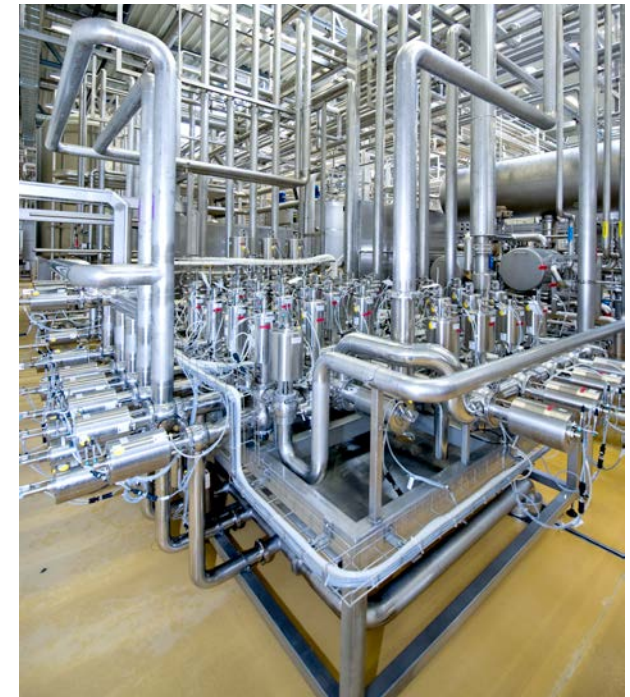
Dosing of cleaning agent concentrates

- From concentrate container via suction lance
- Directly from a central chemicals storage
- From central chemicals storage via day tank
- Standard: dosing into the tank
- Option: inline dosing into the piping

Switching panels



Operation via touch-screen – well-arranged and comfortable



Double-seat valve manifold for central distribution of the cleaning media

Manual CIP system

- Ideal for cleaning manual fillers and mixers
- Each step is started by the operator and is monitored
- Easy and safe operation thanks to well-arranged operating elements
- Display of temperature and conductivity

Fully-automatic CIP systems

- Cleaning of fillers, mixers and flash pasteurisers, that are also equipped with a controller
- Highest operating comfort
- Excellent cleaning result via controlling the cleaning processes according to conductivity (concentration), temperature and time
- Minimised loss of media and waste water via automatic process
- Ongoing comparison of target and actual values, with automatic adjustment



Manual CIP system VarioClean with one pipe



Fully-automatic CIP system VarioClean with two pipes

Your benefits

- **Potential for saving media, operation effort and time**

Consumption of media and waste water is reduced to a minimum by means of automatic control according to the cleaning concentration (conductivity), temperature and time, including signal transmission to the machines to be cleaned. Also the tasks of the operating personnel and the duration of cleaning are significantly reduced.

- **Quality of components**

KRONES places importance on the quality of tanks, pipes, pumps, sensors and fittings. The arrangement of the hygienically designed components on round tubing guarantees a high hygienic level.

- **Quick start-up**

The comprehensive Factory Acceptance Test (FAT) in the plant enables a quick start-up at the site.

- **Easy maintenance**

The CIP system is well accessible so that all maintenance and service jobs can be performed easily.



We do more.



IT solutions

The SitePilot modular system includes IT solutions which we developed especially for the beverage and food industry. Whether you want to increase the utilisation of your line capacity, monitor product quality, or make spare parts handling more efficient: With SitePilot, you will always get the best result.

enviro

High-performance technology with low consumption of resources offering safety for humans and the environment – this is all guaranteed by the enviro sign. TÜV SÜD (technical control board) as an impartial assessor has confirmed, that the enviro method leads to energy- and media-efficient and environment-compatible machines and lines.

Lifecycle Service

Your company is unique – why be satisfied with conventional solutions? The KRONES Lifecycle Service will support you and your production also after the purchase of new machines. These are services which are individually tailor-made to suit your products and location.

KRONES Academy

Make your colleagues high performers: The training of KRONES Academy provides first-hand trade information proven in field. You will find the suitable know-how package for almost any field and hierarchy level ranging from technical courses to management training.

KRONES Service Line

You need support with a technical problem? Or you have an urgent question about your line? No problem: We are just a call away from you. Dial +49 9401 708090 to get quick and straightforward assistance – in several languages around the clock!

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