KRONES VarioClean
The CIP system

Optimal cleaning for processing section and bottling systems

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

Figures, data, facts

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 m^3/h
- Nine different tank sizes:
  from 1.5 to 24 m^3
- 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 performances 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

Figures, data, facts

Design features

- Stainless steel pipes, material AISI 316L
- Stainless-steel tanks, material AISI 304
- Pumps, heat exchanger, and control cabinet mounted on a round tubing
- Hygienic version of fittings, pumps, and sensors
- Temperature and conductivity measuring at the return pipe
- Analogue 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

Figures, data, facts

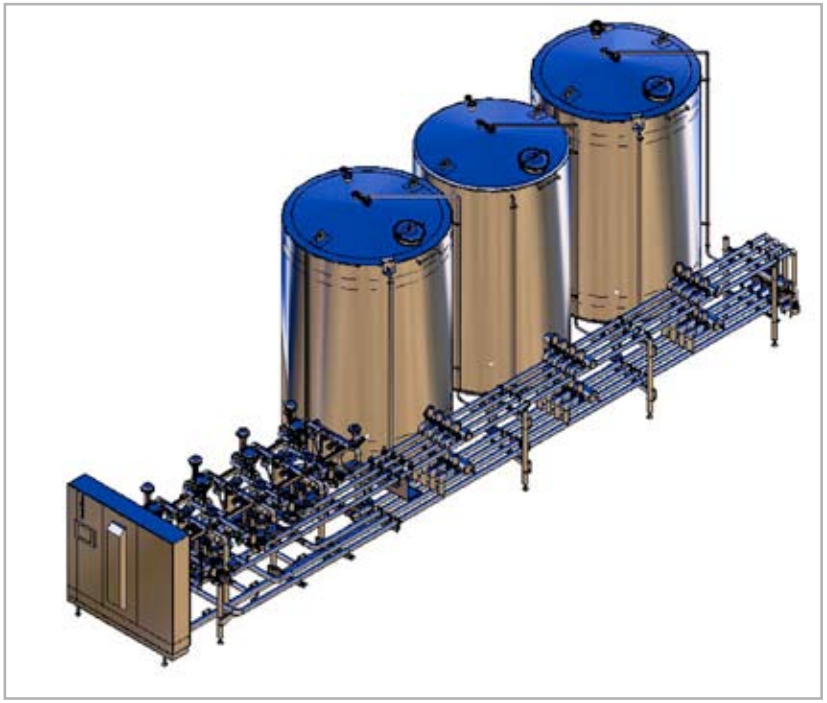
Manual CIP system

- 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 on pipe



Fully-automatic CIP system VarioClean with four pipes

Your benefits

- **Potential for saving media, operation, and time expenditure**
  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.

KRONES VarioClean

Contact

☐ Visit by a customer consultant
☐ Further information material

☐ Mr ☐ Ms

First name

Surname

Company

Street, house number

Post Code | Town

Country

Telephone

Email

Contact person at KRONES (if known)

▶ Send by email

LCS Lifecycle Service

Each company, each facility, is unique. By making the appropriate selection from the capabilities offered by LCS Services and LCS Parts + Software, you will receive a package tailored precisely to your actual needs. And in addition, you benefit from our comprehensive expertise gained from operating production lines in the food and beverage industries, and in the cosmetic, chemical and pharmaceutical sectors as well.

▶ more ...

TCO Total Cost of Ownership

The client is the paramount focus of KRONES' product strategy. This is why many of our new ideas emerge from close liaison between our service and sales people and the client on site. The R&D departments at KRONES then develop the appropriate products, geared without exception to cutting our clients' operating and raw-material costs (total cost of ownership).

▶ more ...

enviro

KRONES stands for innovative machines and high-performance lines. enviro epitomises its commitment to saving costs, by reducing energy consumption and ensuring economical use of natural resources. Intelligent machinery design to a maximised level of technical excellence enables us to grant exceptionally long lifetimes and economical efficiency to optimised ergonomics and safety for the operators and the maintenance staff alike.

▶ more ...

KRONES AG
Böhmerwaldstraße 5
93073 Neutraubling
Germany

Telephone: +49 9401 70-0
Telefax: +49 9401 70-2488
E-mail: info@krones.com
Internet: www.krones.com

KRONES