

VarioClean

The CIP system



 **KRONES**
PROCESSING

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. Regardless of whether manual or automatic – the cleaning concept is perfectly tailored to suit the line components to be cleaned or to the number of bottling lines.

At a glance

- Application: Cleaning of fillers, flash pasteurisers, mixers, syrup rooms as well as piping systems and tanks
- Feasible manual or fully automatic cleaning control
- Absolutely flexible with regard to ...
 - size and number of tanks
 - parallel cleaning lines or
 - dosing of chemicals



Flexible composition of the line



The individual sizes with different performances cover all applications and the number of tanks varies depending on the media.

The configuration of your VarioClean system depends on the following criteria:

- Product
- Arrangement of the VarioClean (central or decentral)
- Manufacturing and filling process
- Number of machines to be cleaned
- Line layout
- Degree of automation of the upstream and downstream machines

Possible configurations

- Output: 10 to 90 m³/h
- Nine different tank sizes: from 1.5 to 24 m³
- One to six supply lines for cleaning media



Flexible composition of the line



Possible cleaning media

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

Option for the supply with cleaning concentrates

- Concentrate container (optional day tank) with concentrate suction lance and dosing pump
- Central chemical store
- Closed loop system

Dosing via

- tank dosing
- or inline dosing to the supply line



VarioClean with integrated inline dosing unit

Fully-automatic CIP system



- Cleaning of automatically controlled fillers, mixers, flash pasteurisers and syrup rooms
- Highest operating comfort
- Excellent cleaning result via controlling the cleaning processes according to conductance, temperature, and time
- Minimised loss of media and waste water via automatic processes
- Permanent comparison of set-point and actual values with automatic adjustment



VarioClean with two CIP routes

Design features



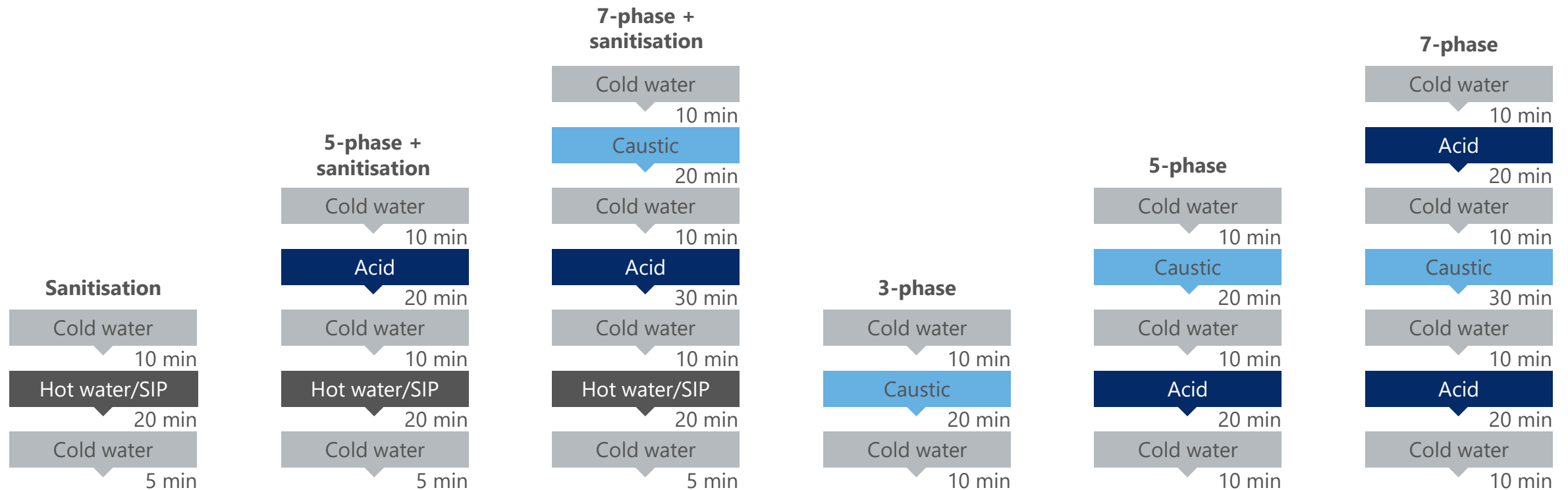
- Stainless steel pipes of AISI 316L material
- Stainless steel tanks of AISI 304 material, optional AISI 316L material
- Pumps, heat exchanger, and control cabinet mounted on a round tubing
- Hygienic design of the fittings, pumps, sensors, pipes and constructive carrier elements
- Temperature and conductivity measurement in the return channel
- Well-arranged operator concept via touch-screen



CIP program suited to your requirements



- Large-surface and individually adjustable CIP program via recipe management of the VarioClean
- Time and energy-optimised cleaning cycles and step sequences for maximum productivity and efficiency
- Control of the well-interacting steps within one line via master functions



Simple operation thanks to Connected HMI

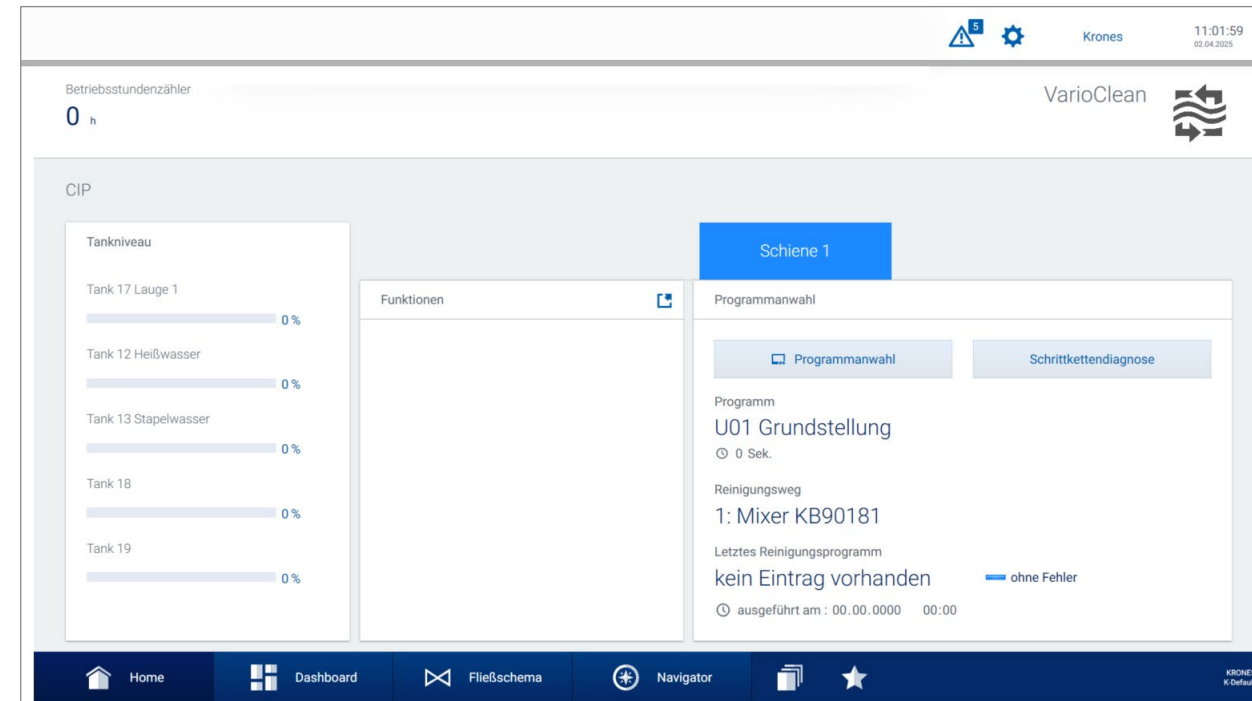


The platform ensures that operators can easily communicate with the system in split seconds.

- Individual dashboard: widgets for a quick overview and direct access to the daily tasks
- Finding instead of searching: efficient faceted navigation optimised for all user groups
- Fast learnability: uniform design and interaction principles throughout all views and for all machines

Benefits to you

- **Connected:** maximum degree of networking between the machines and connection to superordinate IT systems
- **Secure:** powerful against external threats and state-of-the-art IT security devices
- **User-friendly:** clear and innovative navigation structure for intuitive operation



Benefits to you



Quick start-up

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

Potential for saving media, operation, and time expenditure

Thanks to the high degree of automation and the intelligent signal exchange with the machines to be cleaned, the cleaning times, media consumption and waster water load a reduced to a minimum. The high operating comfort relieves operator workload and protects from operator faults. The production process becomes more safe and traceable.

Easy maintenance

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

High quality of components

Krones places importance on the quality of tanks, pipes, pumps, sensors, and fittings. The hygienic design of the components on a round tubing guarantees a high hygienic standard.

Requesting a new machine

You can easily send a request for a non-binding quotation in our Krones.shop.



Ingeniq: line concepts reimagined

VarioClean as part of Ingeniq for bottling still water in PET containers

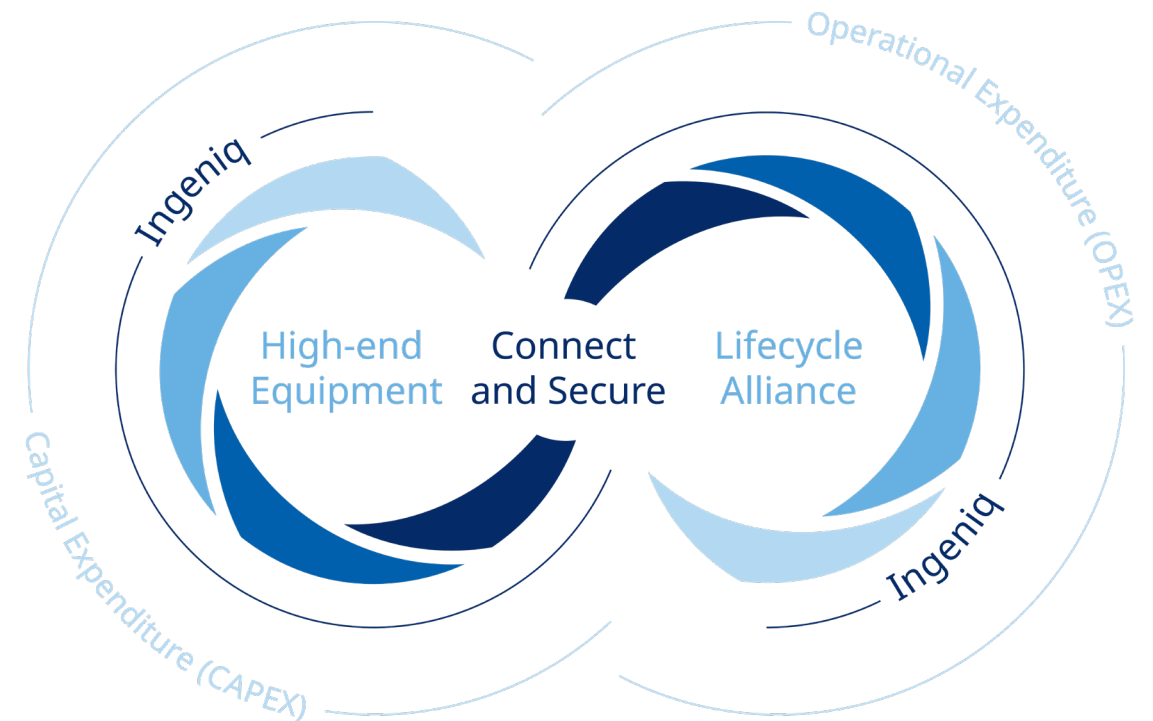


Ingeniq is more than just a line – it is a comprehensive overall concept consisting of three modules:

- High-end equipment, which means the line itself – technologically advanced, modular, future-proof
- Connect and Secure agreement – the basis for a Krones remote support and digital security
- Lifecycle Alliance – a joint responsibility for securing and optimising plant performance (output, Lifecycle costs) with the highest level of service Krones has to offer

This is what distinguishes VarioClean as part of Ingeniq

- Excellent cleaning result via controlling the cleaning processes according to conductivity, temperature, and time
- Minimised loss of media and waste water via automatic processes
- Permanent target/set-point value comparison and automatic correction
- Configurable time preselection for starting cleaning programs



Everything from a single source



Krones Academy – Know-how for maximum line performance

The Krones Academy's training courses will help you enhance your team's skills. Whether it's operation, servicing, maintenance or automation: Our face-to-face training courses, digital learning programmes and individual qualifications cover a wide range of topics.

KIC Krones cleaning agents make your machine shine

Only if the production environment is immaculate, can your product be brilliant. KIC Krones provides you with the optimum cleaning agents and disinfectants for each individual production step.

Krones Service – comprehensive support

It goes without saying that also after the purchase of new machines, Krones takes care of your lines: Our service team is always on hand to support you in ensuring the long-term operation of your lines.

High-quality components from Evoguard and Ampco Pumps

Are you looking for shut-off, separation or control valves? For hygienic or aseptic applications? Would you like to have pump technology that perfectly fits into your machines? Evoguard and Ampco Pumps cover the entire spectrum of process technology components you need for high-quality production.

**SOLUTIONS
BEYOND
TOMORROW**

