

WE LEARN FROM YOU EVERY DAY –
AND THINK OUTSIDE THE BOX.

Clean and efficient

Solutions for successful Cleaning in Place (CIP)

When it comes to dealing with liquids and gases, Bürkert has become a sought-after partner all over the world. Why? Probably because we have been learning for and from our customers for more than 70 years now. This enables us to always think that crucial step ahead and around the bend.

For your added value. Let us prove it to you – we look forward to your challenge.



We make ideas flow.

bürkert
FLUID CONTROL SYSTEMS

Bürkert Fluid Control Systems

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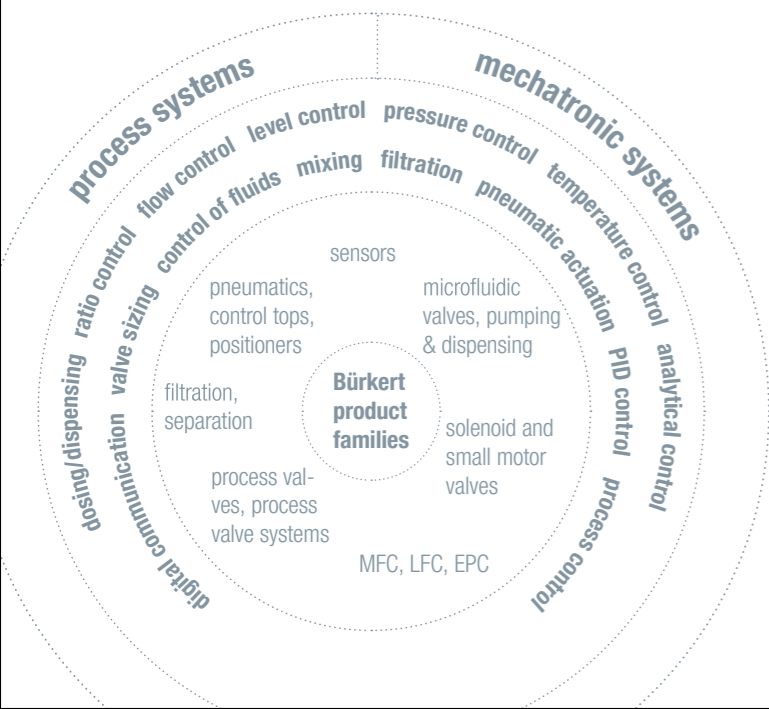
www.burkert.com

WE SPEAK YOUR LANGUAGE. FLUENTLY.

We love a good challenge. That is because we are simply fascinated by everything that flows. No matter if our customers require solutions for measurement, control or both – we always find unconventional ways of developing individual solutions.

Whether it is about flow, level, pressure, dosing, analysis, filtration, temperature, mixing or the automation of processes – liquids and gases have to be measured and controlled. These are the fundamental fluidic variations upon which industrial process technology is based, and Bürkert's specialty with its expertise and entire range of solutions and services.

What makes us special? At Bürkert, we start with your fluidic challenge and draw on the basic physical principles. This way we make use of the fluidic relationships and our experience with physics, duplicating them across the most diverse applications and industries and hence solving the same or similar challenges. You in turn benefit from a deep pool of expertise, which we accumulate from multiple industries and apply individually to your needs. For the ideal solution to your specific challenge.



EVERYTHING YOU NEED FOR CIP APPLICATIONS

A clean and efficient CIP solution requires not only the right combination of cleaning agents, but also reliable components. Bürkert offers numerous suitable process valve systems, sensors and valve islands for smooth-running processes in your applications. This includes everything from the precisely controlled supply of cleaning agents to automation and quality control to meet your CIP requirements.

Safe supply of CIP fluids

Bürkert process valves are responsible for the reliable distribution of different fluids. Depending on the hygienic requirements and the particular application, different valve types can be used, such as diaphragm valves, solenoid valves and dosing pumps. Entire valve block solutions can also be implemented.

Intelligent automation concepts

To ensure reliable operation of all automation processes in your system, we offer suitable valve islands and control heads that feature reliable switching and feedback.

Sensors for reliable quality control

For optimal operation of the CIP system, it is necessary to detect and eliminate any deviations that occur. Our analytical sensors and level, pressure and temperature sensors provide for increased safety in this respect. They protect the system against faults and maintain the ideal temperature of cleaning agents, for example.

TECHNOLOGY FOR CLEAN PROCESSES CUSTOM CIP SOLUTIONS FROM BÜRKERT

In applications with high standards of hygiene, such as pharmaceutical or food production, Cleaning in Place is especially important. All pipes and tubes must be flushed regularly with cleaning agents to remove bacteria, chemical and biological residue, and to prevent the spreading of micro-organisms, which can have a negative effect on product quality.

The process should ideally be carried out with no manual disassembly or active intervention from outside. In addition, the cleaning process must be efficient, to prevent heat losses and also to minimise water consumption. It is therefore necessary during planning of the system to include a suitable CIP installation that meets the hygiene requirements. One of the most important factors here is the coordinated interplay of the components. With extensive cross-segment experience and a broad product portfolio consisting of optimally compatible components, Bürkert can ensure a clean and efficient CIP solution in virtually any application.

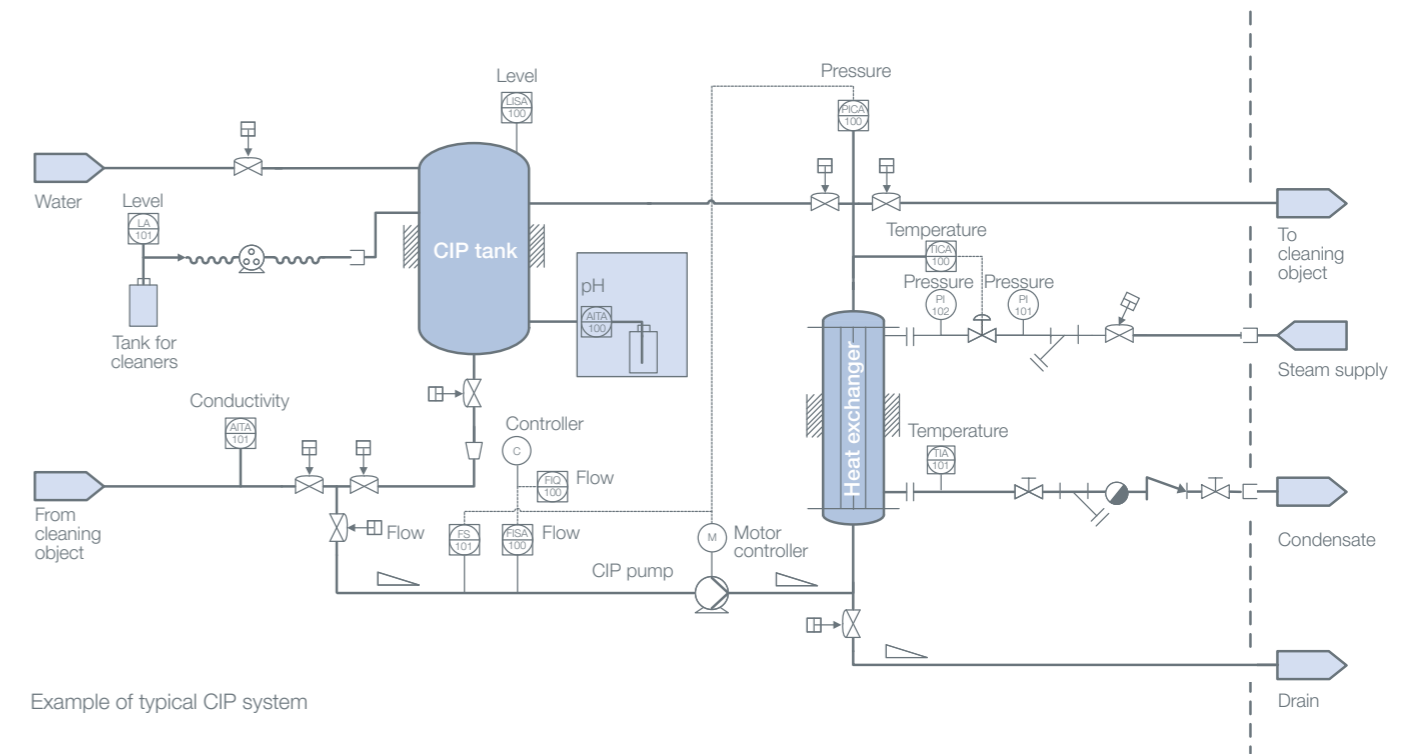
YOUR ADVANTAGES

- Reliable and efficient cleaning processes
- Minimal time budget
- Reduced maintenance and integration costs

CIP FOR A CLEAN SYSTEM IN THREE STEPS

Permanent or portable installations ensure thorough cleaning of tanks, pipes and tubes with no residue by completely flushing the system with water and an alkaline, acidic or disinfecting agent. High-precision sensors and valves are used for precise metering of the medium and an efficient cleaning process. First the mechanical flushing

process removes the surface residue by means of sufficient pressure and a controlled flow rate. Chemical reactions resulting from contact with the cleaner then break down and eliminate fine residue. A final sterilisation process removes any remaining bacteria and micro-organisms.



Example of typical CIP system

A CLEAN AND EFFICIENT SOLUTION FOR EVERY REQUIREMENT COMPONENTS FOR YOUR CIP PROCESS



Supply of CIP fluids

- Maximum efficiency due to versatile and reliable fluid supply and disposal
- Modular system for easy integration
- Less overall residue due to body design with no dead zones

Components

- Multi-functional block and welded solutions (Type 2034)
- Modular valve system (Type 8840)
- Pneumatically operated ELEMENT 2/2-way seat valves for decentral automation (Type 2100 or 2101)
- Pneumatically operated ELEMENT 2-way globe control valve (Type 2301)



Automation

- Intelligent and coordinated components
- Reliable switching for clean and efficient processes
- Local status indicators for optimal overview

Components

- Control head for decentral automation of process valves of the ELEMENT series (Type 8691)
- AirLINE electro-pneumatic valve island (Type 8652)



Quality control

- Designed for demanding hygienic applications
- Reduced maintenance due to robust components
- Functional and expandable software solutions

Components

- Conductivity sensor for hygienic applications (Type 8221)
- multiCELL multi-channel and multi-functional transmitter/controller (Type 8619)
- FLOWave flowmeter (Type 8098)



Filling system in the pharmaceutical industry

MODULAR CIP SOLUTION FOR CLEAN AND EFFICIENT HIGH-QUALITY PRODUCTION

A company with stringent hygiene requirements faced the problem of reliable cleaning supply of CIP fluids. In cosmetic production, product quality depends to a large extent on the reliable cleaning of the plant – in this case, a filling system – with no residue. However, the customer had no satisfactory solution for safe disposal of the cleaning medium. To solve this problem, the company consulted Bürkert as a versatile partner for CIP installations.

In the end, the customer decided to use the modular valve system, which could easily be integrated in the existing system. That made it possible to create a space-saving fluid disposal solution and ensure the sufficient and reliable supply of CIP fluids. Due to the versatility of the modular components, the Bürkert system facilitates expansion and scaling. All components are designed for maximum ease of cleaning and efficient processes, in order to achieve the necessary quality for reliable production.

AT A GLANCE

Application	Cosmetic filling systems, CIP
Requirement	Less engineering, more flexibility
Solution	Use of the modular valve system for supply and disposal of CIP fluids
Added value	Reduced engineering, lower costs and installation time due to coordinated systems