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

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 – or even sideways.

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

Pure media distributed exactly
Hygienic design and precision for end products of the highest quality

Bürkert Fluid Control Systems
Christian-Bürkert-Straße 13–17
74653 Ingelfingen
Germany
Phone: +49 7940 100
Fax: +49 7940 1001204
info@burkert.com
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.

NEAT AND CLEAN – DISTRIBUTING PURE MEDIA

Pure media, especially pure water and steam, are frequently used in biotechnological and pharmaceutical processes. For instance, the pure medium “water” is added directly to the end product when filling infusion solutions. A high standard of cleanliness is essential when manufacturing, transporting and processing pure media. Automated reliable processes are the key to delivering a consistently high quality. Bürkert products play a leading role in ensuring quality and process reliability when distributing and further processing pure media.

4 Perfect purity guaranteed
Preliminary process, transport and manufacture of end products – automation guarantees a consistently high quality for all three process steps.

5 Pure media delivered exactly
Delivering water and steam in the right quality and quantity at the right time – we meet all these requirements effectively and efficiently.

6 Hygienic solutions for your application
For process optimisation, quality control and process automation – the ideal components for your individual application.

7 From the field
Introducing the infusion solution hygienically into the bag is anything but trivial and perfectly managed thanks to joint development work.
Perfect purity guaranteed
Our solutions for clean media

Pure media must be manufactured to the highest possible quality in a preliminary process before being transported to the end product manufacturing process. Quite often the pure media themselves are part of an end product, for example in infusion solutions. With regard to all three requirements, automation guarantees reliable processes, which in turn are the basis for a consistently high quality of the product.

Hygiene is absolutely essential, especially for pharmaceutical products that are mixed with the pure medium “water”. The transportation of water or steam (clean utilities) to the manufacturing process must occur under constant general conditions: pressure, temperature, flow and flow rate. Faults result in immediate feedback, which enables rapid intervention and prevents the customer from losing valuable production time. Full documentation of the individual process steps is also guaranteed at all times with Bürkert solutions.

Your benefits
• Greater productivity through faster, automated processes
• Highest product quality thanks to the absence of contamination
• Reliable residue-free purity thanks to an easy-to-clean hygienic design

Pure media exactly delivered

Subsequent filling in the actual production process is prepared during the preliminary process. The key thing here is that the water is available in the right quantity and at the right temperature for the next process step. The main requirement is the absolute purity and high quality of the water, as it is often added to the end product (infusion solutions). To guarantee this level of quality, use of the most effective and suitable products (e.g. valves or sensors) is crucial. As the pure water flows from the storage tank to the various production locations within the plant, ultra-precise components assume various roles, such as constantly measuring and monitoring the temperature, pressure and flow: FLOWave, for example, provides feedback on whether the target flow has been achieved. Valve islands control the process valves, ensuring they open and close properly to allow water to flow precisely to where it is needed at that exact moment in time. They additionally control the volume of water. For instance, to kill off bacteria, the water is heated up and then cooled down inside a heat exchanger, with a temperature sensor ensuring it has the exact temperature required for the next process step.
HYGIENIC SOLUTIONS FOR YOUR APPLICATION
COMPONENTS FOR DISTRIBUTING PURE MEDIA

Ideal solutions for process optimisation:
• Rapidly deployed thanks to easy integration into the existing plant
• Modularity enables flexibility with regard to various demands
• Universal application also in harsh environments

Components:
• Process valve ELEMENT (Type 8801) consisting of a diaphragm valve (Type 2103) and a control head (Type 8691)
• Process control valve ELEMENT (Type 8802) consisting of a diaphragm valve (Type 2103) and a digital electropneumatic positioner (Type 8692/3)
• Pneumatically operated Robolux multiway multiport diaphragm valve (Type 2036)
• Multifunction block and welded solution (Type 2034)

Quality control with reliable test equipment:
• Designed for challenging, hygienic applications
• Time saving due to less maintenance needs
• Easy digitalisation thanks to simple software solutions

Components:
• FLOWave SAW flow meter (Type 8098)
• multicELL – multichannel/multifunction transmitter/controller (Type 8619)
• Conductivity meter (Type 8221)

Process automation with harmonised components:
• Smooth procedures thanks to digital, perfectly harmonised components
• Reliable switching for clean and error-free processes
• Status display provides all the data at a glance – also on-site

Components:
• Control head for distributed automation of process valves from the ELEMENT series (Type 8691)
• AirLINE Quick (Type 8652) for a central automation solution

Modern medicine is inconceivable without infusion solution therapy. But first of all, the infusion solutions have to be filled into ‘bags’. The required filing process is anything but trivial: accuracy and hygiene are the top priority and place huge demands on processes. The valve technology in the filing heads should not only switch quickly and precisely over long life spans but also be easy to clean and sterilise. Needless to say, full documentation of the materials and process steps required for manufacturing filing heads and their respective certification are available. As a result of joint development work, there are six compact valve blocks, each with four valve functions, available for the filing process. It is designed around a modified pneumatic 2/2-way valve with a bellows seal which can be easily incorporated into the system. The inner volumes and flow rates were optimised at the same time to enhance accuracy and enable cleaning. The convenient space allowed for the integration of a pressure sensor in the filing system, thus supporting the implementation of a process monitoring option. When handling oxygen-sensitive products, the nitrogen supply can be monitored and recorded during the filing process.

AT A GLANCE

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