

Ready for any challenge

Ball Valve Overview



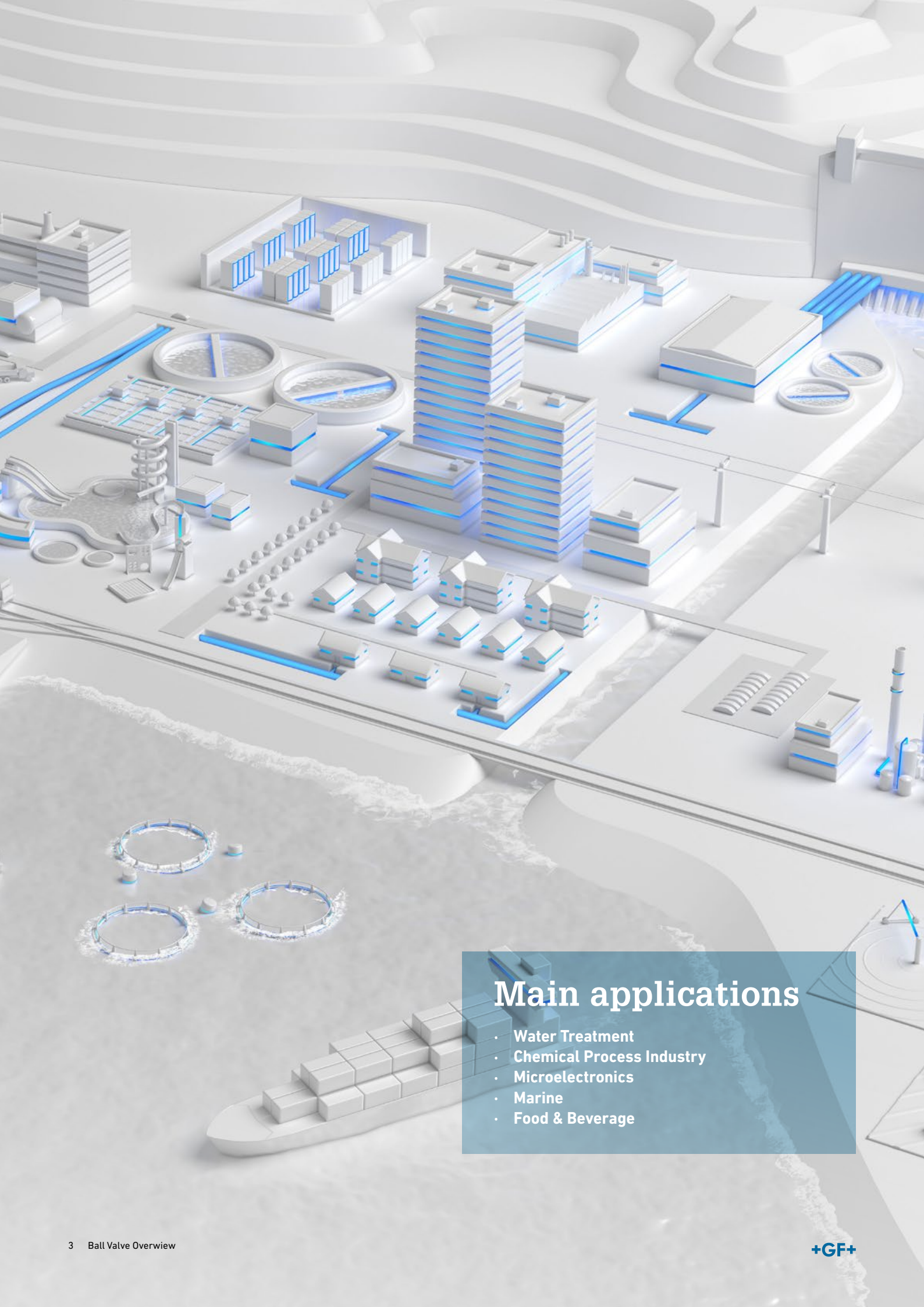
Driven to maximum performance



Ball valves are an indispensable part of every piping system. They come in a variety of different sizes, materials, and actuation possibilities to regulate and control processes in the most diverse fields of application.

To ensure the safe operation of the whole system, it is essential to trust in the highest quality components with embedded safety measures to avoid unexpected downtimes and repairs.

This is why ball valves from GF Piping Systems are always the ideal solution. Whether in the Chemical Process Industry, Microelectronics, or Water Treatment, GF Piping Systems reliably covers a variety of applications with its broad product range. From a basic, manually operated shut-off valve to a fully automated control valve, our solutions offer genuine added value and meet the highest performance and quality requirements without compromise.



Main applications

- Water Treatment
- Chemical Process Industry
- Microelectronics
- Marine
- Food & Beverage

The Pro lineup

Modular and flexible design

Our comprehensive portfolio of highest quality ball valves and decades of experience enable us to ensure state-of-the-art technology and customizable solutions for every application. The versatile, modular design and the wide range of available materials make the Ball Valve Pro lineup by GF Piping Systems the perfect solution for every need.

When optimizing a piping system, GF Piping Systems' Ball Valves are decisive components in increasing overall efficiency. They help cut service and retrofitting costs while reducing the risk of operating errors and sabotage or anticipate future requirements – from regulatory changes to digitalization. The Pro lineup meets today's demands for valve technology with the usual high-quality standards of GF Piping Systems. Retrofitting is easy, thanks to consistent installation length with previous models, and optional accessories can quickly and easily be adapted to meet new requirements.

Maximum reliability

Regarding reliability, the next generation of 2-way and 3-way Ball Valves match the originals high standards and even improve upon them thanks to being low in maintenance, available worldwide in a wide variety of materials, and having received the most certification approvals.

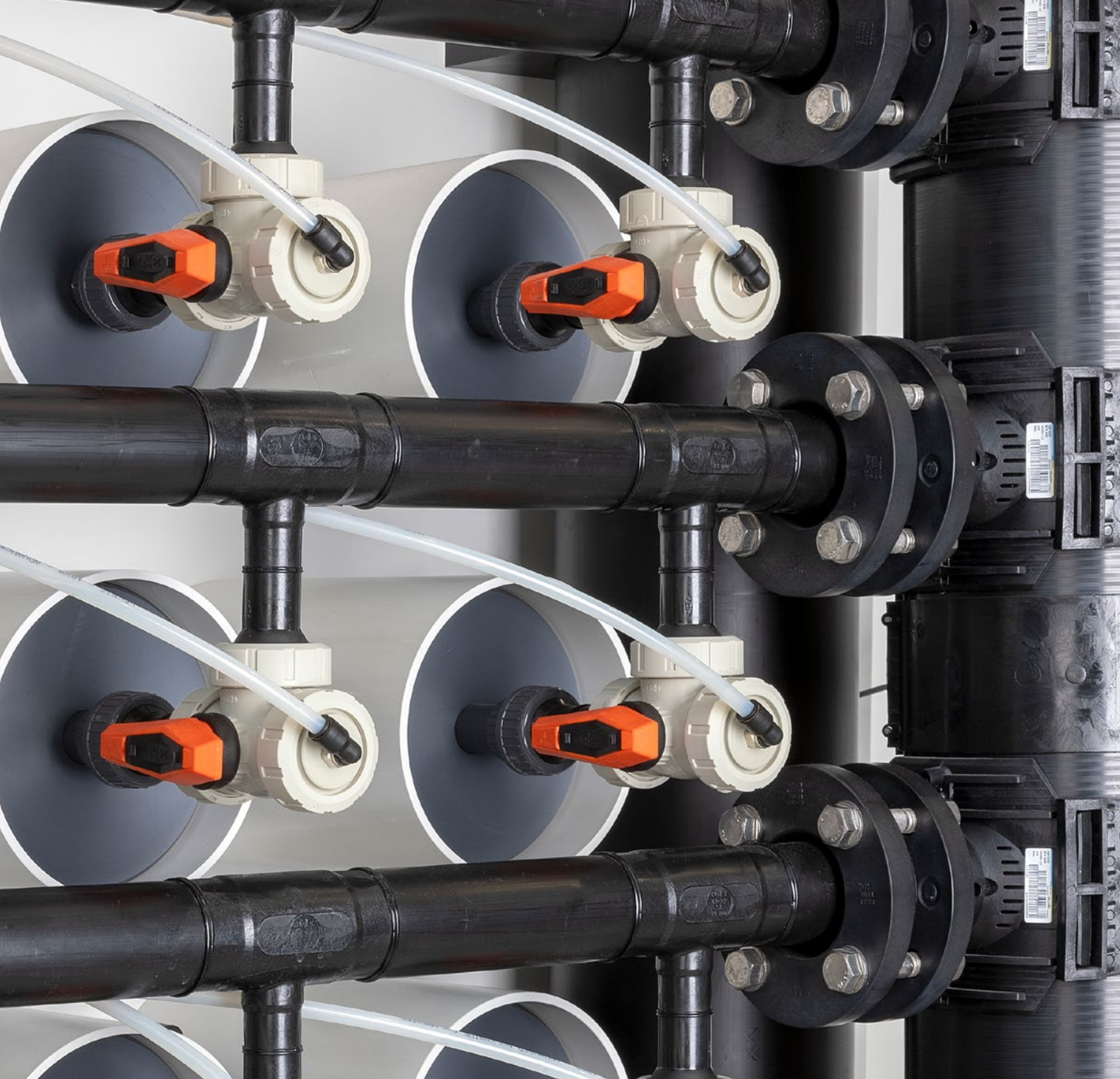
100 % flexible

Thanks to their modular design, the Pro lineup ball valves can always be adapted to your requirements. Their flexibility meets all-electric, pneumatic, or manual operation requirements, including optional accessories.

Contribution to digitalization

GF Ball Valves contribute to digitization: They can easily be retrofitted with electrical position feedback and provide relevant component information via the individual Data-Matrix-Code on each valve.





Two-level safety

To protect sensitive processes against the risks of errors and sabotage, the Ball Valve Pro lineup comes as standard with a locking element and the possibility of using a locking device.

Complete compatibility

Due to the same installation length and thread as the predecessor valves, no complicated and expensive assembly work is necessary. GF Ball Valves can be retrofitted with an actuator and accessories during operation and at a low cost.

Replacement within minutes

The newly designed security breakpoint in the interface allows the user to replace the coupling piece within a few minutes and without interruption if an automated valve is subject to wear.

The Pro lineup

The proven originals improved once again

As the successors of proven originals, the Ball Valve Pro lineup has been improved in many ways. A reinforced security break point in the stem interface prevents leaks due to wear or excessive force. Two integrated sealing rings in the stem interface provide double safety. Therefore, the GF Ball Valves offer uncompromising reliability and can be flexibly expanded with optional accessories. All previous quality features of the ball valves have been migrated to the new generations.



User-friendly operation

The ergonomically designed lever allows easy, precise operation. To protect against unintentional or unauthorized actuation, it is lockable as standard and functions with all-new accessory options. Even a tool for removing the union bush is integrated.



Safety through dead man's lever

GF Ball Valves are there for you in case you forget: A manual spring return unit ("dead man's lever") ensures that the valve closes automatically when released. This reliable, compact, cost-effective solution ensures end-to-end process safety and easily eliminates potentially far-reaching risks.



Monitoring by the double sensor

The optional LED position feedback allows the current position of the valve to be centrally recorded and checked at any time – for manually operated and automated valves. The compact dual-sensor fits even in the tightest areas and is protected against the ingress of water and dust (protection class IP67).



Information via Data-Matrix-Code

The Data-Matrix-Code on Pro Ball Valves simplifies the storage of all technical information for each valve and thus enables individual traceability. The faultless identification of each valve facilitates easy installation, service, and repair.



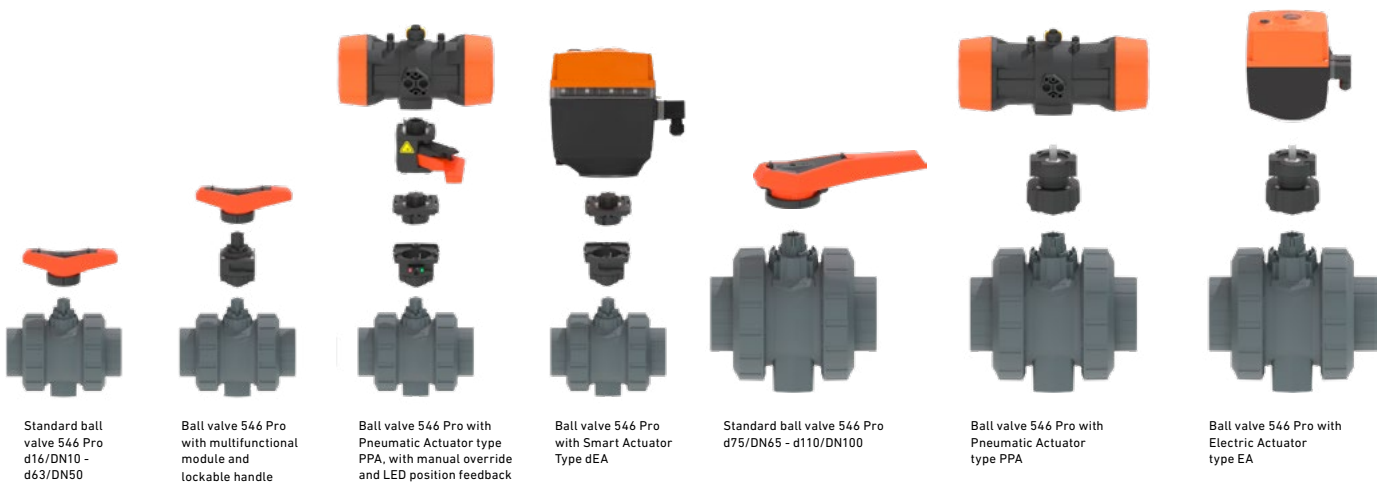
Driven to maximum performance

Pneumatic and electric actuators from GF Piping Systems help to make processes more efficient and reduce maintenance costs. Where appropriate, they also contribute to digitization by making it easier to access process and component data and use it to optimize the system.

More than the sum of its details

The most important at a glance

Taken together, innovative technologies, sophisticated materials processing, and specifically implemented functionalities all contribute to the added value on which our customers rely worldwide. Proven concepts are just as important as newly developed operating principles and individual components. The successful interaction of materials and technical elements leads to the high and dependable efficiency of these valves.








View products



Manual

Actuated

General

					
	2-way ball valve	2-way linear ball valve	2-way ball valve	3-way ball valve	2-way metring ball valve
Type	546 Pro	Linear 546 Pro	542	543 Pro	523 Pro
Ball Valve type					
Actuator type					
Smart actuator type					
Dimension DN	10 - 100	10 - 50	10 - 50	10 - 50	10 - 15
Pressure range PN	ABS/PP-H: 10 PVC/PVDF: 16	10	PP-H: 10 PVC: 16	10	ABS/PP-H: 10 PVC/PVDF: 16

Materials

PVC-U	✓	✓	✓	✓	✓
PVC-C	✓	✓	✓	✓	✓
ABS	✓	✓		✓	
PP-H	✓	✓	✓	✓	✓
PVDF	✓	✓		✓	✓

Type of connection

Sockets	✓	✓	✓	✓	✓
Spigots	✓	✓	✓	✓	✓
Flanges wafer style	✓	✓		✓	✓
Threaded sockets	✓	✓	✓	✓	✓

Sealing materials

EPDM	✓	✓	✓	✓	✓
FKM	✓	✓	✓	✓	✓
FFKM	✓	✓		✓	✓

Actuation

Hand operated	✓	✓	✓	✓	✓
Pneumatic actuated					
Electric actuated					



	Electric			Pneumatic	
	127	179 - 184	167 - 170	546 Pro P	543 Pro P
546 Pro	546 Pro	546 Pro	543 Pro	546 Pro	543 Pro
EA15	EA25	EA25	EA25	PPA04 -80	PPA08 - 80
	dEA25	dEA25			
10 - 50	10 - 100	10 - 50	10 - 50	10 - 100	10 - 50
10	10	10	10	10	10

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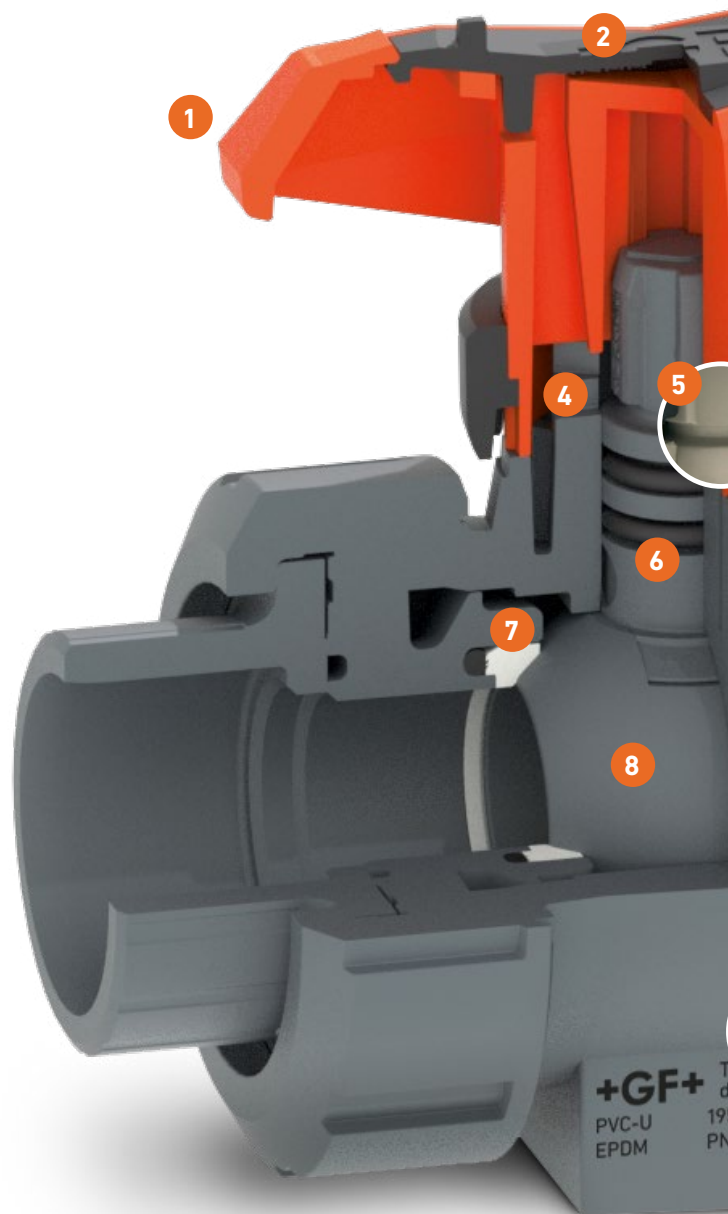
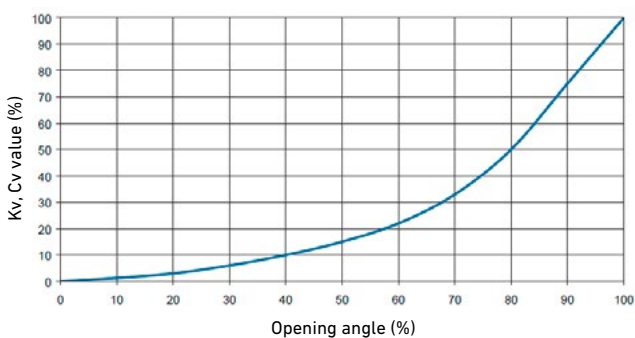
*Electric and pneumatic actuation possible

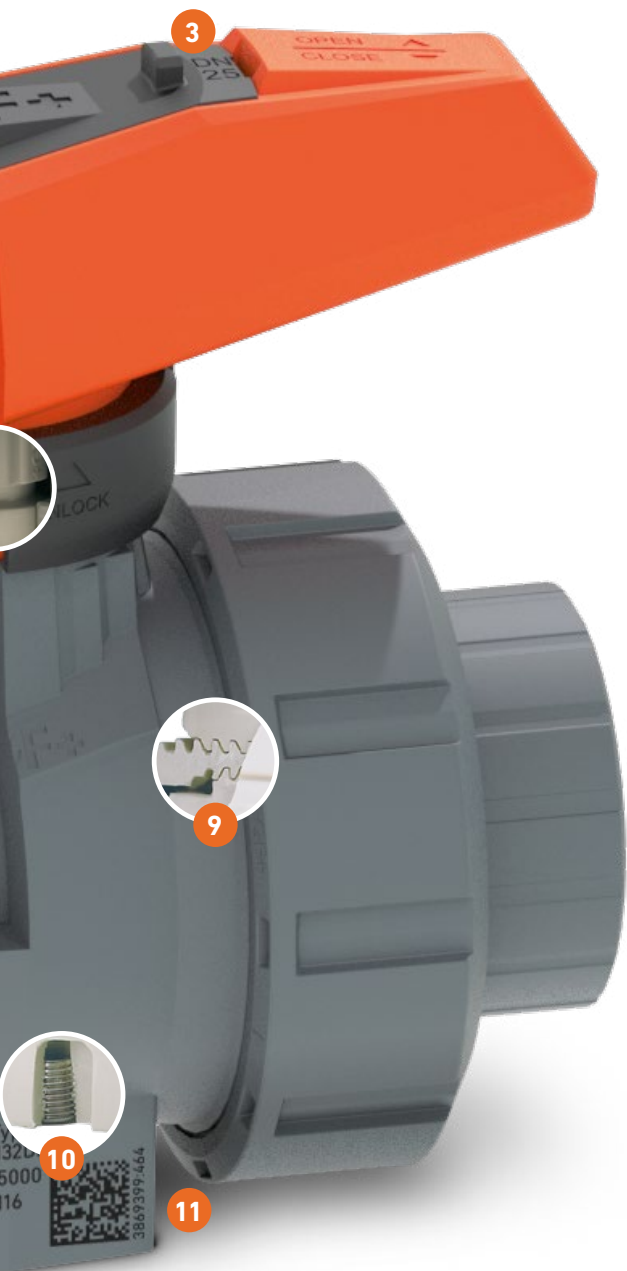
The proven original improved once again

The Ball Valve 546 Pro meets every challenge and application, be it simple water applications or complicated processes in the chemical industry, microelectronics, measurement and control technology, or the food and beverage industry.

The Ball Valve Type 546 Pro modular design always adapts to the actual requirements. Whether electric, pneumatic, or manual operation, including optional accessories, it flexibly meets all requirements.

Flow characteristics Ball Valve 546 Pro





Product features

- 1 Ergonomic lever, lockable as standard
- 2 Quick label on request
- 3 Integrated tool for the union bush
- 4 Interface for flexible automation and accessories
- 5 Reinforced security break point in the stem interface
- 6 Double stem seals
- 7 Dynamic backing seal
- 8 Smooth spherical surface
- 9 Sawtooth thread suitable for plastics
- 10 Fastening system with integrated threaded bushes
- 11 Data-Matrix-Code



The simplified original

The manual Ball Valve type 542 offers uncompromising quality and is available in various materials and connection variants. It is ideal in everything from simple water applications to manual applications in demanding processes.

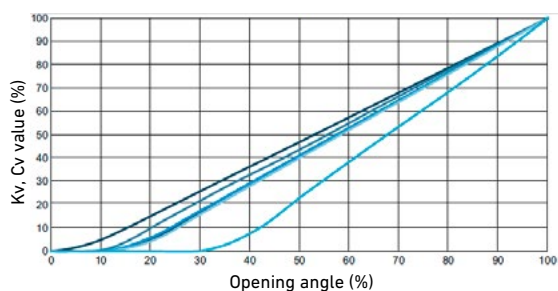
The 542 uses a rotating ball with a hole through it that allows straight-through flow in the open position and shuts off flow when the ball is rotated 90° to block the flow passage. This valve is primarily used for open/close functions and for throttling services.



Product features

- + **Ball seats:**
PE (blue lever): Water applications
PTFE (red lever): Chemical applications
- + **Very high flow rate**
- + **Same installation length as Ball Valve Type 546 Pro**
- + **Possibility of attaching a valve marking**

Flow characteristics Ball Valve 542



Perfection in control

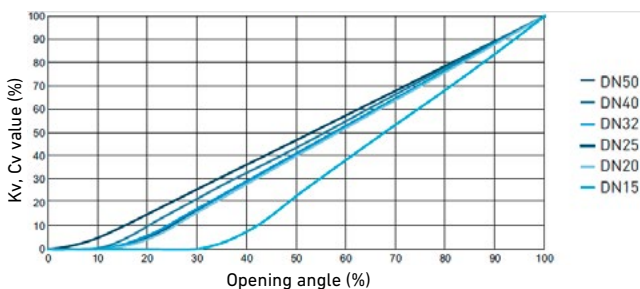
Thanks to its linear flow characteristics, the Ball Valve 546 Linear Pro provides uncomplicated control even in complex processes. With a variety of materials available, its areas of application are unlimited. The carefully engineered ball enables a linear flow, even for minimal flow rates.



Product features

- + Special ball design enables high flow rates with linearly increasing flow behavior
- + Opening angle in % on the index plate
- + Minimal dead space
- + Ideal control valve
- + Dimension range DN15 to DN50
- + Lockable lever as standard
- + Ergonomic hand lever with integrated tool for opening the union bushing

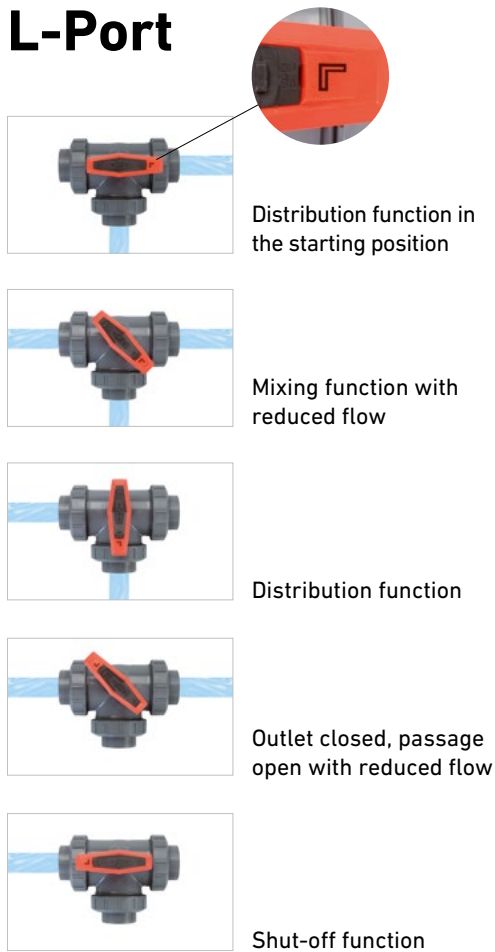
Flow characteristics Ball Valve 546 Linear Pro



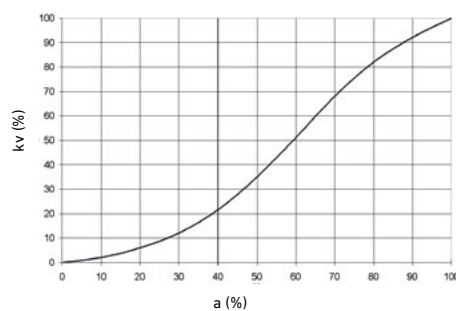
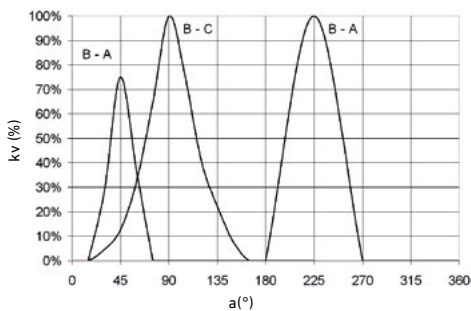
Interoperable precision

The Ball Valve 543 Pro is the ideal valve for various processes such as redirecting flow, mixing, distributing, or even shutting off a medium in areas of application within the chemical process industry or water treatment applications.

L-Port



Flow characteristics Ball Valve 543 Pro (L-Port)





T-Port



Distribution function in the starting position



Distribution function



Outlet closed, passage open

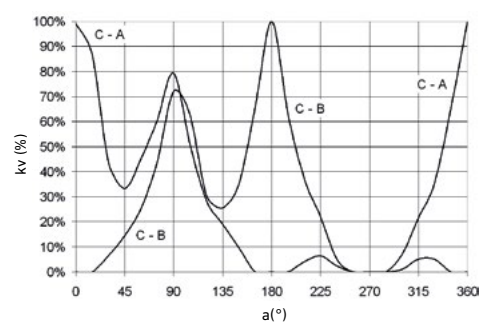
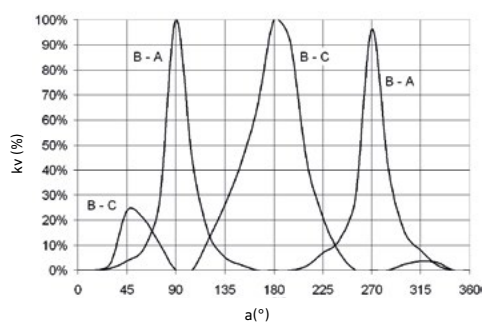


Distribution function



Shut-off function

Flow characteristics Ball Valve 543 Pro (T-Port)



Unbeatable for metering small quantities

The strength of the metering Ball Valve 523 Pro is its ability to control flow even at very low flow rates reliably. The easy-to-read indicator and uniquely notched ball make it possible to control and dose media precisely.

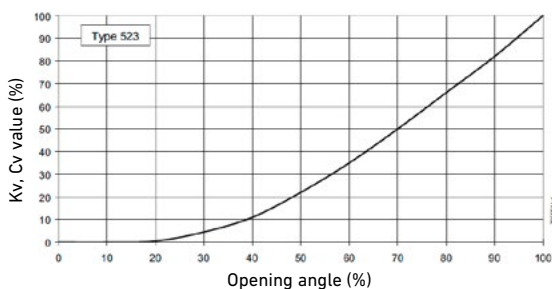


Product features

- + Fine adjustment of the dosage by special V-notch ball
- + Opening angle scaled in 0°-180° on the index plate
- + True union for easy installation and removal
- + Lockable lever as standard
- + Integrated fixation system with mounted threaded inserts as standard



Flow characteristics Ball Valve 523 Pro





All in one solution

Precise control

The perfect valve pack. The Electro-pneumatic Positioner was tuned and tested with the Pneumatic Actuator and the Ball Valve Pro lineup. Thanks to the perfect alignment, precise flow control becomes simple. Additionally, an auto-tune function ensures quick commissioning. The Pneumatic Actuator and the Electro-pneumatic Positioner are also available for diaphragm valves type DIASTAR.

Pneumatic Actuator

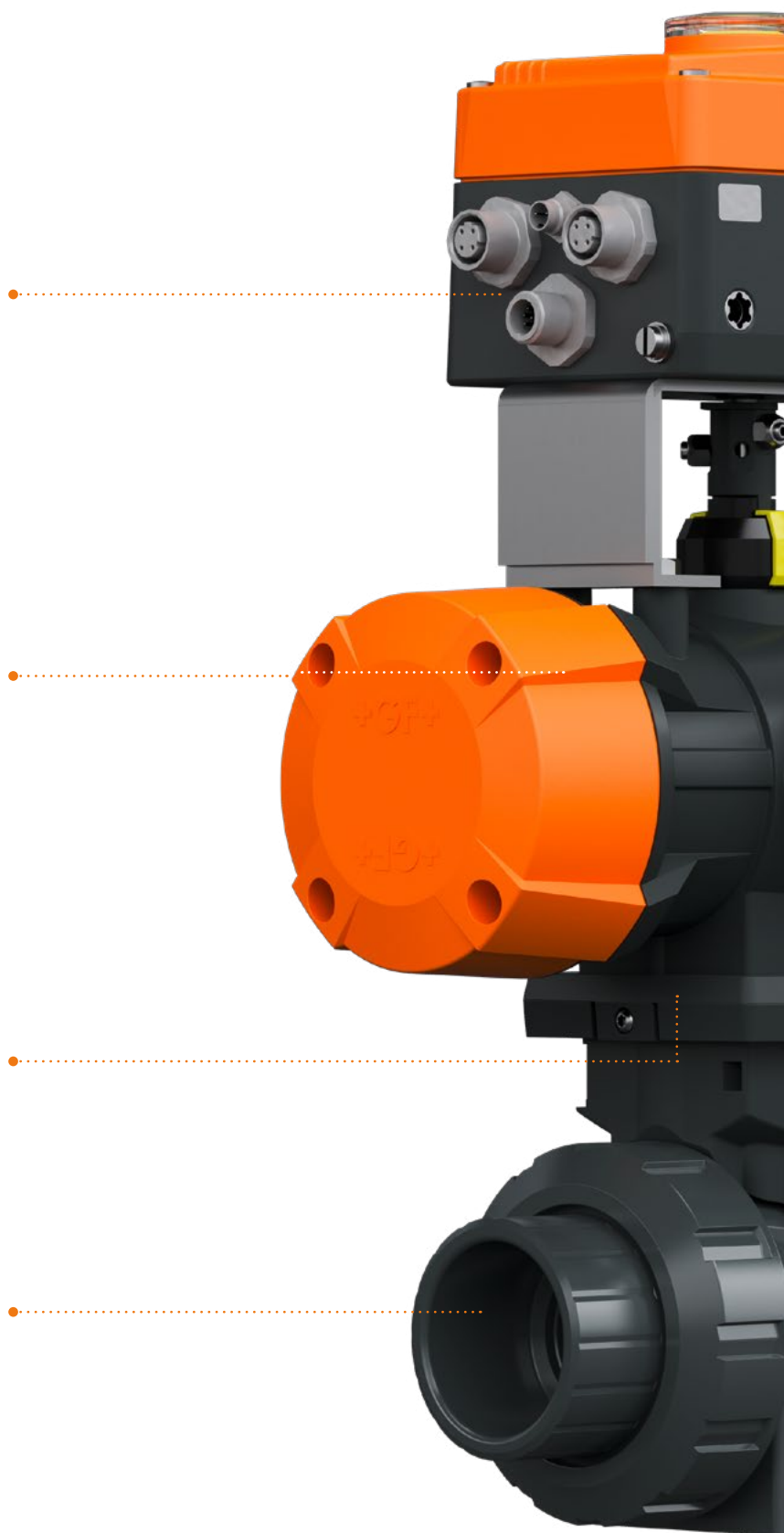
The pneumatic actuators are considerably more compact than earlier models and therefore support compact installation with tighter spacing of PP-GF pipes, leaving more space in order to install all necessary components more easily.

Automation

Even though valves are pre-assembled, standard interfaces allow easy modification if required. The connection kit is compact and also holds an additional inductive limit switch.

Connected valves

Flexible sizing to find the right fit - The new design of the interface between GF Ball Valves and the Pneumatic Actuator range enable users to find the right fit in terms of torque and size even in low-pressure applications. Choose from standard configurations or contact GF Piping Systems for customized assemblies.





100%

system flexibility

27%

more compact*



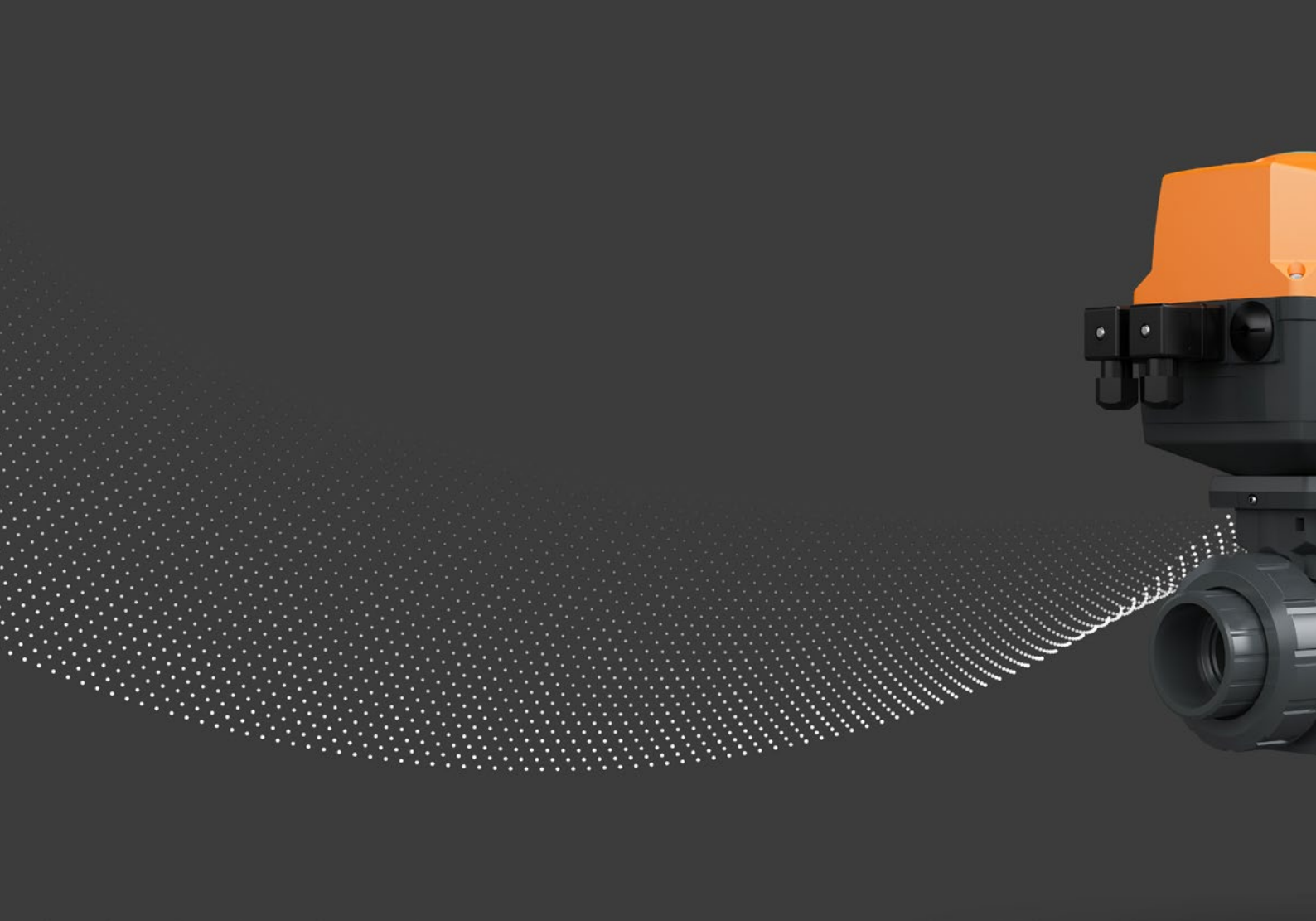
Gateway to digitalization

100%

recyclable composite material

* maximum difference compared to previous models



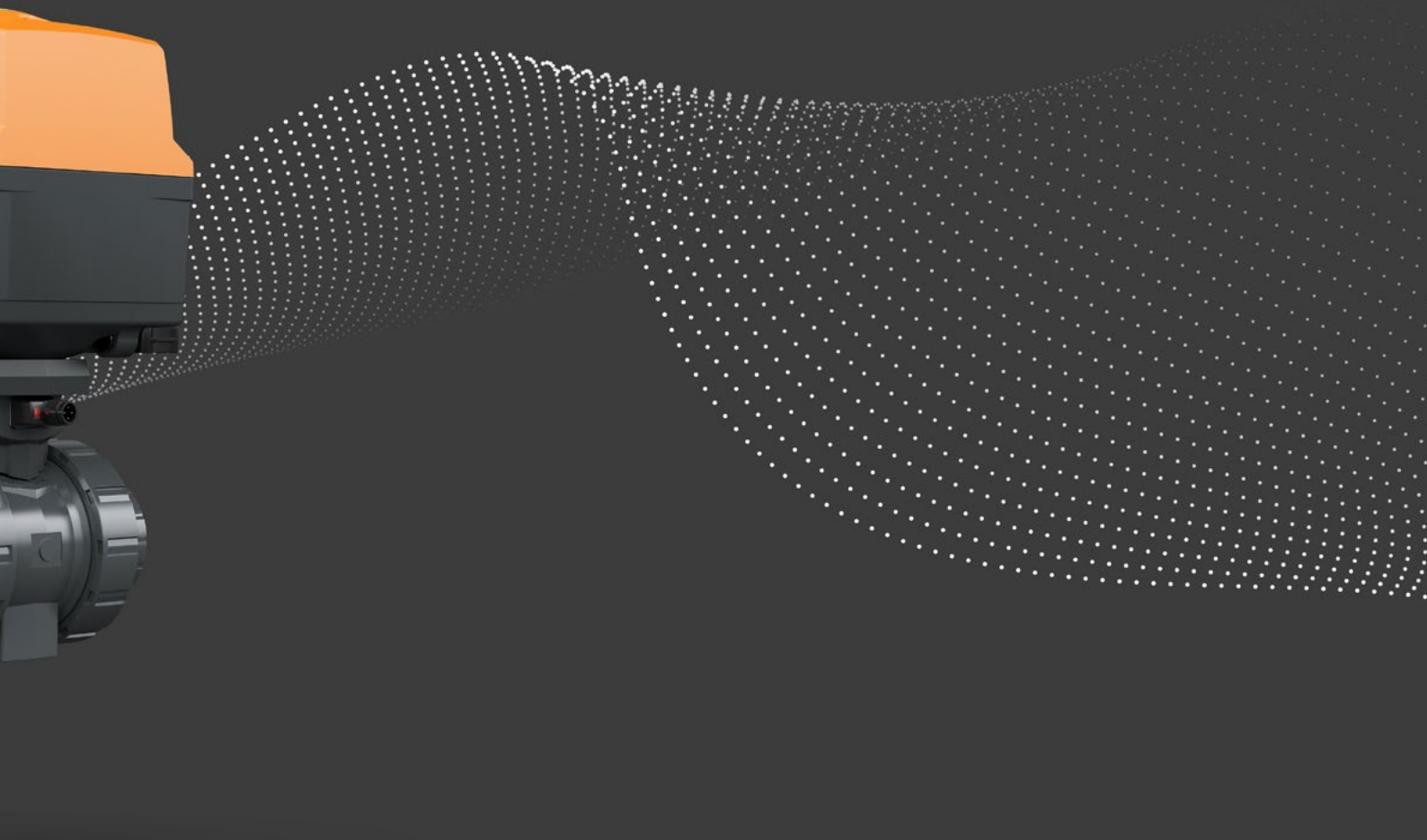


Electric Actuator

Enhanced Power

Combining well-proven products with state-of-the-art technologies and durable components is vital in future-critical decisions for long-lasting and safe plant operation. The latest generation of Electric Actuators by GF Piping Systems perfectly matches customer needs and application requirements.

Electric actuators by GF Piping Systems are a well-proven solution for regulating media flow by opening and closing various possible valves, including ball, butterfly, and diaphragm valves. Electric actuators are highly reliable, easy to set up and operate. The latest generation combines all the familiar and proven benefits of the predecessor with a new design and additional features such as Industrial Ethernet communication standards and an improved IP68 rating.



IP68 rating

For all wiring options: Cable glands, DIN plugs, M12 connectors.

Operational performance

Extended service life thanks to improved motor and gearbox.

∞ possibilities

Optional accessories board for digital communication protocols.



The actuator that connects with you

Digitalization is changing and improving more and more areas of our life. GF Piping Systems supports you in actively responding to this change. As a leading supplier of piping systems, we constantly develop our products and create digital innovations. Always with the goal that you and your company become fit for the future – and remain that way.

Electric actuators are used to operate valves with a rotating angle from 90° to 180°. The smart actuators dEA can be installed on any common valves with an interface according to ISO 5211. Thanks to the app you can access the actuator via Smartphone – to read data, for control, or for system diagnosis. Operating data, such as the number of cycles or current drawn, is available directly in the app.

- + **Fits on any standard valve (ISO 5211)**
- + **Optical status-feedback with 360°-LED display**
- + **Wireless Control via WiFi and NFC**
- + **Easy access to relevant data**



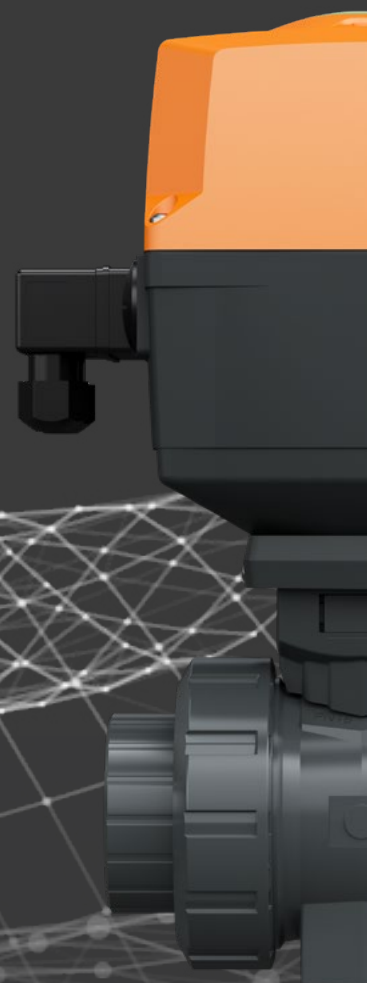


Seamless connectivity

Leading-edge field devices are intelligent and have a vast amount of relevant process and device data available. Connectivity technologies unlock this data, leading to increased efficiency in daily operation and maintenance.

We help our customers tackle the complex challenges they face on projects worldwide by providing connectivity technologies that fit their system environments, going from analog to the new digital age.

Our solutions allow for the automation of processes that provide remote access, high data transfer rates, and real-time diagnostic insights, giving users access to all relevant device parameters 24/7, 365.





EtherNet/IP



Modbus

Supporting future-proof Industrial Ethernet protocols



State-of-the-art network technology

- Seamless access to field device data without complex, expensive, and error-prone protocol conversions
- Flexible network topology concepts for any kind of plant environment



Up to 40% more efficient in commissioning and maintenance

- Remote access to field devices for simple parameterization and commissioning
- Real-time insights into device health, preventive maintenance and diagnostics for troubleshooting
- Plug&Play device exchange with automatic re-configuration of a new device



Up to 30% increase in operational performance

- Digital data transfer leads to accurate process values
- Devices offer multiple process variables
- Trend monitoring of any process variable for continuous process optimization and preventive maintenance
- High availability of a plant by robust communication



Together as one

We make Process Automation easy

GF Piping Systems is your experienced partner with a full portfolio of measurement, control, and actuation components, which are easy to install and use and have local support through all project phases. We offer the full package with our products and solutions, providing top-quality installation, a highly skilled team of experts standing by our customers' side every step of the way worldwide, and digitalized services ensuring a project is at the forefront of the market.

One user experience across the whole control loop

Accurate measurement is the basis for reliable process control

Physical parameters as well as analytics, including installation fittings, for an effortless combination.

Precise control throughout your automation loop

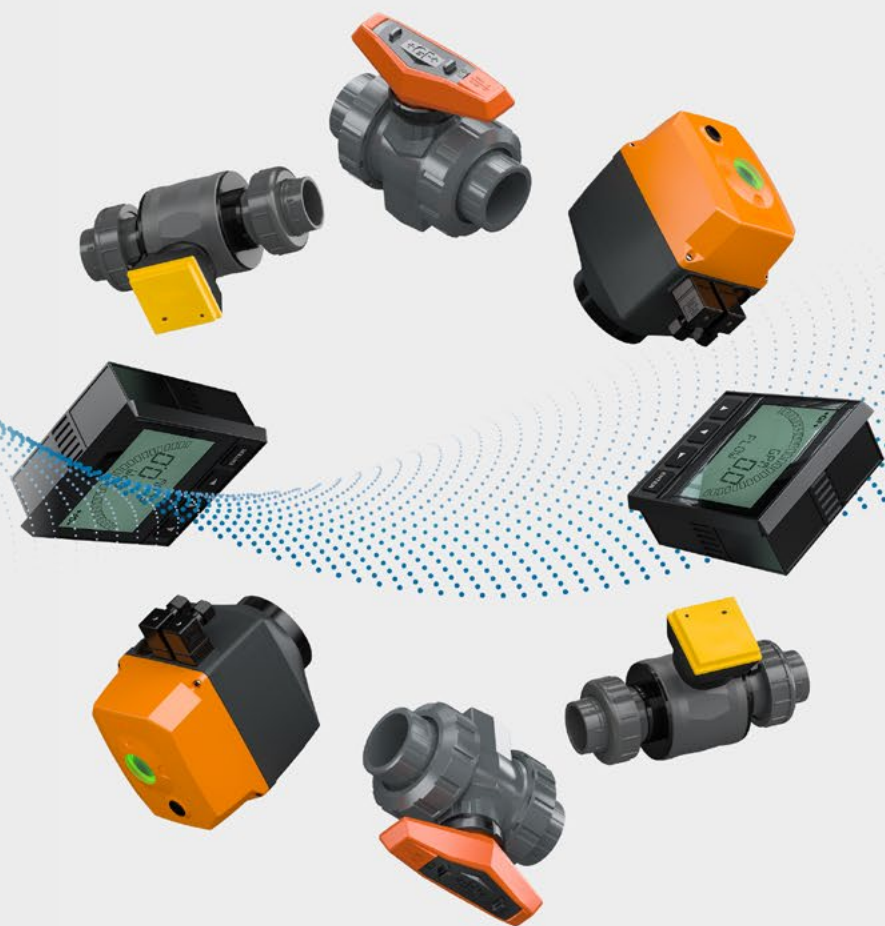
Single or dual channel with additional control capabilities.

Reliable actuation with configuration flexibility

Electric and pneumatic actuators for high flexibility on standardized valve interfaces. A wide range of accessories complete our actuation portfolio

The right valve for your application

Ball Valves, Butterfly Valves, Diaphragm Valves, and various process valves including pipe connections that make installation a breeze.



www.gfps.com/processautomation

Specialized Solutions

Ready when you are

With Specialized Solutions, the global leader GF Piping Systems provides project support every step of the way to achieve construction excellence. Allowing owners and planners to concentrate on their daily business without interruption.



Custom product design and prefabrication

Having your individual needs and application in focus, our customizing teams forge the solution that fits you best, developing custom-made parts to complete systems or special solutions produced in small series, individual consulting and off-site prefabrication.



Digital libraries

The libraries cover three key areas for the design, creation, and maintenance of a project: Building Information Modeling, the Plant Design Software, and the CAD Library, helping you reduce costs and construction times.



Engineering

Increase the efficiency of your project with the tailor-made analysis packages from GF Piping Systems and decide which offer is right for you according to your needs. You have the choice between Project Analysis and Advanced Engineering, thus always receiving the appropriate support in every phase of your project. Established knowledge, guiding you through.

www.gfps.com/specialized-solutions



Speak to
an expert



Local support around the world

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www.gfps.com/our-locations



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