AVENTURA
EVOLVING WATER COMPONENTS

ADDING VALUE TO YOUR SYSTEMS

WATER TREATMENT COMPONENTS

WATER HANDLING COMPONENTS

WASTEWATER TREATMENT COMPONENTS

Valves, measurement and control systems for industrial applications

General information

GEMÜ Group

The GEMÜ Group is a leading manufacturer of valves, measurement and control systems, and employs over 2500 members of staff worldwide.

With six production companies and 27 subsidiaries, as well as a tight network of commercial partners, GEMÜ is active in over 50 countries on all continents.

Countries
Subsidiaries and long-term partners

Employees
2500+

Even closer to the customer
Products for different customer requirements

Thanks to continuous innovative capacity and a focus on quality and proximity to our customers, GEMÜ is one of today's leading worldwide manufacturers of valves, measurement and control systems. With our broad product range and the strategic business units anchored behind this, we offer solutions for different customer groups and areas of application.

[1] Pharma, Food & Biotech

- Pharmaceutical industry
- Foodstuffs and beverages
- Biotechnology industry
- Cosmetics

[2] Industry

- Industrial water treatment
- Chemical engineering and surface finishing
- Power generation and environmental systems
- Mechanical engineering and processing industries

[3] Semiconductors

- Microelectronics
- Semiconductor production
- Battery production


1


2


3

Global manufacture

We develop and manufacture virtually all products at six different locations. At sites in Germany, Switzerland, the USA, China, Brazil and France, we draw on our many years of experience in the manufacture of valves, measurement and control systems to offer you products and solutions worldwide which conform to GEMÜ standards of quality.

To ensure that we can also continue to impress you with high quality and expert advice in the future, we are continually investing in modernizing our production centres.

Machining and coating technology

Whenever valves with high-grade corrosion protection are required, the right coating method can have a decisive influence on product quality. For this reason, at GEMÜ, we place considerable importance on our high level of vertical integration.

In our state-of-the-art machining centre at GEMÜ Valves China, casting unmachined parts are mechanically processed in-house. The most notable feature here is that our butterfly valve bodies and discs are milled in one clamping position. This allows us to achieve precise shape and positional tolerances for our butterfly valves.

A further highlight is the fully automated coating system. The coating is applied by whirl sintering in the shortest possible time and without interruption, using state-of-the-art robot technology to produce a high-quality coating of the flap components with a uniform layer thickness of at least 250 µm. With it, we can offer our customers reliably robust equipment for their systems that is classified to DIN EN ISO 12944 in the top corrosion protection class, C5-M.

Diaphragm production

GEMÜ leaves nothing to chance in the development and manufacture of diaphragms. As well as many years of experience in the area of diaphragm valves, GEMÜ can draw on the Group's ever increasing expertise in the field of diaphragm production. In addition to the development of compounds, this also includes production and permanent control of the diaphragms during the manufacturing process. Random sampling of the finished products completes the comprehensive test cycle.

GEMÜ ensures its usual diaphragm quality thanks to the following measures:

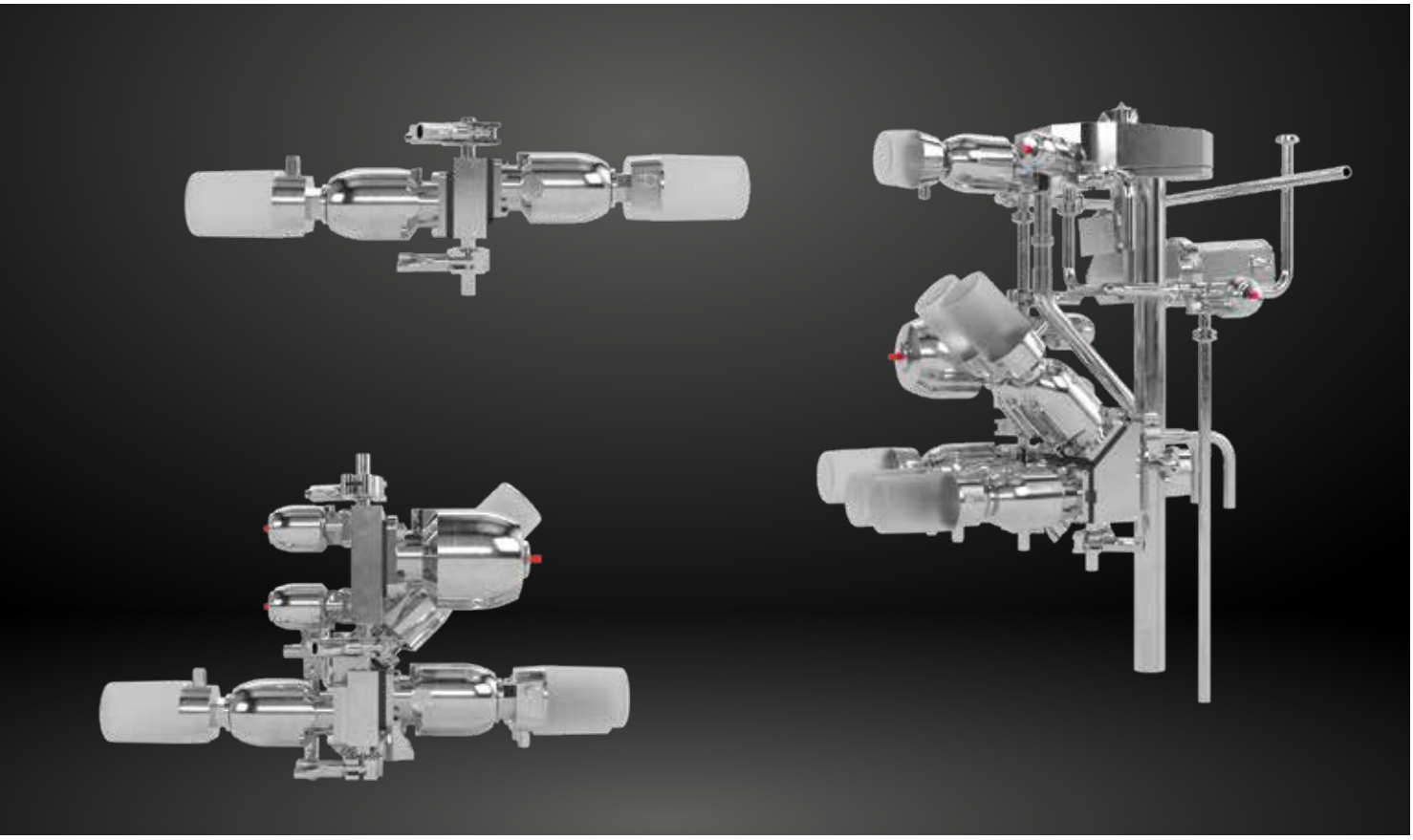
- Raw materials are sourced exclusively from selected suppliers
- Comprehensive testing of the raw materials in our in-house laboratory or in external, accredited institutions
- Storage of raw materials under controlled conditions
- Automated testing and documentation processes during production
- State-of-the-art production facilities
- The diaphragms are tested on our own test rigs

GEMÜ Systems

As a specialist in valve design, we also offer you individual system solutions. From the idea stage to development and right through to manufacture – the entire process is taken care of under one roof. This means you can benefit from system solutions tailored to your specific requirements.

All from a single source

- Subassemblies, small systems and partial sections
- Individual connection solutions
- Sample and low-volume production
- Process optimization and special solutions
- Test rigs and prototype construction



Our range of services

GEMÜ Systems supports you with your individual requirements, from inquiries about customized individual components and ready-to-fit assemblies through to the joint development of complete systems.

GEMÜ Systems differentiates between different levels. We are by your side, from simple welding configurations through to robotics.

Level 1:
Simple component assembly

Level 2:
Component assembly with control unit

Level 3:
Control systems and system development

Leading through experience

Thanks to our many years of experience in measuring, valve and control systems technology, we have specialist skills and technical expertise in various areas of application. We value collaborative partnership when working on your project plans.

Your advantages

- Simplified procurement process
- Reduced number of interfaces
- Time and cost savings
- Outsourcing of order peaks

State-of-the-art manufacturing

Using the latest technologies and manufacturing processes, we can update our knowledge as a component manufacturer and carry this through to our system creation. With the latest construction tools, we are ideally prepared and can help you take the next step towards your future.

GEMÜ Customer Service and Training

Regular maintenance is essential to increase the service life and effectiveness of your components. Our service technicians carry out the maintenance work on site at your premises or in modern repair facilities. For fast identification of shortcomings in your processes, we offer regular plant screening. We have many years of experience in commissioning plants and their components. With our expert knowledge, we support you with correct installation and integration into the existing system landscape.

GEMÜ Customer Service

Maintenance

- Increased reliability of your plant
- Extended system operating time
- Increase in production volume
- Maintenance documentation in accordance with your requirements

Maintenance support

Do you have a staff shortage? We offer highly motivated employees with the appropriate training, experience and routine in GMP-compliant maintenance documentation.

Repair work

- Short and flexible reaction time
- Large stock of spare and wearing parts
- Remote diagnostics with innovative software solution
- Equipment tests on modern test rigs

Plant screening and findings

- Recognition of shortcomings in processes
- Transparent explanation and documentation
- Condition analyses on used devices
- Optimisation proposals through device analyses

Commissioning

- Ideal adjustment of single components
- Programme optimizations on electrical devices
- Ensuring high assembly quality
- Documentation of settings and operations

Contact our Customer Service

E-mail service@gemue.de
Telephone +49 (0) 7940 123 450

GEMÜ Training

GEMÜ offers you a comprehensive training and further education programme. The technical training courses are aimed at new entrants and people changing career as well as experienced specialists. Select your optimal further training from our wide-ranging portfolio of training courses – from basic training to valve designs and service training.

Your advantages

- Creating understanding for the huge variety of valve designs
- Recognising faults and initiating optimizations
- Practical learning on functional models
- Live online training courses and classroom training at GEMÜ or on site at your premises
- Notes and information on replacing wearing parts and commissioning

Contact our training team

E-mail training@gemue.de
Telephone +49 (0) 7940 123 450

Current training dates can be found on our website.

CONEXO
Digital information management and maintenance support

In addition to clear identification of components, CONEXO also offers support with the qualification of plants and paperless maintenance. These are identified via an RFID chip using the CONEXO pen or via a QR code with CONEXO Webview and the GEMÜ app directly on the component within the plant.

Overview of the CONEXO system

Identification

- Electronic identification of components using CONEXO tags (QR code or RFID chip)
- Scanning the CONEXO tag
- Displaying the product information and documentation

Documentation

- Construction of the plant structure on the CONEXO portal
- Integration of the component data
- Creation of step-by-step instructions for each maintenance type
- Definition of the maintenance tasks with location, cycle, implementation period and operator

Maintenance support

- Implementation of maintenance work via step-by-step instructions
- Automatic documentation of the implementation
- Electronic signature through user login
- Distribution of the maintenance report via PDF
- Calling up the maintenance report

Digital product label

Since mid-2021, in addition to the normal product label, GEMÜ products have gradually also included an additional label with a QR code and serial number. You can use this to positively identify our products all over the world and, in addition to the classic product label, call up lots of additional product-related information in digital format.

The following data is available to you in digital format, directly in the plant:

- Product description
- Article information
- Product documentation
- Certificates

With the QR code label, GEMÜ fulfils the requirements of DIN SPEC 91406 for the automatic identification of physical objects and information about the physical object in IT systems, in particular IoT systems.

GEMÜ app
Numerous functions in one mobile application

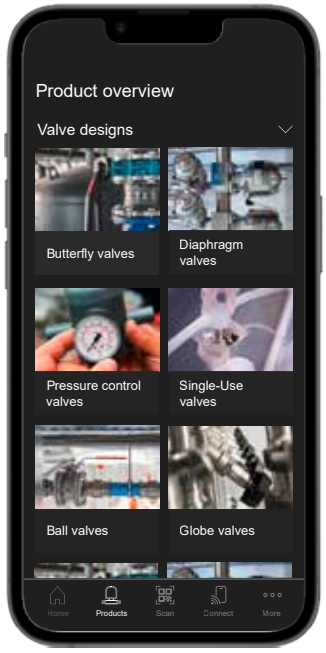
Take a step with us into a mobile era!

Discover the new GEMÜ app – with numerous functions that simplify your life. The complete GEMÜ product range will also be available right away – from the convenience of your pocket. With our app for smartphones and tablets, you can call up product information anywhere and benefit from our digital services.

Advantages

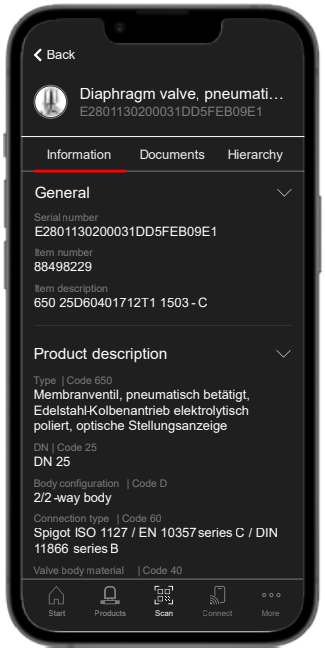
- Product documentation on all GEMÜ products can be downloaded while you're on the go
- Call up item-specific information without spending a long time searching
- Clear identification of GEMÜ products with QR code or RFID tag
- Convenient operation and configuration for GEMÜ products with Bluetooth interface
- Quick and easy way to get in touch

Overview of main functions



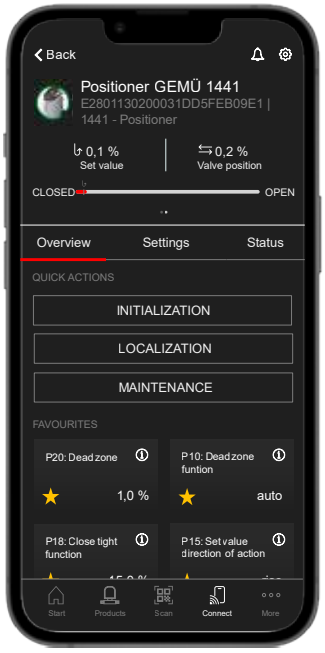
Calling up product information

- General product data
- Datasheets
- Operating instructions
- Product flyer
- etc.



Clearly identifying products

- Scanning QR codes or RFID tags
- Direct access to specific item information
- Display of appropriate product documentation and customized certificates
- Overview of installed product components



Configuring and operating products

- Initialization, configuration and parameterization
- Detailed depiction of process values and status information
- Error analysis
- Setting the operating mode

Download the GEMÜ app now!

The GEMÜ app is available in German, English and French, and can be used both on Android and on iOS operating systems.

Download on the App Store

GET IT ON Google Play

Overview of industrial sectors

GEMÜ products are used around the globe in industrial water treatment and waste water treatment, the chemical industry, power generation and environmental systems, the industrial plant and machinery sectors, surface finishing and many other areas.

Our decades of application experience feed directly into the new and further development of our valves. This is why, in the demanding industrial environment, GEMÜ valves have proven very successful to date.

Industrial water treatment

In industry, barely a single production process can manage without water. Whether it is for cooling, cleaning or as a starting material for aqueous solutions – depending on the application, unwanted substances must be removed from the raw water or desired substances added.

This task is performed by water treatment plants, thus ensuring a functioning circuit. The GEMÜ product range can provide numerous solutions for these plants.

Power generation and environmental systems

The signs all point towards sustainable modernization of power and heat. Whether renewable or conventional – innovative, efficient and durable valves are essential in power generation. This is why, at GEMÜ, we always offer solution-focused concepts.

Chemical processes

Specific valve and component solutions are required when dealing with critical working media, high temperatures and high pressures.

GEMÜ offers numerous valves made of plastic and high-performance thermoplastics, e.g. PFA or PVDF. This flexibility regarding valve selection ensures the highest possible degree of process and plant reliability even for critical media.

Surface finishing

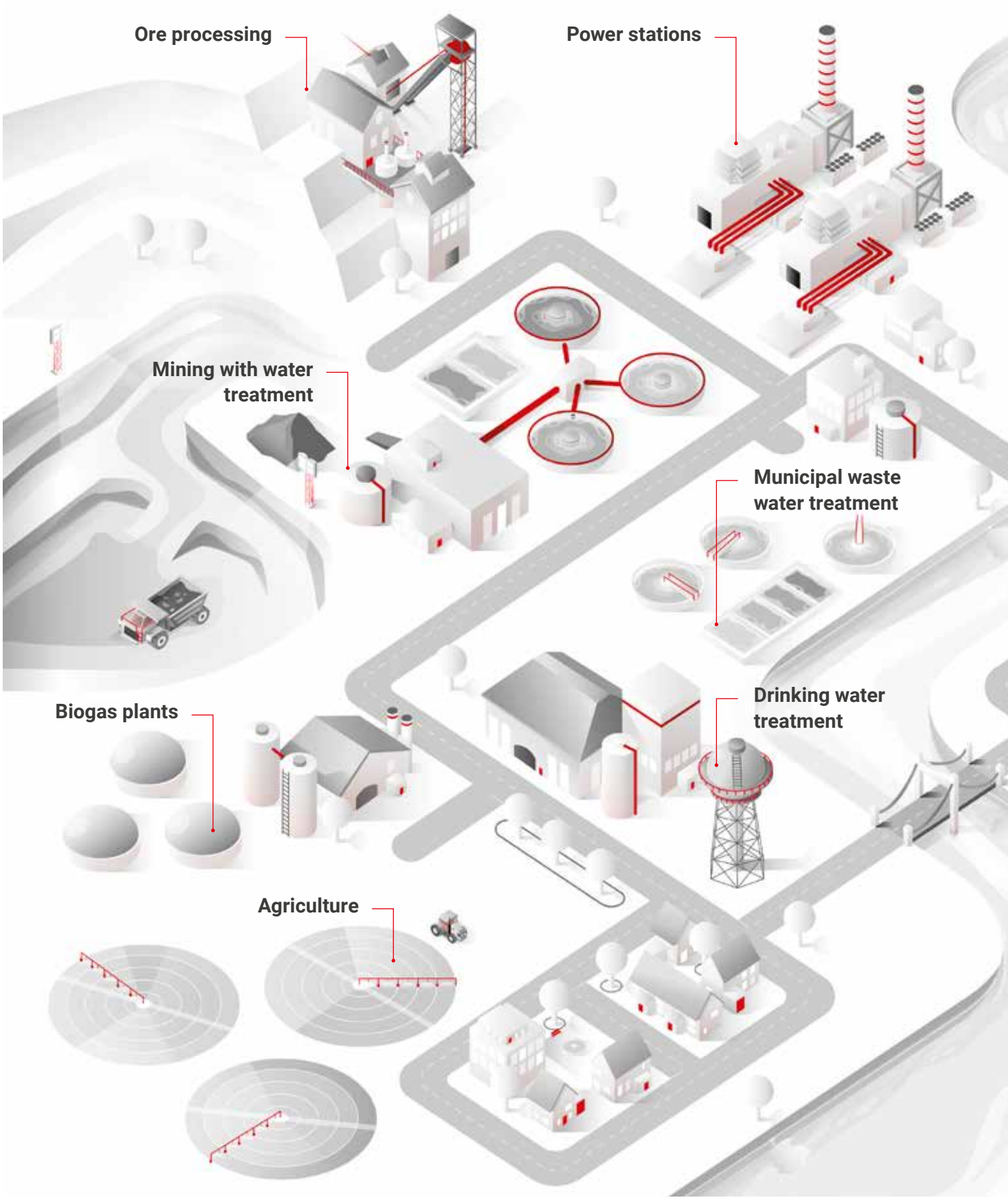
Numerous products today come with high-quality functional or decorative surfaces. When it comes to valve selection, the high flexibility in terms of material selection is one of GEMÜ's selling points. You can also choose to receive our valves and individual components, such as diaphragms, free from substances that prevent paint adhesion.

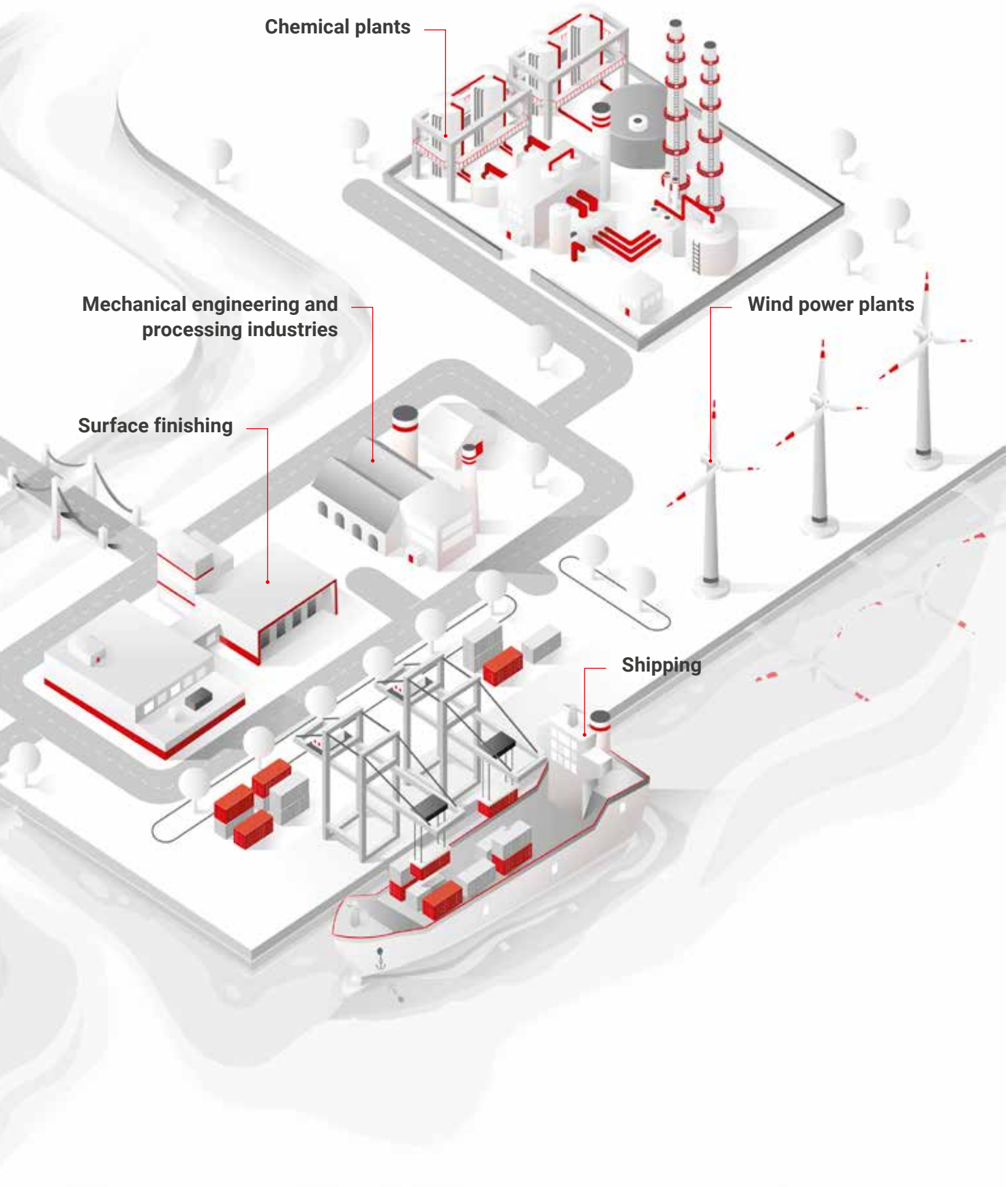
Mechanical engineering

Technological progress is leading to changing procedures and processes both in the mechanical engineering industry and in the processing industry. The GEMÜ product range includes robust valves and customized solutions for valves, measurement and control systems.

Also – and in particular – when new requirements arise in plant and mechanical engineering, we are the right partner when it comes to the distribution, mixing, supply and isolation of media.

Areas of application for valves, measurement and control systems




Chemical plants
Mechanical engineering and processing industries
Surface finishing
Wind power plants
Shipping

Valve designs

Valve types

Whether it is for water, gas or air – valves are used for shutting off or regulating a medium in piping. But which functional principle is the right one? The designations of various valve types are frequently more numerous than the types themselves. That is why we are giving you an overview here of the most common designs in the industrial plant and machinery sectors.

Valves with linear movement

Diaphragm valves
Diaphragm valves are the all-rounders in the world of valves. One of their major advantages is that only two components come into contact with the working medium – the diaphragm and the valve body.

The flexible shut-off diaphragm is deformed by the compressor and, during the closing movement, is pressed onto the sealing weir of the valve body with a positive and non-positive fit.

Globe valves
Globe valves are suitable for clean, liquid media, as well as gases and steam. Due to their linear movement and favourable mechanical conditions, they often perform automated tasks with fast cycle duties and high switching frequencies.

Globe valves involve a gasket, the valve plug, pressing against a seal seat, which then blocks the volumetric flow.

Diaphragm globe valves
Valves that combine the advantages of the hermetic sealing of an actuator and the medium of a diaphragm valve with the advantages of a globe valve are designated as diaphragm globe valves.

The flexible PD (plug diaphragm) is compressed onto the valve seat for sealing. The actuator is hermetically separated from the medium by a diaphragm globe valve.

Quarter turn valves

Butterfly valves
If pipes are large, then butterfly valves are required. Most frequently, they are used for controlling mechanically pure liquids. In the right material combination, however, slightly abrasive liquids or gases pose no problem either.

Butterfly valves comprise a ring-shaped housing into which a liner and a butterfly disc are inserted. The disc swings 90° into the gasket.

Ball valves
Ball valves are versatile and can also be used in extreme circumstances. This type of valve is particularly well-suited to safely shutting off liquid and gaseous media at a very high operating pressure.

The ball valve comprises a ball with a hollow bore, which sits in a body between sealing rings. The valve can be opened and closed by rotating it through 90°.

Selection guide

The following table aims to give you an overview of which valve function is most appropriate for which processes and media. In addition to these categories, we also offer valves for special applications.

Valve groups according to valve function

Criterion	Diaphragm valves		Globe valves	Butterfly valves	
	Metal	Plastic	Metal	Metal	Plastic
MEDIUM					
Gaseous	○	○	●	●	–
Steam	○	–	●	●	–
Liquid	●	●	●	●	●
Viscous	●	●	○	●	●
Particulate, abrasive	●	○	–	●	○
Granular	○	○	–	○	○
Corrosive (depends on material)	●	●	–	●	●
PROCESS					
Multi-port design available	●	●	●	–	–
Piggable	–	–	–	–	–
Controllable	○	○	●	For larger diameters	
Media temperature	Up to 100 °C	Up to 150 °C	Up to 185 °C	Up to 230 °C	Up to 90 °C
Operating pressure	Up to 10 bar	Up to 10 bar	Up to 40 bar	Up to 40 bar	Up to 10 bar
Frequent cycle duties	○	○	●	–	–

● Exremely suitable
○ Conditionally suitable
– Not suitable

Further process accessories

Check valves

Strainers

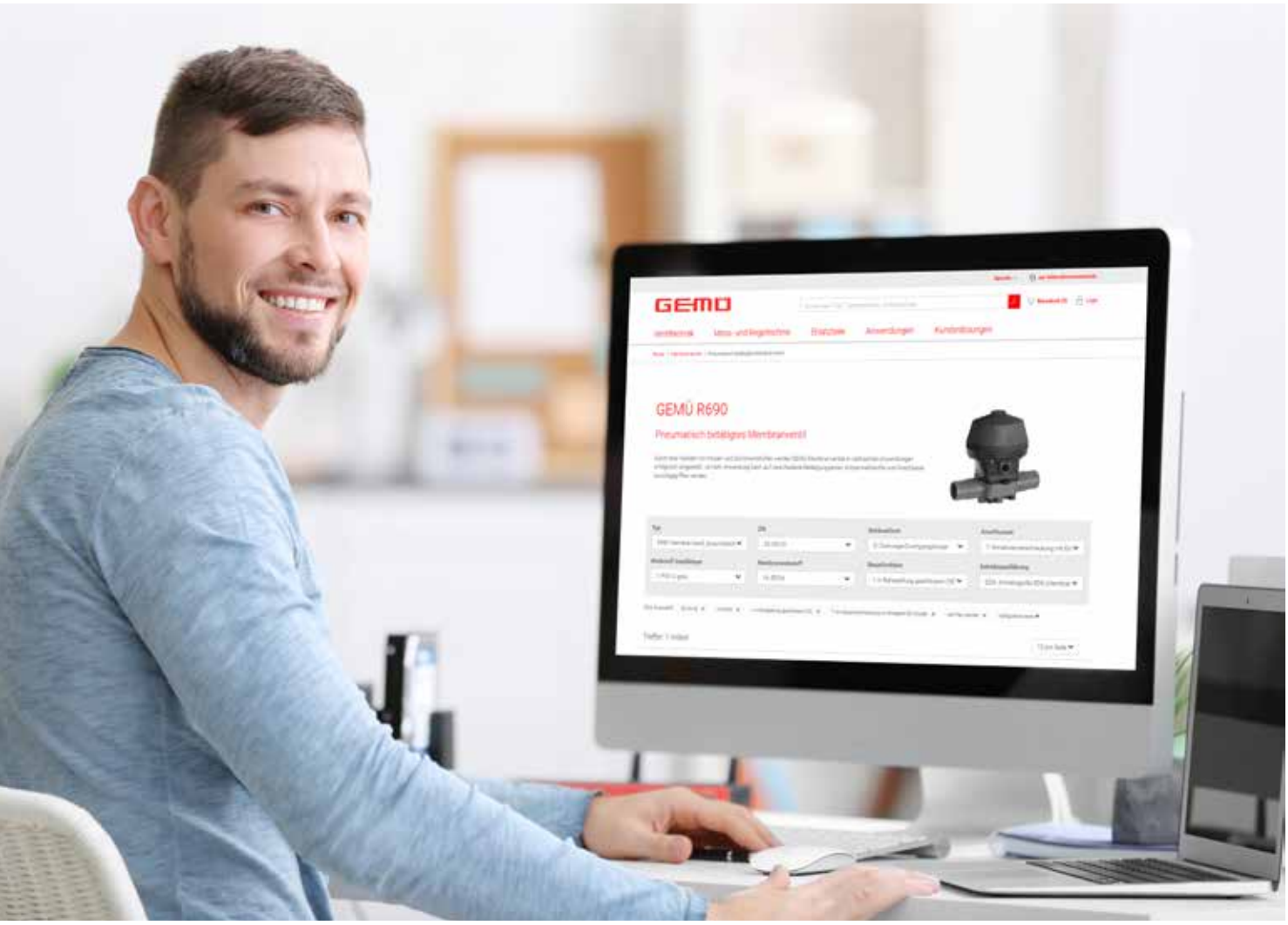
Ball valves		Diaphragm globe valves	Process solenoid valves	
Metal	Plastic	Plastic	Metal	Plastic
●	●	○	–	–
●	●	○	–	–
●	●	●	●	●
○	○	●	○	○
–	–	–	–	–
–	–	–	–	–
–	●	●	–	○
●	●	●	●	–
●	●	–	–	–
○	–	●	–	–
Up to 220 °C	Up to 100 °C	Up to 150 °C	Up to 60 °C	Up to 60 °C
Up to 137 bar	Up to 16 bar	Up to 6 bar	Up to 20 bar	Up to 6 bar
–	–	●	●	●

Control systems

Pressure control valves

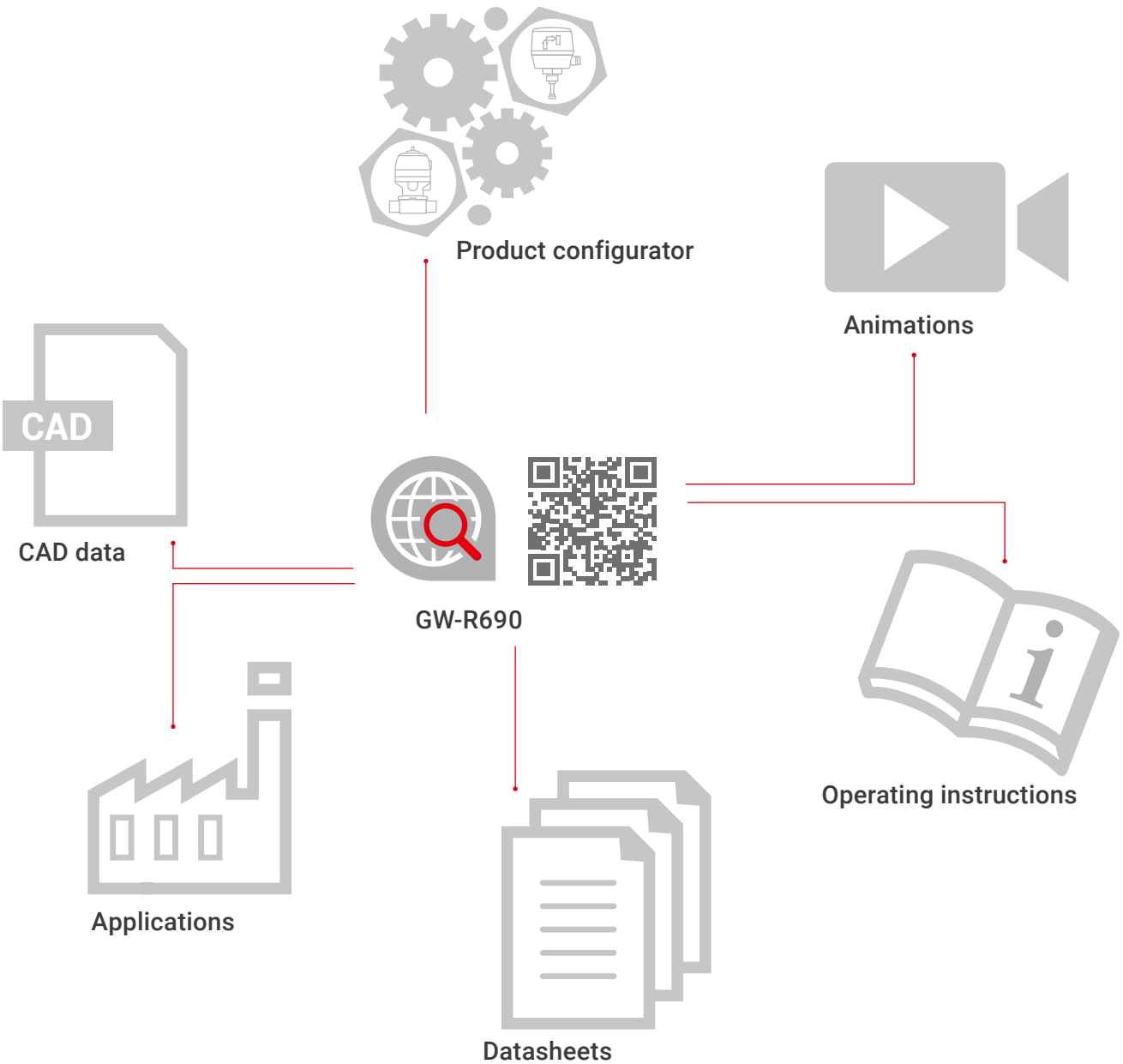
Configure easily online

With this product range, we want to offer you a quick overview of all standard products in our range. We have, therefore, listed the most important technical specifications for individual products in this catalogue. But there's still more to discover! On our website, you can find a great deal of further useful information, such as datasheets, operating instructions and animations, allowing you to configure a valve completely in line with your requirements.



Go directly to the online product page using the web code

The web code consists of the abbreviation "GW-" and the respective product type. For example, the GEMÜ R690 diaphragm valve has the web code GW-R690. Enter the web code in the search frame on the GEMÜ website ***www.gemu-group.com*** and you will be taken straight to the associated product page. Alternatively, you can scan the QR code.



Diaphragm valves

Description

Diaphragm valves are the all-rounders in the world of valves. One of their major advantages is that only two components come into contact with the working medium – the diaphragm and the valve body. Diaphragm valves are amongst the valve types with minimal dead space and are, therefore, insensitive to particulate media and can be cleaned safely. They are the first choice for applications in which deposits of the medium are to be avoided at all costs.

The large material selection means that GEMÜ diaphragm valves are ideally suited for corrosive, abrasive or high-viscosity media, which are often found in chemical processes and in the industrial water treatment and processing industries.

Features

- For ultra-pure to heavily contaminated abrasive media
- Optional flow direction
- Hermetic separation between medium and actuator
- Very good cleanability

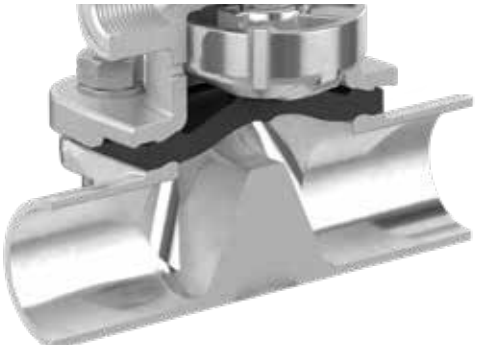
Typical working media

- Inert and corrosive media
- Clean and contaminated abrasive media
- Liquids and gases
- Slurries, powder and dust

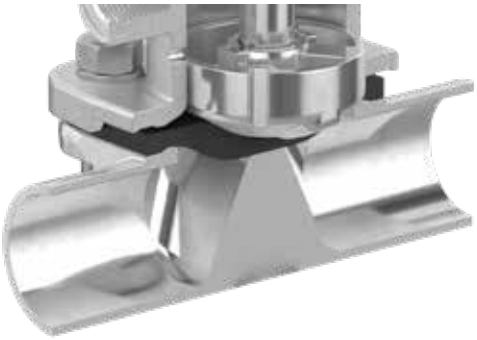
Applications

- Treatment of waste water, sewage, sea water, drinking water, process water
- Woodpulp and paper manufacture/processing
- Paint and coating manufacturing/processing
- Gemstone, metal and mineral extraction and mining/processing
- Fertilizer production
- Brine and salt extraction
- Power plants
- Sewage clarification plants
- Dyeing
- Granulate manufacture
- Sugar production
- Ceramics industry

Functional principle of diaphragm valves



Open



Closed

The diaphragm valve works thanks to the interaction of perfectly tuned components. These are the valve body, the shut-off diaphragm, the diaphragm fixing, the compressor as well as the actuator.

The flexible shut-off diaphragm is deformed by the compressor and, during the closing movement, is pressed onto the sealing weir of the valve body with a positive and non-positive fit. You can choose the flow direction here.

GEMÜ seal system

GEMÜ valve bodies are distinguished by a sealing bead running close to the seat diameter. The defined sealing edge between the valve body and the diaphragm makes it ideal for sterile applications. This measure reduces the ring-shaped gap between diaphragm and valve body in the external sealing area. This special feature makes GEMÜ diaphragm valves suitable for sterile applications. When developing our diaphragms, we also consider this crucial functional and design characteristic, which was developed by GEMÜ more than three decades ago and has been continually refined since then. This is the only way to ensure that our customers can rely on the valve as a complete unit.

GEMÜ diaphragms have been developed, tested, and approved for applications with GEMÜ valve bodies. Therefore GEMÜ does not recommend the use of other manufacturers' diaphragms with GEMÜ valve bodies. We shall not accept any liability resulting from the use of diaphragms of other manufacturers inside GEMÜ diaphragm valves.

GEMÜ seal system

Modular system for diaphragm valves

With the GEMÜ modular system, we offer you the opportunity to put together a suitable valve in line with your requirements. Discover all configuration options at **www.gemu-group.com**

Measurement and control technology
Electrical position indicators and combi switchboxes | Positioners and process controllers | Accessories



Actuators
Manual | Pneumatic | Motorized
Metal | Plastic



Diaphragms
EPDM | FKM | NBR | NR | IIR | PTFE/EPDM



Body
2/2-way body | Multi-port body
Metal | Metal with plastic lining | Plastic



Configure your valve online
at **www.gemu-group.com**

Weir-type and full bore bodies

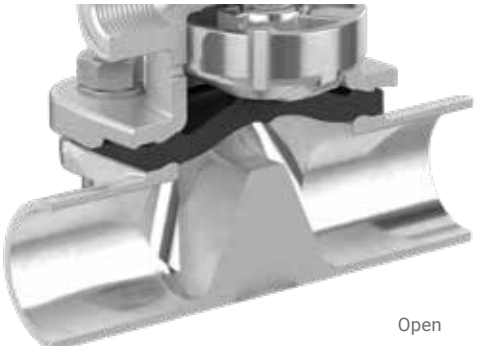
Depending on area of application, designs with or without a sealing weir can be advisable.
The differences will be compared in the following section.

Weir-type bodies

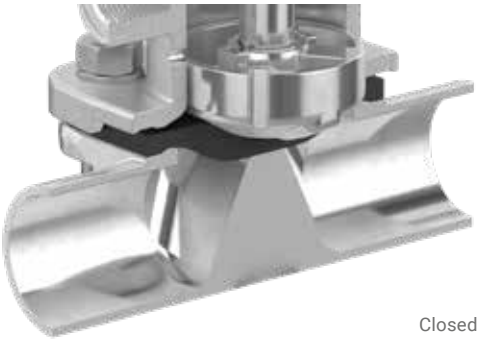
Features
- Depending on the version, up to 10 bar operating pressure and 150 °C operating temperature
- Good flow characteristics
- All mechanical components are located outside of the media-wetted area. The working medium comes into contact only with the internal surface finish of the valve body and the diaphragm surface
- The valve is also suitable for higher cycle duties

Areas of use
- Suitable for clean and heavily contaminated, liquid and gaseous as well as inert and corrosive media
- Slurries, powder and dust
- Can be used for abrasive media
- Controlling liquid media

Typical areas of application
- Waste water, sewage, sea water, cooling water, service water and drinking water treatment
- Woodpulp and paper manufacture/processing
- Dyestuff and paint manufacturing/processing
- Gemstone, metal and mineral extraction and mining/ processing
- Fertilizer production
- Extraction/processing of plaster, cement, sulphur and lime
- Brine and salt extraction
- Power plants
- Sewage clarification plants
- Dyeing
- Granulate manufacture
- Sugar production



Open



Closed

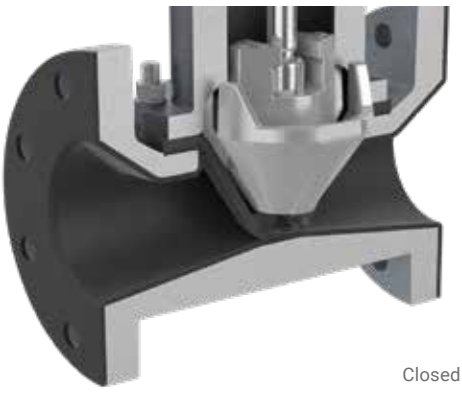
Full bore bodies

Features
- Depending on the version, up to 7 bar operating pressure and 100 °C operating temperature
- Very good flow characteristics
- All mechanical components are located outside of the media-wetted area. The working medium comes into contact only with the internal surface finish of the valve body and the diaphragm surface

Areas of use
- Suitable for heavily and extremely contaminated liquid, inert and corrosive media
- Heavily contaminated waste water and slurries
- Granular materials
- Suitable for abrasive media

Typical areas of application
- Woodpulp and paper manufacture/processing
- Gemstone, metal and mineral extraction and mining/ processing
- Fertilizer production/phosphate processing
- Extraction/processing of plaster, cement, sulphur and lime
- Sewage clarification plants
- Granulate manufacture

Open



Closed

Lined diaphragm valves

Lined valve bodies can be used if a valve is exposed to particularly heavy chemical or mechanical loads. The combination of robust body housing and durable plastics is preferable for corrosive media and safety systems, such as in the chemical industry.

At GEMÜ, we manufacture the injection moulding tools for the plastic linings ourselves.

Our special manufacturing processes and the sophisticated geometric suitability of the material transitions make lined GEMÜ valve bodies a long-term high-grade application solution. For additional reliability of application, we carry out an individual inspection of each lining.

The lined GEMÜ valve bodies are produced exclusively using high-quality materials and only at selected and certified foundries.

This is how high-quality, lined diaphragm valves are developed at GEMÜ

- Injection moulding is carried out via a central sprue from below through the valve weir, preventing the plastic layer from detaching from the metal body under vacuum operating conditions
- The metal/plastic material transition is designed at the pipe connections so that the plastic lining is fixed axially inside the pipe and no stress damage can occur as a result of thermal expansion
- A temperature-resistant coating on the metal bodies prepared for injection provides a high level of corrosion protection for the metal surface even underneath the plastic layer

Lining/injection moulding

GEMÜ injects the plastic valve body linings subject to strict quality controls, e.g. spark testing.

When selecting the materials for the lining, you can choose between polypropylene (PP) and fluoroplastics (PFA), as well as soft and hard rubber.

Using an extruder, fluid thermoplastics and elastomers are injected between the metal bodies and into the metal mould core inside the bodies. The wall construction strength can, therefore, be defined precisely – and at a consistently high quality.

Coating

In demanding ambient conditions, valves also need special external protection. This is why GEMÜ offers different coating solutions:

- Metal, paint or synthetic powder coating
- Coating applied by galvanisation, painting or immersion/enamelling
- Thin coating, less material coating
- Materials such as zinc, chrome, epoxy, phenol resins, nylon or fluoroplastics are used as coating materials

Single-use valves

GEMÜ also offers diaphragm valves for single use. These are designated as single-use valves and are used if it is crucial to avoid cross-contamination or if a simplified plant design is required. Secondary processes once required for cleaning and sterilization (CIP/SIP) are no longer at all necessary in single-use systems and processes. The necessary purity is guaranteed by using gamma rays to sterilize all the process components used.

Unlike with a conventional diaphragm valve, the two media-wetted components (valve body and diaphragm) are sealed together. This produces the central component, the single-use valve body, which is removed from the manual operator and disposed of after a single use. The actuator remains in the system for multiple use. The single-use diaphragm valve body and the actuator are joined using a clamp. These are locked together and unlocked through a defined opening and closing procedure.

Pneumatically operated diaphragm valves made of metal

Overview

GEMÜ type	650 BioStar	660	605 / 625 / 687
			
Special feature		Precise stroke limiter	
Nominal sizes	DN 4 to 150	DN 4 to 25	DN 4 to 20
Media temperature	-20 to 130 °C	-10 to 100 °C	-10 to 100 °C
Ambient temperature	-20 to 60 °C	0 to 60 °C	0 to 60 °C
Operating pressure	0 to 10 bar	0 to 5 bar	0 to 10 bar
Connection types			
Clamp	●	●	●
Flange	●	●	●
Spigot	●	●	●
Threaded connection	●	●	●
Body materials			
1.4408	●	●	●
1.4408, lined	●	-	●
1.4435	●	●	●
1.4435 (≈316L)	●	-	-
1.4435 (316L)	●	●	●
1.4435 (BN2)	●	●	●
1.4539	●	●	●
CW617N	-	-	-
EN-GJL-250	-	-	-
EN-GJL-250, lined	-	-	-
EN-GJS-400-18-LT	-	-	-
EN-GJS-400-18-LT, lined	-	-	●
EN-GJS-500-7, lined	-	-	-
Conformities			
3A	●	●	●
Belgaqua	-	-	-
BSE/TSE	●	●	●
CRN	●	●	●
EAC	●	●	●
EHEDG	●	●	●
FDA	●	●	●
Functional safety	●	-	●
Oxygen	●	●	●
Reg. (EU) No. 10/2011	●	●	●
Regulation (EC) No. 1935/2004	●	●	●
Regulation (EC) No. 2023/2006	●	●	●
TA Luft (German Clean Air Act)	●	●	●
USP	●	●	●

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ type	615 / 695	620	656
			
Special feature			Full bore design
Nominal sizes	DN 10 to 65	DN 15 to 150	DN 25 to 250
Media temperature	-10 to 80 °C	0 to 100 °C	0 to 100 °C
Ambient temperature	0 to 60 °C	0 to 60 °C	0 to 60 °C
Operating pressure	0 to 10 bar	0 to 10 bar	0 to 7 bar
Connection types			
Clamp	●	-	-
Flange	●	●	●
Spigot	●	-	-
Threaded connection	●	●	-
Body materials			
1.4408	●	-	-
1.4408, lined	●	-	-
1.4435	●	-	-
1.4435 (≈316L)	-	-	-
1.4435 (316L)	●	-	-
1.4435 (BN2)	●	-	-
1.4539	●	-	-
CW617N	●	-	-
EN-GJL-250	●	●	●
EN-GJL-250, lined	-	-	●
EN-GJS-400-18-LT	●	●	-
EN-GJS-400-18-LT, lined	●	●	-
EN-GJS-500-7, lined	-	●	-
Conformities			
3A	-	-	-
Belgaqua	●	-	-
BSE/TSE	●	-	-
CRN	-	●	●
EAC	●	●	●
EHEDG	●	-	-
FDA	●	●	-
Functional safety	-	-	-
Oxygen	●	-	-
Reg. (EU) No. 10/2011	●	-	-
Regulation (EC) No. 1935/2004	●	-	-
Regulation (EC) No. 2023/2006	●	-	-
TA Luft (German Clean Air Act)	-	●	-
USP	●	-	-

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ 650 BioStar
Pneumatically operated diaphragm valve

The GEMÜ 650 BioStar 2/2-way diaphragm valve has a stainless steel piston actuator and is pneumatically operated. The valve is designed for use in a sterile environment. All actuator parts are made from stainless steel (except seals). The compression springs of diaphragm sizes 80 and 100 are made of epoxy-coated spring steel. Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available. An integrated optical position indicator is standard.

Features

- Compact design (ideal when space is at a premium)
- CIP/SIP capable
- Autoclave capability, depending on version
- Controlled exhaust air duct available as an option
- Wide range of adaptation options for add-on components and accessories
- Version according to ATEX on request

Technical specifications

Media temperature :	-20 to 130 °C
Sterilization temperature:	max. 150 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 4 to 150
Body configurations:	2/2-way body | i-body | Multi-port body | Tank valve body | T-body | Welding configuration
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS
Body materials:	1.4408, investment casting material | 1.4408, investment casting material, PFA lined | 1.4435 (316L), block material | 1.4435 (316L), forged material | 1.4435 (BN2), forged material | 1.4435, investment casting material | 1.4539 (904L), forged material
Body lining:	PFA
Diaphragm materials:	EPDM | PTFE/EPDM | PTFE/PVDF/EPDM
Conformities:	3A | BSE/TSE | CRN | EAC | EHEDG | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act) | USP

Go online!

GW-650

GEMÜ 660
Pneumatically operated diaphragm valve

The GEMÜ 660 2/2-way diaphragm valve has a stainless steel piston actuator and is pneumatically operated. The valve was designed for dosing and filling a wide range of products. All actuator parts are made from stainless steel (except seals). Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available. An opening stroke and closing stroke limiter and an optical position indicator are integrated as standard.

Features

- Easily adjustable, integrated opening stroke and closing stroke limiter
- Precise stroke scale (10 scale points per turn) on the actuator top
- High level of reproducibility of the flow rates thanks to distance sleeves integrated in the shut-off diaphragms
- Fast cycle duties due to minimized filling volume

Technical specifications

Media temperature :	-10 to 100 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 5 bar
Nominal sizes:	DN 4 to 25
Body configurations:	2/2-way body | i-body | Multi-port body | Tank valve body | T-body | Welding configuration
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS
Body materials:	1.4408, investment casting material | 1.4435 (316L), forged material | 1.4435 (BN2), forged material | 1.4435, investment casting material | 1.4539 (904L), forged material
Diaphragm materials:	EPDM | PTFE/EPDM
Conformities:	3A | BSE/TSE | CRN | EAC | EHEDG | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act) | USP

Go online!

GW-660

GEMÜ 605 / 625 / 687
Pneumatically operated diaphragm valve

The GEMÜ 605/625/687 2/2-way diaphragm valves have a low maintenance plastic actuator and are pneumatically operated. The valves have a metal distance piece. An integral optical position indicator is standard. Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available.

Features

- Hermetic separation between medium and actuator
- CIP/SIP capable
- Wide range of adaptation options for add-on components and accessories

also as control valve

Technical specifications

Media temperature :	-10 to 100 °C
Sterilization temperature:	max. 150 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 4 to 20
Body configurations:	2/2-way body | i-body | Multi-port body | Tank valve body | T-body | Welding configuration
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS
Body materials:	1.4408, investment casting material | 1.4435 (316L), forged material | 1.4435 (BN2), forged material | 1.4435, investment casting material | 1.4539 (904L), forged material | CW617N, brass | EN-GJS-400-18-LT, SG iron material
Body lining:	Hard rubber | PFA | PP
Diaphragm materials:	EPDM | FKM | PTFE/EPDM | PTFE/PVDF/EPDM
Conformities:	3A | BSE/TSE | CRN | EAC | EHEDG | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act) | USP

Go online!

GW-605 GW-625 GW-687

GEMÜ 615 / 695
Pneumatically operated diaphragm valve

The GEMÜ 615/695 2/2-way diaphragm valves have a low maintenance plastic actuator and are pneumatically operated. An integral optical position indicator is standard. Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available.

Features

- Wide range of adaptation options for add-on components and accessories
- CIP capable

Technical specifications

Media temperature :	-10 to 80 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 10 to 65
Body configurations:	2/2-way body | i-body | Welding configuration
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS
Body materials:	1.4408, investment casting material | 1.4435 (316L), forged material | 1.4435 (BN2), forged material | 1.4435, investment casting material | 1.4539 (904L), forged material | CW614N, brass | CW617N, brass | EN-GJL-250, cast iron material | EN-GJS-400-18-LT, SG iron material
Body lining:	Hard rubber | PFA | PP
Diaphragm materials:	EPDM | FKM | NBR | PTFE/EPDM | PTFE/FKM | PTFE/PVDF/EPDM
Conformities:	Belgaqua | BSE/TSE | EAC | EHEDG | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | USP

Go online!

GW-615

GW-695

GEMÜ 620
Pneumatically operated diaphragm valve

The GEMÜ 620 2/2-way diaphragm valve has a low maintenance membrane actuator made of metal or plastic and is pneumatically operated. The valve has a metal distance piece. Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available.

Features

- Suitable for particulate and abrasive media
- Various lining materials are available, such as PFA, PP or hard rubber
- Standard optical position indicator
- Wide range of adaptation options for add-on components and accessories

also as control valve

EAC

FDA

Technical specifications

Media temperature :	0 to 100 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 15 to 150
Body configurations:	2/2-way body
Connection types:	Flange | Threaded connection
Connection standards:	ANSI | BS | EN | ISO
Body materials:	EN-GJL-250, cast iron material | EN-GJS-400-18-LT (GGG 40.3), PFA lined | EN-GJS-400-18-LT (GGG 40.3), PP lined | EN-GJS-400-18-LT, hard rubber lined | EN-GJS-400-18-LT, SG iron material | EN-GJS-400-18-LT, SG iron material with butyl lining | EN-GJS-400-18-LT, SG iron material with soft rubber lining | EN-GJS-500-7, ductile iron material, PFA lined | EN-GJS-500-7, ductile iron material, PP lined
Body lining:	Hard rubber | PFA | PP
Diaphragm materials:	CR | EPDM | FKM | NBR | PTFE/EPDM | PTFE/FKM | PTFE/PVDF/EPDM
Conformities:	CRN | EAC | FDA | TA Luft (German Clean Air Act)

Go online!

GW-620

GEMÜ 656
Pneumatically operated full bore diaphragm valve

The GEMÜ 656 2/2-way diaphragm valve has a low maintenance metal membrane actuator and is pneumatically operated. Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available. The valve body has a full bore design.

Features

- High mechanical stability
- High flow rate due to straight through flow
- Valve can be cleaned without disassembly of actuator

Technical specifications

Media temperature :	0 to 100 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 7 bar
Nominal sizes:	DN 25 to 250
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | EN | ISO
Body materials:	EN-GJL-250, cast iron material | EN-GJS-400-18-LT | EN-GJS-400-18-LT, SG iron material | EN-GJS-500-7, ductile iron material
Body lining:	Butyl | Hard rubber | Soft rubber
Diaphragm materials:	CR | EPDM | IIR | NBR | NR
Conformities:	CRN | EAC

Go online!

GW-656

Pneumatically operated diaphragm valves made of plastic

Overview

GEMÜ type	610	630	R690	C60 CleanStar
				
Special feature			High-Flow valve body	High-Flow valve body
Nominal sizes	DN 12 to 20	DN 12 to 20	DN 15 to 100	DN 4 to 50
Media temperature	-10 to 80 °C	-10 to 80 °C	-10 to 80 °C	-10 to 150 °C
Ambient temperature	-10 to 50 °C	-10 to 50 °C	-10 to 50 °C	0 to 60 °C
Operating pressure	0 to 6 bar	0 to 6 bar	0 to 10 bar	0 to 6 bar
Connection types				
Flange	-	-	●	-
Flare	●	●	-	●
Flare SpaceSaver	-	-	-	●
Nexus Connect® SpaceSaver	-	-	-	●
PrimeLock®	-	-	-	●
PrimeLock® SpaceSaver	-	-	-	●
Solvent cement socket	●	●	-	-
Spigot	●	●	●	●
Super 300 Type Pillar® SpaceSaver	-	-	-	●
Threaded connection	●	●	-	-
Union end	●	●	●	●
Welded-on Nexus Connect®	-	-	-	●
Body materials				
ABS	-	-	●	-
Inliner PP-H/outliner PP	-	-	●	-
Inliner PVDF/outliner PP	-	-	●	-
PFA	-	-	-	●
PP	●	●	●	-
PP-H	●	●	-	-
PVC-U	●	●	●	-
PVDF	●	●	●	-
Conformities				
EAC	●	●	●	●
FDA	●	●	●	●
NSF	●	●	●	-
TA Luft (German Clean Air Act)	-	-	-	●

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ 610
Pneumatically operated diaphragm valve

The GEMÜ 610 2/2-way diaphragm valve has a low maintenance plastic piston actuator and is pneumatically operated. An integral optical position indicator is standard. Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available.

Features

- Same mounting height planes over multiple nominal sizes
- High flow rate
- Integral optical position indicator and closing stroke limiter as standard
- Option with electrical position indicator

also as control valve

Technical specifications

Media temperature :	-10 to 80 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 12 to 20
Body configurations:	2/2-way body
Connection types:	Flare | Solvent cement socket | Spigot | Threaded connection | Union end
Connection standards:	BS | DIN | ISO
Body materials:	PP, reinforced | PP-H, natural | PVC-U, grey | PVDF
Diaphragm materials:	EPDM | FKM | NBR | PTFE/EPDM
Conformities:	EAC | FDA | NSF

Go online!

GW-610

GEMÜ 630
Pneumatically operated diaphragm valve

The GEMÜ 630 2/2-way diaphragm valve has a low-maintenance plastic piston actuator and is pneumatically operated. An optical position indicator is integrated as standard. The valve is also equipped with a stroke limiter. It is available with a "normally closed" (NC) control function.

Features

- Variable spring set for applications with low control pressure
- Mounting plates for height compensation of differing body dimensions and nominal sizes available
- Extensive range of accessories

also as control valve

Technical specifications

Media temperature :	-10 to 80 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 12 to 20
Body configurations:	2/2-way body
Connection types:	Flare | Solvent cement socket | Spigot | Threaded connection | Union end
Connection standards:	BS | EN | ISO
Body materials:	PP, reinforced | PP-H, natural | PVC-U, grey | PVDF
Diaphragm materials:	EPDM | FKM | NBR | PTFE/EPDM
Conformities:	EAC | FDA | NSF

Go online!

GW-630

GEMÜ R690
Pneumatically operated diaphragm valve

The GEMÜ R690 2/2-way diaphragm valve has a low maintenance membrane actuator and is pneumatically operated. Normally Closed (NC), Normally Open (NO) and Double Acting (DA) control functions are available. The high-flow valve body provides compact dimensions at high flow rates.

Features

- Same mounting height planes over multiple nominal sizes
- Compact system design thanks to flow-optimized high-flow valve bodies
- Reduced control air consumption
- Modified spring sets available for applications with reduced control pressure

also as control valve

Technical specifications

Media temperature :	-10 to 80 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 15 to 100
Body configurations:	2/2-way body
Connection types:	Flange | Spigot | Union end
Connection standards:	ANSI | ASTM | BS | DIN | EN | ISO | JIS
Body materials:	ABS | Inliner PP-H, grey / outliner PP, reinforced | Inliner PVDF/outliner PP, reinforced | PP, reinforced | PVC-U, grey | PVDF
Diaphragm materials:	EPDM | FKM | NBR | PTFE/EPDM
Conformities:	EAC | FDA | NSF

Go online!

GW-R690

GEMÜ C60 CleanStar
Pneumatically operated diaphragm valve

The GEMÜ C60 CleanStar® ultra pure 2/2-way diaphragm valve has a plastic piston actuator and is pneumatically operated. A stroke limiter (not with actuator size 4) and an optical position indicator are integrated as standard. All media wetted parts are made of PFA or PTFE. This High Purity version of the CleanStar® series complies with the strictest purity standards and boasts high chemical resistance. It can also be used with high media temperatures. As such, it is often used at the supply and distribution level in semiconductor factories.

Features

- High purity due to cleanroom manufacturing
- High Flow version selectable
- High flow rate with low-stress media channelling
- Minimal deadleg
- Optional flow direction
- Also available as T valve
- The valve is available with an ECTFE union nut as an option.
- Reduced costs thanks to long service life

also as control valve

Technical specifications

Media temperature :	-10 to 150 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 4 to 50
Body configurations:	2/2-way body | T-body | V valve body
Connection types:	Flare | Flare SpaceSaver | Nexus Connect® SpaceSaver | PrimeLock® | PrimeLock® SpaceSaver | Spigot | Super 300 Type Pillar® SpaceSaver | Union end | Welded-on Nexus Connect®
Connection standards:	DIN
Body materials:	PFA | PP-H, grey | PP-H, natural | PVDF
Diaphragm materials:	PTFE/EPDM
Conformities:	EAC | FDA | TA Luft (German Clean Air Act)

Go online!

GW-C60

Motorized diaphragm valves made of metal

Overview

GEMÜ type	629 eSyLite	639 eSyStep	649 eSyDrive
			
Special feature	Basic actuator for Open/Close applications	Universal actuator, option with integrated positioner	Premium actuator with integrated positioner and process controller
Nominal sizes	DN 4 to 65	DN 4 to 40	DN 4 to 65
Media temperature	-10 to 80 °C	-10 to 100 °C	-10 to 100 °C
Ambient temperature	-10 to 50 °C	0 to 60 °C	-10 to 60 °C
Operating pressure	0 to 6 bar	0 to 10 bar	0 to 10 bar
Supply voltage	24 V DC	24 V DC	24 V DC
Actuating speed	max. 3 mm/s	max. 3 mm/s	max. 6 mm/s
Connection types			
Clamp	●	●	●
Flange	●	●	●
Spigot	●	●	●
Threaded connection	●	●	●
Body materials			
1.4408	●	●	●
1.4408, lined	●	●	●
1.4435	●	●	●
1.4539	●	●	●
Brass	●	●	●
EN-GJL-250	●	-	●
EN-GJS-400-18-LT	●	●	●
EN-GJS-400-18-LT, lined	●	●	●
Conformities			
Belgaqua	●	●	●
BSE/TSE	-	●	●
EAC	●	●	●
EHEDG	●	●	●
FDA	●	●	●
Oxygen	-	●	●
Reg. (EU) No. 10/2011	●	●	●
Regulation (EC) No. 1935/2004	●	●	●
Regulation (EC) No. 2023/2006	●	●	●
TA Luft (German Clean Air Act)	-	●	●
USP	-	●	●

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ 629 eSyLite
Motorized diaphragm valve

The GEMÜ 629 eSyLite 2/2-way diaphragm valve is motorized. It is available as an Open/Close version. An integrated optical position indicator is standard. The self-locking actuator holds its position in a stable manner in the event of power supply failure.

Features

- Motorized linear actuator for Open/Close applications
- Self-locking spindle actuator
- Safety shut-down integrated
- Standard optical position indicator and manual override
- Integrated emergency power supply module (optional)
- Electrical position indicator GEMÜ 1215 (optional)

Technical specifications

Media temperature :	-10 to 80 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 4 to 65
Body configurations:	2/2-way body | i-body | Multi-port body | Tank valve body | T-body | Welding configuration
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS
Body materials:	1.4408, investment casting material | 1.4408, investment casting material, PFA lined | 1.4435 (316L), forged material | 1.4435 (BN2), forged material | 1.4435, investment casting material | 1.4539 (904L), forged material | CW614N, brass | CW617N, brass | EN-GJS-400-18-LT, SG iron material | EN-GJS-400-18-LT, SG iron material with hard rubber lining | EN-GJS-400-18-LT, SG iron material, PFA lined | EN-GJS-400-18-LT, SG iron material, PP lined
Body lining:	Hard rubber | PFA | PP
Diaphragm materials:	CR | EPDM | FKM | NBR | PTFE/EPDM
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP 65
Conformities:	Belgaqua | EAC | EHEDG | FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006

Go online!

GW-629

GEMÜ 639 eSyStep
Motorized diaphragm valve

The GEMÜ 639 eSyStep 2/2-way diaphragm valve is electrically operated. The eSyStep actuator is available as an On/Off actuator or with an integrated positioner. An optical and electrical position indicator is integrated as standard. The self-locking actuator holds its position in a stable manner when idle and in the event of a power supply failure.

Features

- CIP/SIP capable (only with stainless steel distance piece)
- Open/close function or with integrated positioner
- Actuating speed max. 3 mm/s
- Parameterizable via IO-Link
- On-site or remote end position programming via programming input
- Various functions integrated (e.g. feedback, stroke limiter, etc.)

Technical specifications

Media temperature :	-10 to 100 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 4 to 40
Body configurations:	2/2-way body | i-body | Multi-port body | Tank valve body | T-body | Welding configuration
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS
Body materials:	1.4408, investment casting material | 1.4408, investment casting material, PFA lined | 1.4435 (316L), forged material | 1.4435 (BN2), forged material | 1.4435, investment casting material | 1.4539 (904L), forged material | CW614N, brass | CW617N, brass | EN-GJS-400-18-LT, SG iron material | EN-GJS-400-18-LT, SG iron material with hard rubber lining | EN-GJS-400-18-LT, SG iron material, PFA lined | EN-GJS-400-18-LT, SG iron material, PP lined
Body lining:	Hard rubber | PFA | PP
Diaphragm materials:	CR | EPDM | FKM | NBR | PTFE/EPDM
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP 65
Conformities:	Belgaqua | BSE/TSE | EAC | EHEDG | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act) | USP

Go online!

GW-639

GEMÜ 649 eSyDrive
Motorized diaphragm valve

The GEMÜ 649 eSyDrive diaphragm valve is actuated by a motorized hollow shaft actuator. It is based on technology that does not use brushes or sensors and therefore guarantees high performance and a long service life. In addition to Open/Close applications, the valve is ideal for variable and complex control applications. The actuator has an integrated web server for parameterization and diagnostics purposes.

Features

- Installation for optimized draining is possible
- Open/Close function, positioner and process controller
- Force and speed are variably adjustable
- Extensive diagnostic functions
- Operable via web interface eSy-Web or Modbus TCP
- Various functions of add-on components and accessories are already integrated (e.g. position indicators, stroke limiters, etc.)

also as control valve

BELGAQUA

EAC

CERTIFIED EHEDG TYPE EL CLASS I

FDA

Technical specifications

Media temperature :	-10 to 100 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 4 to 65
Body configurations:	2/2-way body | i-body | Multi-port body | Tank valve body | T-body | Welding configuration
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS
Body materials:	1.4408, investment casting material | 1.4408, investment casting material, PFA lined | 1.4435 (316L), forged material | 1.4435 (BN2), forged material | 1.4435, investment casting material | 1.4539 (904L), forged material | CW614N, brass | CW617N, brass | EN-GJS-400-18-LT, SG iron material | EN-GJS-400-18-LT, SG iron material with hard rubber lining | EN-GJS-400-18-LT, SG iron material, PFA lined | EN-GJS-400-18-LT, SG iron material, PP lined
Body lining:	Hard rubber | PFA | PP
Diaphragm materials:	CR | EPDM | FKM | NBR | PTFE/EPDM
Supply voltage:	24 V DC
Actuating speed:	max. 6 mm/s
Protection class:	IP 65
Conformities:	Belgaqua | BSE/TSE | EAC | EHEDG | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act) | USP

Go online!

GW-649

Motorized diaphragm valves made of plastic

Overview

GEMÜ type	R629 eSyLite	R639 eSyStep	R649 eSyDrive
			
Special feature	Basic actuator for Open/Close applications	Universal actuator, option with integrated positioner	Premium actuator with integrated positioner and process controller
Nominal sizes	DN 12 to 65	DN 12 to 50	DN 12 to 65
Media temperature	-10 to 80 °C	-10 to 80 °C	-10 to 80 °C
Ambient temperature	-10 to 50 °C	0 to 50 °C	-10 to 50 °C
Operating pressure	0 to 6 bar	0 to 8 bar	0 to 10 bar
Supply voltage	24 V DC	24 V DC	24 V DC
Actuating speed	max. 3 mm/s	max. 3 mm/s	max. 6 mm/s
Connection types			
Flange	●	●	●
Flare	●	●	●
Solvent cement socket	●	●	●
Spigot	●	●	●
Threaded connection	●	●	●
Union end	●	●	●
Body materials			
ABS	●	●	●
Inliner PP-H/outliner PP	●	●	●
Inliner PVDF/outliner PP	●	●	●
PP	-	●	-
PP-H	●	●	-
PVC-U	●	●	●
PVDF	-	●	●
Conformities			
EAC	●	●	●
FDA	●	●	●
NSF	-	-	●

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ R629 eSyLite
Motorized diaphragm valve

The GEMÜ R629 eSyLite 2/2-way diaphragm valve is motorized. It is available in an Open/Closed version. An integrated optical position indicator is standard. The self-locking actuator holds its position in a stable manner in the event of power supply failure.

Features

- Motorized linear actuator for Open/Close applications
- Self-locking spindle actuator
- Safety shut-down integrated
- Standard optical position indicator and manual override
- Integrated emergency power supply module (optional)
- Electrical position indicator GEMÜ 1215 (optional)

Technical specifications

Media temperature :	-10 to 80 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 12 to 65
Body configurations:	2/2-way body
Connection types:	Flange | Flare | Solvent cement socket | Spigot | Threaded connection | Union end
Connection standards:	ANSI | ASTM | BS | DIN | EN | ISO | JIS
Body materials:	ABS | Inliner PP-H, grey / outliner PP, reinforced | Inliner PVDF/outliner PP, reinforced | PP, reinforced | PP-H, natural | PVC-U, grey | PVDF
Diaphragm materials:	EPDM | FKM | NBR | PTFE/EPDM
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP 65
Conformities:	EAC | FDA

Go online!

GW-R629

GEMÜ R639 eSyStep
Motorized diaphragm valve

The GEMÜ R639 eSyStep 2/2-way diaphragm valve is electrically operated. The eSyStep electric actuator is available as On/Off actuator or with integrated positioner. An integral optical and electrical position indicator is standard. The self-locking actuator holds its position in a stable manner when idle and in the event of power supply failure.

Features

- CIP/SIP capable (only with stainless steel distance piece)
- Open/close function or with integrated positioner
- Actuating speed max. 3 mm/s
- Parameterizable via IO-Link
- On-site or remote end position programming via programming input
- Various functions integrated (e.g. feedback, stroke limiter, etc.)

also as control valve

Technical specifications

Media temperature :	-10 to 80 °C
Ambient temperature:	0 to 50 °C
Operating pressure :	0 to 8 bar
Nominal sizes:	DN 12 to 50
Body configurations:	2/2-way body
Connection types:	Flange I Flare I Solvent cement socket I Spigot I Threaded connection I Union end
Connection standards:	BS I DIN I ISO I JIS
Body materials:	ABS I Inliner PP-H, grey / outliner PP, reinforced I Inliner PVDF / outliner PP, reinforced I Inliner PVDF/outliner PP, reinforced I PP, reinforced I PP-H, natural I PVC-U, grey I PVDF
Diaphragm materials:	EPDM I FKM I NBR I PTFE/EPDM
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP 65
Conformities:	EAC I FDA

Go online!

GW-R639

GEMÜ R649 eSyDrive
Motorized diaphragm valve

The GEMÜ R649 diaphragm valve is actuated by a motorized hollow shaft actuator. It is based on technology that does not use brushes or sensors and therefore guarantees high performance and a long service life. In addition to Open/Close applications, the valve is ideal for variable and complex control applications. The actuator has an integrated web server for parameterization and diagnostics purposes.

Features

- Hermetic separation between medium and actuator
- Installation for optimized draining is possible
- Open/Close function, positioner and process controller
- Force and speed are variably adjustable
- Extensive diagnostic functions
- Operable via web interface eSy-Web or Modbus TCP
- Various functions of add-on components and accessories are already integrated (e.g. position indicators, stroke limiters, etc.)

also as control valve

Technical specifications

Media temperature :	-10 to 80 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 12 to 65
Body configurations:	2/2-way body
Connection types:	Flange | Flare | Solvent cement socket | Spigot | Threaded connection | Union end
Connection standards:	ANSI | BS | DIN | EN | ISO | JIS
Body materials:	ABS | Inliner PP-H, grey / outliner PP, reinforced | Inliner PVDF/outliner PP, reinforced | PP, reinforced | PP-H, natural | PVC-U | PVDF
Diaphragm materials:	EPDM | FKM | NBR | PTFE/EPDM
Supply voltage:	24 V DC
Actuating speed:	max. 6 mm/s
Protection class:	IP 65
Conformities:	EAC | FDA | NSF

Go online!

GW-R649

M-block diaphragm valves

GEMÜ P600M
M-block plastic diaphragm valve

The GEMÜ P600M plastic M-block diaphragm valve comprises one or more diaphragm valve seats. These can be equipped with manual, pneumatic and motorized actuators. The downstream media is isolated using a diaphragm.

Features

- Combining several valves and pipe sections in one compact unit
- Reduced installation space
- Combining several functions in one block: Control, batch, distribute, flush, etc.
- Reduced number of welded and solvent cemented joints in the plant
- Customised block construction

also as control valve

Technical specifications

Media temperature :	-10 to 80 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 6 to 50
Body configurations:	Multi-port body
Connection types:	Clamp | Spigot | Threaded connection | Union end
Connection standards:	ASME | DIN | ISO
Body materials:	PP-H, grey | PP-H, natural | PVC-U, grey | PVDF
Diaphragm materials:	EPDM | FKM | NBR | PTFE/EPDM

Go online!

GW-P600M

GEMÜ P600M
M-block stainless steel diaphragm valve

The GEMÜ P600M stainless steel M-block diaphragm valve comprises one or more diaphragm valve seats. It is possible to choose between manual, pneumatic and motorized actuator versions. The downstream media is isolated using a diaphragm.

Features

- Space savings thanks to compact design
- Individual, customized and flexible design
- Reduced deadleg
- Fewer connection points and weld seams
- Huge variety of functions combined in the smallest of spaces
- Wide range of adaptation options from measurement and control systems, in addition to accessories
- Optimized draining design

also as control valve

Technical specifications

Media temperature :	-10 to 100 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 4 to 150
Body configurations:	Multi-port body
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | JIS | SMS
Body materials:	1.4435 (316L), block material | 1.4435 (BN2), block material | 1.4539 (904L), block material
Diaphragm materials:	EPDM | PTFE/EPDM
Conformities:	3A | BSE/TSE | CRN | EAC | FDA | Regulation (EC) No. 1935/2004 | USP

Go online!

GW-P600M

GEMÜ P600S
M-block diaphragm valve with flexible connection system

The GEMÜ P600S valve block made of plastic comprises two or three diaphragm valve seats. These can be equipped with manual, pneumatic and motorized actuators. The downstream media is isolated using a diaphragm at the valve seat.

Features

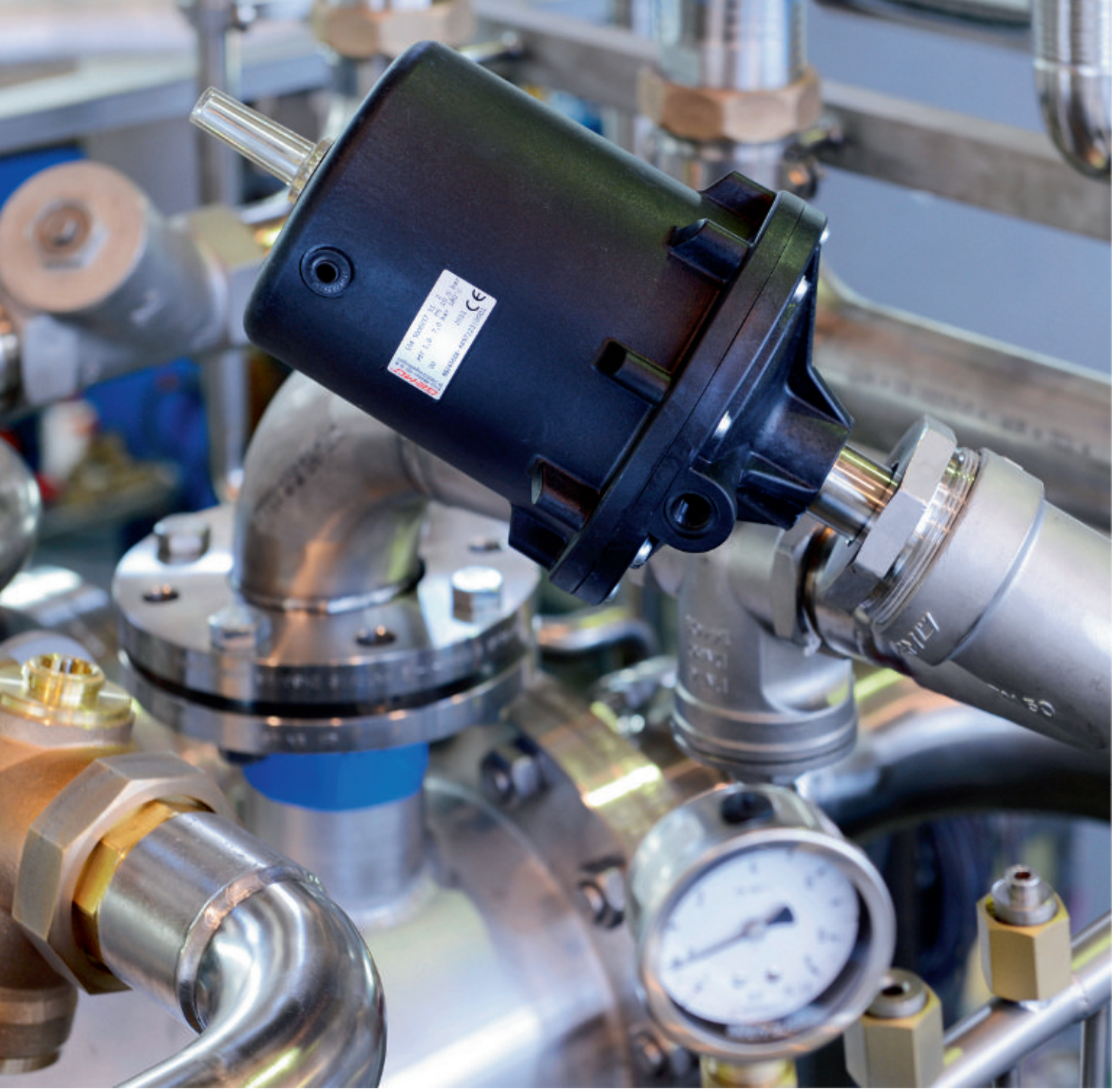
- Nominal pressure PN 10
- Various actuator versions available
- Connection system can subsequently be replaced
- Individually extendable block
- Combining several valves and pipe sections in one compact unit
- Reduction of the footprint
- Combining several functions in one block: Control, batch, distribute, etc.
- Reduced number of welded and solvent cemented joints in the plant
- Low maintenance

Technical specifications

Media temperature :	5 to 80 °C
Ambient temperature:	5 to 50 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 8 to 25
Connection types:	Spigot I Threaded connection I Union end
Body materials:	PP-H, grey I PVC-U
Diaphragm materials:	EPDM I FKM I NBR I PTFE/EPDM

Go online!

GW-P600S



Globe valves

Description

Globe valves are suitable for clean, liquid media, as well as gases and steam. Due to the linear movement and favourable mechanical conditions, they often take on automated tasks. Particularly in small nominal sizes, they are very suitable for fast cycle duties and high switching frequencies. In conjunction with the relevant positioners and regulating cones, they are the best possible control valves.

Further information can be found in the control systems section.

Features

- Fast cycle duties
- High switching frequencies
- Very good control characteristics

Typical working media

- Liquids: Water, glycol, cooling lubricant, sodium hydroxide
- Steam: Black steam, saturated steam
- Gases: Air, nitrogen, oxygen

Applications

- Generation and distribution of industrial and sterile steam, industrial gas, compressed air, biogas
- Batch and filling processes
- Heat exchangers and heating systems
- Heating and cooling processes in machines, systems and buildings
- Steam control for humidity regulation in production plants and buildings
- Dyeing and cleaning
- Filter systems and filter cleaning
- EPS machinery
- Parts cleaning
- Distribution of cooling lubricants in machining centres
- Water treatment: Evaporator, reverse osmosis
- PSA (pressure swing adsorption) systems: Nitrogen generators, oxygen generators

Functional principle of globe valves

Open

Closed

Seat seal

For soft-seated angled and straight globe valves, the seat seal is pressed against a valve seat using the force applied in the positioning element. The seat seal is stabilized here with a valve plug. The volumetric flow is shut off on the circular edge that emerges from the compression of the seat on the valve seat.

The tightness of the valve depends on factors including the chemical compatibility of the working medium.
A PTFE gasket is used as a standard seal for the valve seats of GEMÜ globe valves. Furthermore, elastomer and metal seals are also available.

Gland packing

The gland packing seals the valve spindle in the direction of the actuator. It prevents both emission of the working medium into the actuator and penetration of foreign matter into the working medium from outside. At high temperatures, GEMÜ uses special seal materials or stainless steel bellows. Special applications which require NBR seals or other special versions, for example, are available on request.

Advantages of GEMÜ:

- As standard, they are suitable for use in a vacuum up to 20 mbar (absolute)
- Designed for fast cycle duties and high numbers of switching cycles
- Self-adjusting gland packing
- Special versions with bellows up to 300 °C

The stainless steel bellows take on the function of the gland packing. It is preferred for use in high-vacuum applications and/or high media temperatures.
At high temperatures, it should, ideally, be combined with a metallic seat seal at the seat.

Globe valve seal system

Bellows valve open

Bellows valve closed

Modular system for globe valves

With the GEMÜ modular system, we offer you the opportunity to put together a suitable valve in line with your requirements. Discover all configuration options at ***www.gemu-group.com***

Measurement and control technology
Electrical position indicators and combi switchboxes | Positioners and process controllers | Accessories



Actuators
Manual | Pneumatic | Motorized
Metal | Plastic



Valve plug
Rigid | Flexible



Body
Angle seat body | Straight seat body | Multi-port body | Angle valve body



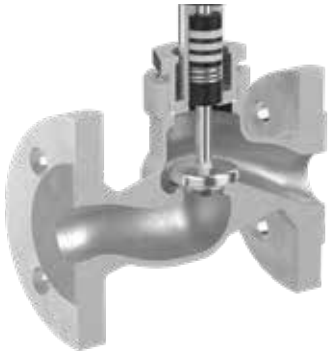
Configure your valve online
at **www.gemu-group.com**

Globe valve bodies

The variety of areas of application for globe valves also demands a variety of requirements from the valve. To satisfy these requirements, GEMÜ offers different body configurations that can be combined with GEMÜ gland packing and actuators in accordance with the modular system.

With our wide selection of connections and materials, we can cater to industrial process requirements on a case-by-case basis.

Globe valve



- DN 15 to 150
- Ideally suited for control applications

Angle seat globe valve

- DN 6 to 80
- Reduced vertical installation space
- Reduced pressure loss and higher flow rates

3/2-way globe valve

- DN 15 to 100
- Ideal for mixing, separating, aerating and de-aerating

Angle globe valve

- Saves an additional pipe bend
- Compact design

Please note the flow direction
The preferred flow direction is *under the seat*. With the flow direction *over the seat*, there is a risk of water hammers. They can damage the valve and other system components. The flow direction for GEMÜ valves is permanently marked on the body.

Pneumatically operated angle seat globe valves

Overview

GEMÜ type	514	550	554	555
				
Special feature	Robust actuator made from aluminium	Precise actuator design depends on operating pressure	Light piston actuator made of plastic	Free from non-ferrous metals, version with bellows
Nominal sizes	DN 8 to 80	DN 6 to 80	DN 6 to 80	DN 8 to 80
Media temperature	-10 to 210 °C	-10 to 180 °C	-10 to 180 °C	-10 to 185 °C
Ambient temperature	-10 to 60 °C	-10 to 60 °C	0 to 60 °C	-10 to 60 °C
Operating pressure	0 to 25 bar	0 to 25 bar	0 to 25 bar	0 to 10 bar
Connection types				
Clamp	-	●	●	●
Flange	●	●	●	-
Spigot	●	●	●	●
Threaded connection	●	●	●	-
Body configurations				
2/2-way body	●	●	●	●
Angle valve body	●	●	●	-
Body materials				
1.4408	●	●	●	-
1.4435	●	●	●	●
1.4435 (316L)	-	●	●	●
CC499K	●	-	●	-
Conformities				
ATEX	-	●	●	●
CRN	●	●	●	●
DVGW Gas	-	●	-	-
EAC	●	●	●	●
FDA	●	●	●	●
Functional safety	●	●	●	-
Oxygen	●	●	●	●
Reg. (EU) No. 10/2011	●	●	●	●
Regulation (EC) No. 1935/2004	●	●	●	●
Regulation (EC) No. 2023/2006	-	●	-	●
TA Luft (German Clean Air Act)	●	●	●	-
USP	-	●	●	●

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ 514
Pneumatically operated angle seat globe valve

The GEMÜ 514 2/2-way angle seat globe valve has a low-maintenance aluminium piston actuator and is pneumatically operated. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Robust actuator housing made of aluminium
- High flow rates due to angle seat design
- Stainless steel bellows as spindle seal for high operating temperatures
- Special connections and materials on request
- Suitable for vacuum up to 20 mbar (a)

also as control valve

Technical specifications

Media temperature :	-10 to 210 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 25 bar
Nominal sizes:	DN 8 to 80
Body configurations:	2/2-way body | Angle valve body
Connection types:	Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | JIS | NPT | SMS
Body materials:	1.4408, investment casting material | 1.4435, investment casting material | CC499K, cast bronze material
Seat seal materials:	1.4404 | PTFE | PTFE, reinforced
Conformities:	CRN | EAC | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Go online!

GW-514

GEMÜ 550
Pneumatically operated angle seat globe valve

The GEMÜ 550 2/2-way angle seat globe valve has a low-maintenance stainless steel piston actuator and is pneumatically operated. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Suitable for shut-off and control functions for gaseous, liquid and viscous media
- Suitable for vacuum up to 20 mbar (a)
- Wide range of adaptation options for add-on components and accessories
- Free from non-ferrous metals
- Optional for food contact according to Regulation (EC) No. 1935/2004
- Particularly compact design, actuator size 0G1/0M1

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 25 bar
Nominal sizes:	DN 6 to 80
Body configurations:	2/2-way body | Angle valve body
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | NPT | SMS
Body materials:	1.4408, investment casting material | 1.4435 (316L), block material | 1.4435 (316L), forged material | 1.4435, investment casting material
Seat seal materials:	1.4404 | PTFE | PTFE, reinforced
Conformities:	ATEX | CRN | DVGW Gas | EAC | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act) | USP

Go online!

GW-550

GEMÜ 554
Pneumatically operated angle seat globe valve

The GEMÜ 554 2/2-way angle seat globe valve has a plastic piston actuator and is pneumatically operated. The valve spindle is sealed by a self-adjusting gland packing or a compact seal cartridge, depending on the size and version. A wiper ring or the wiper contour of the seal cartridge additionally protects the valve spindle against contamination and damage. This provides low-maintenance and reliable spindle sealing even after a long service life.

Features

- Available as shut-off or control valve
- Low actuator weight due to plastic body
- Faster actuator replacement and free actuator positioning due to fixing via union nut
- Standard actuator can be replaced with 550 or 514 on request
- Suitable for vacuum up to 20 mbar (a)
- Particularly compact design, actuator size B

also as control valve

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 25 bar
Nominal sizes:	DN 6 to 80
Body configurations:	2/2-way body | Angle valve body
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | NPT | SMS
Body materials:	1.4408, investment casting material | 1.4435 (316L), forged material | 1.4435, investment casting material | CC499K, cast bronze material
Seat seal materials:	NBR | PFA | PTFE | PTFE, reinforced
Conformities:	ATEX | CRN | EAC | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act) | USP

Go online!

GW-554

GEMÜ 555
Pneumatically operated angle seat globe valve

The GEMÜ 555 2/2-way angle seat globe valve has a stainless steel piston actuator and is pneumatically operated. The valve is particularly designed for isolating pure steam. The sealing at the valve seat is made of PTFE. The valve spindle is sealed with a stainless steel bellows. Valve plug and valve spindle are welded together to prevent dirt ingress.

Features

- Free from non-ferrous metals
- Welded valve plug/valve spindle design to remove possible contamination areas
- Low maintenance, fixed seat plug (without threads)
- Stainless steel bellows as spindle seal for high operating temperatures
- Batch traceability for all media-wetted components

also as control valve

Technical specifications

Media temperature :	-10 to 185 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 8 to 80
Body configurations:	2/2-way body
Connection types:	Clamp | Spigot
Connection standards:	ASME | DIN | EN | ISO
Body materials:	1.4435 (316L), block material | 1.4435, investment casting material
Seat seal materials:	PTFE
Conformities:	ATEX | CRN | EAC | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | USP

Go online!

GW-555

Pneumatically operated globe valves

Overview

GEMÜ type	530	532	534	536	566
					
Special feature		Robust actuator made from aluminium	Light piston actuator made of plastic	Large nominal sizes	
Nominal sizes	DN 15 to 100	DN 15 to 100	DN 15 to 100	DN 32 to 150	DN 8 to 20
Media temperature	-40 to 210 °C	-10 to 210 °C	-10 to 180 °C	-10 to 210 °C	0 to 90 °C
Ambient temperature	-10 to 60 °C	-10 to 60 °C	0 to 60 °C	-10 to 60 °C	-15 to 60 °C
Operating pressure	0 to 40 bar	0 to 40 bar	0 to 40 bar	0 to 40 bar	0 to 6 bar
Connection types					
Clamp	-	-	-	-	●
Flange	●	●	●	●	-
Threaded connection	-	-	-	-	●
Body materials					
1.4408	●	●	●	●	-
1.4435	-	-	-	-	●
EN-GJS-400-18-LT	●	●	●	●	-
Conformities					
ATEX	●	-	●	●	-
CRN	●	●	●	●	-
EAC	●	●	●	●	●
FDA	●	●	●	-	●
Functional safety	●	●	●	-	-
Oxygen	●	●	●	-	-
Reg. (EU) No. 10/2011	●	●	●	-	-
Regulation (EC) No. 1935/2004	●	●	●	-	●
TA Luft (German Clean Air Act)	●	●	●	-	-

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ 530
Pneumatically operated globe valve

The GEMÜ 530 2/2-way globe valve has a robust, low-maintenance stainless steel piston actuator and is pneumatically operated. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Available as shut-off or control valve
- Stainless steel actuator resistant to corrosive ambient conditions
- Optionally with rapid venting valve for preventing the penetration of ambient media
- Faster actuator replacement and easily rotatable due to fixing via union nut
- Suitable for vacuum up to 20 mbar (a)

also as control valve

Technical specifications

Media temperature :	-40 to 210 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 100
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | ASME | EN | ISO | JIS
Body materials:	1.4408, investment casting material | EN-GJS-400-18-LT, SG iron material
Seat seal materials:	PTFE | PTFE, reinforced
Conformities:	ATEX | CRN | EAC | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Go online!

GW-530

GEMÜ 532
Pneumatically operated globe valve

The GEMÜ 532 2/2-way globe valve has a robust aluminium piston actuator and is pneumatically operated. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Available as shut-off or control valve
- Robust actuator housing made of aluminium
- Low frictional forces due to sleeve in the actuator head enable good control characteristics
- Faster actuator replacement and easily rotatable due to fixing via union nut
- Available with stainless steel bellows as spindle seal
- Suitable for vacuum up to 20 mbar (a)

also as control valve

Technical specifications

Media temperature :	-10 to 210 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 100
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | ASME | EN | ISO | JIS
Body materials:	1.4408, investment casting material | EN-GJS-400-18-LT, SG iron material
Seat seal materials:	1.4404 | PTFE | PTFE, reinforced
Conformities:	CRN | EAC | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Go online!

GW-532

GEMÜ 534
Pneumatically operated globe valve

The GEMÜ 534 2/2-way globe valve has a plastic piston actuator and is pneumatically operated. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Available as shut-off or control valve
- Low actuator weight due to plastic body
- Faster actuator replacement and easily rotatable due to fixing via union nut
- Suitable for vacuum up to 20 mbar (a)

also as control valve

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 100
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | ASME | EN | ISO | JIS
Body materials:	1.4408, cast stainless steel material | EN-GJS-400-18-LT, SG iron material
Seat seal materials:	PTFE | PTFE, reinforced
Conformities:	ATEX | CRN | EAC | FDA | Functional safety | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Go online!

GW-534

GEMÜ 536
Pneumatically operated globe valve

The GEMÜ 536 2/2-way globe valve has a robust low maintenance membrane actuator and is pneumatically operated. The valve is particularly suitable for use as a control valve. The valve plug is fixed to the spindle in such a way as to allow flexing during closure in order to ensure tight shut off. The valve spindle is sealed by a self-adjusting gland packing providing low maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Available as shut-off or control valve
- Precise controllability thanks to guided regulating cage and actuator membrane
- Flow rate values of up to 380 m³/h
- Suitable for vacuum up to 20 mbar (a)
- Versions for higher temperatures are available on request

also as control valve

Technical specifications

Media temperature :	-10 to 210 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 32 to 150
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | EN | ISO
Body materials:	1.4408, investment casting material | EN-GJS-400-18-LT, SG iron material
Seat seal materials:	PTFE | PTFE, reinforced
Conformities:	ATEX | CRN | EAC

Go online!

GW-536

GEMÜ 566
Pneumatically operated control valve

The GEMÜ 566 eSyStep 2/2-way straight seat control valve has a body with an integrated control mechanism. Manual, pneumatic and motorized actuator types are available. The GEMÜ 566 eSyStep control valve was specially developed for controlling small volumes and allows flow rates from 63 l/h to 2500 l/h.

Features

- Control of liquid and gaseous media from 63 to 2500 l/h
- Linear or equal-percentage control characteristic options
- Hermetic separation between medium and actuator
- Actuator and actuator type can be changed without draining or removing the valve body from the piping
- Various types of actuators available

also as control valve

Technical specifications

Media temperature :	0 to 90 °C
Ambient temperature:	-15 to 60 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 8 to 20
Body configurations:	2/2-way body
Connection types:	Clamp I Threaded connection
Connection standards:	ASME I DIN I EN I ISO
Body materials:	1.4435, investment casting material
Seat seal materials:	EPDM I FKM
Conformities:	EAC I FDA I Regulation (EC) No. 1935/2004

Go online!

GW-566

Motorized globe valves

Overview

GEMÜ type	519 eSyLite	529 eSyLite	533 eSyStep	543 eSyStep	566 eSyStep
					
Special feature	Basic actuator for Open/Close applications	Basic actuator for Open/Close applications	Universal actuator, option with integrated positioner	Universal actuator, option with integrated positioner	Universal actuator with integrated positioner
Nominal sizes	DN 15 to 50	DN 15 to 80	DN 15 to 50	DN 6 to 50	DN 8 to 20
Media temperature	-10 to 180 °C	-10 to 180 °C	-10 to 180 °C	-10 to 180 °C	0 to 90 °C
Ambient temperature	-10 to 60 °C	-10 to 60 °C	0 to 60 °C	0 to 60 °C	0 to 60 °C
Operating pressure	0 to 40 bar	0 to 25 bar	0 to 40 bar	0 to 25 bar	0 to 6 bar
Supply voltage	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Actuating speed	max. 3 mm/s	max. 3 mm/s	max. 3 mm/s	max. 3 mm/s	max. 3 mm/s
Connection types					
Clamp	-	●	-	●	●
Flange	●	●	●	●	-
Spigot	-	●	-	●	-
Threaded connection	-	●	-	●	●
Union end	-	-	-	-	-
Body materials					
1.4408	●	●	●	●	-
1.4435	-	●	-	●	●
1.4435 (316L)	-	-	-	●	-
CC499K	-	●	-	●	-
EN-GJS-400-18-LT	●	-	●	-	-
PVC-U	-	-	-	-	-
PVDF	-	-	-	-	-
Conformities					
EAC	-	-	●	●	●
FDA	●	●	●	●	●
Oxygen	-	-	-	-	-
Reg. (EU) No. 10/2011	-	-	-	-	-
Regulation (EC) No. 1935/2004	●	●	●	●	●
TA Luft (German Clean Air Act)	●	●	-	●	-

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ type	R563 eSyStep	549 eSyDrive	539 eSyDrive	343 eSyDrive
				
Special feature	Universal actuator with integrated positioner	Premium actuator with integrated positioner and process controller	Premium actuator with integrated positioner and process controller	Premium actuator with integrated positioner and process controller
Nominal sizes	DN 10 to 15	DN 10 to 80	DN 15 to 100	DN 15 to 100
Media temperature	0 to 80 °C	-10 to 180 °C	-10 to 250 °C	-10 to 250 °C
Ambient temperature	0 to 60 °C	-10 to 60 °C	-10 to 60 °C	-10 to 60 °C
Operating pressure	0 to 6 bar	0 to 25 bar	0 to 40 bar	0 to 40 bar
Supply voltage	24 V DC	24 V DC	24 V DC	24 V DC
Actuating speed	max. 3 mm/s	max. 6 mm/s	max. 6 mm/s	max. 6 mm/s
Connection types				
Clamp	-	●	-	-
Flange	-	●	●	●
Spigot	-	●	-	-
Threaded connection	●	●	-	●
Union end	●	-	-	-
Body materials				
1.4408	-	●	●	-
1.4435	●	●	-	-
1.4435 (316L)	-	●	-	-
CC499K	-	-	-	-
EN-GJS-400-18-LT	-	-	●	-
PVC-U	●	-	-	-
PVDF	●	-	-	-
Conformities				
EAC	●	●	●	●
FDA	-	●	●	-
Oxygen	-	●	-	-
Reg. (EU) No. 10/2011	-	●	●	-
Regulation (EC) No. 1935/2004	-	●	●	-
TA Luft (German Clean Air Act)	-	●	●	-

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ 519 eSyLite
Motorized globe valve

The GEMÜ 519 eSyLite is a motorized 2/2-way globe valve. It is available as an Open/Close version. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. An integrated optical position indicator is standard. The self-locking actuator holds its position in a stable manner in the event of power supply failure.

Features

- Motorized linear actuator for Open/Close applications
- Self-locking spindle actuator
- Safety shut-down integrated
- Standard optical position indicator and manual override
- Integrated emergency power supply module (optional)
- Electrical position indicator GEMÜ 1215 (optional)

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 50
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | EN | JIS
Body materials:	1.4408, investment casting material | EN-GJS-400-18-LT, SG iron material
Seat seal materials:	1.4404 | PTFE | PTFE, reinforced
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP65
Conformities:	FDA | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Go online!

GW-519

GEMÜ 529 eSyLite
Motorized angle seat globe valve

The GEMÜ 529 eSyLite 2/2-way angle seat globe valve is motorized. It is available as an Open/Close version. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. An integrated optical position indicator is standard. The self-locking actuator holds its position in a stable manner in the event of power supply failure.

Features

- Motorized linear actuator for Open/Close applications
- Self-locking spindle actuator
- Safety shut-down integrated
- Standard optical position indicator and manual override
- Integrated emergency power supply module (optional)
- Electrical position indicator GEMÜ 1215 (optional)

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 25 bar
Nominal sizes:	DN 15 to 80
Body configurations:	2/2-way body | Angle valve body
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | NPT | SMS
Body materials:	1.4408, investment casting material | 1.4435, investment casting material | CC499K, cast bronze material
Seat seal materials:	PTFE | PTFE, reinforced
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP65
Conformities:	FDA | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Go online!

GW-529

GEMÜ 533 eSyStep
Motorized globe valve

The GEMÜ 533 eSyStep is a motorized 2/2-way globe valve. The eSyStep electric actuator is available as On/Off actuator or with integrated positioner. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. An integral optical and electrical position indicator is standard. The self-locking actuator holds its position in a stable manner when idle and in the event of power supply failure.

Features

- Suitable for vacuum up to 20 mbar (a)
- Open/close function or with integrated positioner
- Parameterizable via IO-Link
- Linear or modified equal-percentage control characteristics
- On-site or remote end position programming via programming input
- Various functions integrated (e.g. feedback, stroke limiter, etc.)

also as control valve

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 50
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | EN | JIS
Body materials:	1.4408, investment casting material | EN-GJS-400-18-LT, SG iron material
Seat seal materials:	1.4404 | PTFE | PTFE, reinforced
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP 65
Conformities:	EAC | FDA | Regulation (EC) No. 1935/2004

Go online!

GW-533

GEMÜ 543 eSyStep
Motorized angle seat globe valve

The GEMÜ 543 eSyStep is an electrically operated 2/2-way angle seat globe valve. The eSyStep electric actuator is available as On/Off actuator or with integrated positioner. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. An integral optical and electrical position indicator is standard. The self-locking actuator holds its position in a stable manner when idle and in the event of power supply failure.

Features

- CIP/SIP capable (only with stainless steel distance piece)
- Suitable for vacuum up to 20 mbar (a)
- Open/close function or with integrated positioner
- Parameterizable via IO-Link
- Linear or modified equal-percentage control characteristics
- On-site or remote end position programming via programming input
- Various functions integrated (e.g. feedback, stroke limiter, etc.)

also as control valve

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 25 bar
Nominal sizes:	DN 6 to 50
Body configurations:	2/2-way body | Angle valve body
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | NPT | SMS
Body materials:	1.4408, investment casting material | 1.4435 (316L), forged material | 1.4435, investment casting material | CC499K, cast bronze material
Seat seal materials:	PTFE | PTFE, reinforced
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP 65
Conformities:	EAC | FDA | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Go online!

GW-543

GEMÜ 566 eSyStep
Motorized control valve

The GEMÜ 566 eSyStep 2/2-way straight seat control valve has a body with an integrated control mechanism. Manual, pneumatic and motorized actuator types are available. The GEMÜ 566 eSyStep control valve was specially developed for controlling small volumes and allows flow rates from 63 l/h to 2500 l/h.

Features

- Control of liquid and gaseous media from 63 to 2500 l/h
- Linear or equal-percentage control characteristic options
- Hermetic separation between medium and actuator
- Actuator and actuator type can be changed without draining or removing the valve body from the piping
- Various types of actuators available

also as control valve

Technical specifications

Media temperature :	0 to 90 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 8 to 20
Body configurations:	2/2-way body
Connection types:	Clamp I Threaded connection
Connection standards:	ASME I DIN I EN I ISO
Body materials:	1.4435, investment casting material
Seat seal materials:	EPDM I FKM
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP 65
Conformities:	EAC I FDA I Regulation (EC) No. 1935/2004

Go online!

GW-566

GEMÜ R563 eSyStep
Motorized control valve

The GEMÜ R563 eSyStep 2/2-way straight seat control valve as a body with integrated control mechanism. The GEMÜ R563 eSyStep was specially developed for the control of small quantities and allows a flow rate of 63 l/h up to 3300 l/h. The valve is available with a positioner for a 0/4-20 mA or 0-10 V input signal and can also be configured to a safety position with the use of an emergency power module. Further functions can be customised via the IO-Link interface. The self-locking actuator maintains a stable position in the controlled state and in the event of a supply voltage failure.

Features

- Control of liquid and gaseous media from 63 l/h to 3300 l/h
- Linear or equal-percentage control characteristic options
- Hermetic separation between medium and actuator
- Parameterizable via IO-Link
- On-site or remote end position programming via programming input
- Various functions integrated (e.g. feedback, stroke limiter, etc.)

also as control valve

EAC

Technical specifications

Media temperature :	0 to 80 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 10 to 15
Body configurations:	2/2-way body
Connection types:	Threaded connection | Union end
Connection standards:	DIN | EN | ISO
Body materials:	PVC-U | PVDF
Seat seal materials:	PEEK
Supply voltage:	24 V DC
Actuating speed:	max. 3 mm/s
Protection class:	IP 65

Go online!

GW-R563

GEMÜ 549 eSyDrive
Motorized angle seat globe valve

The GEMÜ 549 eSyDrive is an electrically operated 2/2-way angle seat globe valve with a hollow shaft electric actuator. The eSyDrive hollow shaft actuator can be operated as On/Off or with integrated positioner or process controller. The valve spindle is sealed by a self-adjusting gland packing. This provides a low-maintenance and reliable valve spindle seal even after an extended period of operation. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. An integral optical and electrical position indicator is standard.

Features

- CIP/SIP capable
- Linear or modified equal-percentage control characteristics
- Open/Close function, positioner and process controller
- Force and speed are variably adjustable
- Actuating speed max. 6 mm/s
- Extensive diagnostic functions
- Operable via web interface eSy-Web or Modbus TCP
- On-site or remote end position programming via programming input
- Various functions integrated (e.g. feedback, stroke limiter, etc.)

also as control valve

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 25 bar
Nominal sizes:	DN 10 to 80
Body configurations:	2/2-way body | Angle valve body
Connection types:	Clamp | Flange | Spigot | Threaded connection
Connection standards:	ANSI | ASME | BS | DIN | EN | ISO | NPT | SMS
Body materials:	1.4408, investment casting material | 1.4435 (316L), forged material | 1.4435, investment casting material
Seat seal materials:	1.4404 | PTFE | PTFE, reinforced
Supply voltage:	24 V DC
Actuating speed:	max. 6 mm/s
Protection class:	IP 65, IP 61
Conformities:	EAC | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Go online!

GW-549

GEMÜ 539 eSyDrive
Motorized globe valve

The GEMÜ 539 eSyDrive is a motorized 2/2-way globe valve with a hollow shaft electric actuator. The eSyDrive hollow shaft actuator can be operated as On/Off or with integrated positioner or process controller. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. An integral optical and electrical position indicator is standard.

Features

- Linear or modified equal-percentage control characteristics
- High flow rate
- Force and speed are variably adjustable
- Extensive diagnostic facilities
- Operable via web interface eSy-Web
- Integral optical position indicator and LED high visibility display
- Suitable for vacuum up to 20 mbar (a)

also as control valve

Technical specifications

Media temperature :	-10 to 250 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 100
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | ASME | EN | ISO | JIS
Body materials:	1.4408, investment casting material | EN-GJS-400-18-LT, SG iron material
Seat seal materials:	1.4404 | PTFE | PTFE, reinforced
Supply voltage:	24 V DC
Actuating speed:	max. 6 mm/s
Protection class:	IP 65
Conformities:	EAC | FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act)

Go online!

GW-539

GEMÜ 343 eSyDrive
Motorized multi-port globe valve

The GEMÜ 343 eSyDrive is a motorized 3/2-way globe valve with a hollow shaft electric actuator. The eSyDrive hollow shaft actuator can be operated as On/Off or with integrated positioner or process controller. The valve spindle is sealed by a self-adjusting gland packing. This provides a low-maintenance and reliable valve spindle seal even after an extended period of operation. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. An integral optical and electrical position indicator is standard.

Features

- Linear control characteristics can be implemented
- Force and speed are variably adjustable
- Extensive diagnostic facilities
- Operable via web interface eSy-Web
- Integral optical position indicator and LED high visibility display
- Suitable for vacuum up to 20 mbar (a)

also as control valve

EAC

Technical specifications

Media temperature :	-10 to 250 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 100
Body configurations:	Multi-port body
Connection types:	Flange I Threaded connection
Connection standards:	ANSI I DIN I EN I ISO
Body materials:	1.4408, investment casting material I CC499K, cast bronze material
Seat seal materials:	PTFE I PTFE, reinforced
Conformities:	EAC

Go online!

GW-343

Multi-port and M-block globe valves

Overview

GEMÜ type	312	314	343 eSyDrive	352
				
Special feature	Robust actuator made from aluminium	Robust actuator made from aluminium	Premium actuator with integrated positioner and process controller	Light piston actuator made of plastic
Nominal sizes	DN 15 to 100	DN 15 to 50	DN 15 to 100	DN 15 to 100
Media temperature	-10 to 210 °C	-10 to 210 °C	-10 to 250 °C	-10 to 180 °C
Ambient temperature	-10 to 60 °C	-10 to 60 °C	-10 to 60 °C	-10 to 60 °C
Operating pressure	0 to 16 bar	0 to 16 bar	0 to 40 bar	0 to 16 bar
Connection types				
Clamp	-	-	-	-
Flange	●	-	●	●
Spigot	-	-	-	-
Threaded connection	-	●	●	-
Body materials				
1.4408	●	-	-	●
1.4435 (316L)	-	-	-	-
CC499K	-	●	-	-
Conformities				
ATEX	-	-	-	●
EAC	●	●	●	●
FDA	-	-	-	-
Oxygen	●	-	-	●
Reg. (EU) No. 10/2011	-	-	-	-
Regulation (EC) No. 1935/2004	-	-	-	-

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ type	354	553	P500M
			
Special feature	Light piston actuator made of plastic	Flexible modular system	Individually configurable
Nominal sizes	DN 15 to 50	DN 15 to 20	DN 15 to 50
Media temperature	-10 to 180 °C	-10 to 180 °C	-10 to 180 °C
Ambient temperature	-10 to 60 °C	0 to 60 °C	0 to 60 °C
Operating pressure	0 to 16 bar	0 to 25 bar	0 to 25 bar
Connection types			
Clamp	-	-	●
Flange	-	-	-
Spigot	-	-	●
Threaded connection	●	●	●
Body materials			
1.4408	-	●	-
1.4435 (316L)	-	-	●
CC499K	●	-	-
Conformities			
ATEX	●	-	●
EAC	●	-	-
FDA	-	●	●
Oxygen	●	-	-
Reg. (EU) No. 10/2011	-	●	-
Regulation (EC) No. 1935/2004	-	●	●

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ 312
Pneumatically operated multi-port globe valve

The GEMÜ 312 3/2-way globe valve has a robust low-maintenance aluminium piston actuator and is pneumatically operated. The double sided valve plug is connected to the actuator via a valve spindle. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Suitable for mixing and distributing media
- Robust actuator housing made of aluminium
- Available as shut-off or control valve
- Materials of wetted parts can be selected to suit the requirements of the relevant applications

also as control valve

EAC

Technical specifications

Media temperature :	-10 to 210 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 15 to 100
Body configurations:	Multi-port body
Connection types:	Flange
Connection standards:	ANSI | DIN | EN | ISO
Body materials:	1.4408, investment casting material
Seat seal materials:	PTFE | PTFE, reinforced
Conformities:	EAC | Oxygen

Go online!

GW-312

GEMÜ 314
Pneumatically operated multi-port globe valve

The GEMÜ 314 3/2-way globe valve has a robust low-maintenance aluminium piston actuator and is pneumatically operated. The double sided valve plug is connected to the actuator via a valve spindle. The valve spindle is sealed by a self-adjusting gland packing providing low-maintenance and reliable valve spindle sealing even after a long service life. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Suitable for mixing and distributing media
- Robust actuator housing made of aluminium
- Available as shut-off or control valve
- Materials of wetted parts can be selected to suit the requirements of the relevant applications

also as control valve

EAC

Technical specifications

Media temperature :	-10 to 210 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 15 to 50
Body configurations:	Multi-port body
Connection types:	Threaded connection
Connection standards:	ANSI | DIN | EN | ISO
Body materials:	CC499K, cast bronze material
Seat seal materials:	PTFE | PTFE, reinforced
Conformities:	EAC

Go online!

GW-314

GEMÜ 343 eSyDrive
Motorized multi-port globe valve

The GEMÜ 343 eSyDrive is a motorized 3/2-way globe valve with a hollow shaft electric actuator. The eSyDrive hollow shaft actuator can be operated as On/Off or with integrated positioner or process controller. The valve spindle is sealed by a self-adjusting gland packing. This provides a low-maintenance and reliable valve spindle seal even after an extended period of operation. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. An integral optical and electrical position indicator is standard.

Features

- Linear control characteristics can be implemented
- Force and speed are variably adjustable
- Extensive diagnostic facilities
- Operable via web interface eSy-Web
- Integral optical position indicator and LED high visibility display
- Suitable for vacuum up to 20 mbar (a)

also as control valve

EAC

Technical specifications

Media temperature :	-10 to 250 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 100
Body configurations:	Multi-port body
Connection types:	Flange I Threaded connection
Connection standards:	ANSI I DIN I EN I ISO
Body materials:	1.4408, investment casting material I CC499K, cast bronze material
Seat seal materials:	PTFE I PTFE, reinforced
Conformities:	EAC

Go online!

GW-343

GEMÜ 352
Pneumatically operated multi-port globe valve

The GEMÜ 352 3/2-way globe valve has a robust low maintenance plastic piston actuator and is pneumatically operated. The connection for the control medium can be rotated through 360°. The double sided valve plug is connected to the actuator via a valve spindle. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Suitable for mixing and distributing media
- Lightweight plastic piston actuator, free from non-ferrous metals
- Available as shut-off or control valve
- Materials of wetted parts can be selected to suit the requirements of the relevant applications

also as control valve

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 15 to 100
Body configurations:	Multi-port body
Connection types:	Flange
Connection standards:	ANSI | EN | ISO
Body materials:	1.4408, investment casting material
Seat seal materials:	PTFE | PTFE, reinforced
Conformities:	ATEX | EAC | Oxygen

Go online!

GW-352

GEMÜ 354
Pneumatically operated multi-port globe valve

The GEMÜ 354 3/2-way globe valve has a robust low maintenance plastic piston actuator and is pneumatically operated. The connection for the control medium can be rotated through 360°. The double sided valve plug is connected to the actuator via a valve spindle. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage. A wiper ring fitted in front of the gland packing protects the seal against contamination and damage.

Features

- Simple adaptation for use as a control valve
- Seat seal made of PTFE or PTFE/glass fibre
- Materials of wetted parts can be selected to suit relevant applications

also as control valve

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 15 to 50
Body configurations:	Multi-port body
Connection types:	Threaded connection
Connection standards:	DIN | ISO
Body materials:	CC499K, cast bronze material
Seat seal materials:	PTFE | PTFE, reinforced
Conformities:	ATEX | EAC | Oxygen

Go online!

GW-354

GEMÜ 553
Modular distribution valve

The modular GEMÜ 553 distribution valve comprises various globe valve modules. These can be equipped with manual pneumatic or motorized actuators. The downstream media is isolated using a PTFE seal. The valve spindle is sealed by a self-adjusting gland packing. This provides a low maintenance and reliable valve spindle seal even after an extended period of operation. The wiper ring that is installed upstream of the gland packing also protects this against contamination and damage. The individual modules can be easily connected using screws.

Features

- Space-saving modular design
- Reduced servicing times of the plant compared with single valves as the complete module can be replaced
- Up to 10 single modules can be flexibly combined together
- Can be ordered ready configured
- Faster actuator replacement and easily rotatable due to fixing via union nut

also as control valve

FDA

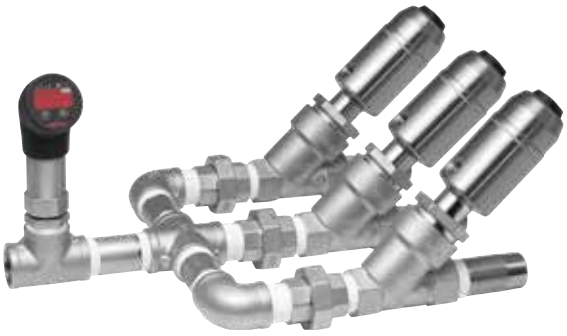
Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 25 bar
Nominal sizes:	DN 15 to 20
Body configurations:	Multi-port body
Connection types:	Threaded connection
Connection standards:	DIN | ISO | NPT
Body materials:	1.4408, investment casting material
Seat seal materials:	PTFE
Conformities:	FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004

Go online!

GW-553

Conventional design



- Several 2/2-way valves with additional piping and gaskets
- Considerable effort to expand later
- Valves are ordered individually and connected on-site

GEMÜ 553 modular system

- Individual modules can be fitted directly
- Modules and sensor system can be fitted easily
- Complete system available for ordering under a single item number

Advantages at a glance

Compact design
Saves space and material by being directly linked to the modules

Simple installation
Saves time and costs during installation and maintenance

Flexible modular system
Highly flexible design and customized configuration

GEMÜ P500M
M-block stainless steel globe valve

The GEMÜ P500M stainless steel valve block comprises two or more globe valves. These can be equipped with manual, pneumatic and motorized actuators. The downstream media is isolated using a valve plug.

Features

- Space savings thanks to compact design
- Individual, customized and flexible design
- Fewer connection points and weld seams
- Huge variety of functions combined in the smallest of spaces
- Highly suitable for control applications
- Actuators, gland packing and automation components can be used from the tried and tested GEMÜ modular system

also as control valve

Technical specifications

Media temperature :	-10 to 180 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 25 bar
Nominal sizes:	DN 15 to 50
Body configurations:	Multi-port body
Connection types:	Clamp I Spigot I Threaded connection
Connection standards:	ANSI I ASME I BS I DIN I EN I ISO I NPT I SMS
Body materials:	1.4435 (316L), block material
Seat seal materials:	NBR I PFA I PTFE I PTFE, reinforced
Conformities:	ATEX I FDA I Regulation (EC) No. 1935/2004

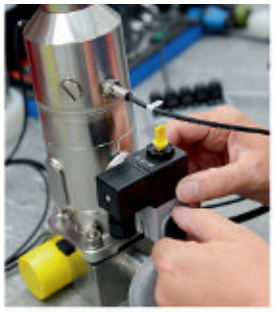
Go online!

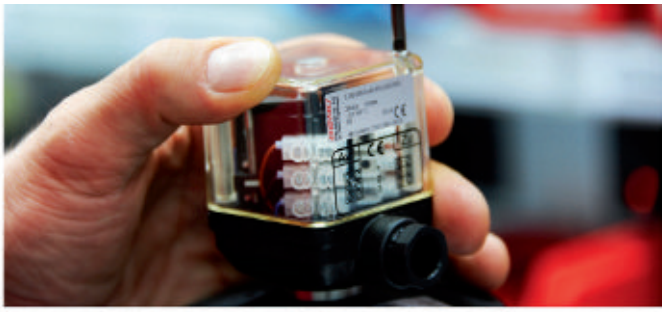
GW-P500M

Add-on components for globe valves

GEMÜ type	312	314	352	354	514	530	532
Measurement and control technology							
Electrical position indicators							
GEMÜ 1205 ▸ page 362	●	●			●	●	
GEMÜ 1215 ▸ page 363	●	●	●		●	●	●
GEMÜ 1230/1231/1232	●	●	●	●	●	●	●
GEMÜ 1234 ▸ page 367						●	●
GEMÜ 1235/1236 ▸ page 368	●	●	●	●	●	●	●
GEMÜ 1242 ▸ page 371			●		●	●	●
Combi switchboxes							
GEMÜ 4240 ▸ page 376					●	●	●
GEMÜ 4241 ▸ page 377							
GEMÜ 4242 ▸ page 378	●	●	●	●	●	●	●
Pilot valve							
GEMÜ 0324 ▸ page 385	●	●	●	●	●	●	●
Control systems							
Positioner							
GEMÜ 1434 µPos ▸ page 338	●	●	●	●	●	●	●
GEMÜ 1435 ePos ▸ page 340	●	●	●	●	●	●	●
Positioner and process controller							
GEMÜ 1436 cPos ▸ page 341	●	●	●	●	●	●	●
GEMÜ 1441 cPos-X ▸ page 342	●	●	●	●	●	●	●
Accessories							
Connection accessories ▸ page 417	●	●	●	●	●	●	●
Clamping devices ▸ page 420							
Manual overrides ▸ page 423	●	●			●	●	●
Stroke limiters ▸ page 422	●	●	●	●	●	●	●
Sensor accessories ▸ page 424	●	●	●	●	●	●	●
Position indicators ▸ page 421	●	●	●	●	●	●	●

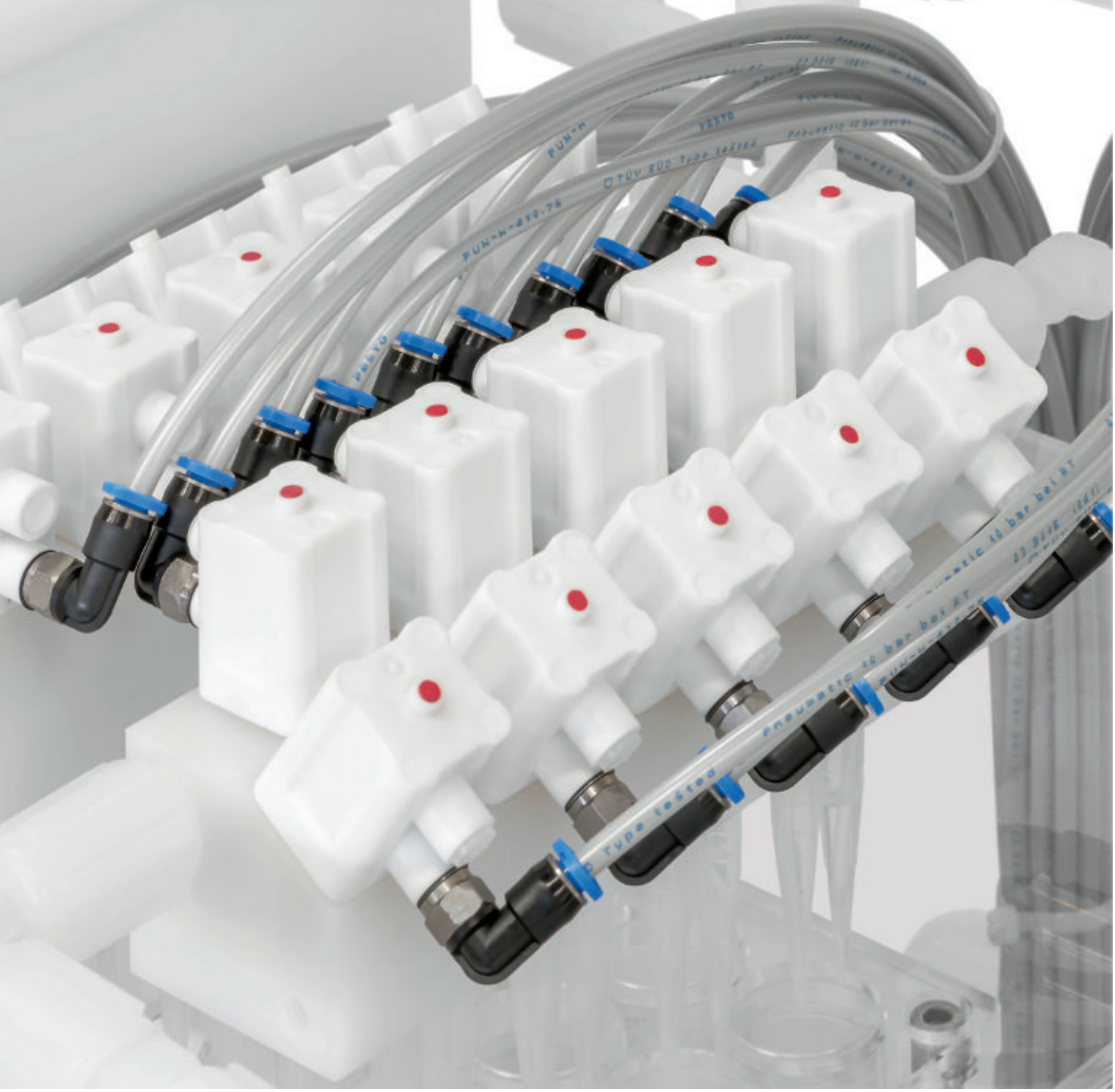
GEMÜ valves are fully assembled in our in-house Assembly department – with compatible accessories on request.





Our pre-assembled solutions are supplied to you preset and tested. Not only can you obtain all components from a single source, you simultaneously reduce the effort required for logistics and installation of the system on site, as well as for documentation.

GEMÜ type	534	536	550	553	554	555	566
Measurement and control technology							
Electrical position indicators							
GEMÜ 1205 ▸ page 362	●	●	●		●		
GEMÜ 1215 ▸ page 363	●	●	●	●	●	●	
GEMÜ 1230/1231/1232	●	●	●	●	●	●	
GEMÜ 1234 ▸ page 367	●	●	●	●	●		
GEMÜ 1235/1236 ▸ page 368	●	●	●	●	●	●	
GEMÜ 1242 ▸ page 371	●	●	●		●		
Combi switchboxes							
GEMÜ 4240 ▸ page 376	●	●	●		●		
GEMÜ 4241 ▸ page 377		●	●		●		
GEMÜ 4242 ▸ page 378	●	●	●	●	●	●	
Pilot valve							
GEMÜ 0324 ▸ page 385	●	●	●		●	●	
Control systems							
Positioner							
GEMÜ 1434 µPos ▸ page 338	●	●	●	●	●	●	●
GEMÜ 1435 ePos ▸ page 340	●	●	●	●	●	●	●
Positioner and process controller							
GEMÜ 1436 cPos ▸ page 341	●	●	●	●	●	●	●
GEMÜ 1441 cPos-X ▸ page 342	●	●	●	●	●	●	●
Accessories							
Connection accessories ▸ page 417	●	●	●		●	●	
Clamping devices ▸ page 420			●				
Manual overrides ▸ page 423	●	●	●		●		
Stroke limiters ▸ page 422	●	●	●		●	●	
Sensor accessories ▸ page 424	●	●	●		●	●	
Position indicators ▸ page 421	●	●	●	●	●		



Diaphragm globe valves

Description

Valves that combine the advantages of the hermetic sealing of an actuator and the medium of a diaphragm valve with the advantages of a globe valve are designated as diaphragm globe valves.

GEMÜ diaphragm globe valves are suitable both for open/close applications and for control and dosing applications. The PTFE diaphragms that are used reliably isolate the medium from the actuator. The valves are easy to clean and, in comparison with valves with bellows, have significantly reduced deadlegs. A pretensioning element included in the actuator guarantees external leak tightness, even with temperature fluctuations and settling of the plastic parts. The valves are available with a straight through body, angle valve body or as M-block systems.

Features

- CIP/SIP capable and autoclavable
- Available with linear or equal-percentage control characteristic
- Hermetic separation of the actuator from the medium using a sealing diaphragm
- High number of switching cycles
- Various valve body connections available
- Customized block designs possible
- Compact design
- No "lift effect" thanks to the use of the GEMÜ PD design

Typical working media

- Inert and corrosive media
- Liquids and gases

Applications

- Dosing at minimum quantities
- Suitable for media containing oil or grease
- Isolation of sensitive process media
- All types of media for filling machines (vacuum, liquid, gaseous)
- Filling processes in hygienic and aseptic plants in the pharmaceutical, biotechnology, food and beverage industries

GEMÜ C50 iComLine
Pneumatically operated diaphragm globe valve

The GEMÜ C50 iComLine ultra-pure 2/2-way plastic diaphragm globe valve has a pneumatic actuator. All media wetted parts are made of PFA or PTFE. The external actuator parts are made of PVDF. An integral optical position indicator is standard. In addition to 2/2-way valve bodies, customized multi-port valve block solutions can be produced.

Features

- Low space requirement due to compact design
- Ideally suited for corrosive media
- High purity due to cleanroom manufacturing
- Manifolds are a space-saving design solution
- Choice of design with PTFE-coated screws and compression springs

also as control valve

EAC

FDA

Technical specifications

Media temperature :	-10 to 150 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 6 bar
Connection sizes:	1/4" to 1 1/4"
Body configurations:	2/2-way body | Multi-port body
Connection types:	Flare | PrimeLock® | Super 300 Type Pillar®
Body materials:	PFA | PTFE
Diaphragm materials:	PTFE
Conformities:	EAC | FDA

Go online!

GW-C50

Motorized diaphragm globe valves

Overview

GEMÜ type	C53 iComLine	567 eSyDrive
		
Nominal sizes	-	DN 8 to 65
Media temperature	10 to 150 °C	-10 to 160 °C
Ambient temperature	0 to 40 °C	-10 to 60 °C
Operating pressure	0 to 6 bar	0 to 10 bar
Supply voltage	24 V DC	24 V DC
Actuating speed	Max. 2 mm/s	max. 6 mm/s
Connection types		
Clamp	-	●
Flare	●	-
PrimeLock®	●	-
Spigot	-	●
Super 300 Type Pillar®	●	-
Body materials		
1.4435 (316L)	-	●
1.4435 (BN2)	-	●
Conformities		
3A	-	●
EAC	●	-
FDA	-	●
Reg. (EU) No. 10/2011	-	●
Regulation (EC) No. 1935/2004	-	●
Regulation (EC) No. 2023/2006	-	●
USP	-	●

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ C53 iComLine
Motorized control valve

The GEMÜ C53 iComLine 2/2-way diaphragm globe valve was developed for precise and demanding control applications in semiconductor production. The sealing concept of the valve is based on the tried and tested GEMÜ PD technology, whereby actuator and medium are separated by a PTFE regulating cone. As the regulating cone contour, actuator stroke and connection size can be customized to meet customers' requirements, the GEMÜ C53 iComLine satisfies virtually all control and flow requirements of the semiconductor industry. The precise stepper motor, in conjunction with the ultra pure body materials, is particularly suitable for lithography, CMP, and etching processes, as well as analytical applications in semiconductor production.

Features

- Control valve for ultra pure applications in the semiconductor industry
- High-resolution linear actuator with stepper motor
- Diaphragm globe valve based on the iComLine series
- Tried and tested plug diaphragm design
- All media wetted parts are made of PFA or PTFE
- 1 million qualified control switching cycles
- Cleanroom manufacturing (HP version), complies with SEMI F F57

Technical specifications

Media temperature :	10 to 150 °C
Ambient temperature:	0 to 40 °C
Operating pressure :	0 to 6 bar
Connection sizes:	1/4" to 3/4"
Body configurations:	2/2-way body
Connection types:	Flare I PrimeLock® I Super 300 Type Pillar®
Body materials:	PFA I PTFE
Diaphragm materials:	PTFE
Conformities:	EAC

Go online!

GW-C53

GEMÜ 567 eSyDrive
Motorized control valve

The GEMÜ 567 eSyDrive 2/2-way diaphragm globe valve is a precise motorized control valve for sterile applications. The GEMÜ eSyDrive hollow shaft actuator can be operated as an actuator with integrated positioner or process controller. Flow rates range from 80 l/h to 63 m³/h, depending on the version.

Features

- Easy, fast, and error-optimized maintenance
- Actuator can be replaced under operating pressure without contaminating the medium
- Positioners and process controller with diagnostic functions
- Force and speed are variably adjustable
- Operable via web interface eSy-Web or Modbus TCP
- Hermetic separation between medium and actuator due to PD sealing technology
- Various functions of add-on components and accessories are already integrated (e.g. position indicators, stroke limiters, etc.)

also as control valve

Technical specifications

Media temperature :	-10 to 160 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 8 to 65
Body configurations:	Angle valve body | Multi-port body
Connection types:	Clamp | Spigot
Connection standards:	ASME | DIN | EN | ISO
Body materials:	1.4410, block material | 1.4435 (316L), block material | 1.4435 (BN2), block material | 1.4529, block material | 1.4539 (904L), block material | 2.4602, block material
Seal materials:	PTFE | Stainless steel/FKM/PTFE
Supply voltage:	24 V DC
Actuating speed:	max. 6 mm/s
Protection class:	IP 65
Conformities:	3A | FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | USP

Go online!

GW-567

M-block diaphragm globe valves

GEMÜ PC50 iComLine
M-block diaphragm globe valve for ultra pure applications

The GEMÜ PC50 iComLine multi-port valve blocks made of plastic and stainless steel are used in order to provide manufacturers with a space-saving, flexible and cost effective solution. Due to their tried and tested PD design and customized technology, a wide variety of functions are combined in the smallest of spaces; in addition, by selecting the right material, they are suitable for a range of areas of application. The actuators in these multi-port valve blocks are based on the GEMÜ C50, C51, C53 and C57 valve types.

Features

- Fully-integrated system solutions (valve functions, fittings, sensor system, check valves, tank/housing walls, etc.)
- Customized valve bodies possible in all standard plastic and stainless steel materials
- Materials are media-specific, matched to requirements and cost-effective
- Compact design, low space requirement, quicker installation time, few connection points and low maintenance
- Suitable for the most varied areas of application (semiconductor production, pharmaceutical industry, chemical industry, environmental engineering, mechanical engineering, battery production, etc.)
- Cleanroom manufacturing (HP version), complies with SEMI F57

Technical specifications

Media temperature :	-10 to 200 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 4 to 40
Body configurations:	Multi-port body
Connection types:	Clamp | Flare | Nexus Connect® | PrimeLock® | Super 300 Type Pillar® | Threaded connection | Threaded socket | Union end | Yodogawa Nano Link
Body materials:	PP | PTFE | PTFE, conductive | PVC | PVDF | Stainless steel
Seal materials:	PTFE

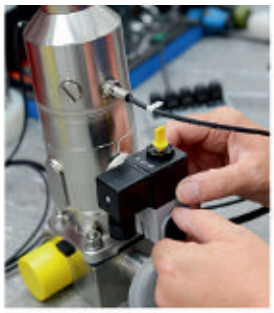
Go online!

GW-PC50

Add-on components for diaphragm globe valves

GEMÜ type	C50
GEMÜ 1215 ▸ page 363	●
GEMÜ 1230/1231/1232	●
GEMÜ 1234 ▸ page 367	●
GEMÜ 1235/1236 ▸ page 368	●
GEMÜ 1242 ▸ page 371	●
GEMÜ 4242 ▸ page 378	●
GEMÜ 0324 ▸ page 385	●
GEMÜ 1434 µPos ▸ page 338	●
GEMÜ 1435 ePos ▸ page 340	●
GEMÜ 1436 cPos ▸ page 341	●
Connection accessories ▸ page 417	●
Stroke limiters ▸ page 422	●

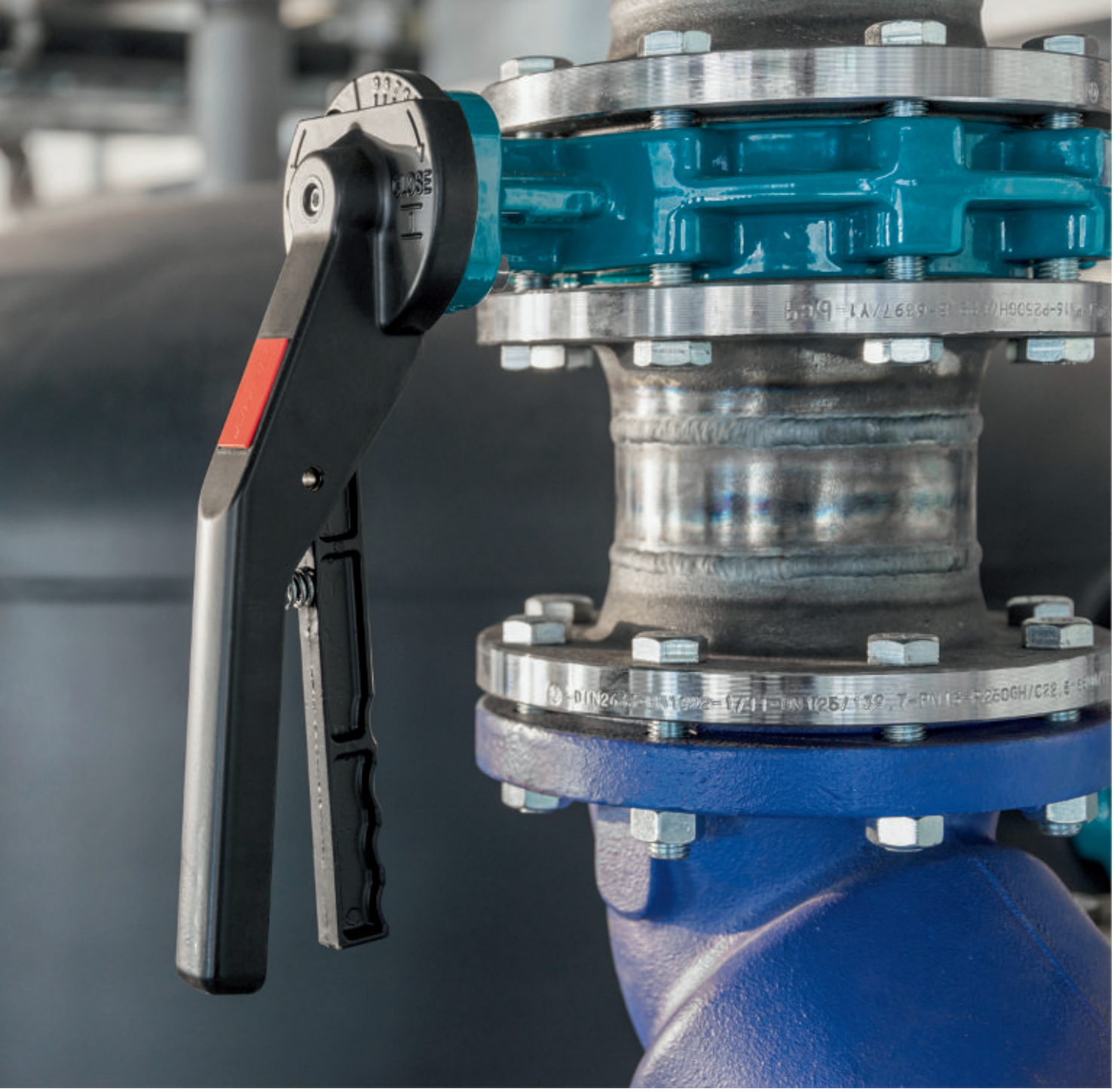
GEMÜ valves are fully assembled in our in-house Assembly department – with compatible accessories on request.



Our pre-assembled solutions are supplied to you preset and tested. Not only can you obtain all components from a single source, you simultaneously reduce the effort required for logistics and installation of the system on site, as well as for documentation.

See also

- [▸ 000]
- Description [▸ 000]



Butterfly valves

Description

If pipes are large, then butterfly valves are required. Most frequently, they are used for controlling mechanically pure liquids. In the right material combination, however, slightly abrasive liquids or gases pose no problem either. Due to the variety of materials, the GEMÜ butterfly valves are universally compatible, for example in various industrial applications, in drinking water and waste-water treatment and in the coastal and offshore applications.

For all nominal sizes, butterfly valves are effective as short shut-off valves with high flow rates. They are a cost-effective alternative to other valve types, where there are no stringent requirements regarding switching cycles, hygiene or control accuracy.

Features

- Large range of nominal sizes
- Short length
- Low weight
- Fast operating time
- Simple installation and low maintenance requirements

Typical working media

- Liquids: Water, oils, acids, alkalis, surfactants, solvents, heating media and coolants
- Gases: Steam, air, nitrogen, natural gas, noble gases, vapour
- Solids: Bulk materials

Applications

- Treatment of process water, drinking water, waste water
- Biogas plants
- Chemical industry
- Fertilizer chemicals and agrochemicals
- Irrigation systems
- Refineries and the petrochemical industry
- Surface finishing/paint shop and coating
- Heating and cooling systems
- Distribution of gas and water
- Swimming pool processes
- Ship and offshore area
- Textile industry
- Paper and woodpulp industry
- Steel works
- Mining

Functional principle of butterfly valves

Open

Closed

Butterfly valves comprise a ring-shaped housing into which a liner is inserted. When fully opened, the butterfly disc carried in a shaft is parallel to the flow direction. The disc is rotated by 90° into the gasket, which closes the butterfly valve. The liner isolates the inner housing from the medium and ensures that the butterfly valve is leak-tight inside and outside. When partially open, butterfly valves can also be used as control valves.

GEMÜ's butterfly discs are spherical and polished, and achieve particularly low torques thanks to the optimized sealing concept between disc, shaft and liner.

For control applications, GEMÜ offers adjusted position indicators as well as positioners and process controllers for quarter turn valves.

Flange connections are the standard connections for butterfly valves. A distinction is made between different body configurations:

Wafer body configuration

- Wafer-type flange design
- Low weight
- Optional installation position

Lug body configuration

- Flange-mounted design (can be used as end of line valve)
- Optimized pipe centering for mounting
- Simple installation
- Optional installation position

U section body configuration

- Flange-mounted design (can be used as end of line valve)
- Optimized pipe centering for mounting
- Simple installation
- Short installation length

Wafer

Lug

U section

Modular system for butterfly valves

With the GEMÜ modular system, we offer you the opportunity to put together a suitable valve in line with your requirements. Discover all configuration options at **www.gemu-group.com.**

Measurement and control technology
Electrical position indicators and combi switchboxes | Positioners and process controllers | Accessories



Actuators
Manual | Pneumatic | Motorized
Metal | Plastic



Liners and discs
Elastomer | Elastomer/thermoplastic
Metall | Plastic



Body
Metal | Plastic



Configure your valve online
at **www.gemu-group.com**

Overview of series

Different series are advantageous depending on the area of application, as each application has quite specific requirements for isolation technology. Due to the GEMÜ modular system, the materials for butterfly discs and liners can also be adjusted to the process parameters for each series.

All series are available both with manual, pneumatic or motorized actuators and with a bare shaft.

GEMÜ Victoria series

GEMÜ R480, R481, R487 and R488 Victoria; GEMÜ D480, D481, D487 and D488 Victoria

- Soft-seated butterfly valve
- All-rounder with a large variety of materials

GEMÜ Edessa series

GEMÜ 490, 491, 497 and 498 Edessa

- PTFE lined butterfly valve
- Suitable for corrosive chemical applications due to selection of highly resistant materials

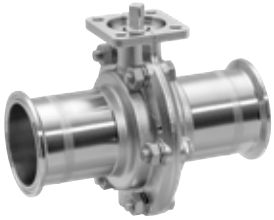
GEMÜ D450 series

GEMÜ D450, D451, D457 and D458

- Soft-seated butterfly valve made of corrosion-resistant plastic
- Disc outlet dimension designed on plastic piping

GEMÜ K415 series

GEMÜ K415, 411, 415 and 428



- Butterfly valve in stainless steel or brass
- Available in small nominal sizes

GEMÜ K410 series

GEMÜ K410, 410, 417 and 423

- Butterfly valve made of corrosion-resistant plastic
- Simple installation thanks to union nut

GEMÜ R487 Victoria
Manually operated butterfly valve

The GEMÜ R487 Victoria soft seated metal butterfly valve is manually operated. It has a hand lever or gearbox depending on customer requirements. The butterfly valve is available in nominal sizes DN 25 to 600 and in standard installation lengths ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) in wafer, lug and U section body versions.

Features

- Low torques thanks to PTFE coated bushes
- Bubble tight sealing, in accordance with EN 12266-1/P12, leak rate A
- Liner material is easy to read when installed
- Sleek disc design for higher Kv values
- Robust body coating comparable to ISO 12944-6 C5
- Various actuator types can be selected
- Optional accessories are installed, set and tested so they are ready for operation

Technical specifications

Media temperature :	-10 to 160 °C
Ambient temperature:	-10 to 70 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 25 to 600
Body configurations:	Lug | U section | Wafer
Connection standards:	ANSI | AS | BS | DIN | EN | ISO | JIS
Body materials:	EN-GJS-400-15, SG iron material | EN-GJS-400-18-LT, SG iron material
Body coating:	Epoxy
Liner materials:	EPDM | FKM | NBR | SBR, abrasion resistant | Silicone
Disc materials:	1.4408, investment casting material | 1.4408, polished investment casting material | 1.4469, Duplex cast steel material | EN-GJS-400-15, SG iron material
Disc coating:	Epoxy | Halar® | Rilsan®
Conformities:	ACS | ASME GEMÜ B31.3 | ATEX | Belgaqua | DNV GL | DVGW Drinking water | DVGW Gas | EAC | FDA | Functional safety | NSF | Oxygen | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act) | WRAS

Go online!

GW-R487

GEMÜ D487 Victoria
Manually operated butterfly valve

The GEMÜ D487 Victoria soft-seated butterfly valve is manually operated. It has a metal hand lever or gearbox depending on customer requirements. The butterfly valve is available in nominal sizes DN 25 to 1600 and in standardized installation lengths ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) in wafer, lug and U section body versions.

Features

- Available in large nominal sizes
- Special materials for disc, seal and valve body
- Vulcanizable liner
- Abrasion-resistant version possible

Technical specifications

Media temperature :	-60 to 210 °C
Ambient temperature:	-20 to 70 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 25 to 1600
Body configurations:	Lug | U section | Wafer
Connection standards:	ANSI | AS | ASME | AWWA | BS | DIN | EN | ISO | JIS
Body materials:	ASTM | EN-AC-46100, aluminium casting material | EN-AC-47100, aluminium casting material | EN-GJL-250 | EN-GJS-400-15, SG iron material | EN-GJS-400-18-LT, SG iron material | S275JR, cast steel material with epoxy coating
Body coating:	Epoxy
Liner materials:	CR | CSM (Hypalon®) | ECO | EPDM | NBR | SBR, abrasion resistant | Silicone
Disc materials:	1.4408, investment casting material | 1.4469, Duplex cast steel material | 1.4539, forged material | 2.0975, bronze casting material | 2.4602 (alloy 22), block material | EN-GJS-400-15, SG iron material
Disc coating:	EPDM | Epoxy | Halar® | NBR | Rilsan® | SBR
Conformities:	ACS | DNV GL | DVGW Drinking water | DVGW Gas | EAC | FDA | WRAS

Go online!

GW-D487

GEMÜ 497 Edessa
Manually operated butterfly valve

The GEMÜ 497 Edessa PTFE seal butterfly valve is manually operated. It has a metal hand lever or gearbox depending on customer requirements. Disc and shaft are one piece, body and liner are available in different designs. The butterfly valve is available in nominal sizes DN 25 to 600 and in standard installation lengths ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) in wafer and lug body versions.

Features

- Suitable for chemically corrosive media
- High-quality selection of materials can be combined in different ways
- High level of plant reliability thanks to one-piece shaft and spring-washer-supported seal system
- Long service life thanks to shaft bearings and special disc and liner geometry
- Lockable hand lever
- Optional stainless steel hand lever

Technical specifications

Media temperature :	-20 to 200 °C
Ambient temperature:	-20 to 95 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 25 to 600
Body configurations:	Lug | Wafer
Connection standards:	AS | ASME | DIN | EN | ISO | JIS
Body materials:	1.4404, block material | EN-GJS-400-18-LT, SG iron material | S355J2 + N, cast steel material | VE Duroplast, reinforced
Body coating:	Epoxy
Liner materials:	PTFE TFM™/EPDM | PTFE TFM™/FKM | PTFE TFM™/silicone | PTFE/EPDM | PTFE/FKM | PTFE/silicone
Disc materials:	1.4404 (316L), forged material | 1.4469, Duplex cast steel material | 2.4602 (alloy 22), block material | 3.7035, titan
Disc coating:	PFA
Conformities:	ATEX | EAC | FDA | Functional safety | TA Luft (German Clean Air Act) | USP

Go online!

GW-497

GEMÜ 411
Manually operated butterfly valve

The GEMÜ 411 soft seated butterfly valve made from stainless steel or brass has an ergonomically designed, corrosion-resistant plastic hand lever. It is protected against accidental operation by the integrated locking device. With its rounded and polished disc edges, the butterfly valve is optimized for frequent cycle duties. The surface of the butterfly valve can be further finished.

Features

- Suitable for vacuum applications and low temperatures
- High-quality butterfly valve made from stainless steel or brass
- Available in small nominal sizes
- Compact and robust body
- Ergonomically designed hand lever with integrated locking device

Technical specifications

Media temperature :	-20 to 120 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 15 to 50
Connection types:	Clamp I Spigot I Threaded connection
Connection standards:	ASME I DIN I EN I ISO I SMS
Housing materials:	1.4408, investment casting material I CW614N, brass I CW617N, brass
Liner materials:	EPDM I FKM I Silicone
Disc materials:	1.4408, investment casting material I CW614N, brass I CW617N, brass
Conformities:	EAC I FDA

Go online!

GW-411

GEMÜ R477 Tugela
Manually operated butterfly valve

The GEMÜ R477 Tugela double eccentric metal butterfly valve is operated by a manual actuator. The butterfly valve is available in nominal sizes DN 50 to 400 and in standardized installation lengths API 609 category A (DIN 3202 K1).

Features

- High-performance butterfly valve with double-eccentric construction in order to separate the disc directly from the seat (gasket), thereby reducing friction and extending the service life
- Continuous shaft with temperature resistant graphite bearing and PTFE gland packing for readjustment in operation for minimized leakage, even at low pressures
- Antistatic fixture for ATEX area
- Various actuator types can be selected
- Bubble tight sealing, in accordance with EN 12266-1/P12, leak rate A

Technical specifications

Media temperature :	-60 to 230 °C
Ambient temperature:	-20 to 70 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 50 to 400
Body configurations:	Wafer
Connection standards:	ASME | ISO
Body materials:	1.0619 (WCB), cast steel material with CDP coating | 1.4408 (CF8M), investment casting material
Liner materials:	PTFE TFM™
Disc materials:	1.4408
Conformities:	ATEX | EAC | FDA | TA Luft (German Clean Air Act)

Go online!

GW-R477

Manually operated butterfly valves made of plastic

Overview

GEMÜ type	D457	417
		
Media temperature	5 to 90 °C	0 to 60 °C
Operating pressure	0 to 10 bar	0 to 6 bar
Nominal sizes	DN 50 to 300	DN 15 to 50
Connection types		
Flange	●	-
Union end	-	●
Body materials		
PP	●	-
PVC-U	-	●
Liner materials		
EPDM	●	●
FKM	●	●
Disc materials		
PP-H	●	●
PVC-C	●	-
PVC-U	●	-
Conformities		
EAC	●	●

GEMÜ D457
Manually operated butterfly valve

The GEMÜ D457 soft seated butterfly valve is manually operated. It has a metal hand lever or gearbox depending on customer requirements. The butterfly valve is available in nominal sizes DN 50–300 and has a wafer body version.

Features

- Low weight
- Corrosion resistant plastic body
- Disc outlet dimension designed on plastic piping
- Lockable hand lever made of plastic with latch positions

Technical specifications

Media temperature :	5 to 90 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 50 to 300
Connection types:	Flange
Connection standards:	ANSI | EN | JIS
Housing materials:	PP, reinforced
Liner materials:	EPDM | FKM
Disc materials:	PP-H | PVC-C | PVC-U
Conformities:	EAC

Go online!

GW-D457

GEMÜ 417
Manually operated butterfly valve

The GEMÜ 417 butterfly valve has an ergonomically designed corrosion resistant plastic hand lever. It can be protected against accidental operation by the integrated locking device.

Features

- Low weight
- Corrosion resistant plastic body
- Simple installation with union nut
- Ergonomic handle with anti-twist system and locking device

Technical specifications

Media temperature :	0 to 60 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 15 to 50
Connection types:	Union end
Connection standards:	BS | DIN
Housing materials:	PVC-U, grey
Liner materials:	EPDM | FKM
Disc materials:	PP-H
Conformities:	EAC

Go online!

GW-417

Pneumatically operated butterfly valves made of metal

Overview

GEMÜ type	R481 Victoria	D481 Victoria	491 Edessa	415	R471 Tugela
					
Media temperature	-10 to 160 °C	-60 to 210 °C	-20 to 200 °C	-20 to 120 °C	-60 to 230 °C
Operating pressure	0 to 16 bar	0 to 16 bar	0 to 10 bar	0 to 10 bar	0 to 40 bar
Nominal sizes	DN 25 to 600	DN 25 to 600	DN 25 to 600	DN 15 to 50	DN 50 to 400
Connection types (body configuration)					
Clamp	-	-	-	●	-
Flange (lug)	●	●	●	-	-
Flange (U section)	●	●	-	-	-
Flange (wafer)	●	●	●	-	●
Spigot	-	-	-	●	-
Threaded connection	-	-	-	●	-
Body materials					
1.0619	-	-	-	-	●
1.4408	-	-	-	●	-
1.4408 (CF8M)	-	●	-	-	●
1.4435 (316L)	-	-	●	-	-
CW614N	-	-	-	●	-
CW617N	-	-	-	●	-
EN-AC-46100	-	●	-	-	-
EN-AC-47100	-	●	-	-	-
EN-GJS-400-15, coated	●	●	-	-	-
EN-GJS-400-18-LT, coated	●	●	●	-	-
S275JR, coated	-	●	-	-	-
S355J2 + N	-	-	●	-	-
VE Duroplast, reinforced	-	-	●	-	-
Liner materials					
CR	-	●	-	-	-
CSM (Hypalon®)	-	●	-	-	-
ECO	-	●	-	-	-
EPDM	●	●	-	●	-
FKM	●	-	-	●	-
NBR	●	●	-	-	-
PTFE TFM™	-	-	-	-	●
PTFE TFM™/EPDM	-	-	●	-	-
PTFE TFM™/FKM	-	-	●	-	-
PTFE TFM™/silicone	-	-	●	-	-
PTFE/EPDM	-	-	●	-	-
PTFE/FKM	-	-	●	-	-
PTFE/silicone	-	-	●	-	-
SBR, abrasion resistant	●	●	-	-	-
Silicone	●	●	-	●	-

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ type	R481 Victoria	D481 Victoria	491 Edessa	415	R471 Tugela
					
Disc materials					
1.4404 (316L)	-	-	●	-	-
1.4404 (316L), coated	-	-	●	-	-
1.4408	●	●	-	●	-
1.4408, coated	●	●	-	-	-
1.4408, polished	●	-	-	-	-
1.4469	-	●	●	-	-
1.4539	-	●	-	-	-
2.0975	-	●	-	-	-
2.4602 (alloy 22)	-	●	●	-	-
3.7035	-	-	●	-	-
CW614N	-	-	-	●	-
CW617N	-	-	-	●	-
EN-GJS-400-15, coated	●	●	-	-	-
Conformities					
ACS	●	●	-	-	-
ASME GEMÜ B31.3	●	-	-	-	-
ATEX	●	-	●	●	●
Belgaqua	●	-	-	-	-
DNV GL	●	●	-	-	-
DVGW Drinking water	●	●	-	-	-
DVGW Gas	●	●	-	-	-
EAC	●	●	●	●	●
FDA	●	●	●	●	●
Functional safety	●	-	●	-	-
NSF	●	-	-	-	-
Oxygen	●	-	-	-	-
Regulation (EC) No. 1935/2004	●	-	-	-	-
TA Luft (German Clean Air Act)	●	-	●	-	●
USP	-	-	●	-	-
WRAS	●	●	-	-	-

GEMÜ R481 Victoria
Pneumatically operated butterfly valve

The GEMÜ R481 Victoria soft seated metal butterfly valve has a metal actuator and is pneumatically operated. Normally Closed, Normally Open and Double Acting control functions are available. Various pneumatic actuators are available. The butterfly valve is available in nominal sizes DN 25 to 600 and in standard installation lengths ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) in wafer, lug and U section body versions.

Features

- Low torques thanks to PTFE coated bushes
- Bubble tight sealing, in accordance with EN 12266-1/P12, leak rate A
- Liner material is easy to read when installed
- Sleek disc design for higher Kv values
- Robust body coating comparable to ISO 12944-6 C5
- Various actuator types can be selected
- Optional accessories are installed, set and tested so they are ready for operation

Technical specifications

Media temperature :	-10 to 160 °C
Ambient temperature:	-10 to 70 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 25 to 600
Body configurations:	Lug | U section | Wafer
Connection standards:	ANSI | AS | BS | DIN | EN | ISO | JIS
Body materials:	EN-GJS-400-15, SG iron material | EN-GJS-400-18-LT, SG iron material
Body coating:	Epoxy
Liner materials:	EPDM | FKM | NBR | SBR, abrasion resistant | Silicone
Disc materials:	1.4408, investment casting material | 1.4408, polished investment casting material | 1.4469, Duplex cast steel material | EN-GJS-400-15, SG iron material
Disc coating:	Epoxy | Halar® | Rilsan®
Conformities:	ACS | ASME GEMÜ B31.3 | ATEX | Belgaqua | DNV GL | DVGW Drinking water | DVGW Gas | EAC | FDA | Functional safety | NSF | Oxygen | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act) | WRAS

Go online!

GW-R481

GEMÜ D481 Victoria
Pneumatically operated butterfly valve

The GEMÜ D481 Victoria soft seated butterfly valve has a metal actuator and is pneumatically operated. The "Normally Closed", "Normally Open" and "Double Acting" control functions are available. The butterfly valve is available in nominal sizes DN 25 to 600 and in standard installation lengths ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) in wafer and lug body versions.

Features

- Available in large nominal sizes
- Special materials for disc, seal and valve body
- Vulcanizable liner
- Abrasion-resistant version possible

Technical specifications

Media temperature :	-60 to 210 °C
Ambient temperature:	-20 to 70 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 25 to 600
Body configurations:	Lug | U section | Wafer
Connection standards:	ANSI | AS | ASME | AWWA | BS | DIN | EN | ISO | JIS
Body materials:	ASTM | EN-AC-46100, aluminium casting material | EN-AC-47100, aluminium casting material | EN-GJL-250 | EN-GJS-400-15, SG iron material | EN-GJS-400-18-LT, SG iron material | S275JR, cast steel material with epoxy coating
Body coating:	Epoxy
Liner materials:	CR | CSM (Hypalon®) | ECO | EPDM | NBR | SBR, abrasion resistant | Silicone
Disc materials:	1.4408, investment casting material | 1.4469, Duplex cast steel material | 1.4539, forged material | 2.0975, bronze casting material | 2.4602 (alloy 22), block material | EN-GJS-400-15, SG iron material
Disc coating:	EPDM | Epoxy | Halar® | NBR | Rilsan® | SBR
Conformities:	ACS | DNV GL | DVGW Drinking water | DVGW Gas | EAC | FDA | WRAS

Go online!

GW-D481

GEMÜ 491 Edessa
Pneumatically operated butterfly valve

The GEMÜ 491 Edessa PTFE lined butterfly valve has a metal actuator and is pneumatically operated. The "Normally Closed", "Normally Open" and "Double Acting" control functions are available. Disc and shaft are one piece, body and liner are available in different designs. The butterfly valve is available in nominal sizes DN 25 to 600 and in standard installation lengths ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) in wafer and lug body versions.

Features

- Suitable for chemically corrosive media
- High-quality selection of materials can be combined in different ways
- High level of plant reliability thanks to one-piece shaft and spring-washer-supported seal system
- Long service life thanks to shaft bearings and special disc and liner geometry
- Optional accessories are installed, set and tested so they are ready for operation

Technical specifications

Media temperature :	-20 to 200 °C
Ambient temperature:	-20 to 95 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 25 to 600
Body configurations:	Lug | Wafer
Connection standards:	AS | ASME | DIN | EN | ISO | JIS
Body materials:	1.4404, block material | EN-GJS-400-18-LT, SG iron material | S355J2 + N, cast steel material | VE Duroplast, reinforced
Body coating:	Epoxy
Liner materials:	PTFE TFM™/EPDM | PTFE TFM™/FKM | PTFE TFM™/silicone | PTFE/EPDM | PTFE/FKM | PTFE/silicone
Disc materials:	1.4404 (316L), forged material | 1.4469, Duplex cast steel material | 2.4602 (alloy 22), block material | 3.7035, titan
Disc coating:	PFA
Conformities:	ATEX | EAC | FDA | Functional safety | TA Luft (German Clean Air Act) | USP

Go online!

GW-491

GEMÜ 415
Pneumatically operated butterfly valve

The GEMÜ 415 soft seated butterfly valve made from stainless steel or brass is pneumatically operated by a space-saving piston actuator. The "Normally Closed", "Normally Open" and "Double Acting" control functions are available. A low-cost rack and pinion actuator can also be fitted. With its rounded and polished disc edges, the butterfly valve is optimized for frequent cycle duties. The surface of the butterfly valve can be further finished.

Features

- Suitable for vacuum applications and low temperatures
- High-quality butterfly valve made from stainless steel or brass
- Available in small nominal sizes
- Compact and robust body
- Corrosion-resistant and space-saving piston actuator made from plastic or metal

also as control valve

Technical specifications

Media temperature :	-20 to 120 °C
Ambient temperature:	0 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 15 to 50
Connection types:	Clamp | Spigot | Threaded connection
Connection standards:	ASME | DIN | EN | ISO | SMS
Housing materials:	1.4408, investment casting material | CW614N, brass | CW617N, brass
Liner materials:	EPDM | FKM | Silicone
Disc materials:	1.4408, investment casting material | CW614N, brass | CW617N, brass
Conformities:	ATEX | EAC | FDA

Go online!

GW-415

GEMÜ R471 Tugela
Pneumatically operated butterfly valve

The GEMÜ R471 Tugela double eccentric metal butterfly valve is operated by a pneumatic actuator. The butterfly valve is available in nominal sizes DN 50 to 400 and in standardized installation lengths API 609 category A (DIN 3202 K1).

Features

- High-performance butterfly valve with double-eccentric construction in order to separate the disc directly from the seat (gasket), thereby reducing friction and extending the service life
- Continuous shaft with temperature resistant graphite bearing and PTFE gland packing for readjustment in operation for minimized leakage, even at low pressures
- Antistatic fixture for ATEX area
- Various actuator types can be selected
- Bubble tight sealing, in accordance with EN 12266-1/P12, leak rate A

Technical specifications

Media temperature :	-60 to 230 °C
Ambient temperature:	-20 to 70 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 50 to 400
Body configurations:	Wafer
Connection standards:	ASME | ISO
Body materials:	1.0619 (WCB), cast steel material with CDP coating | 1.4408 (CF8M), investment casting material
Liner materials:	PTFE TFM™
Disc materials:	1.4408
Conformities:	ATEX | EAC | FDA | TA Luft (German Clean Air Act)

Go online!

GW-R471

Pneumatically operated butterfly valves made of plastic

Overview

GEMÜ type	D451	410
		
Media temperature	5 to 90 °C	0 to 60 °C
Operating pressure	0 to 10 bar	0 to 6 bar
Nominal sizes	DN 50 to 300	DN 15 to 50
Connection types		
Flange	●	-
Union end	-	●
Body materials		
PP	●	-
PVC-U	-	●
Liner materials		
EPDM	●	●
FKM	●	●
Disc materials		
PP-H	●	●
PVC-C	●	-
PVC-U	●	-
Conformities		
EAC	●	●

GEMÜ D451
Pneumatically operated butterfly valve

The GEMÜ D451 soft seated butterfly valve has a metal actuator and is pneumatically operated. The "Normally Closed", "Normally Open" and "Double Acting" control functions are available. The butterfly valve is available in nominal sizes DN 50–300 and has a wafer body version.

Features

- Low weight
- Corrosion resistant plastic body
- Short operating times
- UV resistant
- Low torque

Technical specifications

Media temperature :	5 to 90 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 50 to 300
Connection types:	Flange
Connection standards:	ANSI | EN | JIS
Housing materials:	PP, reinforced
Liner materials:	EPDM | FKM
Disc materials:	PP-H | PVC-C | PVC-U
Conformities:	EAC

Go online!

GW-D451

GEMÜ 410
Pneumatically operated butterfly valve

The GEMÜ 410 butterfly valve is pneumatically operated. Normally Closed and Normally Open control functions are available. The valve body is available in a plastic design.

Features

- Low weight
- Corrosion resistant plastic body
- Simple installation with union nut
- Space-saving piston actuator made of plastic

also as control valve

EAC

Technical specifications

Media temperature :	0 to 60 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 15 to 50
Connection types:	Union end
Connection standards:	BS | DIN
Housing materials:	PVC-U, grey
Liner materials:	EPDM | FKM
Disc materials:	PP-H
Conformities:	EAC

Go online!

GW-410

Motorized butterfly valves made of metal

Overview

GEMÜ type	R488 Victoria	D488 Victoria	498 Edessa	428	R478 Tugela
					
Media temperature	-10 to 160 °C	-60 to 210 °C	-20 to 200 °C	-20 to 120 °C	-60 to 230 °C
Operating pressure	0 to 16 bar	0 to 16 bar	0 to 10 bar	0 to 10 bar	0 to 40 bar
Nominal sizes	DN 25 to 600	DN 25 to 350	DN 25 to 250	DN 15 to 50	DN 50 to 300
Connection types (body configuration)					
Clamp	-	-	-	●	-
Flange (lug)	●	●	●	-	-
Flange (U section)	●	●	-	-	-
Flange (wafer)	●	●	●	-	●
Spigot	-	-	-	●	-
Threaded connection	-	-	-	●	-
Body materials					
1.0619	-	-	-	-	●
1.4408	-	-	-	●	-
1.4408 (CF8M)	-	●	-	-	●
1.4435 (316L)	-	-	●	-	-
CW614N	-	-	-	●	-
CW617N	-	-	-	●	-
EN-AC-46100	-	●	-	-	-
EN-AC-47100	-	●	-	-	-
EN-GJS-400-15, coated	●	●	-	-	-
EN-GJS-400-18-LT, coated	●	●	●	-	-
S275JR, coated	-	●	-	-	-
S355J2 + N	-	-	●	-	-
VE Duroplast, reinforced	-	-	●	-	-
Liner materials					
CR	-	●	-	-	-
CSM (Hypalon®)	-	●	-	-	-
ECO	-	●	-	-	-
EPDM	●	●	-	●	-
FKM	●	-	-	●	-
NBR	●	●	-	-	-
PTFE TFM™	-	-	-	-	●
PTFE TFM™/EPDM	-	-	●	-	-
PTFE TFM™/FKM	-	-	●	-	-
PTFE TFM™/silicone	-	-	●	-	-
PTFE/EPDM	-	-	●	-	-
PTFE/FKM	-	-	●	-	-
PTFE/silicone	-	-	●	-	-
SBR, abrasion resistant	●	●	-	-	-
Silicone	●	●	-	●	-

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ type	R488 Victoria	D488 Victoria	498 Edessa	428	R478 Tugela
					
Disc materials					
1.4404 (316L)	-	-	●	-	-
1.4404 (316L), coated	-	-	●	-	-
1.4408	●	●	-	●	-
1.4408, coated	●	●	-	-	-
1.4408, polished	●	-	-	-	-
1.4469	-	●	●	-	-
1.4539	-	●	-	-	-
2.0975	-	●	-	-	-
2.4602 (alloy 22)	-	●	●	-	-
3.7035	-	-	●	-	-
CW614N	-	-	-	●	-
CW617N	-	-	-	●	-
EN-GJS-400-15, coated	●	●	-	-	-
Conformities					
ACS	●	●	-	-	-
ASME GEMÜ B31.3	●	-	-	-	-
ATEX	●	-	●	●	●
Belgaqua	●	-	-	-	-
CSA	-	●	-	-	-
DNV GL	●	●	-	-	-
DVGW Drinking water	●	●	-	-	-
DVGW Gas	●	●	-	-	-
EAC	●	●	●	●	●
FDA	●	●	●	●	●
Functional safety	●	-	●	-	-
NSF	●	-	-	-	-
Oxygen	●	-	-	-	-
Regulation (EC) No. 1935/2004	●	-	-	-	-
TA Luft (German Clean Air Act)	●	-	●	-	●
USP	-	-	●	-	-
WRAS	●	●	-	-	-

GEMÜ R488 Victoria
Motorized butterfly valve

The GEMÜ R488 Victoria soft seated metal butterfly valve is motorized. Various metal or plastic open/closed or control versions are available. The butterfly valve is available in nominal sizes DN 25 to 600 and in standard installation lengths ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) in wafer, lug and U section body versions.

Features

- Low torques thanks to coated bushings
- Bubble tight sealing, in accordance with EN 12266-1/P12, leak rate A
- Liner material is easy to read when installed
- Sleek disc design for higher Kv values
- Robust body coating comparable to ISO 12944-6 C5
- Various actuator types can be selected
- Optional accessories are installed, set and tested so they are ready for operation

Technical specifications

Media temperature :	-10 to 160 °C
Ambient temperature:	-10 to 70 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 25 to 600
Body configurations:	Lug | U section | Wafer
Connection standards:	ANSI | AS | BS | DIN | EN | ISO | JIS
Body materials:	EN-GJS-400-15, SG iron material | EN-GJS-400-18-LT, SG iron material
Body coating:	Epoxy
Liner materials:	EPDM | FKM | NBR | SBR, abrasion resistant | Silicone
Disc materials:	1.4408, investment casting material | 1.4408, polished investment casting material | 1.4469, Duplex cast steel material | EN-GJS-400-15, SG iron material
Disc coating:	Epoxy | Halar® | Rilsan®
Conformities:	ACS | ASME GEMÜ B31.3 | ATEX | Belgaqua | DNV GL | DVGW Drinking water | DVGW Gas | EAC | FDA | Functional safety | NSF | Oxygen | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act) | WRAS

Go online!

GW-R488

GEMÜ D488 Victoria
Motorized butterfly valve

The GEMÜ D488 Victoria soft-seated butterfly valve is motorized. Various metal or plastic on/off or control actuators are available. The butterfly valve is available in nominal sizes DN 25 to 350, in the standardized installation lengths: ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) available in wafer, lug and U section body versions.

Features

- Available in large nominal sizes
- Special materials for disc, seal and valve body
- Vulcanizable liner
- Abrasion-resistant version possible

Technical specifications

Media temperature :	-60 to 210 °C
Ambient temperature:	-20 to 70 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 25 to 350
Body configurations:	Lug | U section | Wafer
Connection standards:	ANSI | AS | ASME | AWWA | BS | DIN | EN | ISO | JIS
Body materials:	ASTM | EN-AC-46100, aluminium casting material | EN-AC-47100, aluminium casting material | EN-GJL-250 | EN-GJS-400-15, SG iron material | EN-GJS-400-18-LT, SG iron material | S275JR, cast steel material with epoxy coating
Body coating:	Epoxy
Liner materials:	CR | CSM (Hypalon®) | ECO | EPDM | NBR | SBR, abrasion resistant | Silicone
Disc materials:	1.4408, investment casting material | 1.4469, Duplex cast steel material | 1.4539, forged material | 2.0975, bronze casting material | 2.4602 (alloy 22), block material | EN-GJS-400-15, SG iron material
Disc coating:	EPDM | Epoxy | Halar® | NBR | Rilsan® | SBR
Supply voltage:	100 - 120 V AC, 50/60 Hz | 12 - 24 V AC/DC | 220 - 240 V AC, 50/60 Hz | 380 - 480 V AC, 50/60 Hz
Operating time 90°:	4 to 100 s
Protection class:	IP 65, 66, 67, 68
Conformities:	ACS | CSA | DNV GL | DVGW Drinking water | DVGW Gas | EAC | FDA | WRAS

Go online!

GW-D488

GEMÜ 498 Edessa
Motorized butterfly valve

The GEMÜ 498 Edessa PTFE-lined butterfly valve is motorized. Various metal or plastic on/off or control actuators are available. The disc and shaft are one piece; body and liner are available in different designs. The butterfly valve is available in nominal sizes DN 25 to 250 (1½"–36"), in the standardized installation lengths: ISO 5752/20 | EN 558-1/20 | API 609 category A (DIN 3202 K1) available in wafer and lug body versions.

Features

- Suitable for chemically corrosive media
- High-quality selection of materials can be combined in different ways
- High level of plant reliability thanks to one-piece shaft and spring-washer-supported seal system
- Long service life thanks to shaft bearings and special disc and liner geometry
- Wide choice of motorized actuator types

also as control valve

Technical specifications

Media temperature :	-20 to 200 °C
Ambient temperature:	-20 to 95 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 25 to 250
Body configurations:	Lug | Wafer
Connection standards:	AS | ASME | DIN | EN | ISO | JIS
Body materials:	1.4404, block material | EN-GJS-400-18-LT, SG iron material | S355J2 + N, cast steel material | VE Duroplast, reinforced
Body coating:	Epoxy
Liner materials:	PTFE TFM™/EPDM | PTFE TFM™/FKM | PTFE TFM™/silicone | PTFE/EPDM | PTFE/FKM | PTFE/silicone
Disc materials:	1.4404 (316L), forged material | 1.4469, Duplex cast steel material | 2.4602 (alloy 22), block material | 3.7035, titan
Disc coating:	PFA
Supply voltage:	24 - 240 V AC/DC | 24 V AC, 50/60 Hz | 24 V DC
Operating time 90°:	4 to 100 s
Protection class:	IP 65, 66, 67, 68
Conformities:	ATEX | EAC | FDA | Functional safety | TA Luft (German Clean Air Act) | USP

Go online!

GW-498

GEMÜ 428
Motorized butterfly valve

The GEMÜ 428 soft seated butterfly valve made from stainless steel or brass is motorized. A manual override and an optical position indicator are integrated as standard. With its rounded and polished disc edges, the butterfly valve is optimized for frequent cycle duties. The surface of the butterfly valve can be further finished.

Features

- Suitable for vacuum applications and low temperatures
- High-quality butterfly valve made from stainless steel or brass
- Available in small nominal sizes
- Compact and robust body

Technical specifications

Media temperature :	-20 to 120 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 15 to 50
Connection types:	Clamp I Spigot I Threaded connection
Connection standards:	ASME I DIN I EN I ISO I SMS
Housing materials:	1.4408, investment casting material I CW614N, brass I CW617N, brass
Liner materials:	EPDM I FKM I Silicone
Disc materials:	1.4408, investment casting material I CW614N, brass I CW617N, brass
Supply voltage:	12 V AC, 50/60 Hz I 12 V DC I 24 V AC, 50/60 Hz I 24 V DC
Operating time 90°:	4 to 100 s
Protection class:	IP 65, 66, 67, 68
Conformities:	ATEX I EAC I FDA

Go online!

GW-428

GEMÜ R478 Tugela
Motorized butterfly valve

The GEMÜ R478 Tugela double-eccentric metal butterfly valve is operated by a motorized actuator. The butterfly valve is available in nominal sizes DN 50 to 300 and in standardized installation lengths API 609 category A (DIN 3202 K1).

Features

- High-performance butterfly valve with double-eccentric construction in order to separate the disc directly from the seat (gasket), thereby reducing friction and extending the service life
- Continuous shaft with temperature resistant graphite bearing and PTFE gland packing for readjustment in operation for minimized leakage, even at low pressures
- Antistatic fixture for ATEX area
- Various actuator types can be selected
- Bubble tight sealing, in accordance with EN 12266-1/P12, leak rate A

Technical specifications

Media temperature :	-60 to 230 °C
Ambient temperature:	-20 to 70 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 50 to 300
Body configurations:	Wafer
Connection standards:	ASME | ISO
Body materials:	1.0619 (WCB), cast steel material with CDP coating | 1.4408 (CF8M), investment casting material
Liner materials:	PTFE TFM™
Disc materials:	1.4408
Supply voltage:	120 V AC, 50 Hz | 120 V AC, 60 Hz | 230 V AC, 50 Hz | 230 V AC, 60 Hz | 24 V DC | 380 V AC, 50 Hz | 400 V AC, 50 Hz | 440 V AC, 60 Hz | 460 V AC, 60 Hz | 480 V AC, 60 Hz
Operating time 90°:	13 to 35 s
Protection class:	IP68
Conformities:	ATEX | EAC | FDA | TA Luft (German Clean Air Act)

Go online!

GW-R478

Motorized butterfly valves made of plastic

Overview

GEMÜ type	D458	423
		
Media temperature	5 to 90 °C	0 to 60 °C
Operating pressure	0 to 10 bar	0 to 6 bar
Nominal sizes	DN 50 to 300	DN 15 to 50
Connection types		
Flange	●	-
Union end	-	●
Body materials		
PP	●	-
PVC-U	-	●
Liner materials		
EPDM	●	●
FKM	●	●
Disc materials		
PP-H	●	●
PVC-C	●	-
PVC-U	●	-
Conformities		
CSA	●	●
EAC	●	●

GEMÜ D458
Motorized butterfly valve

The GEMÜ D458 butterfly valve is motorized. Various metal or plastic on/off or control actuators are available. A manual override and an optical position indicator are integrated as standard. The butterfly valve is available in nominal sizes DN 50–300 and has a wafer body version.

Features

- Low weight
- Corrosion-resistant materials
- Disc outlet dimension designed on plastic piping

also as control valve

EAC

Technical specifications

Media temperature :	5 to 90 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 10 bar
Nominal sizes:	DN 50 to 300
Connection types:	Flange
Connection standards:	ANSI | EN | JIS
Housing materials:	PP, reinforced
Liner materials:	EPDM | FKM
Disc materials:	PP-H | PVC-C | PVC-U
Supply voltage:	12 - 24 V AC/DC | 24 V AC/DC | 24 V DC | 85 - 240 V AC/DC
Operating time 90°:	13 to 58 s
Protection class:	IP 65, 67
Conformities:	CSA | EAC

Go online!

GW-D458

GEMÜ 423
Motorized butterfly valve

The GEMÜ 423 butterfly valve has a low maintenance motorized quarter turn actuator. A manual override and an optical position indicator are integrated as standard.

Features

- Low weight
- Adjustable end positions by means of microswitches
- Corrosion resistant plastic body
- Simple installation with union nut
- Compact design

also as control valve

EAC

Technical specifications

Media temperature :	0 to 60 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 15 to 50
Connection types:	Union end
Connection standards:	BS | DIN
Housing materials:	PVC-U, grey
Liner materials:	EPDM | FKM
Disc materials:	PP-H
Supply voltage:	12 - 24 V AC/DC | 12 V DC | 24 - 240 V AC/DC | 24 V AC, 50/60 Hz | 24 V DC
Operating time 90°:	4 to 100 s
Protection class:	IP 65, 66, 67, 68
Conformities:	CSA | EAC

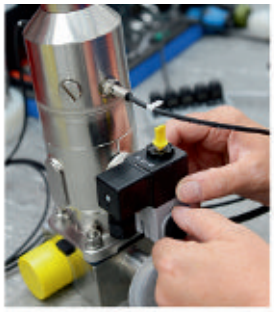
Go online!

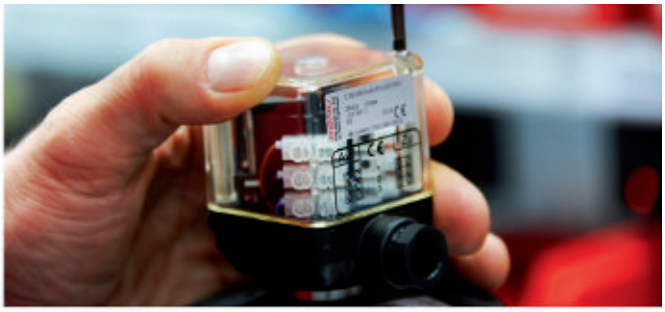
GW-423

Add-on components for butterfly valves

GEMÜ type	410	411	415	417	423	428	481	R471	R477	R481	R487
Measurement and control technology											
Electrical position indicator											
GEMÜ 1205 ▸ page 362	●		●								
GEMÜ 1215 ▸ page 363	●		●								
GEMÜ 1225	●	●	●	●	●	●					
GEMÜ 1230/1231/1232	●		●								
GEMÜ 1235/1236 ▸ page 368	●		●				●	●	●	●	●
GEMÜ 1242 ▸ page 371	●		●				●	●	●	●	●
GEMÜ LSC ▸ page 372	●		●				●	●	●	●	●
GEMÜ LSF ▸ page 373	●		●				●	●	●	●	●
Combi switchbox											
GEMÜ 4242 ▸ page 378	●		●				●	●	●	●	●
Pilot valve											
GEMÜ 0324 ▸ page 385	●		●								
Control systems											
Positioner											
GEMÜ 1434 µPos ▸ page 338	●		●								
GEMÜ 1435 ePos ▸ page 340	●		●				●	●	●	●	●
Positioner and process controller											
GEMÜ 1436 cPos ▸ page 341	●		●				●	●	●	●	●
Accessories											
Connection accessories ▸ page 417	●		●								
Stroke limiters ▸ page 422	●		●								
Sensor accessories ▸ page 424	●		●								
Position indicators ▸ page 421	●		●				●	●	●	●	●

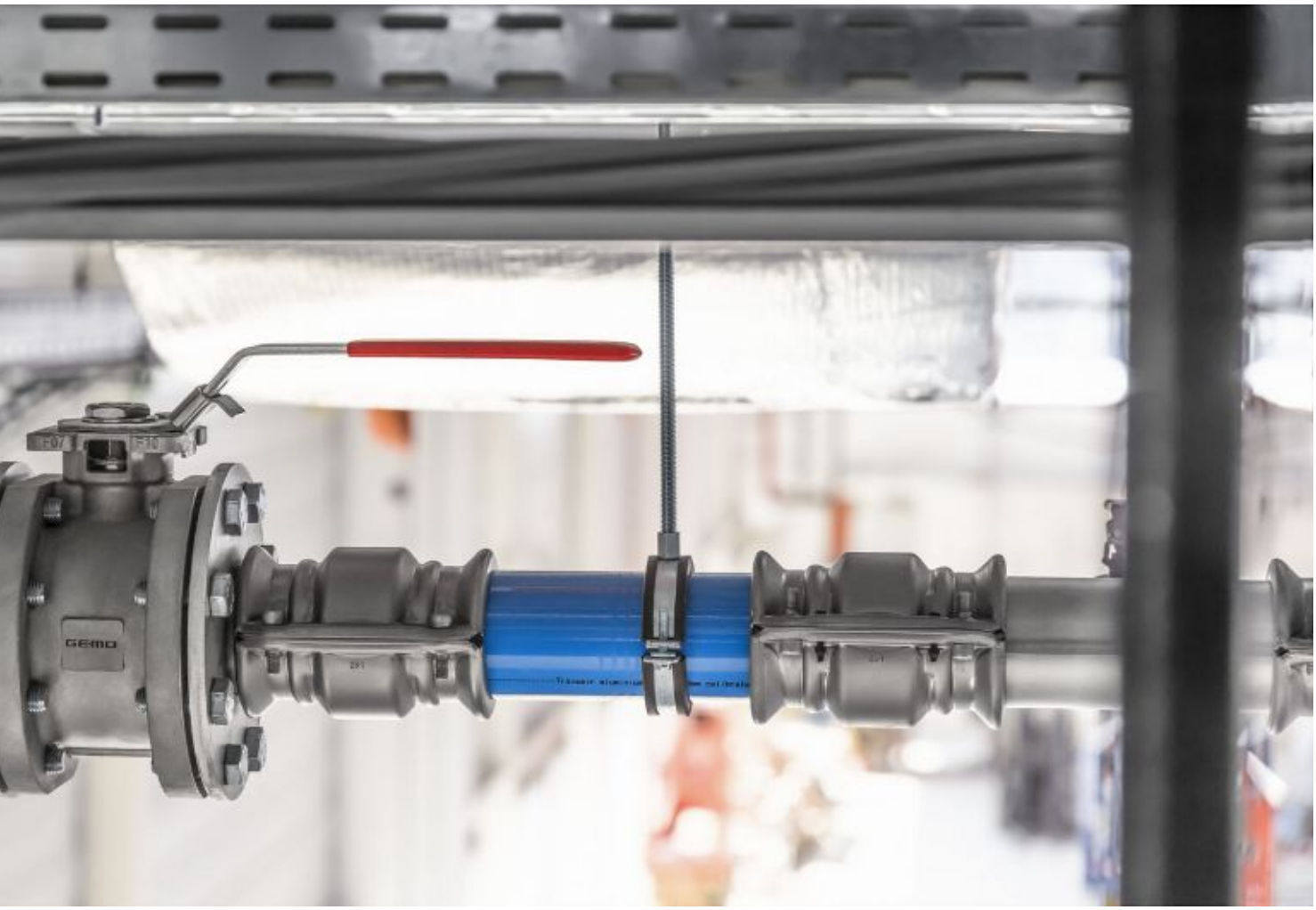
GEMÜ valves are fully assembled in our in-house Assembly department – with compatible accessories on request.





Our pre-assembled solutions are supplied to you preset and tested. Not only can you obtain all components from a single source, you simultaneously reduce the effort required for logistics and installation of the system on site, as well as for documentation.

GEMÜ type	487	491	497	D451	D481	D487
Measurement and control technology						
Electrical position indicator						
GEMÜ 1205 ▸ page 362						
GEMÜ 1215 ▸ page 363						
GEMÜ 1225						
GEMÜ 1230/1231/1232						
GEMÜ 1235/1236 ▸ page 368	●	●	●	●	●	●
GEMÜ 1242 ▸ page 371	●	●	●	●	●	●
GEMÜ LSC ▸ page 372	●	●	●	●	●	●
GEMÜ LSF ▸ page 373	●	●	●	●	●	●
Combi switchbox						
GEMÜ 4242 ▸ page 378	●	●	●	●	●	●
Pilot valve						
GEMÜ 0324 ▸ page 385						
Control systems						
Positioner						
GEMÜ 1434 µPos ▸ page 338						
GEMÜ 1435 ePos ▸ page 340	●	●	●	●	●	●
Positioner and process controller						
GEMÜ 1436 cPos ▸ page 341	●	●	●	●	●	●
Accessories						
Connection accessories ▸ page 417						
Stroke limiters ▸ page 422						
Sensor accessories ▸ page 424						
Position indicators ▸ page 421						



Ball valves

Description

Ball valves are versatile and can also be used in extreme circumstances. With the ball that has been drilled through as a shut-off body, this valve type is particularly well-suited to safely shutting off liquid and gaseous media at a very high operating pressure. As media travels between the ball and the body when opening and closing, ball valves are suitable for mechanically pure, inert or corrosive liquids, gases or steam. Caution must be exercised with crystallizing media, as these can have a negative effect on functionality.

Features

- High flow rates
- Fast cycle duties
- High operating pressures
- High temperatures

Typical working media

- Liquids: Water, glycol, cooling lubricant
- Gases: Air, compressed air

Applications

- Generation and distribution of compressed air, water, industrial gas
- Batch and filling processes
- Heat exchangers and heating systems
- Heating and cooling processes in machines, systems and buildings
- Dyeing and cleaning
- Filter systems and filter cleaning

Functional principle of ball valves

Open

Closed

The ball valve comprises a ball valve with a hollow bore, which generally sits in a housing between PTFE sealing rings. The ball is connected via an externally positioned shaft. The valve can be opened and closed by rotating it through 90°.

The dead space needs to be taken into account for ball valves. Caution must be exercised with crystallizing media. If a medium is enclosed in the ball, this can have a negative impact on functionality and service life.

Ball ports

GEMÜ ball valves are available as both a 2/2-way straight through body and a 3/2-way valve with T or L ball. With these special designs, the ball valves can also be used to bypass the media flow at various outlets.

Full and reduced bore

There is a difference between ball valves with full bore and reduced bore. With a full bore, the hole in the ball has the same inside diameter as the connected piping. A major advantage of the version with full bore is that the full cross section of the pipe is free when open. This results in minimal pressure loss and a high Kvs value. This makes the ball valves ideal for high viscosity media, and they are the only valves that are also piggable.

In the design with reduced bore, the inside diameter in the area of the ball is reduced. An altered pressure structure is, therefore, generated in the valve and outlet distance.
The turbulence that this creates results in a jet effect that is, among other things, suitable for applications with dual-substance or multi-substance mixtures.

Modular system for ball valves

With the GEMÜ modular system, we offer you the opportunity to put together a suitable valve in line with your requirements. Discover all configuration options at ***www.gemu-group.com***

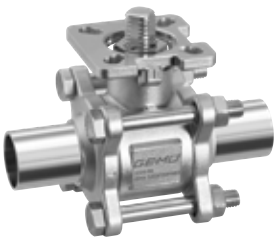
Measurement and control technology
Electrical position indicators and combi switchboxes | Positioners and process controllers | Accessories



Actuators
Manual | Pneumatic | Motorized
Metal | Plastic



Body
2/2-way body | Multi-port body
Metal | Plastic


Configure your valve online
at **www.gemu-group.com**

Pneumatically operated ball valves

Overview

GEMÜ type	710	B42	B44	B46	B47
					
Special feature	Plastic ball valve		Option with minimal deadleg and delta ferrite < 3 %	Compact length	3/2-way ball valve
Media temperature	-20 to 100 °C	-20 to 180 °C	-10 to 220 °C	-20 to 180 °C	-40 to 180 °C
Ambient temperature	-10 to 50 °C	-20 to 60 °C	-20 to 60 °C	-20 to 60 °C	-20 to 60 °C
Operating pressure	0 to 16 bar	0 to 63 bar	0 to 63 bar	0 to 40 bar	0 to 40 bar
Nominal sizes	DN 10 to 100	DN 8 to 100	DN 8 to 100	DN 15 to 100	DN 8 to 50
Connection types					
Clamp	-	-	●	-	-
Flange	●	●	-	●	-
Solvent cement socket	●	-	-	-	-
Spigot	●	●	●	-	-
Threaded connection	●	●	-	-	●
Union end	●	-	-	-	-
Connection standards					
ANSI	-	-	-	●	-
ASME	-	●	●	-	-
ASTM	●	-	-	-	-
BS	●	-	-	-	-
DIN	●	●	●	-	●
EN	●	●	-	●	-
ISO	●	●	●	-	-
JIS	●	-	-	-	-
NPT	-	●	-	-	●
SMS	-	-	●	-	-
Body configurations					
2/2-way body	●	●	●	●	-
Multi-port body	●	-	-	-	●
Body materials					
1.4408	-	●	-	●	●
1.4435 (316L)	-	-	●	-	-
ABS	●	-	-	-	-
PVC-C	●	-	-	-	-
PVC-U	●	-	-	-	-
PVDF	●	-	-	-	-
Conformities					
ASME GEMÜ B31.3	-	●	-	-	-
ATEX	-	●	●	●	●
EAC	●	●	●	●	-
FDA	-	●	●	●	-
Oxygen	-	●	-	-	-
Reg. (EU) No. 10/2011	-	●	●	●	-
Regulation (EC) No. 1935/2004	-	●	●	●	-
Regulation (EC) No. 2023/2006	-	●	-	●	-

GEMÜ type	710	B42	B44	B46	B47
					
TA Luft (German Clean Air Act)	-	●	●	●	-
USP	-	-	●	-	-

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ 710
Pneumatically operated ball valve

The 2/2 and/or 3/2-way GEMÜ 710 plastic ball valve has a pneumatic actuator, which can either be made from aluminium or plastic. The seat seal is made from PTFE and the O-ring seals can be made from either EPDM or FKM.

Features

- High flow rate
- Choice of various body materials and connection types
- 2/2 and 3/2-way versions available
- Optionally available with control ball

also as control valve

EAC

Technical specifications

Media temperature :	-20 to 100 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 10 to 100
Body configurations:	2/2-way body | Multi-port body
Connection types:	Flange | Solvent cement socket | Spigot | Threaded connection | Union end
Connection standards:	ASTM | BS | DIN | EN | ISO | JIS
Body materials:	ABS | PP-H, grey | PVC-C, chlorinated | PVC-U, grey | PVDF
Seal materials:	EPDM | FKM
Conformities:	EAC

Go online!

GW-710

GEMÜ B42
Pneumatically operated 2/2-way ball valve

The GEMÜ B42 3-piece 2/2-way metal ball valve is pneumatically operated. The seat seal is made of PTFE.

Features

- Suitable for vacuum applications
- Low maintenance and reliable spindle sealing
- Antistatic device unit

Technical specifications

Media temperature :	-20 to 180 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 63 bar
Nominal sizes:	DN 8 to 100
Body configurations:	2/2-way body
Connection types:	Flange | Spigot | Threaded connection
Connection standards:	ASME | DIN | EN | ISO | NPT
Body materials:	1.4408, investment casting material
Seal materials:	PTFE
Conformities:	ASME GEMÜ B31.3 | ATEX | EAC | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act)

Go online!

GW-B42

GEMÜ B44
Pneumatically operated ball valve

The GEMÜ B44 3-piece 2/2-way metal ball valve is pneumatically operated. The 1.4435 stainless steel alloy material composition used for the ball valve body (compliant with 316L) with a low delta ferrite proportion of < 3% is particularly suited to applications in the supply sector for the pharmaceutical, foodstuffs processing and biotechnology (such as water treatment and sterile steam generation) industries. Only those plastics which are compliant with FDA, USP Class VI and Regulation (EU) No.10/2011 are used for the seals.

Features

- Checked delta ferrite material < 3% (1.4435)
- Material certificates for media wetted components
- Media wetted surfaces according to ASME SF5 (Ra 0.51 µm)
- Butt weld spigots in extended orbital welding design
- Optionally available with cavity-filled seat
- Suitable for vacuum applications
- Option: ATEX version
- Ball valve body, assembled free of oil/grease

Technical specifications

Media temperature :	-10 to 220 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 63 bar
Nominal sizes:	DN 8 to 100
Body configurations:	2/2-way body
Connection types:	Clamp I Spigot
Connection standards:	ASME I DIN I ISO I SMS
Body materials:	1.4435 (316L), investment casting material
Seal materials:	PTFE TFM™
Conformities:	ATEX I EAC I FDA I Reg. (EU) No. 10/2011 I Regulation (EC) No. 1935/2004 I TA Luft (German Clean Air Act) I USP

Go online!

GW-B44

GEMÜ B46
Pneumatically operated compact flanged ball valve

The GEMÜ B46 2/2-way metal ball valve is pneumatically operated. The seat seal is made of PTFE.

Features

- High flow rate
- Full-flow bore
- Adjustable travel stops
- Antistatic device unit

Technical specifications

Media temperature :	-20 to 180 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 100
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | EN
Body materials:	1.4408, investment casting material
Seal materials:	PTFE
Conformities:	ATEX | EAC | FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act)

Go online!

GW-B46

GEMÜ B47
Pneumatically operated 3/2-way ball valve

The GEMÜ B47 3/2-way metal ball valve is pneumatically operated. The seat seal is made of PTFE.

Features

- Suitable for vacuum applications
- Low maintenance and reliable spindle sealing
- Antistatic device unit

Technical specifications

Media temperature :	-40 to 180 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 8 to 50
Body configurations:	Multi-port body
Connection types:	Threaded connection
Connection standards:	DIN | NPT
Body materials:	1.4408, investment casting material
Seal materials:	PTFE
Conformities:	ATEX

Go online!

GW-B47

Motorized ball valves

Overview

GEMÜ type	723	B52	B54	B56	B57
					
Special feature	Plastic ball valve		Option with minimal deadleg and delta ferrite < 3 %	Compact length	3/2-way ball valve
Media temperature	-20 to 100 °C	-20 to 180 °C	-10 to 220 °C	-20 to 180 °C	-40 to 180 °C
Ambient temperature	-10 to 50 °C	-20 to 60 °C	-20 to 60 °C	-20 to 60 °C	-20 to 60 °C
Operating pressure	0 to 16 bar	0 to 63 bar	0 to 63 bar	0 to 40 bar	0 to 40 bar
Nominal sizes	DN 10 to 100	DN 8 to 100	DN 8 to 100	DN 15 to 100	DN 8 to 50
Supply voltage	12 V AC, 50/60 Hz 12 V DC 24 - 240 V AC/DC 24 V AC, 50/60 Hz 24 V DC	12 V AC, 50/60 Hz 12 V DC 24 - 240 V AC/DC 24 V AC/DC 24 V DC	12 V AC, 50/60 Hz 12 V DC 24 - 240 V AC/DC 24 V AC, 50/60 Hz 24 V DC	12 V DC 230 V AC, 50 Hz 24 - 240 V AC/DC 24 V DC	100 - 240 V AC, 50/60 Hz & 100 - 350 V DC 230 V AC, 50/60 Hz 24 - 240 V AC/DC 24 V DC
Operating time 90°	4 to 30 s	4 to 34 s	4 to 58 s	10 to 58 s	10 to 58 s
Connection types					
Clamp	-	-	●	-	-
Flange	●	●	-	●	-
Solvent cement socket	●	-	-	-	-
Spigot	●	●	●	-	-
Threaded connection	●	●	-	-	●
Union end	●	-	-	-	-
Connection standards					
ANSI	●	-	-	●	-
ASME	-	●	●	-	-
BS	●	-	-	-	-
DIN	●	●	●	-	●
EN	●	●	-	●	-
ISO	●	●	●	-	-
JIS	●	-	-	-	-
NPT	-	●	-	-	●
SMS	-	-	●	-	-
Body configurations					
2/2-way body	●	●	●	●	-
Multi-port body	●	-	-	-	●
Body materials					
1.4408	-	-	-	●	●
1.4435 (316L)	-	-	●	-	-
ABS	●	-	-	-	-
PP-H	●	-	-	-	-
PVC-C	●	-	-	-	-
PVC-U	●	-	-	-	-
PVDF	●	-	-	-	-
Conformities					
ASME GEMÜ B31.3	-	●	-	-	-
ATEX	-	●	●	●	●

GEMÜ type	723	B52	B54	B56	B57
					
EAC	●	●	●	●	-
FDA	-	●	●	●	-
Oxygen	-	●	-	-	-
Reg. (EU) No. 10/2011	-	●	●	●	-
Regulation (EC) No. 1935/2004	-	●	●	●	-
Regulation (EC) No. 2023/2006	-	●	-	●	-
RoHS	●	-	-	-	-
TA Luft (German Clean Air Act)	-	●	●	●	-
USP	-	-	●	-	-

Technical data depends on the respective configuration - see datasheet or Product Selection Tool

GEMÜ 723
Motorized ball valve

The 2/2 and/or 3/2-way GEMÜ 723 ball valve is motorized. It has a plastic actuator housing. A manual override and an optical position indicator are integrated as standard. The seat seal is made from PTFE and the O-ring seals can be made from either EPDM or FKM.

Features

- High flow rate
- Low weight
- Choice of various body materials and connection types
- Available as shut-off or control valve
- 2/2 and 3/2-way versions available

also as control valve

EAC

Technical specifications

Media temperature :	-20 to 100 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 10 to 100
Body configurations:	2/2-way body | Multi-port body
Connection types:	Flange | Solvent cement socket | Spigot | Threaded connection | Union end
Connection standards:	ANSI | BS | DIN | EN | ISO | JIS
Body materials:	ABS | PP-H, grey | PVC-C, chlorinated | PVC-U, grey | PVDF
Seal materials:	EPDM | FKM
Supply voltage:	12 V AC, 50/60 Hz | 12 V DC | 24 - 240 V AC/DC | 24 V AC, 50/60 Hz | 24 V DC
Operating time 90°:	4 to 30 s
Protection class:	IP 65, IP 67
Conformities:	EAC | RoHS

Go online!

GW-723

GEMÜ B52
Motorized ball valve

The GEMÜ B52 3-piece 2/2-way metal ball valve is motorized. It has a plastic actuator housing. A manual override and an optical position indicator are integrated as standard. The seat seal is made of PTFE.

Features

- Suitable for vacuum applications
- Low maintenance and reliable spindle sealing
- Antistatic device unit

Technical specifications

Media temperature :	-20 to 180 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 63 bar
Nominal sizes:	DN 8 to 100
Body configurations:	2/2-way body
Connection types:	Flange | Spigot | Threaded connection
Connection standards:	ASME | DIN | EN | ISO | NPT
Body materials:	1.4408, investment casting material
Seal materials:	PTFE
Supply voltage:	12 V AC, 50/60 Hz | 12 V DC | 24 - 240 V AC/DC | 24 V AC/DC | 24 V DC
Operating time 90°:	4 to 34 s
Protection class:	IP 65, IP 67, IP 68
Conformities:	ASME GEMÜ B31.3 | ATEX | EAC | FDA | Oxygen | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act)

Go online!

GW-B52

GEMÜ B54
Motorized ball valve

The GEMÜ B54 3-piece 2/2-way metal ball valve is motorized. Various on/off or control actuators are available. The 1.4435 stainless steel alloy material composition used for the ball valve body (compliant with 316L) with a low delta ferrite proportion of < 3% is particularly suited to applications in the supply sector for the pharmaceutical, foodstuffs processing and biotechnology (such as water treatment and sterile steam generation) industries. Only those plastics which are compliant with FDA, USP Class VI and Regulation (EU) No.10/2011 are used for the seals.

Features

- Checked delta ferrite material < 3% (1.4435)
- Material certificates for media wetted components
- Media wetted surfaces according to ASME SF5 (Ra 0.51 µm)
- Suitable for vacuum applications
- Optionally available with cavity-filled seat
- Butt weld spigots in extended orbital welding design
- Ball valve body, assembled free of oil/grease

also as control valve

Technical specifications

Media temperature :	-10 to 220 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 63 bar
Nominal sizes:	DN 8 to 100
Body configurations:	2/2-way body
Connection types:	Clamp | Spigot
Connection standards:	ASME | DIN | ISO | SMS
Body materials:	1.4435 (316L), investment casting material
Seal materials:	PTFE TFM™
Supply voltage:	12 V AC, 50/60 Hz | 12 V DC | 24 - 240 V AC/DC | 24 V AC, 50/60 Hz | 24 V DC
Operating time 90°:	4 to 58 s
Protection class:	IP 65, IP 67, IP 68
Conformities:	ATEX | EAC | FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | TA Luft (German Clean Air Act) | USP

Go online!

GW-B54

GEMÜ B56
Motorized compact flanged ball valve

The GEMÜ B56 3-piece 2/2-way metal ball valve is motorized. It has a plastic actuator housing. A manual override and an optical position indicator are integrated as standard. The seat seal is made of PTFE.

Features

- High flow rate
- Full-flow bore
- Compact design
- ATEX version available as an option

also as control valve

Technical specifications

Media temperature :	-20 to 180 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 15 to 100
Body configurations:	2/2-way body
Connection types:	Flange
Connection standards:	ANSI | EN
Body materials:	1.4408, investment casting material
Seal materials:	PTFE
Supply voltage:	12 V DC | 230 V AC, 50 Hz | 24 - 240 V AC/DC | 24 V DC
Operating time 90°:	10 to 58 s
Protection class:	IP 65, IP 67, IP 68
Conformities:	ATEX | EAC | FDA | Reg. (EU) No. 10/2011 | Regulation (EC) No. 1935/2004 | Regulation (EC) No. 2023/2006 | TA Luft (German Clean Air Act)

Go online!

GW-B56

GEMÜ B57
Motorized 3/2-way ball valve

The GEMÜ B57 3/2-way metal ball valve is motorized. It has a plastic actuator housing. A manual override and an optical position indicator are integrated as standard. The seat seal is made of PTFE.

Features

- Suitable for vacuum applications
- Low maintenance and reliable spindle sealing
- Antistatic device unit

also as control valve

Technical specifications

Media temperature :	-40 to 180 °C
Ambient temperature:	-20 to 60 °C
Operating pressure :	0 to 40 bar
Nominal sizes:	DN 8 to 50
Body configurations:	Multi-port body
Connection types:	Threaded connection
Connection standards:	DIN | NPT
Body materials:	1.4408, investment casting material
Seal materials:	PTFE
Supply voltage:	100 - 240 V AC, 50/60 Hz & 100 - 350 V DC | 230 V AC, 50/60 Hz | 24 - 240 V AC/DC | 24 V DC
Operating time 90°:	10 to 58 s
Protection class:	IP 65, IP 67, IP 68
Conformities:	ATEX

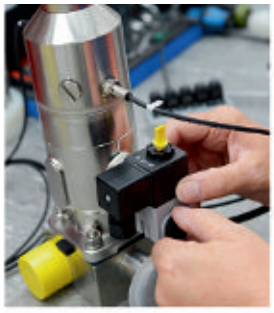
Go online!

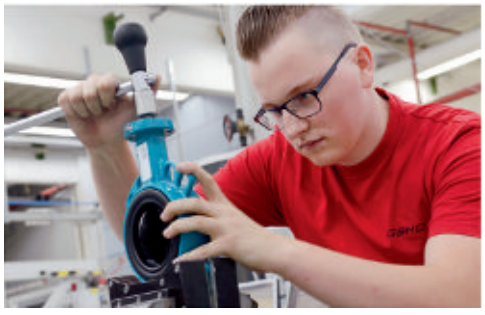
GW-B57

Add-on components for ball valves

GEMÜ type	B22	B24	B44	B42	B47	B46	B26
Measurement and control technology							
Electrical position indicator							
GEMÜ 1205 ▸ page 362	●						
GEMÜ 1215 ▸ page 363	●						
GEMÜ 1230/1231/1232	●						
GEMÜ 1235/1236 ▸ page 368	●	●	●	●	●	●	●
GEMÜ 1242 ▸ page 371	●	●	●	●	●	●	●
GEMÜ LSC ▸ page 372	●	●	●	●	●	●	●
GEMÜ LSF ▸ page 373	●	●	●	●	●	●	●
Combi switchbox							
GEMÜ 4242 ▸ page 378	●	●	●	●	●	●	●
Pilot valve							
GEMÜ 0324 ▸ page 385	●						
Control systems							
Positioner							
GEMÜ 1434 µPos ▸ page 338	●						
GEMÜ 1435 ePos ▸ page 340	●	●	●	●	●	●	●
Positioner and process controller							
GEMÜ 1436 cPos ▸ page 341	●	●	●	●	●	●	●
Accessories							
Connection accessories ▸ page 417	●						
Stroke limiters ▸ page 422	●		●	●		●	
Sensor accessories ▸ page 424	●						
Position indicators ▸ page 421	●		●	●	●	●	

GEMÜ valves are fully assembled in our in-house Assembly department – with compatible accessories on request.





Our pre-assembled solutions are supplied to you preset and tested. Not only can you obtain all components from a single source, you simultaneously reduce the effort required for logistics and installation of the system on site, as well as for documentation.

Process solenoid valves

Description

All valves that are actuated with an electromagnetic actuator are designated as process solenoid valves. Generally, these are short-stroke globe valves.

GEMÜ offers process solenoid valves for inert and corrosive as well as gaseous and liquid media.

The actuator is joined directly to the seal with the **directly controlled** process solenoid valve. A single compression spring holds the valve closed. To open, the seal is lifted by the force of the magnet and the medium is allowed to flow freely. No minimum operating pressure or pressure differential is required – the valves work from 0 bar.

Using **servo assisted** process solenoid valves, the magnet opens a pilot hole through which the valve is actuated either directly or supported by the operating pressure differential. They are, therefore, a cross between pilot valves and directly controlled solenoid valves, and can also be used for higher pressure ranges.

With process solenoid valves **with positive lift diaphragm,** the solenoid opens a pilot bore and lifts the sealing element off the valve seat or opens the valve, either directly or with the support of the pressure differential. No minimum operating pressure or pressure differential is required – the valves work from 0 bar.

Features

- High cycle duties possible
- Corrosion-resistant
- Ideal dosing valve for small to very small quantities
- Preferred flow direction over the seat

Typical working media

- Inert and corrosive media
- Liquids and gases

Applications

- Water treatment plants, washing and cleaning installations
- Plants for the food and foodstuff industries, the chemical industry and electroplating
- Equipment for the photographic industry, laboratory, analytical and medical apparatus

Directly controlled process solenoid valves

Overview

GEMÜ type	52	102	202
			
Media temperature	-20 to 100 °C	-20 to 100 °C	-20 to 100 °C
Ambient temperature	10 to 40 °C	10 to 40 °C	10 to 40 °C
Operating pressure	0 to 6 bar	0 to 4 bar	0 to 2 bar
Nominal sizes	DN 2 to 6	DN 6 to 10	DN 10 to 15
Supply voltages			
110 V AC, 50 Hz	-	-	-
110–230 V AC/DC	-	-	-
120 V AC, 50/60 Hz	●	●	●
20 - 48 V AC/DC	-	-	-
230 V AC, 50 Hz	-	-	-
230 V AC, 50/60 Hz	●	●	●
24 V AC, 50/60 Hz	●	●	●
24 V DC	●	●	●
Connection types			
Solvent cement socket	-	●	●
Spigot	-	-	-
Threaded connection	●	●	●
Union end	-	-	-
Body materials			
1.4408	-	-	-
CW617N	-	-	-
PP-H	-	-	-
PVC-U	●	●	●
PVDF	●	●	●
Conformities			
ATEX	-	-	-
EAC	●	●	●
UL Recognized US	●	●	●

GEMÜ type	205	8259	M75
			
Media temperature	-20 to 60 °C	-10 to 110 °C	-10 to 90 °C
Ambient temperature	10 to 40 °C	-10 to 50 °C	-10 to 60 °C
Operating pressure	0 to 6 bar	0 to 20 bar	0 to 6 bar
Nominal sizes	DN 10 to 50	DN 2 to 5	DN 8 to 20
Supply voltages			
110 V AC, 50 Hz	-	●	-
110–230 V AC/DC	-	-	●
120 V AC, 50/60 Hz	●	-	-
20 - 48 V AC/DC	-	-	●
230 V AC, 50 Hz	-	●	-
230 V AC, 50/60 Hz	●	-	-
24 V AC, 50/60 Hz	●	-	-
24 V DC	●	●	●
Connection types			
Solvent cement socket	●	-	●
Spigot	●	-	●
Threaded connection	●	●	●
Union end	●	-	●
Body materials			
1.4408	-	●	-
CW617N	-	●	-
PP-H	-	-	●
PVC-U	●	-	●
PVDF	●	-	●
Conformities			
ATEX	-	●	-
EAC	●	●	●
UL Recognized US	-	-	●

GEMÜ 52
Electrically operated solenoid valve

The GEMÜ 52 directly controlled 2/2-way solenoid valve has a completely plastic encapsulated coil. The armature is sealed by a bellows made of PTFE backed by an additional safety diaphragm. The valve body is available in various materials and with a straight through or angle valve body design.

Features

- Good cleanability
- Hermetic separation between medium and actuator
- The solenoid can be replaced without removing the valve body from the piping

Technical specifications

Media temperature :	-20 to 100 °C
Ambient temperature:	10 to 40 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 2 to 6
Connection type:	Threaded connection
Connection standards:	DIN | ISO
Body materials:	PVC-U, grey | PVDF
Supply voltages:	120 V AC, 50/60 Hz | 230 V AC, 50/60 Hz | 24 V AC, 50/60 Hz | 24 V DC
Protection class:	IP 65
Conformities:	EAC | UL Recognized US

Go online!

GW-52

GEMÜ 102
Electrically operated solenoid valve

The GEMÜ 102 directly controlled 2/2-way solenoid valve has a completely plastic encapsulated coil. The armature is sealed by a bellows made of PTFE backed by an additional safety diaphragm. The valve body is available in various materials and with a straight through or angle valve body design.

Features

- Good cleanability
- Hermetic separation between medium and actuator
- The solenoid can be replaced without removing the valve body from the piping

Technical specifications

Media temperature :	-20 to 100 °C
Ambient temperature:	10 to 40 °C
Operating pressure :	0 to 4 bar
Nominal sizes:	DN 6 to 10
Connection type:	Solvent cement socket | Threaded connection
Connection standards:	DIN | ISO
Body materials:	PVC-U, grey | PVDF
Supply voltages:	120 V AC, 50/60 Hz | 230 V AC, 50/60 Hz | 24 V AC, 50/60 Hz | 24 V DC
Protection class:	IP 65
Conformities:	EAC | UL Recognized US

Go online!

GW-102

GEMÜ 202
Electrically operated solenoid valve

The GEMÜ 202 directly controlled 2/2-way solenoid valve has a completely plastic encapsulated coil. The armature is sealed by a bellows made of PTFE backed by an additional safety diaphragm. The valve body is available in various materials and with a straight through or angle valve body design.

Features

- Good cleanability
- The solenoid can be replaced without removing the valve body from the piping
- Hermetic separation between medium and actuator

Technical specifications

Media temperature :	-20 to 100 °C
Ambient temperature:	10 to 40 °C
Operating pressure :	0 to 2 bar
Nominal sizes:	DN 10 to 15
Connection types:	Solvent cement socket I Threaded connection
Connection standards:	DIN I ISO
Body materials:	PVC-U, grey I PVDF
Supply voltages:	120 V AC, 50/60 Hz I 230 V AC, 50/60 Hz I 24 V AC, 50/60 Hz I 24 V DC
Conformities:	EAC I UL Recognized US

Go online!

GW-202

GEMÜ 205
Electrically operated solenoid valve

The GEMÜ 205 directly controlled 2/2-way plastic solenoid valve has a high performance coil. It is hermetically separated from the medium by means of a flexible PTFE bush. The armature is sealed by a bellows made of PTFE backed by an additional safety diaphragm. The plug has a rectifier for use with an AC supply. A manual override and an optical position indicator are integrated as standard.

Features

- Hermetic separation between medium and actuator
- In case of power failure operation possible by manual override
- Standard integral optical position indicator

Technical specifications

Media temperature :	-20 to 60 °C
Ambient temperature:	10 to 40 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 10 to 50
Connection type:	Solvent cement socket I Spigot I Threaded connection I Union end
Connection standards:	DIN I ISO
Body materials:	PVC-U, grey I PVDF
Supply voltages:	120 V AC, 50/60 Hz I 230 V AC, 50/60 Hz I 24 V AC, 50/60 Hz I 24 V DC
Protection class:	IP 65
Conformities:	EAC

Go online!

GW-205

GEMÜ 8259
Electrically operated solenoid valve

The GEMÜ 8259 direct-acting electromagnetic 2/2-way solenoid valve has a brass or stainless steel valve body. All parts that come into contact with the medium are made from FKM, NBR, PTFE, EPDM, brass or stainless steel. The valve is suitable for inert liquids and gases.

Features

- Direct acting, normally open or normally closed
- Valve operates without minimum pressure differential
- High flow rate
- Compact design
- Simple coil replacement without tools (Click-on®)
- Suitable for vacuum applications
- Explosion protected solenoids acc. to ATEX available as an option
- Various threaded connections per nominal size
- CSA approval available

Technical specifications

Media temperature :	-10 to 110 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 20 bar
Nominal sizes:	DN 2 to 5
Connection type:	Threaded connection
Connection standards:	DIN | ISO | NPT
Body materials:	1.4408, investment casting material | CW617N, brass
Supply voltages:	110 V AC, 50 Hz | 230 V AC, 50 Hz | 24 V DC
Conformities:	ATEX | EAC

Go online!

GW-8259

GEMÜ M75
Electrically operated solenoid valve

The GEMÜ M75 directly controlled 2/2-way process solenoid valve has innovative double bellows as a seal, with which the pressure forces can be compensated. The plastic-encapsulated compact coil is available in several supply voltages. O-rings in various designs ensure hermetic separation between medium and actuator. The valve is suitable for liquid and gaseous media in Open/Close applications with short operating times. The GEMÜ M75 process solenoid valve has a manual override and an energy-saving reduction in holding current as standard.

Features

- Compact design thanks to the small solenoid
- Resistant against corrosive media
- Low maintenance
- Suitable for vacuum
- GEMÜ electrical position indicator can be fitted

Technical specifications

Media temperature :	-10 to 90 °C
Ambient temperature:	-10 to 60 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 8 to 20
Connection type:	Solvent cement socket | Spigot | Threaded connection | Union end
Connection standards:	DIN
Body materials:	PP-H, grey | PVC-U, grey | PVDF
Supply voltages:	110–230 V AC/DC | 20 - 48 V AC/DC | 24 V DC
Protection class:	IP 65
Conformities:	EAC | UL Recognized US

Go online!

GW-M75

Servo-assisted process solenoid valves

Overview

GEMÜ type	8258	225
		
Media temperature	-10 to 110 °C	-20 to 60 °C
Ambient temperature	-10 to 50 °C	10 to 40 °C
Operating pressure	0,1 to 16 bar	0 to 6 bar
Nominal sizes	DN 8 to 50	DN 15 to 50
Supply voltages		
110 V AC, 50/60 Hz	●	-
120 V AC, 50/60 Hz	-	●
230 V AC, 50/60 Hz	●	●
24 V AC, 50/60 Hz	●	●
24 V DC	●	●
Connection types		
Spigot	-	●
Threaded connection	●	-
Union end	-	●
Body materials		
1.4408	●	-
CW617N	●	-
PVC-U	-	●
Conformities		
EAC	●	●

GEMÜ 8258
Electrically operated solenoid valve

The GEMÜ 8258 servo-assisted 2/2-way solenoid valve has a brass or stainless steel valve body. All parts that come into contact with the medium are made from stainless steel, NBR, EPDM or FKM. The valve is suitable for inert media such as air, water and oils.

Features

- Low power consumption
- High flow rate
- Soft closing action
- Low minimum pressure differential
- Simple, compact construction
- Simple coil replacement without tools (Click-on®)
- Optional manual override
- Explosion protected solenoids acc. to ATEX available as an option
- Type examination up to DN 25 to DIN EN 60730-2-8
- Optional mounting bracket available (not pre-assembled)
- NPT thread available

Technical specifications

Media temperature :	-10 to 110 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0,1 to 16 bar
Nominal sizes:	DN 8 to 50
Connection type:	Threaded connection
Connection standards:	DIN | ISO | NPT
Body materials:	1.4408, investment casting material | CW617N, brass
Supply voltages:	110 V AC, 50/60 Hz | 230 V AC, 50/60 Hz | 24 V AC, 50/60 Hz | 24 V DC
Conformities:	EAC

Go online!

GW-8258

GEMÜ 225
Electrically operated solenoid valve

The GEMÜ 225 servo assisted 2/2-way plastic solenoid valve has a high performance coil. The armature is sealed by a bellows made of PTFE backed by an additional safety diaphragm. The plug has a rectifier for use with an AC supply. A manual override and an optical position indicator are integrated as standard.

Features

- Hermetic separation between medium and actuator
- In case of power failure operation possible by manual override
- Standard integral optical position indicator

Technical specifications

Media temperature :	-20 to 60 °C
Ambient temperature:	10 to 40 °C
Operating pressure :	0 to 6 bar
Nominal sizes:	DN 15 to 50
Connection types:	Spigot I Union end
Connection standards:	DIN
Body materials:	PVC-U
Supply voltages:	120 V AC, 50/60 Hz I 230 V AC, 50/60 Hz I 24 V AC, 50/60 Hz I 24 V DC
Conformities:	EAC

Go online!

GW-225

Process solenoid valves with positive lift diaphragm

Overview

GEMÜ type	8253	8257
		
Media temperature	-10 to 110 °C	-10 to 150 °C
Ambient temperature	-10 to 50 °C	-10 to 50 °C
Operating pressure	0 to 16 bar	0 to 10 bar
Nominal sizes	DN 8 to 50	DN 10
Supply voltages		
110 V AC, 50/60 Hz	●	-
230 V AC, 50 Hz	-	●
230 V AC, 50/60 Hz	●	-
230 V AC, 60 Hz	-	●
24 V AC, 50 Hz	-	●
24 V AC, 50/60 Hz	●	-
24 V AC, 60 Hz	-	●
24 V DC	●	●
Connection types		
Threaded connection	●	●
Body materials		
1.4408	●	●
CW617N	●	●
Conformities		
EAC	●	●

GEMÜ 8253
Electrically operated solenoid valve

The GEMÜ 8253 2/2-way solenoid valve with a positive lift diaphragm has a brass or stainless steel valve body. All media wetted parts are made of NBR, FPM, EPDM, brass, PVDF or stainless steel. The valve is suitable for inert medium such as air, water and oil.

Features

- Valve operates without minimum pressure differential
- High flow rate
- Soft closing action
- Suitable for vacuum applications
- Simple coil replacement without tools (Click-on®)
- NPT thread available
- Explosion protected solenoids acc. to ATEX available as an option
- CSA approval available

EAC

Technical specifications

Media temperature :	-10 to 110 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 16 bar
Nominal sizes:	DN 8 to 50
Connection type:	Threaded connection
Connection standards:	DIN | ISO | NPT
Body materials:	1.4408, investment casting material | CW617N, brass
Supply voltages:	110 V AC, 50/60 Hz | 230 V AC, 50/60 Hz | 24 V AC, 50/60 Hz | 24 V DC
Conformities:	EAC

Go online!

GW-8253

GEMÜ 8257
Electrically operated solenoid valve

The GEMÜ 8257 2/2-way solenoid valve with a positive lift diaphragm is electromagnetically operated and has a brass or stainless steel valve body. All media wetted parts are made of NBR, HNBR, FKM, EPDM, brass or stainless steel. The valve is suitable for inert media such as air, water and oils.

Features

- Valve operates without minimum pressure differential
- Soft closing action
- Compact design
- Suitable for vacuum applications
- Explosion protected solenoids acc. to ATEX available as an option
- Optimum media compatibility due to choice of materials
- NPT thread available
- Option: for liquids and steam up to 150 °C

Technical specifications

Media temperature :	-10 to 150 °C
Ambient temperature:	-10 to 50 °C
Operating pressure :	0 to 10 bar
Nominal size:	DN 10
Connection type:	Threaded connection
Connection standards:	DIN | ISO | NPT
Body materials:	1.4408, investment casting material | CW617N, brass
Supply voltages:	230 V AC, 50 Hz | 230 V AC, 60 Hz | 24 V AC, 50 Hz | 24 V AC, 60 Hz | 24 V DC
Conformities:	EAC

Go online!

GW-8257

Controlling with valves

In many areas of application for valves, simply shutting off the relevant medium is not sufficient. Instead, a control option is required.

According to DIN 19226 Part 1, control is defined as follows: Control is a process in which a variable (controlled variable) is continuously measured, compared with another variable (reference variable) and adjusted to be in line with the reference variable. The characteristic feature of control is the closed control action in which the controlled variable continuously influences itself in the action path of the control circuit. Various control tasks are pending within a single process. As a result, the areas of use for control valves are also extremely versatile:

You can find further information in the "Valve knowledge" chapter.

Flow control

- Hot and cold water feed for parts cleaning
- Cooling cast moulds
- Carbonation of beverages
- Inoculation of biocultures
- Flow monitoring in WFI loops (water for injections)

Pressure and back pressure control

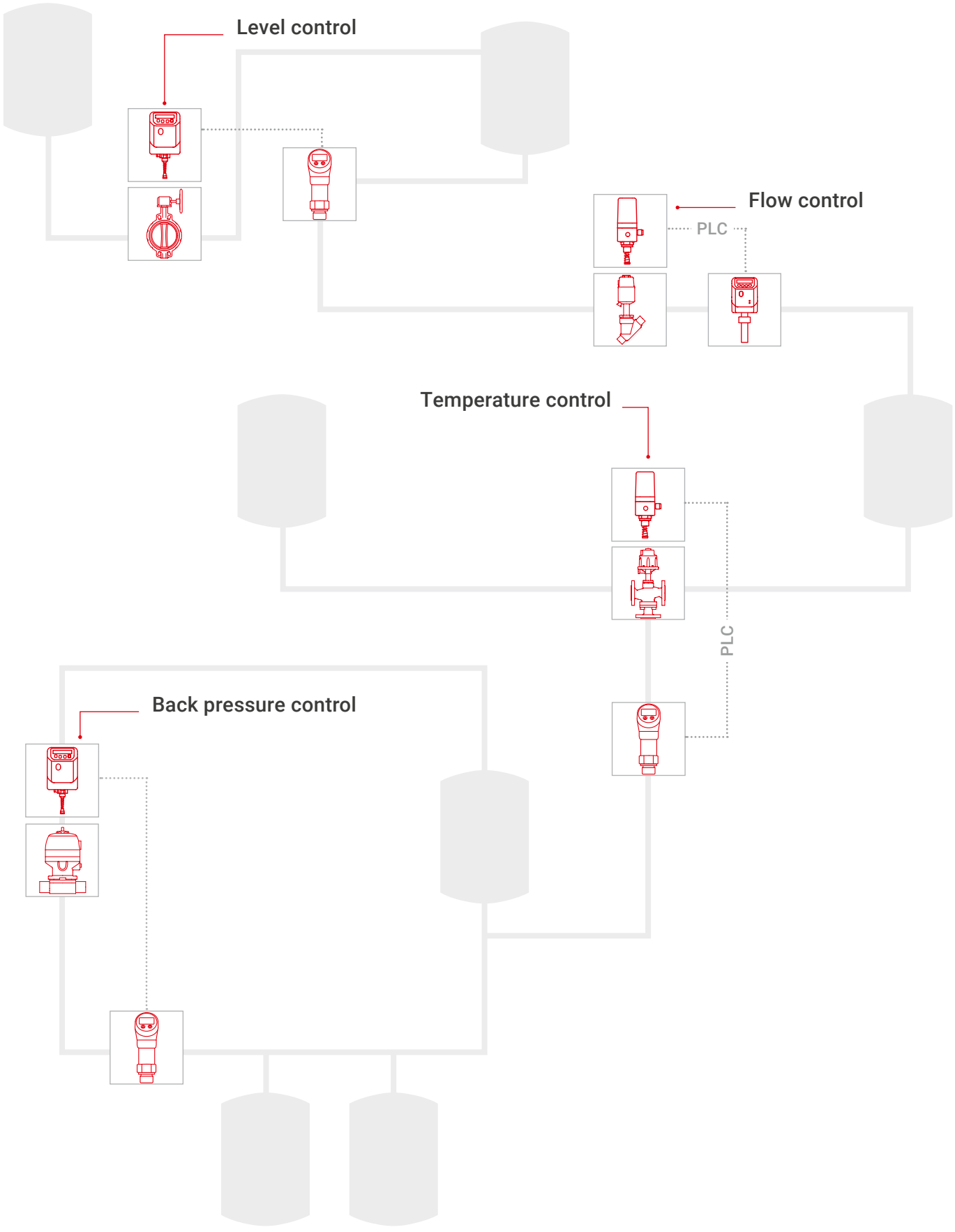
- EPS foaming (steam temperature)
- Chemical circulation systems
- Pressure maintenance in short-term heater systems and analytical apparatus
- Gas injection for foodstuff
- Filling pressure control
- Pressure maintenance in WFI loops

Level control

- Electroplating baths
- Highly precise dosing and control of trace elements, additives, growth promoters, flavourings or colourings in beverages, foodstuff and pharmaceutical products

Temperature control

- Cooling systems for server rooms
- Heating biogas fermentation tanks
- Sterilization in place (SIP)


Level control
Flow control
PLC
Temperature control
PLC
Back pressure control

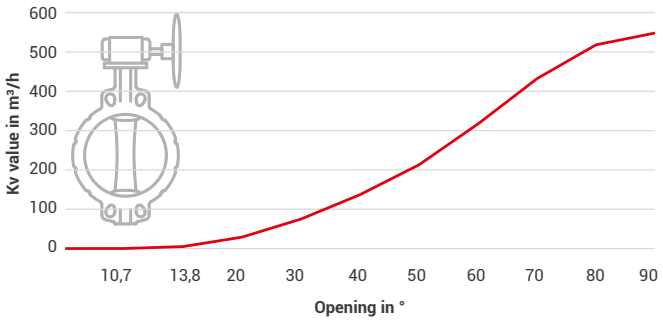
Overview of valve group controllability

Control valves affect the volumetric flow indirectly via the opening and the accompanying unblocked cross-section. The functional principle of the control valve used has a decisive impact on the control accuracy here. It can generally be controlled using virtually all valve groups, but, depending on the requirements, there are advantages and disadvantages that you have to bear in mind:

Controlling with butterfly valves

Butterfly valves can also be used as control valves when they are in the intermediate position. Three different control characteristics can be realized within a small stroke distance:

- Opening up to 25° = smallest possible flow volume increase
- Opening up to 65° = large flow volume increase
- Opening up to 90° = small flow volume increase

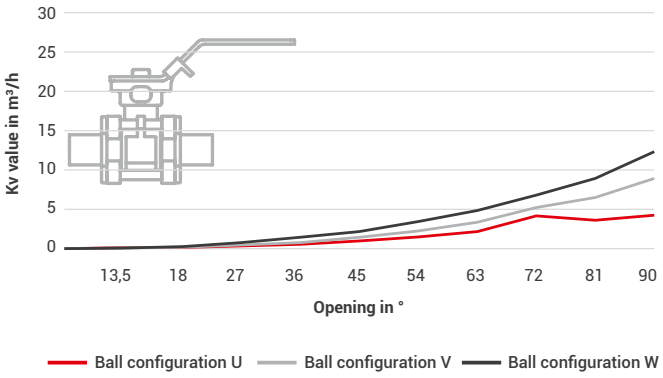


Typical control characteristic for butterfly valves

Controlling with ball valves

Ball valves also allow a relatively large cross-section with little rotation. This reduces control accuracy.

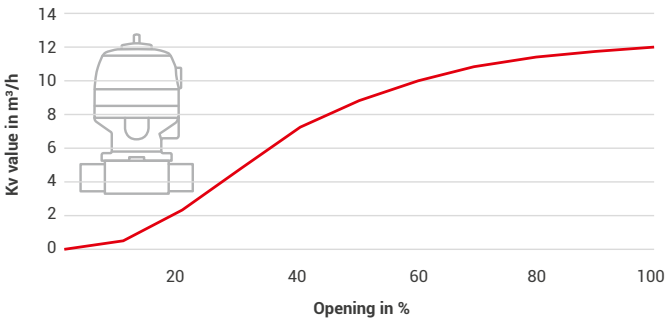
By using what has become known as an orifice plate, relatively constant control characteristics can, nevertheless, be achieved.



Typical control characteristic for ball valves

Controlling with diaphragm valves

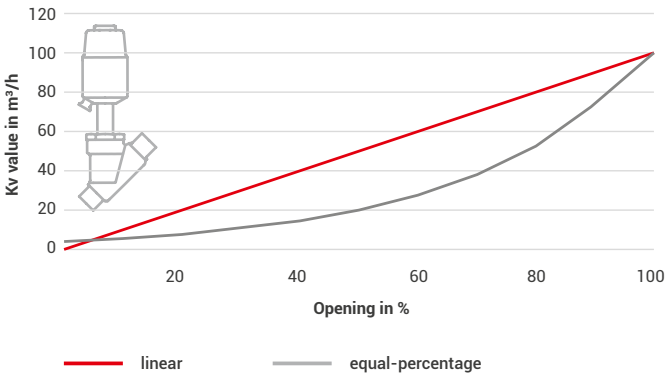
The controllable area is between 20% and 80% of the maximum achievable Kv value for the respective GEMÜ diaphragm size. This combines various nominal sizes and pipe standards (inside diameter).



Typical control characteristic for diaphragm valves

Controlling with globe valves

Due to the long stroke and other design advantages, globe valves are especially well-suited to precise control tasks. A suitable globe valve, the right flow restrictor and a suitable positioner are necessary for optimum functionality.

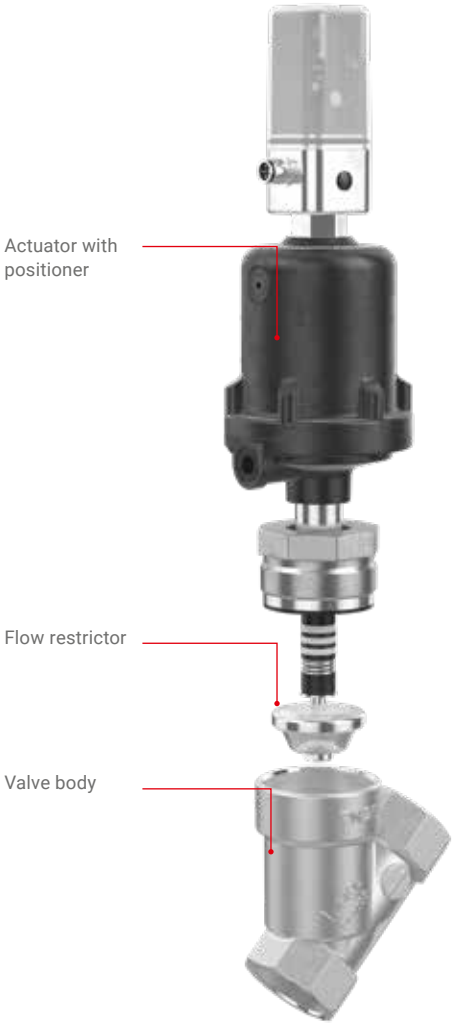


Typical control characteristic for globe valves

Globe valves as control valves

Thanks to the long stroke distance, combined with the small increase in cross-section at the valve seat, GEMÜ globe valves are ideally suited to control tasks. Moreover, they are distinguished by jolt-free actuation and a long service life in terms of switching frequency.

This is how a globe valve becomes a control valve



The incorrect design of control valves can result in poor control results or premature wear. This is why GEMÜ places particular importance on the precise design of the control valves.
Our technical advisors and specification sheet can help you to design control valves.

Flow restrictors with different geometries

With increasing opening of the valve, the flow restrictor changes the ring-shaped gap at the valve seat providing a defined control characteristic. Depending on the type of globe valve and the nominal size, flow restrictors may feature the most varied geometries.

Regulating needles are used for very small nominal sizes and high pressures because they can control with high precision. For larger diameters, modified regulating cones or regulating cages are preferred for weight reasons.

The most frequently used control characteristics are linear and equal-percentage 1:25 and 1:50. Linear means that the flow increases linearly with the opening stroke of the valve. The flow is 50% at the 50% open valve position. This provides good valve control over the whole stroke range. The equal-percentage control characteristics have the character of an exponential function. In the lower range, with an opening stroke of approx. 20% to 60%, these valves can be very finely controlled depending on the valve stroke.

Regulating needle

Regulating cone

Regulating cage

Control systems

Description

In addition to the individual control valve, GEMÜ also supplies complete control systems. The valve type is then always preceded by the prefix PCS. For example, GEMÜ PCS 550 refers to a system solution based on valve type GEMÜ 550.

In addition to the control valve, the control system also includes the mounting kit, the appropriate controller and the compressed air line.

Features

- Linear or modified equal-percentage control characteristics
- Three actuators available (plastic, aluminium, stainless steel)
- PI or PID control can be selected
- Simple and fast commissioning
- Functional safety in accordance with IEC 61508 and IEC 61511 (SIL), depending on the valve type
- Gland packing suitable for vacuum of up to 20 mbar, depending on the valve type
- ATEX on request
- Depending on choice of controller, process and/or position control is possible

Overview of control systems

GEMÜ PCS 514

GEMÜ PCS 550

GEMÜ PCS 554

GEMÜ PCS 530

GEMÜ PCS 532

GEMÜ PCS 534

GEMÜ PCS 536

For pneumatic actuators, our positioners and process controllers are fitted ex works, and tested and delivered as an entire system.

Not only can you obtain all components from a single source, you simultaneously reduce the effort required for logistics and installation of the system on site, as well as for documentation.

For motorized actuators, the controller is mostly fully integrated. These actuators are an optimal alternative to control valves in sterile environments or when considering service life.

If required, the positioner in question can also be commissioned at the place of use by GEMÜ service engineers.

Modular system for control systems

With the GEMÜ modular system, we offer you the opportunity to put together a suitable valve in line with your requirements. Discover all configuration options at ***www.gemu-group.com***

Positioners and process controllers
GEMÜ 1434 µPos | GEMÜ 1435 ePos | GEMÜ 1436 cPos | GEMÜ 1436 eco cPos | GEMÜ 1441 cPos-X



Actuators
Metal | Plastic



Flow restrictor
Regulating needle | Regulating cage | Regulating cone



Body
Angle seat body | Straight seat body



Configure your valve online
at ***www.gemu-group.com***

MENA
region

AVENTURA COMPONENTS (FZE)
PO Box 513286, SAIF Zone, Sharjah, UAE
UAE No # : +971-50 825 8264
E-mail: adminfze@aventura.co.in
web: www.aventura.components.com