



🝊 Marei Stammler

Customer Segment Marketing Manager marei.stammler@gemue.de

Elena Zuck

Junior Product & Application Manager Business Unit Pharma, Food & Biotech elena.zuck@gemue.de

NEW PRODUCT GENERATION

FURTHER HIGHLIGHTS NOW AVAILABLE

The new product generation from GEMÜ continues to grow: The GEMÜ D40 pneumatically operated diaphragm valve and GEMÜ 44A0 ⇒ Modular configuration for a wide range of process parameters multi-functional valve actuation are a highly specialized addition to the modular range. Both new products offer a high level of compati- \Rightarrow Low maintenance due to the firmly chambered diaphragm – bility, simple operation and trailblazing automation - all with maximum process reliability.

GEMÜ D40 –

Hygienic diaphragm valve for sophisticated processes

The GEMÜ D40 pneumatically operated 2/2-way diaphragm valve has been specially developed for sterile and aseptic applications. It is CIP/SIP capable, autoclavable and offers an impressively high level of configurability and ease of maintenance.

The product features at a glance:

- no retightening
- ⇒ Fast and safe mounting of the diaphragm and actuator
- ⇒ Flow-optimized valve body for high Kv values
- ⇒ Optical position indicator and angle of rotation identification (hash mark) as standard
- ⇒ **Future-proof:** Extendable with automation components from the new product generation

GEMÜ 44A0 -Intelligent automation module

The new GEMÜ 44A0 valve actuation supplements the new product generation with a high performance automation module with a modern sensor system, IO-Link, ASi-5 and GEMÜ App connection.

Find out more in the article on p. 2 and 3.

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DEAR READERS.

We live in a time in which, in addition to reliability and solidarity, confidence is also more important than ever. Political upheavals, unpredictable decisions such as the US government's latest tariff measures and the effects of global conflicts are causing economic uncertainty worldwide and presenting companies with major challenges. We are also feeling the consequences of these developments, and we know that many of our customers and partners are feeling the same way. Our employees are also aware of these changes, which are undoubtedly causing a certain amount of uncertainty for some. We are all the more impressed by the close, constructive and often very personal collaboration that connects us with you, and that offers a strong foundation in these turbulent times.

Our special thanks therefore go to you, dear customers, as well as to our dedicated employees worldwide and our reliable suppliers. Your trust, your loyalty and your commitment make it possible for us to remain highly efficient and find solutions together, even under challenging framework conditions. We are totally dedicated to being there for you – day after day, with innovative capacity, reliability and the aspiration not only to fulfil your expectations but to exceed them.

Especially in challenging times, it is clear how important trust, reliability and partnership are. We have always stood by our customers – in times of success as well as in times of particular challenges. We also experience the support and trust of our customers and employees during difficult periods. This was evident as far back as 1981, when a major fire shook our company, and also during the last major flood in June 2024. Your solidarity and the commitment of our employees have encouraged us and supported us with the reconstruction work. Without our great team and such great customers, much of this would not have been possible. We would like to sincerely thank you for this.



GEMÜ has not only grown – GEMÜ has evolved with its customers. The trust you place in us is our motivation to continue investing in the future, to develop innovative solutions and to navigate through uncertain waters by your side. Let's continue on this successful path together and actively shape the future.

Gert Müller

Managing Partner

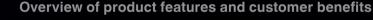
GEMÜ Group

Stephan Müller Managing Director GEMÜ Group

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EASE OF MAINTENANCE, EFFICIENCY AND PERFORMANCE THE POWERFUL GEMÜ D40 DIAPHRAGM VALVE

Aseptic applications have stringent requirements: Excellent quality, maximum reliability and a strong performance are essential. With the new GEMÜ D40 pneumatic diaphragm valve, GEMÜ offers a solution that fulfils these requirements – and also offers time, energy and cost savings. The compact valve will impress you with its ease of maintenance and sophisticated technologies designed for efficiency and performance.



⇒ Quick and easy maintenance:

The innovative design of the GEMÜ D40 enables quick and easy maintenance with just a few installation steps. The defined compression of the diaphragm and the use of a bayonet pin increase assembly reliability and minimize the risk of assembly errors. This helps to reduce maintenance requirements and costs, and sustainably improves system availability.

⇒ New diaphragm technology:

The newly developed diaphragm is characterized by optimized rolling behaviour. This ensures improved control accuracy during operation. The constant compression also eliminates the need for retightening, which increases system reliability and supports a faultless process sequence.

→ Optimized body design:

The flow-optimized and weight-optimized body design ensures a better performance, shorter downtimes and less investment. Faster cooling times and reduced energy consumption during sterilization increase overall productivity. In addition, the flow-optimized geometry enables a more homogeneous flow, which protects shear force-sensitive media and increases the yield of living cells.

⇒ High flexibility:

The simple and modular expansion of the valve with state-of-the-art automation components enables it to be adapted to different applications as required. The compact design also supports optimized system design. The flexible selection of actuator, based on the standardized platform of the new product generation, means both that smaller actuators can be selected and that demanding applications with operating pressures of up to 16 bar can be realized.

⇒ State-of-the-art valve solutions:

With the GEMÜ D40 diaphragm valve and its outstanding characteristics, GEMÜ is setting standards for the future. In addition to this, the GEMÜ D41 diaphragm valve with innovative EasyLock technology will go on the market over the course of the year – to make maintenance even simpler and safer. The launch of the GEMÜ 44A0 multi-functional valve actuation sets a further milestone for supporting advanced process automation.

Jule Ostertag

Customer Segment Marketing Manager jule.ostertag@gemue.de

Elena Zuck

Junior Product & Application Manager Business Unit Pharma, Food & Biotech elena.zuck@gemue.de



PRECISION, FLEXIBILITY AND EASE OF USE

THE NEW GEMÜ 44A0 MULTI-FUNCTIONAL VALVE ACTUATION

In process automation, it is crucial to select the appropriate solution for each application. The new GEMÜ 44A0 multi-functional valve actuation offers the necessary flexibility by pairing two functions: A combi switchbox and position control. This makes the GEMÜ 44A0 flexible and versatile.

TWO VERSIONS, ONE SOLUTION.

Whether for simple open/close controls or for precise position controls in sophisticated processes, the GEMÜ 44A0 fulfils both requirements and also offers user-optimized operation. It is important that the desired function is stipulated at the time of ordering so that the device fits the respective application precisely.

Overview of product features

⇒ Compact and robust construction

Optimized product dimensions enable precise plant design and efficient use. The design with minimal deadleg also ensures simple cleaning and hygienic conditions.

⇒ Non-wearing, contactless position detection

Both versions ensure precise, reliable and non-wearing detection of the valve position. The mechanical and electronic position indicator ensures maximum transparency and control in applications.

$\ \ \, \Rightarrow \ \, \text{Simple commissioning and documentation}$

The self-initialization function and fast installation time minimize the effort involved in commissioning. The GEMÜ App also facilitates error diagnosis and provides complete documentation on-site.

⇒ Predictive maintenance with condition monitoring

With its integrated sensor system for predictive maintenance and condition monitoring, anomalies can be detected at an early stage and maintenance cycles optimized. This helps to extend the service life of the product and reduces unforeseen failures.

⇒ Networked solutions

The modern IO-Link and ASi-5 communication interface enables seamless integration into the plant control system and IIoT environment – for efficient and flexible automation.

Focus on customer benefitss

→ Increased process reliability and cost efficiency:

The integrated sensor system, precise position detection and predictive maintenance functions increase efficiency and reduce operating costs by recognizing system downtimes at an early stage.

⇒ Space savings and greater efficiency

Compact design and quick installation save valuable space and reduce installation time.

⇒ Simple operation

The user-optimized interface via the GEMÜ App offers convenient configuration and fast error diagnosis.

⇒ Reduced product variance

A single device for precise valve actuation and position control reduces the number of variants, simplifies plant design and reduces storage and administration costs.

The GEMÜ 44A0 automation module offers a flexible and future-proof solution for process automation and fulfils stringent requirements in terms of efficiency, user friendliness and long service life.



THE GEMÜ 616 MANUAL DIAPHRAGM VALVE RELIABLE, HYGIENIC AND EFFICIENT

The manually operated GEMÜ 616 diaphragm valve specifically fulfils the requirements of applications where maximum process reliability, hygiene and user friendliness are crucial.

Thanks to the innovative compression spring technology in the actuator, the valve closes with a constant force, irrespective of how firmly the handwheel is actuated. This special design ensures that the manual force is only used to release the closing travel and does not act directly on the diaphragm. The result is a precise and defined closing force that protects the diaphragm and prevents overloading. This significantly extends the service life of the diaphragm.

This compression spring technology means that the usual adjustable travel stop can be dispensed with. This reduces the installation costs involved in replacing the diaphragm, shortens commissioning times and lowers operating costs.

The valve position can be easily read through the visible ring indentations on the handwheel. This allows the user to recognize at a glance whether the valve is in the closed, middle or open position. This visual display provides additional safety and control during operation.

The valve can be opened and closed continuously. The spring is evenly pretensioned during the opening procedure. This enables precise control of the flow rate.

GEMÜ 616 is insensitive to particulate media and is particularly suitable for demanding applications in the pharmaceutical, foodstuffs and biotechnology industries thanks to its hygienic and minimal deadleg design.

To summarize, the GEMÜ 616 diaphragm valve not only offers reliable sealing and reproducible operation, but also protects the diaphragm thanks to the continuous closing force and ensures more cost effective operation.



GEMÜ 616 diaphragm valve with integrated diaphragm protection



Sectional view of the GEMÜ 616 diaphragm valve

🏄 📿 Rainer Haag

Product & Application Manager
Business Unit Pharma, Food & Biotech
rainer.haag@gemue.de

GEMÜ 4242 COMBI SWITCHBOX NOW ATEX- AND IECEX-CERTIFIED

The GEMÜ 4242 combi switchbox now also fulfils the requirements of ATEX and IECEx certification for Zone 2 and 22 for ASi-5, making it suitable for use in potentially explosive areas.

With this expansion, GEMÜ supports its customers in implementing automation solutions consistently and reliably, even with increased safety requirements. With its integrated pilot valve, the GEMÜ 4242 offers direct actuation of the connected process valve. The Speed-AP function ensures fast commissioning, while high visibility LEDs, an IO-Link interface and field-bus connections such as ASi-5 ensure consistent communication.

With its international certification, GEMÜ is helping to provide safe and future-proof automation solutions, even for particularly demanding requirements

Marei Stammler
Customer Segment Marketing
Manager
marei.stammler@gemue.de

Anesa Becker

Product & Application Manager Electronic Product & Application anesa.becker@gemue.de



GEMÜ 4242

TRADE FAIRS 2025 (INTER) NATIONAL

Interphex Japan	09.07. – 11.07. Tokyo (JP)
IFAT Brazil	25.07. – 27.07. San Paulo (BR)
ISPE Singapore Conference	27.08 29.08. Singapore (SG)
and Exhibition	
Semicon Taiwan	09.09. – 11.09. Taipei (TW)
Drinktec	15.09. – 19.09. Munich (DE)
Ilmac Basel	16.09. – 18.09. Basel (CH)
Farmaforum Spain	17.09 18.09. Madrid (ES)
Inchem Japan	17.09. – 19.09. Tokyo (JP)
HI Tech & Industry	29.09 02.10. Herning (DK)
Scandinavia Denmark	
POLLUTEC FRANCE	07.10 10.10. Chassieu - Lyon (FR)
Semicon West USA	07.10 09.10. Phoenix (US)
Bioplus Interphex Korea	15.10. – 17.10. Coex Seoul (KR)
All Pack Indonesia	21.10 24.10. Jakarta (ID)
Hydrogen Technology Expo Europe	21.10. – 23.10. Hamburg (DE)
Vatten Sweden	21.10. – 23.10. Götheborg (SE)
Taiwan Int. Water Week	29.10. – 31.10. Taipei (TW)
Bioprocess UK	24.11 25.11. Newcastle (GB)
Semicon Europa	18.11. – 21.11. Munich (DE)
CPHI / P-mec India	25.11. – 27.11. Delhi (IN)
Löhnberg Wastewater Days	26.11. – 27.11. Weilburg (DE)
Specialist days -	15.11. – 16.11. Crailsheim (DE)
The job and career fair	

Subject to change!

GERMAN DESIGN AWARD 2025 FOR THE GEMÜ HEADQUARTERS

GEMÜ has received the German Design Award 2025 in the "Excellent Architecture" category for its headquarters. The official award ceremony took place in Frankfurt am Main on 7th February 2025 in a celebratory event.

In the run-up to this official award ceremony, the architects from Schmelzle + Partner presented the German Design Award to the owner family and the management of the GEMÜ Group at the inauguration of the headquarters in December.

Every year, leading design experts from all over the world come together to assess the projects that impress with their innovative concepts and sustainable solutions. Here the German Design Award is setting international standards for innovative design developments and competitiveness on the global market.

It illustrates the contribution that design can make to the sustainable transformation of the economy. Today more than ever, excellent design offers solutions to the challenges of our time. The German Design Award honours these outstanding examples and gives them visibility.

"The office building impresses with its clear, functional design which focuses on teamwork and transparency. It blends harmoniously into the existing master plan and creates a working environment that optimally reflects the corporate culture. The GEMÜ headquarters show how architecture can embody corporate spirit," the jury explains as its reason for honouring the GEMÜ headquarters.





Lena Heßlinger

Administrator Corporate Communications lena.hesslinger@gemue.de

Nona Meißner

Specialist Corporate Communications ivona.meissner@gemue.de

FOR THE NINTH TIME IN A ROW: GEMÜ HONOURED AS "GLOBAL MARKET LEADER"

The GEMÜ Group is being awarded the title of "Global Market Leader" for yet another year, earning the distinction "Champion 2025" as part of the global market leader index of the University of St. Gallen and the Academy of German Global Market Leaders.

WirtschaftsWoche has awarded the valve specialist GEMÜ the WirtschaftsWoche quality seal "Global Market Leader - Champion 2025" for the ninth time in a row. In doing so, WirtschaftsWoche has recognized GEMÜ's renewed inclusion in the global market leader index in the segment "Valves and automation components: Valves, process and control systems for sterile applications".

The global market leader index is compiled using objective criteria and transparent selection processes under the scientific direction of Prof. Dr. Christoph Müller from the University of St. Gallen, in cooperation with the Academy of German Global Market Leaders (ADWM). In a special edition in November 2024, the business magazine WirtschaftsWoche published a list of almost 520 global market leaders, including a good 50 companies from Austria and Switzerland.

The researchers designate companies as "Global Market Leader Champions" if they are first or second in the relevant market segment, are represented on at least three continents with their own production and/or sales companies, have an annual turnover of at least 50 million euros, and can demonstrate an export share or foreign share of at least 50% of their turnover. Another important criterion for a company to obtain the award of "Global Market Leader Champion" is to be (owner-)managed with headquarters in the German-speaking region (Germany, Austria or Switzerland).

As an owner-managed, family-owned enterprise with headquarters in Ingelfingen-Criesbach (Baden-Württemberg), 25 subsidiaries and eight manufacturing sites worldwide, GEMÜ fulfils the framework conditions. In addition to these prerequisites, it was the cutting-edge technology and market leadership in the area of valves, measurement and control systems for sterile applications that served as a crucial factor for WirtschaftsWoche in awarding the accolade and the WirtschaftsWoche quality seal of "Global Market Leader - Champion 2025" to GEMÜ yet again.



and Prof. Dr. Christoph Müller

global market leader confirms that we are on the right track with our focus on innovation. Last year, we presented a totally newly developed product generation, which enables us to respond even more quickly and precisely to customized requirements. In doing so, we are taking a big step towards the future and laying the foundation for further successes."

"The renewed award as

Managing Partner GEMÜ Group

Morbert Neumann Team Leader Corporate Communications, Press Officer norbert.neumann@gemue.de



MULTI-PORT VALVE BLOCKS FROM GEMÜ AS PROCESS-OPTIMIZING SOLUTIONS FOR OEMS AN EXAMPLE OF SUCCESS FROM BWT AND GEMÜ

With over 30 years of experience in the field of multi-port valve design and customized solutions, GEMÜ offers its customers efficient options for plant and process optimization. This is also the case for OEMs (Original Equipment Manufacturers), who offer equipment for the pharmaceutical and biotechnology industries. As a long-standing partner of OEMs, GEMÜ can offer customized solutions in this field. BWT and GEMÜ have a partnership spanning many years that is a prime example of this kind of successful cooperation.

When equipping biotechnological and pharmaceutical plants, it is important to integrate the increasing requirements for digitalization, sustainability and process optimization into a functional and state-of-the-art design, without losing sight of the economic framework. When it comes to the trending topic of digitalization, GEMÜ relies on RFID technology to meet the requirements for the digital name plate in accordance with IEC 61406 and the Asset Administration Shell (AAS). In this way, GEMÜ creates maximum transparency and safety, guarantees seamless traceability for all single components and, at the same time, simplifies spare parts management and documentation. However, digitalization is only one aspect. Sustainability is also an increasingly important factor. With multi-port valve blocks in particular, GEMÜ creates a decisive advantage here in order to meet the increasing requirements. Thanks to innovative designs tailored to the individual application, multi-port valve blocks from GEMÜ reduce energy consumption in sterilization processes. They also improve the effectiveness of the respective processes, shorten assembly and documentation times and reduce the plant manufacturing costs by reducing the number of weld seams. Many OEM customers and plant designers place their trust in GEMÜ with regard to these specific requirements – including long-term partner BWT.

As part of this partnership, specially designed multi-port valve blocks have been developed, which represent a real innovation for water treatment plants. As a global manufacturer in the water treatment sector (particularly for the high purity media that are important for the pharmaceutical industry), BWT approached the experts at GEMÜ in the summer of 2024. The increased requirements in this area should be implemented in a targeted and process-orientated manner. GEMÜ's manufacturing experts were involved at an early stage of the development process in order to achieve the ambitious objectives for the plant's effectiveness and cost efficiency. Three specially designed M-blocks were created, with a particular focus on the functions of softening, reverse osmosis, electro-deionization, circulation and sampling.

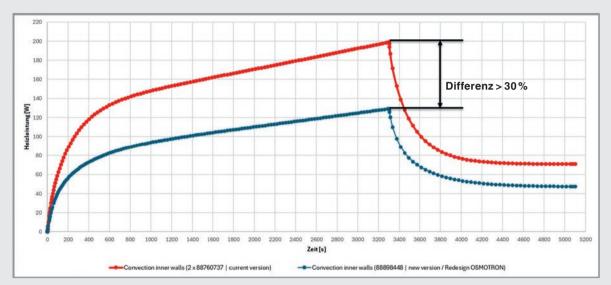
The redesign of the OSMOTRON plant for the production of purified water (PW, aqua purificata) and WFI (Water For Injection) served as a pilot project during the collaboration



BWT OSMOTRON plant with innovative GEMÜ multi-port valve block

The newly developed GEMÜ multi-port valve block serves as the centrepiece for process control in the plant. In the case of BWT, two original individual blocks were combined into one valve block in order to achieve the following advantages:

- ⇒ Space savings: The valve blocks supplied by GEMÜ over the years, which have been installed in the OS-MOTRON plant to date, have now been revised so that, in the future, only one block will be installed per plant instead of two. With the help of flow simulations, the seat sizes of the valves in particular have also been optimized. This means that the new multi-port valve block will require significantly less space in the plant in future.
- ⇒ Improved energy balance: The target of an improved energy balance was achieved by reducing the weight, and was verified with the help of a simulation of the heating and cooling times during the hot water sanitization of the plant: The compact and efficient design of the valve block led to a reduction in energy demand of over 30%. This reduces energy consumption during hot water sanitization, and thus contributes to the sustainability of the entire OSMOTRON plant



Applied heating power of water vs. time



- ⇒ **Resource savings:** This simulation also provided evidence of temperature curves at the significant points. The optimizations in this area enable time savings and faster process readiness.
- → Compliance with regulations: It was possible to optimize the deadlegs due to the optimized design of the valve blocks. The 2D rule required by AMSE BPE and the FDA/GMP guidelines is complied with in all relevant/wetted areas or, in some cases, significantly undershot. This would not have been possible with standard valves.
- Digitalization through RFID integration: Each block or single valve, each diaphragm and each actuator is fitted with an RFID chip, and the valve assembly is also fitted with a digital name plate in the form of a QR code. This means that both the assembly and all single components can be clearly identified, and all relevant certificates and documents can be downloaded at any time. In addition, the history of the components is clearly traceable.

In addition to this pilot project, GEMÜ has developed a new multi-port valve block for inlet pressure control in the OSMOTRON plant, the special feature of which is the integration of the GEMÜ 550 control valve. Thanks to this solution, the required process steps for the plant can be optimally controlled, with an optimized design and, in comparison to a design with single valves, reduced piping requirements and minimized space requirements

In addition, the design of the softener valve blocks has been optimized and extended by a further size. The softener valve block is the core element of the softening equipment. It centrally channels all media flows and reliably regulates the switchover processes during operation, regeneration and hot water sanitization of the softening stage. Due to the stainless steel design, the usual temperatures for hot water sanitization can be safely covered. The valve block is also positioned centrally above the softener tanks, simplifying the pipework and installation while simultaneously allowing optimal access to the softener tanks for service work.

The partnership between BWT and GEMÜ has impressively demonstrated in these projects how GEMÜ sets new standards together with its customers, through close collaboration and continuous exchange. This is especially true for OEMs, which have a competent partner at their side due to the collaboration with GEMÜ, which jointly implements projects with extensive expertise, commitment, an eye on cost efficiency and grand visions.

In the future, GEMÜ will offer its customers even more advantages for multi-port valve blocks by using the new valve generation.

The advantages include higher Kv values, which enable the use of smaller diaphragm sizes, quick and easy replacement and a longer diaphragm service life. These optimizations will contribute significantly to the further development of future valve blocks.

1 Eduard Karpekin

Key Account Manager
Business Unit Pharma, Food & Biotech
eduard.karpekin@gemue.de

Rainer Mann

Sales Account Manager
Business Unit Pharma, Food & Biotech
rainer.mann@gemue.de





Whether digitalization, the hydrogen economy or electromobility – modern technologies are inconceivable without what are known as 'critical raw materials'. These include mineral or metal resources that are indispensable for key industries, but only occur in a few regions of the world or are difficult to access.

In recent years, various raw materials in this category have repeatedly made the headlines. Rare earth metals and cobalt are particularly well known. However, less prominent elements such as iridium, which is used in PEM (Proton Exchange Membrane) water electrolysis, are also included. The global annual production of iridium is only a few tonnes.

Strategies to counter the scarcity of resources

In view of these uncertainties, state and international stakeholders are developing targeted strategies to secure the supply of raw materials. The European Union is focusing on a combination of raw material partnerships, the expansion of its own extraction capacities, substitution research and a stronger circular economy. Canada, the USA and Japan are also pursuing similar approaches. Recycling and urban mining in particular are becoming increasingly important: By recovering valuable materials from old appliances and production waste, raw material cycles can be closed and interdependence reduced.

Recycling: Challenge and opportunity

Critical materials in particular offer enormous potential for successful recycling due to their high economic value. Hydrometallurgical processes, in which metals are extracted from shredded old appliances using acids, are the main ones used. The elements are then separated by electrochemical processes or chemical precipitation. These processes place stringent requirements on the valves, measurement and control systems: They must not only be robust against corrosive media, but also designed for maximum process reliability. Nevertheless, the effort is worth it: The quality of the recovered raw materials is comparable to the quality from primary extraction.

GEMÜ: Process expertise for demanding recycling applications

With many years of expertise in the chemical and mining industries, GEMÜ is optimally geared to the requirements of modern recycling processes. GEMÜ's robust butterfly valves and industrial diaphragm valves ensure the safe and reliable transport of even highly corrosive or abrasive media. Depending on the requirements, various high-quality linings such as PTFE or PFA are available for the media wetted components. The GEMÜ Code 71 diaphragm, a high-quality three-layer diaphragm with a corrosion-resistant fixing pin made from grade 7 titanium, is characterized by its particularly high resistance. This means that even the most demanding applications can be realized permanently and efficiently. GEMÜ products provide optimum support for recycling processes – from the safe handling of chemical media to the precise control of complex treatment processes.

Efficient exploitation and processing of mineral resources

The extraction of new raw materials is also becoming increasingly sustainable. Modern processes such as direct lithium extraction (DLE) make it possible to extract the coveted metal from brines using less water and chemicals – an important step towards minimizing environmental pollution. This new technology can even be used to gently extract lithium from thermal water. In addition, the focus is shifting to the processing of spoil heaps and sedimentation basins at former mining sites: The remaining recyclable materials are analyzed and then processed. Enrichment processes – a physical-chemical separation process in which fine particles are transported to the surface with the help of air bubbles – are used for the targeted enrichment of certain elements. Precise regulation of the air supply is crucial here – GEMÜ offers suitable system solutions. In combination with targeted waste water treatment, not only can valuable metals be reutilized, but ecological contaminated sites can also be remediated.



Targeted Element Enrichment through Flotation – GEMÜ offers precise system solutions for optimal air control.

GEMÜ: Solutions for a sustainable raw materials economy

Reliable valves, measurement and control systems are essential for all these processes – from chemical recycling to lithium extraction. GEMÜ offers robust solutions that can withstand the stringent requirements of corrosive media and, at the same time, enable precise control. In this way, we are making an active contribution to a more sustainable raw materials economy.



GEMÜ R481 Victoria is used in the processing of lithium-containing brine.



The triple-layer diaphragm GEMÜ Code 71 is suitable for highly aggressive and penetrating media such as hydrochloric acid (HCl), which is used, for example, in metal leaching.



The PFA-lined diaphragm valve GEMÜ 671 is suitable for the hydrometallurgical processing of black mass in battery recycling.



MOTORIZED QUARTER TURN ACTUATORS VERSATILE SOLUTIONS FOR EVERY REQUIREMENT

GEMÜ is breathing new life into the world of motorized quarter turn actuators with a new concept. By combining a tried and tested trading product with the strength of its in-house manufacturing plant, the company has created a particularly versatile product range that is perfectly tailored to the needs of its customers.

This concept makes it possible to offer both customized solutions from inhouse manufacturing and tried and tested products from commerce. This ensures a high degree of flexibility and efficiency when selecting the right actuator solution. From compact plastic actuators to robust metal versions for demanding applications: The new quarter turn actuators offer the perfect solution for every area of application.

GEMÜ 9428: Versatile and efficient

The GEMÜ 9428 is the ideal actuator for long-lasting Open/Close applications, especially indoors. With torques from 6 to 55 Nm, protection classes IP67 and IP65 and an operating temperature of -10 °C to +60 °C, this actuator is suitable for nominal sizes up to DN 100. A particularly practical feature: The compact design allows for simple installation, even in confined spaces. The plastic actuator offers an impressive performance over time.

GEMÜ J4C: The price-performance miracle

The GEMÜ J4C actuator is suitable for nominal sizes from DN 10 to DN 250. With torques from 20 to 300 Nm and an operating voltage of 12 V DC to 240 V AC/DC, it is perfect for open/close controls and for positioner control applications indoors. The GEMÜ J4C offers reliable performance at an attractive price and impresses with its simple operation and flexibility. This makes it the actuator of choice for cost-sensitive applications.

GEMÜ RP: Robust performance at an attractive price

The GEMÜ RP metal actuator offers impressively high levels of robustness and reliability, along with an excellent price-performance ratio. With torques from 32 to 100 Nm and an operating temperature of -20 °C to +60 °C, this actuator is suitable for both indoor and outdoor areas. The durable metal actuator is recommended for nominal sizes from DN 10 to DN 150. The GEMÜ RP offers simple commissioning and is therefore the ideal choice for price-conscious applications with no compromise on quality.

GEMÜ PF: For demanding applications

The GEMÜ PF is a metal actuator in a class of its own, perfectly suited to corrosive environments. With torques from 80 to 600 Nm, a temperature range from -30 °C to +70 °C and the option of ATEX certification, it fulfils the most stringent requirements for safety and reliability. Suitable for nominal sizes from DN 25 to DN 350, the GEMÜ PF can also be used for shaft installation.

GEMÜ AQ: For the most demanding applications

The GEMÜ AQ metal actuator was developed for extreme conditions and offers torque ranges from 150 to 2400 Nm. With an IP68 protection class and an operating temperature of -60 °C to +100 °C, this actuator is perfect for particularly demanding applications in outdoor areas and for use in corrosive environments. Designed for nominal sizes from DN 100 to DN 600, the GEMÜ AQ can be combined together with a variety of bus systems.

Simple applications or complex projects: There is a suitable actuator solution for every scenario. All products are characterized by high quality, reliable performance and flexible application possibilities.



INNOVATIVE PARTNER WITH WATER EXPERTISE MEMBER OF THE GERMAN WATER PARTNERSHIP

Member of

German Water

Partnership

The pooling of expertise and technological innovation in the field of water management opens up new vistas for more efficient and sustainable solutions. As a new member of the German Water Partnership (GWP), GEMÜ is strengthening its commitment to the further development of international water technologies – with specific added value for users and markets worldwide.

Since this year, GEMÜ has been a member of the German Water Partnership (GWP), a leading network that brings together companies from the internationally aligned German water industry.

This membership offers GEMÜ the opportunity to actively contribute its extensive knowledge and expertise in the areas of process automation, sustainability and innovative technologies to the improvement of water quality in global markets.

With a clear focus on the highest possible quality and innovation, GEMÜ supports companies worldwide with solutions that not only meet current requirements, but also provide new impetus for a more sustainable future. The focus here is on the continuous development of technologies that pave the way for more efficient and environmentally friendly water solutions.

Integration into the German Water Partnership strengthens international collaboration and underlines the endeavour to provide sustainable impetus for the water industry through technological excellence and to develop customized solutions that are perfectly tailored to the individual requirements of customers.



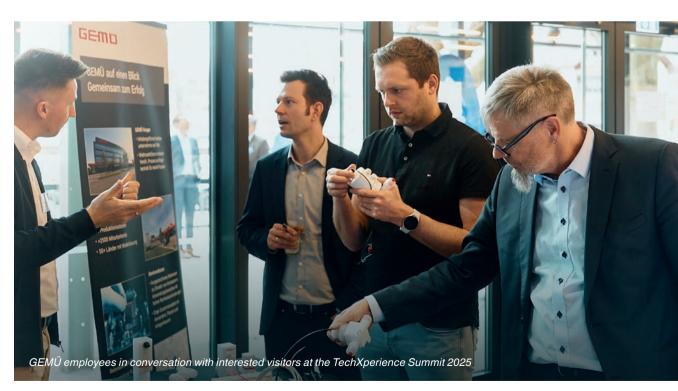
GEMÜ AT THE TECHXPERIENCE SUMMIT 2025 EXCHANGES, INSIGHTS AND IMPETUS FOR THE SEMICONDUCTOR SECTOR

As a silver sponsor, GEMÜ took part in the TechXperience Summit in March 2025, an innovative platform for discussing trends and challenges in the semiconductor sector. At the three-day networking event, specialists, innovators and decision-makers from the entire industrial sector came together to network and jointly provide ground-breaking impetus for the future.

This year's summit was organized by AP&S International GmbH from Donaueschingen. The company develops and manufactures chemical wet process systems for the semiconductor industry and is an established partner for cleaning, etching and coating processes.

The event kicked off with a get-together at the Öventhütte in Donaueschingen. The second day of the event was dedicated entirely to professional exchanges, with exciting specialist talks on all aspects of semiconductor systems. GEMÜ also had its own stand at the accompanying trade fair in the Donauhallen. There, the GEMÜ experts took the opportunity to present their innovative solutions and expertise to a broad specialist audience.

The evening was rounded off in style with a "Casino Royale" event, which provided an opportunity for further discussions and for creating new contacts in an elegant setting. On the last day, participants were given an exclusive tour of the plant and gained exciting insights into the production processes at AP&S and the various sectors they are active in.



GEMÜ supported the TechXperience Summit as a silver sponsor and would like to thank AP&S for the invitation and the excellently organized event. We can look back at an inspiring event which sparked much new impetus and many enriching discussions, and look forward to further dialogue with our partners from the semiconductor industry.

✓ Tobias Dobenecker

Customer Segment Marketing Manager tobias.dobenecker@gemue.de

Ralf Ehret

Sales Account Manager
Business Unit Semiconductor
ralph.ehret@gemue.de

MAJOR PROJECT IN CHINA GEMÜ BUTTERFLY VALVES FOR LNG TERMINAL

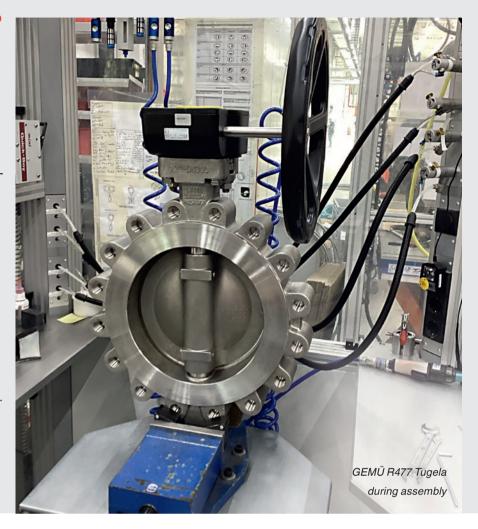
GEMÜ implemented a major project last year: A total of 87 butterfly valves were supplied for an LNG terminal (LNG = liquefied natural gas) in China – an order with a high volume and complex requirements.

Technology with precision: Customized solutions for specific applications

The project centred on the delivery of a total of 87 butterfly valves in different versions – manual, pneumatic and motorized. The nominal sizes ranged from DN 100 to DN 1T6. This posed major technical and logistical challenges. The valves are used in the extinguishing water supply area of an LNG terminal in China – an environment in which robustness and reliability are top priorities.

A C5M coating and super duplex components (disc and shaft) were used to meet the special operating conditions. These materials are characterized by their high corrosion resistance and long service life under extreme conditions.

Two suitable valve types were selected in close consultation with the customer: The GEMÜ R470 Tugela butterfly valve with a super duplex body for up to 25 bar and the GEMÜ D480 Victoria butterfly valve with a WCB body for up to 10 bar in the LUG and U section body versions. The actuator technology was also specially customized to the requirements of the project in order to meet the special conditions on-site. Another key factor was the European origin of the valves, a criterion that GEMÜ was naturally able to fulfil.



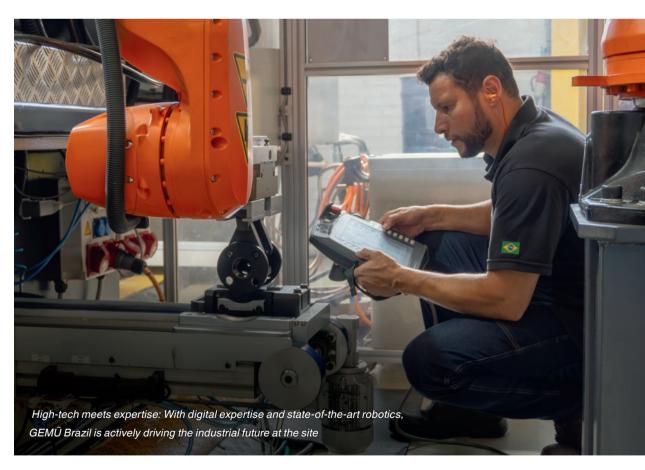
TECHNOLOGY MEETS INNOVATIVE STRENGTH DIGITAL TRANSFORMATION AT GEMÜ BRAZIL

The exchange between Germany and Brazil offers companies from both countries clear added value. Within the GEMÜ Group, the head office in Germany plays a key role in shaping the culture of innovation at GEMÜ Brazil. The combination of advanced German technology with the creative dynamism of Brazil creates synergies that specifically promote efficiency, productivity and sustainability.

GEMÜ Brazil has successfully established itself in the region with its location in Paraná, in the south of the country. As a result of a solid industrial base, targeted investment in innovative technologies and close collaboration between various sectors of the economy, universities and research institutions, the state of Paraná has made a name for itself as a pioneer in the field of Industry 4.0 in Brazil. Particularly forward-looking sectors such as agriculture, the automotive industry and metal mechanics are experiencing dynamic modernisation. This development strengthens Paraná's position as a leading location for digitalization and automation in Brazil. Many companies in the region are already using tools and methods such as IoT, AI, big data and automation to optimize their processes and increase productivity. Even if the digital transformation in Brazil is sometimes challenging, targeted collaborations and investments offer valuable opportunities to set new standards in efficiency and future viability.

Germany, as one of the world's leading industrialized nations, is regarded as an important reference. For this reason, the German-Brazilian Chamber of Industry and Commerce in Paraná supports partnerships, workshops and investments to promote development in the region.

The GEMÜ Brazil manufacturing site in São José dos Pinhais has developed into a competence centre for lining bodies within the GEMÜ Group. Due to the successful combination of advanced technology and Brazilian innovation, this goal was achieved, significantly increasing both efficiency and sustainability.



For GEMÜ Brazil, Industry 4.0 and the digital transformation is not just a technological development, but a strategic approach aimed at ensuring long-term competitive ability.

Marketing Supervisor, GEMÜ Brazil thaytiane.estoer@gemue.com.br

Quality Assurance and documentation

A central component of the project was comprehensive documentation and Quality Assurance. Among other things, the material composition had to be confirmed by a "Positive Material Identification", which was carried out in an external laboratory. In addition, the international certification company Bureau Veritas carried out a Factory Acceptance Test (FAT) at the GEMÜ Production and Logistics Centre in the Hohenlohe business park on behalf of the end user.

The GEMÜ butterfly Tugela valves were positioned in one production run and checked for dimensions, TAG labels and appearance. For the performance tests, two butterfly valves in nominal sizes DN 300 and DN 500 were clamped and tested on the workbench and under an assembly crane.

The inspection was successfully completed, and confirmed the high product quality and careful preparation. The flaps were then packed in customized IPPC wooden crates, which are suitable for shipping by sea.

The responsible project group was tasked with drawing up the inquiry and with the central coordination of the entire order, both internally and externally. Shipping documents such as shipping marks and packing lists were created exactly according to the customer's requirements.

Logistics in sync: Precise coordination for trouble-free exports

Another key success factor was the logistical coordination of the various goods flows to ensure delivery to deadline.

All individual deliveries were brought together at the port of Hamburg. The total delivery consisted of 52 wooden crates weighing over 63 tonnes, spread over seven trucks. All the products are now on their way to China, ready for use in the LNG terminal.

A project of this scale will only succeed if all those involved work together effectively. The implementation required not only precise planning, but also seamless coordination between different departments and external partners. It is thanks to the expertise and commitment of everyone involved that the project was successfully completed on time.

Verena Schröter

Customer Markt Segment Manager verena.schroeter@gemue.de

Melanie Schmidt

Project Coordinator Business Unit Industry melanie.schmidt@gemue.de

Nadine Donatella

Project Coordinator Business Unit Industry nadine.donatella@gemue.de

MORE EFFICIENT AND PRECISE THE ADVANTAGES OF SOLDERING AUTOMATION AT GEMÜ

Even in the mechatronics of subassembly and valve production, specific developments in automation are taking place. Recently, a modern piston soldering cell has been added to the existing manufacturing processes.

Manual soldering requires not only the highest precision, but also experienced specialist technicians who are scarce on the labour market. Learning the necessary skills is also extremely time-consuming. Automating this work step offers a long-term solution which effectively lessens the load. By automating soldering work, the health risks for employees can be minimized and monotonous tasks can be eliminated. In addition, the process monitoring of the piston soldering cells ensures a continuous standard of quality.

Thanks to precise temperature control and precisely controlled material usage, the automation ensures consistent soldering quality. The integrated 5-axis system enables precise machining, even with complex component geometries. Another plus point is the double drawer system. It ensures optimal use of capacity: The next workpiece carriers can already be loaded during the soldering process. This reduces waiting times and noticeably increases throughput.

By integrating the new soldering cell into the assembly area, various soldering tasks from different product groups can now be combined centrally for the first time. GEMÜ subassemblies of types 1251 to 1257, 1235, 1236 and 1436 are processed at the soldering cell workstation. This process-guided consolidation of soldering activities enables the operation of a central, automated soldering workstation with high capacity utilization and efficiency.

The new soldering cell optimizes material usage, reduces both rejects and energy consumption, and thus contributes to more cost effective and environmentally friendly production. It represents a decisive step towards more



efficient and sustainable manufacturing at GEMÜ, whilst also laying the foundation for future automation projects.



Michael Schroff

Head of Department Mechatronic

Instrumentation | Flowmeters

michael.schroff@gemue.de

C Tobias Romankiewicz
Process Manager Production
Planning | Industrial Engineering
tobias.romankiewicz@gemue.de





GEMÜ ABROAD REPORTS FROM TWO TRAINEES

As part of their education or training, our trainees have the opportunity to gain valuable experience abroad in various ways. For example, they can visit one of our subsidiaries for a few weeks, and work there or take a look at what colleagues are doing on-site. However, two of our trainees also took advantage of an alternative opportunity to gain professional and personal experience abroad.

Our young trainees immerse themselves in new cultures abroad, get to know people from all over the world and excel through the challenges of everyday life in a foreign language. In addition to exciting cultural experiences, there are also plenty of culinary delights to discover.

These experiences abroad are far more than just a change of scenery: They promote young people's independence, intercultural skills and personal development. Our trainees greatly appreciate this special opportunity, as it is by no means a matter of course to be allowed to go abroad during their education or training. They return to GEMÜ in Germany full of gratitude and with many new impressions and valuable experiences.

Niklas Kilian, apprentice mechatronics technician La Réunion (14.08.2024 – 11.09.2024):

"As part of my overseas placement via the vocational school, I had the opportunity to spend four weeks getting to know the island of La Réunion. From the beginning, my vocational school colleagues and I were given a warm welcome by our partners, and were able to visit the school in Saint Benoit and the workshops there on the very first day. We also took part in a language course in the first week so that we could communicate with our exchange partners. We then had time to explore the island ourselves.

In the third and fourth week, I had the opportunity to work in a local packaging company and support the team on-site in repairing and commissioning systems. So the four weeks in La Réunion, 9000 kilometres away, flew by. I gained many exciting and interesting insights into working life in a French overseas territory, and was also able to achieve some personal development."

A central pillar of GEMÜ's global strength is its international production net-

Dominik Pfeifer, dual study student in industrial engineering and management Thailand (07.01.2025 - 04.04.2025):

"Behind me lies an unforgettable semester at Mahidol University International College (MUIC) in Thailand a country that not only impressed me academically but, above all, touched me deeply on both a human and cultural level.

The organization of the semester generally went smoothly. I am very grateful to both my home university and GEMÜ for this. Of course, there were some minor hurdles, including language barriers. But it was precisely these situations that helped me to become more open, flexible and patient. I am incredibly grateful for this time and the people I was able to meet there. I am also grateful for all the experiences that have enriched me personally and will certainly stay with me for a long time to come."

💋 📿 Laura Stöffler

Specialist, Global HR, Education & Training laura.stoeffler@gemue.de

EACH PRODUCTION STEP MEETS THE HIGHEST STANDARDS

zil in accordance with Directive 2014/68/EU (PED) emphasizes the company's commitment to excellence and reliability.

By successfully implementing the Pressure Equipment Directive (PED) and achieving the specified criteria, GEMÜ Brazil is emphasizing its expertise in manufacturing products that not only meet but exceed global market requirements. The recertification process includes the comprehensive assessments of the company's quality assurance system and guarantees that each production step – from material selection through to final acceptance - meets the highest safety and efficiency standards.

This success emphasizes the role of GEMÜ Brazil as a reliable manufactur- Marketing Supervisor, GEMÜ Brazil er of innovative and high-quality pressure gauges. Furthermore, the recertification reflects the company's commitment to continuous improvement and strengthens its position as a leader in the industry.



NEW TRAINING WORKSHOP OPENED A MILESTONE IN THE HISTORY OF TRAINING

GEMÜ inaugurated its new training workshop at the Ingelfingen site in March 2025. With this modern working environment, which is equipped with trailblazing technology, the family-owned enterprise is taking the training of future specialist technicians to the next level, offering them optimal conditions for starting their careers and laying the foundations for further professional development.







Together with the training manager, the Company Management presented the new training area at a standing reception. After the speeches, the official opening of the new training workshop took place with the customary cutting of the red ribbon. Afterwards, attendees took the opportunity to explore the new training workshop, talk to the trainees and find out more about the various work areas and machines.

"Training is close to the heart of the Company Management," explained Stephan Müller, Managing Director of the GEMÜ Group, in his speech. GEMÜ has been successfully training apprentices for over 50 years and has already supervised over 600 apprentices and students during this time. GEMÜ started with just two trainees; but now, around 30 trainees and students start their training at GEMÜ every year. The training takes place across all three locations in the Hohenlohe district and has once again been recognized for its quality. For example, the DUALIS "Excellent training company" seal from the Chamber of Commerce and Industry (IHK) of Heilbronn-Franken confirms GEMÜ's excellent training quality. GEMÜ currently offers 15 different training professions and over 15 study programmes in the various study models.

"At the age of 50, you've grown up and can finally move out," added Matthias Fick, Managing Director of GEMÜ, with a wink. The new training area represents a significant milestone in the history of GEMÜ education: After more than 50 years, the training programme now has its own premises. Merging the two training workshops for metal and electronics not only provides more space and modern machines, but also enables more intensive support for the apprentices and strengthens the team spirit among them.

By investing in the new training workshop, GEMÜ is reaffirming its commitment to training and strengthening its own future viability.







Laura Stöffler

Specialist, Global HR, Education & Training

laura.stoeffler@gemue.de

Melanie Glattbach

Head of Department Training

melanie.qlattbach@gemue.de

HOHENLOHER BIO-STAR FOR REGIONAL WINE INGELFINGER FASS WINERY IS AWARDED WITH THIS DISTINCTION

On Sunday 11th May 2025, a very special prize was awarded during the traditional cheese and farmers' market at the Hohenlohe Open Air Museum in Wackershofen: The Ingelfinger Fass winery was recognized for its organic produce with the Hohenloher Bio-Star 2025.

With this award, the winery joins an exclusive circle of "organic star" holders, which now number 30. The award not only recognizes the high quality and regional character of the wines, but also the company's commitment to organic agriculture, transparency and climate-conscious production.

Three new stars were awarded from the Hohenlohe organic region at the event. At the same time, producers whose products have already been awarded a star presented their wares at an "organic star" market on the grounds of the Hohenlohe Open Air Museum in Wackershofen.

Also receiving the coveted Hohenloher Bio-Star alongside the Ingelfinger Fass winery were Provinzbrot Thomas Goldbach from Blaufelden for its bread and Hofladen Frank from Garnberg for its apple juice. Marcel Schmieg, Team Leader Viticulture, and Annette Walz, Management Assistant at GEMÜ, accepted the award on behalf of the winery. Following the award ceremony, guests were able to sample the new Hohenloher Bio-Stern products at a tasting session.

The award of the Hohenloher Bio-Star 2025 not only recognizes the outstanding quality of the wines, but also the Ingelfinger Fass winery's remarkable commitment to promoting sustainable viticulture in the Hohenlohe region.



market at the Hohenlohe Open Air Museum in Wackershofen

"Weinmanufaktur Ingelfinger Fass" winery The Ingelfinger Fass winery is part of the GEMÜ Group and is located in Ingelfingen directly opposite the Schlosshotel Ingelfingen, which also belongs to the GEMÜ Group. The regional winery is known for its sustainable cultivation and artisanal wine production. The winery has been cultivating its vineyards organically since 2023 and focuses on quality rather than quantity. In addition to its own fine wines, the winery also presents an exquisite selection of other wines from Württemberg at its stylish premises in Ingelfingen. Wine lovers can also enjoy tastings and exclusive events

🔼 Annette Walz

Management Assistant annette.walz@gemue.de

Marcel Schmieg

Team Leader Viticulture Weinmanufaktur Ingelfinger Fass marcel.schmieg@gemue.de

TRAINING DATES

8.00 - 12.00

8.00 - 12.00

TRANSFER OF KNOWLEDGE WITH HIGH PRACTICAL RELEVANCE

Diaphragm replacement training

Service Training Flare connections

September 2025

16.09.2025	8.00 – 12.00	Product training Diaphragm valves	German	On-site
17.09.2025	8.00 – 12.00	Product training Globe valves	German	On-site
17.09.2025	13.00 – 15.00	Product training PD-Valves	German	On-site
18.09.2025	8.00 – 12.00	Product training Multiport valves	German	On-site
19.09.2025	8.00 – 12.00	Product training Butterfly valves	German	On-site
23.09.2025	8.00 – 12.00	Product training Ball valves	German	On-site
24.09.2025	8.00 – 12.00	Product training Automation components & accessories	German	On-site
25.09.2025	8.00 – 12.00	Product training Measuring devices, Positioners & Process control	German	On-site

October 2025

01.10.2025

27.11.2025

November 2	November 2025				
19.11.2025	8.00 – 12.00	Service Training Globe valves	German	On-site	
20.11.2025	8.00 – 12.00	Service Training Ball valves	German	On-site	
21.11.2025	8.00 – 12.00	Service Training Butterfly valves	German	On-site	
26.11.2025	8.00 – 12.00	Service Training Instrumentation	German	On-site	

December 2025					
	02.12.2025	8.00 – 12.00	Product training Diaphragm valves	English	Online
	03.12.2025	8.00 – 12.00	Product training Globe valves	English	Online
	03.12.2025	13.00 – 15.00	Product training PD-Valves	English	Online
	04.12.2025	8.00 – 12.00	Product training Multiport valves	English	Online
	05.12.2025	8.00 – 12.00	Product training Butterfly valves	English	Online
	09.12.2025	8.00 – 12.00	Product training Ball valves	English	Online
	10.12.2025	8.00 – 12.00	Product training Automation components & accessories	English	Online
	11.12.2025	8.00 – 12.00	Product training Measuring devices, positioners & process control	English	Online
	17.12.2025	8.00 – 12.00	Diaphragm replacement training	German	On-site

For more information and to register, please contact Technical Training.

training@gemue.de, Phone +49 (0) 7940 123-420

Subject to change!

German

German

On-site

On-site

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GmbH & Co. KG Fritz-Müller-Straße 6-8 74653 Ingelfingen-Criesbach Telefon +49 (0) 7940/123-0 gemuenews@gemue.de www.gemu-group.com

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