



D operator



T operator

GEMÜ 654 BioStar

Diaphragm valve, metal, manually operated

With integr. seal adjuster and stroke limiter, optional handwheel locking device, proximity switches

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|---------|--------------------|---|-----------------------------------|---------------------|
| 4 - 100 | 0 to 10 bar * | Butt weld spigots Threaded connections Clamp connections Different standards and designs available. | Stainless steel 1.4435, 1.4408 | FPM EPDM PTFE |

GEMÜ 643

2/2-way diaphragm valve, metal, manually operated

Tank bottom valve with side mounted gear operator, can be welded into tank bottom, tank flange on request



| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|---------|--------------------|--|-----------------------------------|---------------------|
| 15 - 40 | 0 to 10 bar * | Butt weld spigots Different standards and designs available. | Stainless steel 1.4435, 1.4539 | FPM EPDM PTFE |

GEMÜ 611

Diaphragm valve, metal, manually operated

Seal adjuster, optical position indicator



| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|----------|--------------------|---|---------------------------|---------------------|
| 10 to 20 | 0 to 10 bar * | Butt weld spigots Threaded connections Clamp connections Different standards and designs available. | Stainless steel 1.4435 | FPM EPDM PTFE |

GEMÜ 671

Diaphragm valve, metal, manually operated

Option: lockable / with mounting thread for electrical position indicator (open)



| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|-----------|--------------------|---|-----------------------------------|---------------------|
| 15 to 100 | 0 to 10 bar * | Butt weld spigots Threaded connections Clamp connections Different standards and designs available. | Stainless steel 1.4435, 1.4408 | FPM EPDM PTFE |

* dependent on diaphragm material

Diaphragm valves, stainless steel, sterile applications

Pneumatic actuator



GEMÜ 605

Diaphragm valve, metal, pneumatically operated

Control function: Normally closed (NC), Normally open (NO), Double acting (DA)

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|---------|--------------------|--|---------------------------|---------------------|
| 4 to 15 | 0 to 8 bar * | Butt weld spigots Threaded connections Clamp connections Different standards and designs available. | Stainless steel 1.4435 | FPM EPDM PTFE |



GEMÜ 625

Diaphragm valve, metal, pneumatically operated

Control function: Normally closed (NC), Normally open (NO), Double acting (DA)

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|----------|--------------------|--|---------------------------|---------------------|
| 10 to 20 | 0 to 6 bar * | Butt weld spigots Threaded connections Clamp connections Different standards and designs available. | Stainless steel 1.4435 | FPM EPDM PTFE |



GEMÜ 650 BioStar

Diaphragm valve, metal, pneumatically operated

Control function: Normally closed (NC), Normally open (NO), Double acting (DA)

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|----------|--------------------|---|---------------------------|---------------------|
| 4 to 100 | 0 to 10 bar * | Butt weld spigots Threaded connections Clamp connections Flanges Different standards and designs available. | Stainless steel 1.4435 | FPM EPDM PTFE |



GEMÜ 651

Diaphragm valve, metal, pneumatically operated, with fully integrated automation module

Control function: Normally closed (NC), Normally open (NO), Double acting (DA)

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|---------|--------------------|---|-----------------------------------|--------------------|
| 4 to 25 | 0 to 10 bar * | Butt weld spigots Threaded connections Clamp connections Flanges Different standards and designs available. | Stainless steel 1.4435, 1.4408 | EPDM PTFE |

* dependent on diaphragm material



Operator size 1



Operator size 2

GEMÜ 660

Diaphragm valve, metal, pneumatically operated;
specially developed for dosing and filling applications

Control function: Normally closed (NC), Normally open (NO), Double acting (DA)

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|---------|--------------------|---|-----------------------------------|--------------------|
| 4 to 25 | 0 to 5 bar * | Butt weld spigots Clamp connections Different standards and designs available. | Stainless steel 1.4435, 1.4408 | EPDM PTFE |

GEMÜ 687

Diaphragm valve, metal, pneumatically operated

Control function: Normally closed (NC), Normally open (NO), Double acting (DA)



| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|-----------|--------------------|---|-----------------------------------|---------------------|
| 10 to 100 | 0 to 10 bar ** | Butt weld spigots Clamp connections Different standards and designs available. | Stainless steel 1.4435, 1.4408 | FPM EPDM PTFE |

GEMÜ 658 / 688

Diaphragm valve, metal, pneumatically operated; two stage actuator

Control function: Normally closed (NC)



GEMÜ 658



GEMÜ 688

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|----------|--------------------|---|-----------------------------------|---------------------|
| 10 to 50 | 0 to 10 bar * | Butt weld spigots Threaded connections Clamp connections Different standards and designs available. | Stainless steel 1.4435, 1.4408 | FPM EPDM PTFE |

GEMÜ 615

Diaphragm valve, metal, pneumatically operated

Control function: Normally closed (NC), Normally open (NO), Double acting (DA)



| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|----------|--------------------|---|---------------------------|---------------------|
| 10 to 20 | 0 to 6 bar * | Butt weld spigots Clamp connections Different standards and designs available. | Stainless steel 1.4435 | FPM EPDM PTFE |

* dependent on diaphragm material, ** dependent on diaphragm material and nominal size

Diaphragm valves, stainless steel, sterile applications



GEMÜ 695

Diaphragm valve, metal, pneumatically operated

Control function: Normally closed (NC), Normally open (NO), Double acting (DA)

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|----------|--------------------|---|-----------------------------------|---------------------|
| 15 to 50 | 0 to 10 bar * | Butt weld spigots Clamp connections Different standards and designs available. | Stainless steel 1.4435, 1.4408 | FPM EPDM PTFE |



GEMÜ 618

Diaphragm valve, metal, motorized

With/without integr. positioner/process controller, operating time 17 sec./45 sec.

| DN | Operating pressure | Connection | Voltage | Valve body material | Diaphragm material |
|---------|--------------------|---|---|---------------------------|---------------------|
| 4 to 20 | 0 to 6 bar | Butt weld spigots Clamp connections Different standards and designs available. | 24 VDC 120 VAC 230 VAC 50/60Hz | Stainless steel 1.4435 | FPM EPDM PTFE |



GEMÜ 648 SideStep

Diaphragm valve, metal, motorized

Open/Close or control actuator with various options available

| DN | Operating pressure | Connection | Voltage | Valve body material | Diaphragm material |
|----------|--------------------|--|---|---------------------------|--------------------|
| 15 to 50 | 0 to 10 bar * | Butt weld spigots Different standards and designs available. | 24 VDC 120 VAC 230 VAC 50/60Hz | Stainless steel 1.4435 | EPDM PTFE |



GEMÜ 698

Diaphragm valve, metal, motorized

Can be used as control actuator

| DN | Operating pressure | Connection | Voltage | Valve body material | Diaphragm material |
|----------|--------------------|---|---|-----------------------------------|---------------------|
| 15 to 50 | 0 to 10 bar ** | Butt weld spigots Clamp connections Different standards and designs available. | 24 VAC 120 VAC 230 VAC 50/60Hz | Stainless steel 1.4435, 1.4408 | FPM EPDM PTFE |

* dependent on diaphragm material, ** dependent on diaphragm material and nominal size



GEMÜ T valve bodies

T valve bodies are ideal for welding into ring mains. This allows the working medium to be fed or drawn off vertically and almost deadleg free.

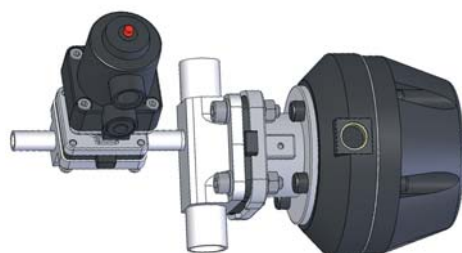
Features

- Tried and tested GEMÜ seal system
- Made from block material, no welded components
- Fitted with butt weld spigots as standard, i.e. reduction of validation times
- Compact design, GMP-compliant design
- Internal surface contour mechanically polished and/or electropolished down to Ra 0.25 µm
- Standard valve body material 1.4435 (316L). Other materials on request
- Clamps, union ends and flanges as well as other connections on request
- Available with manual, pneumatic or motorized operators



GEMÜ W600 Valve configurations

The arrangement of two valves welded together to suit the respective application provides maximum functionality in a restricted space. The assembly does without a T piece and thus the dead space between the valves is essentially reduced and two welds are no longer necessary. If superior designs are required, we recommend using multi-port valve blocks from the GEMÜ M600 series which are machined from a single block.



Diaphragm valves, stainless steel, sterile applications



GEMÜ i-bodies

The evolution from welded SAP valve configurations according to the 6D- or 3D-rule to modern M-blocks shows the advantages of M-blocks very clearly. The GEMÜ i-body (integrated sampling valve) machined from either forged or solid material can be seen as an intermediate step to full GEMÜ M-block design. It offers a low cost and good alternative to the M-block for a number of combinations. The i-body already exhibits two essential features of an M-block. It has a greatly reduced dead volume and no welds in the product area. The drain or supply spigot is only welded on behind the valve seat.

„i“-bodies are a special construction type of the classical 2/2-way bodies. „i“ stands for integrated sampling, steam and condensate valve. The valve bodies have two valve seats and 3 pipe connections. They are manufactured from a forging blank or a piece of block material. The major advantages of i-bodies compared to standard sampling or condensate valve bodies are as follows:

- Compact design and reduced weight
- Minimal deadleg
- No weld in the product area
- Horizontal spigot available
- No rear mounted operators
- Cost effective
- Draining in vertical mounting position possible if adhering to the 3D-rule
- Better drainability than with welded combinations
- Pneumatic and manual operators are available for both valve seats





GEMÜ B600 Tank valves

Today tank valves are available in a large number of versions. They can be installed or welded into the tank cover, tank wall or tank bottom. Their main functions are for filling, sampling and draining the tank contents. Sometimes these functions are combined in one valve for reasons of process safety and sometimes even extra functions are added such as integrated CIP/SIP connections.

All these GEMÜ valves have one thing in common. They are diaphragm valves whose sealing weir is as close as possible to the tank wall to avoid deadlegs in the tank. The internal of the tank bottom valve body has a specially designed cavity which promotes optimum draining of the tank contents and improves their cleanliness and sterilisation. Only this cavity ensures optimised draining of the tank!

Features

- Being very compact, the B600 tank valves are ideal for applications where space is at a premium
- Minimal deadlegs and optimized draining capabilities
- The valve body is machined from a single piece of block material. (Monoblock - no welding)
- The valve has CIP/SIP and sterilising capabilities
- The internal surface contour of the valve body is available mechanically and/or electropolished down to Ra 0.25 µm
- The valve has optimized flow geometry
- Pipe connections such as butt weld spigots, clamps and threaded connections are available in accordance with industrial standards
- Valve body materials are 1.4435/316L, other alloys are available to customer specification or test requirements (AD 2000 WZ)
- Welding into the tank bottom is simplified by a welding neck (standard 6 mm)
- Both the tank bottom valve and the tank wall valve are available with a manual, pneumatic or motorized operator
- Optical and/or electrical position indicators are available as actuator instrumentation
- Tank flange on request



Diaphragm valves, stainless steel, sterile applications



GEMÜ M600 Multi-port valve blocks

To make processes safer, increase the availability of the plant and reduce the life cycle costs of a plant within the scope of a total cost of ownership concept, GEMÜ has implemented more than 400 different designs and thousands of customized variants of multi-port valves over the years. We support our customers with ideas and initial drafts at the planning phase. The drafts are then implemented constructively in our 3D CAD system, agreed in close co-operation with the customer and then machined in our highly efficient machine park. We machine several thousand blocks weighing between 0.1 kg and 500 kg per year on multi-axis machining centres. Every day, our Design Centre turns out new customized block designs.

Features

- Individual, customized and very flexible design
- Compact – low space requirements
- Low hold-up volume, small wetted area
- Greatly reduced deadlegs
- All blocks are designed for optimized draining
- Machined from one block of material
- Much greater product reliability
- No internal welds
- Fewer fittings, welds and radiographic inspections
- Standard welded ends for orbital welding
- Reduced total cost of ownership
- Operators and diaphragms from the proven GEMÜ modular system can be used
- Reduced and simple validation
- Customized version



Diaphragm valves, metal, industry

Manual operator



GEMÜ 611

2/2-way diaphragm valve, metal, manually operated
Seal adjuster, optical position indicator

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|----------|--------------------|---|------------------------------------|---------------------|
| 10 to 20 | 0 to 10 bar * | Threaded sockets Different standards and designs available. | Stainless steel 1.4435 Brass | FPM EPDM PTFE |



GEMÜ 671

2/2-way diaphragm valve, metal, manually operated
Option: lockable / with mounting thread for electrical position indicator

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|-----------|--------------------|--|--|---------------------|
| 15 to 100 | 0 to 10 bar * | Threaded sockets Flanges Different standards and designs available. | Stainless steel 1.4435, 1.4408 Cast iron SG iron with Halar, PFA, PP and rubber lining | FPM EPDM PTFE |



GEMÜ 653

2/2-way diaphragm valve, metal, manually operated
With integr. seal adjuster and stroke limiter, optional handwheel locking device, proximity switches

| DN | Operating pressure | Connection | Valve body material | Diaphragm material |
|-----------|--------------------|--|---|---------------------|
| 10 to 100 | 0 to 10 bar * | Threaded sockets Flanges Different standards and designs available. | Stainless steel 1.4435, 1.4408 PFA lining available | FPM EPDM PTFE |



Seal adjuster/stroke limiter
with manual locking device
(LOC)



Seal adjuster/stroke limiter with
electromagnetic locking device
(MAG)



Mounting for proximity
switches

* dependent on diaphragm material