DUA BERLIAN
PILAR

# 2021
# PRODUCT RANGE

## Sanitary & Industrial Equipment

Product Range & Services
2021

# Contents

# GEMÜ diaphragm valves

## Area of application & industrial sectors

- *Metal aseptic diaphragm valves for sterile processes*
- *Single-use diaphragm valves for pharmaceutical processes*
- *Metal industrial diaphragm valves for numerous applications*
- *Plastic diaphragm valves for the chemical industry and environmental systems, as well as other industries*
- *Plastic diaphragm valves for sanitary/ hygienic applications*
- *Plastic diaphragm globe valves for microelectronics, chemical engineering and the pharmaceutical industry*

## Valve type

The diaphragm valve is practically the all-rounder among the valves; it can be used for countless applications in all industrial sectors. One of its major advantages is that only two components come into contact with the working medium – the diaphragm and the valve body. In the closed position, the diaphragm is pressed onto the sealing weir of the valve body and can therefore shut off up to 10 bar operating pressure.

## Technical Data

| | |
|---|---|
| Operation | Manual, pneumatic, motorized |
| Connection | Union ends, clamps, flanges, flares, threaded sockets, threaded spigots, solvent cement sockets, solvent cement spigots, hose barbs, butt weld spigots |
| Operating Pressure | 0-10 Bar |
| Body Material | Metal: Stainless steel, cast iron, brass, SG iron, cast steel, hard or soft rubber lining<br>Plastic: ABS, PFA, PP, PVC, PVDF, inliner PP-H/outliner PP reinforced |
| Media Temperature | -20 - 150 °C |
| Nominal Size | DN 4 - 300 |

# GEMÜ diaphragm valves
## Product Overview

### GEMÜ 600HP

#### Pneumatically operated diaphragm valve

**Connection** Spigot
**Actuator** Pneumatic
**Actuator movement** Linear actuator
**Body material** Inliner PFA / Outliner PVDF
**Max. operating pressure** 6 bar
**Max. media temperature** 90 ° C
**Nominal sizes** DN 40 (1 1/2"); DN 50 (2")

### GEMÜ 601

#### Manually operated diaphragm valve

**Connection** Clamp; Spigot; Threaded connection
**Actuator** Manual
**Body material** 1.4408, investment casting material; 1.4435, investment casting material; 1.4435/316L, forged body material; 1.4539/904L, forged and block material
**Max. operating pressure** 10 bar
**Max. media temperature** 100 ° C
**Min. media temperature** -10 ° C
**Nominal sizes** DN 4; DN 6; DN 8 (1/4"); DN 10 (3/8"); DN 15 (1/2")
**Sterilisation temperature** max. 150 °C

### GEMÜ 602

#### Manually operated diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection
**Actuator** Manual
**Body material** 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
**Max. operating pressure** 10 bar
**Max. media temperature** 100 ° C
**Min. media temperature** -10 ° C
**Nominal sizes** DN 4; DN 6; DN 8 (1/4"); DN 10 (3/8"); DN 15 (1/2")
**Sterilisation temperature** max. 150 °C

### GEMÜ 605

#### Pneumatically operated diaphragm valve

**Connection** Clamp; Spigot; Threaded connection
**Actuator** Pneumatic
**Body material** 1.4435 (316L), forged material; 1.4435, investment casting material
**Max. operating pressure** 8 bar
**Max. media temperature** 100 ° C
**Min. media temperature** -10 ° C
**Nominal sizes** DN 4; DN 6; DN 8 (1/4"); DN 10 (3/8"); DN 15 (1/2")
**Sterilisation temperature** max. 150 °C

### GEMÜ 607

#### Manually operated diaphragm valve

**Connection** Spigot
**Body material** PP-H, grey; PVC-U, grey; PVDF
**Max. operating pressure** 10 bar
**Max. media temperature** 80 ° C
**Min. media temperature** -10 ° C

### GEMÜ 610

#### Pneumatically operated diaphragm valve

**Connection** Flare; Solvent cement socket; Spigot; Threaded connection; Union end
**Actuator** Pneumatic
**Body material** PP, reinforced; PP-H, natural; PVC-U, grey; PVDF
**Max. operating pressure** 6 bar
**Max. media temperature** 80 ° C
**Min. media temperature** -10 ° C
**Nominal sizes** DN 12; DN 15 (1/2"); DN 20 (3/4")

# GEMÜ diaphragm valves
## Product Overview

### GEMÜ 611

#### Manually operated diaphragm valve

**Connection** Clamp; Spigot; Threaded connection
**Actuator** Manual
**Body material** 1.4435 (316L), forged material; 1.4435, investment casting material; CW617N, brass
**Max. operating pressure** 10 bar
**Max. media temperature** 80 ° C
**Min. media temperature** -10 ° C
**Nominal sizes** DN 10 (3/8"); DN 12; DN 15 (1/2"); DN 20 (3/4")
**Sterilisation temperature** max. 150 °C

### GEMÜ 612

#### Manually operated diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection
**Actuator** Manual
**Body material** 1.4408, investment casting material; 1.4435 (316L), forged material; 1.4435, investment casting material; 1.4539 (904L), block material; 1.4539 (904L), forged material
**Max. operating pressure** 10 bar
**Max. media temperature** 100 ° C
**Min. media temperature** -10 ° C
**Nominal sizes** DN 10 (3/8"); DN 12; DN 15 (1/2"); DN 20 (3/4")
**Sterilisation temperature** max. 150 °C

### GEMÜ 613

#### Motorized diaphragm valve

**Connection** Solvent cement socket; Spigot; Threaded connection; Union end
**Actuator** Motorized
**Body material** PP; PVC-U; PVDF
**Max. operating pressure** 6 bar
**Max. media temperature** 80 ° C
**Min. media temperature** -10 ° C
**Nominal sizes** DN 12; DN 15 (1/2")

### GEMÜ 620

#### Pneumatically operated diaphragm valve

**Connection** Flange; Threaded connection
**Actuator** Pneumatic
**Body material** EN-GJL-250, cast iron material; EN-GJS-400-18-LT, SG iron material; EN-GJS-500-7, ductile iron material
**Max. operating pressure** 10 bar
**Max. media temperature** 100 ° C
**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4"); DN 125 (5"); DN 150 (6")

### GEMÜ 625

#### Pneumatically operated diaphragm valve

**Connection** Clamp; Spigot; Threaded connection
**Actuator** Pneumatic
**Body material** 1.4435 (316L), forged material; 1.4435, investment casting material
**Max. operating pressure** 6 bar
**Max. media temperature** 100 ° C
**Min. media temperature** -10 ° C
**Nominal sizes** DN 10 (3/8"); DN 12; DN 15 (1/2"); DN 20 (3/4")
**Sterilisation temperature** max. 150 °C

### GEMÜ 630

#### Pneumatically operated diaphragm valve

**Connection** Flare; Solvent cement socket; Spigot; Threaded connection; Union end
**Actuator** Pneumatic
**Body material** PP, reinforced; PP-H, natural; PVC-U, grey; PVDF
**Max. operating pressure** 6 bar
**Max. media temperature** 80 ° C
**Min. media temperature** -10 ° C
**Nominal sizes** DN 12; DN 15 (1/2"); DN 20 (3/4")

# GEMÜ diaphragm valves
## Product Overview

### GEMÜ 650

#### Pneumatically operated diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection

**Actuator** Pneumatic

**Body material** 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

**Max. operating pressure** 10 bar

**Max. media temperature** 100 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 4; DN 6; DN 8 (1/4"); DN 10 (3/8"); DN 12; DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4")

**Sterilisation temperature** max. 150 °C

### GEMÜ 651

#### Pneumatically operated diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection

**Actuator** Pneumatic

**Fieldbus**

**Body material** 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

**Max. operating pressure** 10 bar

**Max. media temperature** 100 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 4; DN 6; DN 8 (1/4"); DN 10 (3/8"); DN 15 (1/2"); DN 20 (3/4"); DN 25 (1")

**Sterilisation temperature** max. 150 °C

### GEMÜ 653

#### Manually operated diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection

**Actuator** Manual

**Body material** 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

**Max. operating pressure** 10 bar

**Max. media temperature** 100 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 4; DN 6; DN 10 (3/8"); DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4")

**Sterilisation temperature** max. 150 °C

### GEMÜ 673

#### Manually operated diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection

**Actuator** Manual

**Body material** 1.4408, investment casting material; 1.4435, investment casting material; 1.4435/316L, forged body material; 1.4539/904L, forged and block material

**Max. operating pressure** 10 bar

**Max. media temperature** 100 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2")

**Sterilisation temperature** max. 150 °C

### GEMÜ 673P9

#### Manually operated diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection

**Actuator** Manual

**Body material** 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; EN-GJS-400-18-LT, SG iron material

**Max. operating pressure** 10 bar

**Max. media temperature** 100 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 8 (1/4"); DN 10 (3/8"); DN 25 (1"); DN 40 (1 1/2"); DN 50 (2")

**Sterilisation temperature** max. 150 °C

### GEMÜ 675

#### Manually operated diaphragm valve

**Connection** Flange; Threaded connection

**Actuator** Manual

**Body material** EN-GJL-250, cast iron material; EN-GJS-400-18-LT, SG iron material; EN-GJS-500-7, ductile iron material

**Max. operating pressure** 10 bar

**Max. media temperature** 100 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4"); DN 125 (5"); DN 150 (6")

**Sterilisation temperature** nicht sterilisierbar

# GEMÜ diaphragm valves
## Product Overview

### GEMÜ 687

#### Pneumatically operated diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection

**Actuator** Pneumatic

**Body material** 1.4408, investment casting material; 1.4408, investment casting material, PFA lined; 1.4435 (316L), forged material; 1.4435, investment casting 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

**Max. operating pressure** 10 bar

**Max. media temperature** 100 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 10 (3/8"); DN 12; DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4")

**Pilot valve**

**Sterilisation temperature** max. 150 °C

### GEMÜ 695

#### Pneumatically operated diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection

**Actuator** Pneumatic

**Body material** 1.4408, investment casting material; 1.4408, investment casting material, PFA lined; 1.4435 (316L), forged material; 1.4435, investment casting material; EN-GJL-250; 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

**Max. operating pressure** 10 bar

**Max. media temperature** 80 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2")

**Pilot valve**

### GEMÜ 698

#### Motorized diaphragm valve

**Connection** Clamp; Flange; Spigot; Threaded connection

**Actuator** Motorized

**Body material** 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; EN-GJL-250, cast iron material

**Max. operating pressure** 10 bar

**Max. media temperature** 100 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2")

**Sterilisation temperature** max. 150 °C

### GEMÜ R677

#### Manually operated diaphragm valve

**Connection** Flange; Spigot; Union end

**Actuator** Manual

**Body material** ABS; Inliner PP-H, grey / outliner PP, reinforced; Inliner PVDF/outliner PP, reinforced; PP, reinforced; PVC-U, grey; PVDF

**Max. operating pressure** 10 bar

**Max. media temperature** 80 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4")

### GEMÜ R690

#### Pneumatically operated diaphragm valve

**Connection** Flange; Spigot; Union end

**Actuator** Pneumatic

**Body material** ABS; Inliner PP-H, grey / outliner PP, reinforced; Inliner PVDF/outliner PP, reinforced; PP, reinforced; PVC-U, grey; PVDF

**Max. operating pressure** 10 bar

**Max. media temperature** 80 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4")

### GEMÜ SUHK

#### Manually operated single-use diaphragm valve

**Connection** Clamp; Hose barb

**Actuator** Manual

**Body material** PP-R, natural

**Max. operating pressure** 4,9 bar

**Max. media temperature** 40 ° C

**Min. media temperature** 5 ° C

**Nominal sizes** DN 8 (1/4"); DN 10 (3/8"); DN 15 (1/2"); DN 20 (3/4"); DN 25 (1")

# GEMÜ butterfly valves

**Butterfly valves in plastic and metal**

## Area of application & industrial sectors

GEMÜ butterfly valves are primarily used in industrial applications and the chemical industry, as well as the fields of water supply and water/waste water treatment. The concentric and single-eccentric designs are available as standard. However, the double-eccentric and triple-eccentric shut-off valves are also available for projects on request. Use of matched control components such as position indicators, positioners and process controllers allows GEMÜ butterfly valves to also be used in control circuits.

## Valve type

The butterfly valve comprises a ring-shaped body in which a ring-shaped elastomer seat/liner is inserted. A washer guided through a shaft swings through a 90° rotary movement into the gasket. Depending on the version and nominal size, this enables operating pressures of up to 25 bar and temperatures up to 210 °C to be shut off. Most often, these valves are used for mechanically pure liquids, but can also be used in the right material combinations without posing any problems for slightly abrasive media or gases and vapours.

## Technical Data

| | |
|---|---|
| Operation | Manual, pneumatic, motorized |
| Connection | Union ends, threaded sockets, butt weld spigots |
| Operating Pressure | 0-16 Bar |
| Body Material | Metal: Aluminium, stainless steel, cast iron, brass, SG iron, cast steel<br>Plastic: PES, PP, PVC |
| Media Temperature | -60 - 210 °C |
| Nominal Size | DN 15 - 1600 |

# GEMÜ butterfly valves
## Product Overview

### GEMÜ 410

#### Pneumatically operated butterfly valve

**Connection** Union end
**Actuator** Pneumatic
**Body material** PVC-U, grey
**Max. operating pressure** 6 bar
**Max. media temperature** 60 ° C
**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2")

### GEMÜ 411

#### Manually operated butterfly valve

**Connection** Clamp; Spigot; Threaded connection
**Actuator** Manual
**Body material** 1.4408, investment casting material; CW614N, brass; CW617N, brass
**Max. operating pressure** 10 bar
**Max. media temperature** 120 ° C
**Min. media temperature** -20 ° C
**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2")

### GEMÜ 415

#### Pneumatically operated butterfly valve

**Connection** Clamp; Spigot; Threaded connection
**Actuator** Pneumatic
**Body material** 1.4408, investment casting material; CW614N, brass; CW617N, brass
**Max. operating pressure** 10 bar
**Max. media temperature** 120 ° C
**Min. media temperature** -20 ° C
**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2")

### GEMÜ 417

#### Manually operated butterfly valve

**Connection** Union end
**Actuator** Manual
**Body material** PVC-U, grey
**Max. operating pressure** 6 bar
**Max. media temperature** 60 ° C
**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2")

### GEMÜ 423

#### Motorized butterfly valve

**Connection** Union end
**Actuator** Motorized
**Body material** PVC-U, grey
**Max. operating pressure** 6 bar
**Max. media temperature** 60 ° C
**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2")

### GEMÜ 428

#### Motorized butterfly valve

**Connection** Clamp; Spigot; Threaded connection
**Actuator** Motorized
**Body material** 1.4408, investment casting material; CW614N, brass; CW617N, brass
**Max. operating pressure** 10 bar
**Max. media temperature** 120 ° C
**Min. media temperature** -20 ° C
**Nominal sizes** DN 15 (1/2"); DN 20 (3/4"); DN 25 (1"); DN 32 (1 1/4"); DN 40 (1 1/2"); DN 50 (2")

# GEMÜ butterfly valves
## Product Overview

### GEMÜ 488

#### Motorized butterfly valve

**Connection** Flange (U section); Flange (lug); Flange (wafer)

**Actuator** Motorized

**Body material** EN-GJS-400-15, SG iron material

**Max. operating pressure** 16 bar

**Max. media temperature** 150 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 25 (1"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4"); DN 125 (5"); DN 150 (6"); DN 200; DN 250; DN 300; DN 350

### GEMÜ 490

#### Butterfly valve with bare shaft

**Connection** Flange (lug); Flange (wafer)

**Actuator** With bare shaft

**Body material** 1.4404, block material; EN-GJS-400-18-LT, SG iron material; S355J2 + N, cast steel material; VE Duroplast, reinforced

**Max. operating pressure** 10 bar

**Max. media temperature** 200 ° C

**Min. media temperature** -20 ° C

**Nominal sizes** DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4"); DN 125 (5"); DN 150 (6"); DN 200; DN 250; DN 300; DN 350; DN 400; DN 450; DN 500; DN 600; DN 700; DN 900; DN 1000

### GEMÜ 491

#### Pneumatically operated butterfly valve

**Connection** Flange (lug); Flange (wafer)

**Actuator** Pneumatic

**Body material** 1.4404, block material; EN-GJS-400-18-LT, SG iron material; S355J2 + N, cast steel material; VE Duroplast, reinforced

**Max. operating pressure** 10 bar

**Max. media temperature** 200 ° C

**Min. media temperature** -20 ° C

**Nominal sizes** DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4"); DN 125 (5"); DN 150 (6"); DN 200; DN 250; DN 300; DN 350; DN 400; DN 450; DN 500; DN 600

### GEMÜ 480

#### Butterfly valve with bare shaft

**Connection** Flange (U section); Flange (lug); Flange (wafer)

**Actuator** With bare shaft

**Body material** EN-GJS-400-15, SG iron material

**Max. operating pressure** 16 bar

**Max. media temperature** 150 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 25 (1"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4"); DN 125 (5"); DN 150 (6"); DN 200; DN 250; DN 300; DN 350; DN 400; DN 450; DN 500; DN 600

### GEMÜ 481

#### Pneumatically operated butterfly valve

**Connection** Flange (U section); Flange (lug); Flange (wafer)

**Actuator** Pneumatic

**Body material** EN-GJS-400-15, SG iron material

**Max. operating pressure** 16 bar

**Max. media temperature** 150 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 25 (1"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4"); DN 125 (5"); DN 150 (6"); DN 200; DN 250; DN 300; DN 350; DN 400; DN 450; DN 500; DN 600

### GEMÜ 487

#### Manually operated butterfly valve

**Connection** Flange (U section); Flange (lug); Flange (wafer)

**Actuator** Manual

**Body material** EN-GJS-400-15, SG iron material

**Max. operating pressure** 16 bar

**Max. media temperature** 150 ° C

**Min. media temperature** -10 ° C

**Nominal sizes** DN 25 (1"); DN 40 (1 1/2"); DN 50 (2"); DN 65 (2 1/2"); DN 80 (3"); DN 100 (4"); DN 125 (5"); DN 150 (6"); DN 200; DN 250; DN 300; DN 350; DN 400; DN 450; DN 500; DN 600

# GEMÜ diaphragm

## General information

GEMÜ manufactures, installs and delivers diaphragms for full bore diaphragm valves and diaphragm valves with a sealing weir. The following applies in relation to all original GEMÜ diaphragms ;Production and quality control in accordance with high GEMÜ standards, Special compound in accordance with original GEMÜ specifications and in-house development of the compound, Testing on our own test rigs, in accordance with the requirements of the pharmaceutical sector among others, Manufacture by the GEMÜ group or through certified suppliers with connections to GEMÜ going back many years

## For sterile and hygienic applications

GEMÜ developed its seal system for diaphragm valves with a sealing weir up to DN100 over three decades ago. A circular sealing bead in the valve body creates a defined external sealing point. This minimizes the ring-shaped gap between the diaphragm and the valve body and makes this seal system particularly suitable for applications in the pharmaceutical, biotechnology and cosmetics industries.

Available materials: EPDM, PTFE (no industrial standard but improved composition)/EPDM; further materials depending on the scope of application

Traceability of GEMÜ diaphragms
GEMÜ diaphragms for diaphragm valves in the weir-type design can be ordered individually packed with an inspection certificate and thus traced. With our GEMÜ CONEXO system, we also offer captive identification – even after removal from the packaging or from the warehouse. This involves the relevant diaphragm being equipped with an RFID chip. IT infrastructure comprising a mobile and stationary software solution is also required. Thanks to serialisation, the components are uniquely traceable and can be identified in the plant at any time using an RFID reader.

## Technical Data

The minimal deadleg internal contour and the support of the diaphragm by a compressor provides optimum flow conditions and the best seal properties on GEMÜ full bore diaphragm valves. Lined diaphragm valves from GEMÜ combined with a suitable seal material offer even better resistance to numerous lyes, acids and other corrosive, abrasive and contaminated media.

Available materials: NBR, CR, natural rubber and EPDM

# GEMÜ diaphragm
## Product Overview

### GEMÜ Code 17

EPDM diaphragm

**Max. media temperature** 100 ° C
**Min. media temperature** -10 ° C
**Sterilisation temperature** max. 150 °C

### GEMÜ Code 54

PTFE/EPDM diaphragm

**Max. media temperature** 100 ° C
**Min. media temperature** -10 ° C
**Sterilisation temperature** max. 150 °C

### GEMÜ Code 5A

PTFE/EPDM diaphragm

**Max. media temperature** 100 ° C
**Min. media temperature** -10 ° C
**Sterilisation temperature** max. 150

### GEMÜ Code 5M

PTFE/EPDM diaphragm

**Max. operating pressure** 10 bar
**Max. media temperature** 100 ° C
**Min. media temperature** -10 ° C
**Sterilisation temperature** max. 150 °C

# Mixing Equipment

## Agitators

### ALB

The Alfa Laval ALB bottom-mounted agitator is suitable for atmospheric and pressurized tanks and meets requirements in food, dairy, beverage, pharmaceutical, biotechnology and cosmetic applications.

### ALS

The Alfa Laval ALS side-mounted agitator is suitable for atmospheric and pressurized tanks and meets requirements in food, dairy, beverage, pharmaceutical, biotechnology and cosmetic applications.

### ALT

The Alfa Laval ALT top-mounted agitator is suitable for atmospheric and pressurized tanks and meets requirements in food, dairy, beverage, pharmaceutical, biotechnology and cosmetic applications.

### ALTB

The Alfa Laval ALTB top-mounted agitator is suitable for atmospheric and pressurized tanks and meets requirements in food, dairy, beverage, pharmaceutical, biotechnology and cosmetic applications.

## Tank mixers

### LeviMag®

The Alfa Laval LeviMag® is an aseptic magnetic mixer that uses a patented levitating impeller and advanced design to mix down to the last drop and maximize product yield.

### LeviMag® UltraPure

Designed for the pharmaceutical and biotech industries, the Alfa Laval LeviMag® UltraPure is an aseptic magnetic mixer that uses a patented levitating impeller to mix down to the last drop.

### MX mixer

Specially designed to meet the specific mixing requirements of the fats and oils industry. MX mixers are ideal for important process stages such as degumming, acid conditioning and neutralization.

### Rotary Jet Mixer

Designed for use in the brewery and beverage, dairy, personal care and biopharm industries, Rotary jet mixers effectively handles liquid mixing, gas dispersion, powder mixing, and tank cleaning.

# Installation Material

## Hygienic fittings

### Hygienic BS 4825

This product range provides a wide range of fittings with internal surface finishes that have a roughness average (Ra) of < 0.8 - 1.6 µ. Fittings in the hygienic range comply with Hygienic BS 4825.

### Hygienic DIN 11850 fittings

This product range provides a wide range of fittings with internal surface finishes that have a roughness average (Ra) of < 0.8 - 1.6 µ. Fittings in the hygienic range comply with EN 10357-A.

### Hygienic ISO 2037 fittings

This product range provides a wide range of fittings with internal surface finishes that have a roughness average (Ra) of < 0.8 - 1.6 µ. Fittings in the hygienic range comply with ISO 2037.

### Tri-Clover Hygienic ASME fittings

This product range includes a comprehensive selection of fittings with internal surface finishes with a roughness average (Ra) of < 0.4 - 0.8 µ. Fittings in the hygienic range comply with ASME 3A.

## Hygienic tubes

### Hygienic BS 4825, Part 1 tubes

This product range provides a wide range of tubes with internal surface finishes that have a roughness average (Ra) of < 0.8 - 1.6 µ. Tubes in the hygienice range comply with BS 4825.

### Hygienic DIN 11850 tubes

This product range provides a wide range of tubes with internal surface finishes that have a roughness average (Ra) of < 0.8 - 1.6 µ. Tubes in the hygienic range comply with DIN 11850.

### Hygienic ISO 2037 tubes

This product range provides a wide range of tubes with internal surface finishes that have a roughness average (Ra) of < 0.8 - 1.6 µ. Tubes in the hygienic range comply with ISO 2037.

### Tri-Clover Hygienic ASME tubes

This product range provides a wide range of tubes with internal surface finishes that have a roughness average (Ra) of < 0.8 - 1.6 µ. Tubes in the hygienice range comply with ASME dimension standards.

# Valves

## Safety valves

### SB Anti Vacuum House

This reliable unit minimizes the risk of implosion in closed tanks whenever internal vacuum conditions occur. This safeguards hygienic processes in the brewery, dairy, food and beverage industries.

### SB Anti Vacuum Valve

This compact, reliable, anti-vacuum valve provides protection against the formation of a vacuum condition in process tanks used in the brewery, dairy, food and beverage industries.

### SB Pressure Relief Valve

Safe and reliable, this valve protects tanks from damage by venting fluid in the event of liquid overfilling. This safeguards hygienic processes in the brewery, food, dairy and beverage industries.

### Safety Valve

The Alfa Laval Safety Valve is a spring-loaded valve used in hygienic industries to prevent accidents and equipment damage caused by overpressures in tanks, pipelines and plant sections.

## Regulating valves

### CPM

CPM valves maintain uniform inlet or outlet pressure in hygienic process lines for the dairy, food and beverage industries. These regulating valves provide accurate pressure control, safe and reliable

### SB Pressure Exhaust Valve

This valve automatically reduces the working pressure in brewery, food, dairy and beverage process tanks as the pressure increases. This ensures process hygiene, reliability and safety.

### SB Tank Pressure Regulator

Designed for use in the brewery, food, dairy and beverage industries, this regulator maintains and controls top pressure while filling, processing and emptying the tank.

### Unique RV-P

The Unique RV-P regulating valve is designed to safely and effectively control or regulate precision flows in the dairy, food and beverage, and biopharm industries.

# Valves

## Sampling valves

### SB Carlsberg Flask

Alfa Laval SB Carlsberg sterilizes wort and cultivates pure yeast cultures on a laboratory scale for use in yeast propagation plants in the brewery, food, dairy and beverage industries.

### SB Membrane Sampling Valve

A compact, cost-effective way to take bulk or aseptic samples from tanks and pipework in breweries (and other hygienic processes such as food and dairy) under sterile conditions.

### SB Micro Sampling Port

Designed for sterile sampling of brewery, food, dairy and beverage products, this micro sample port makes it possible to take aseptic and microbiological samples in small volumes.

### Unique Sampling Valve

Alfa Laval Unique sampling valves make it possible to obtain representative samples of food and beverage, personal care and biopharm products. These reliable single- and double-seat valves contribute.

## Single seat valves

### 700 Series

The Alfa Laval Tri-Clover® 700 Series is a range of air-operated single-seat valves that provide years of reliable performance.

### LKAP

Compact and straightforward, LKAP seat valves are reliable air-operated shut-off valves widely used for small flow rates and for dosing applications in the dairy, food and beverage industries.

### SB Mini Flow Valve

The mini flow valve is an excellent choice when hygienic shut-off or change-over of liquids or gases is required for a broad range of applications in the brewery, food, dairy and beverage industries.

### Unique SSSV

Alfa Laval Unique Small Single Seat Valves (SSSVs) are fast-acting pneumatic valves that handle dosing and small flow rates in hygienic applications.

# MINOX sanitary valve

## Product Overview

2-Piece Body Sanitary Ball Valve

3-Piece Sanitary Ball Valve

Air Release Valve

Aseptic Sampling Valve

Butterfly Valve

Change Over Valve

Diaphragm Valve

Floating Valve

Flow Control Valve

# MINOX tube & fittings
## Product Overview

45°, 90° & Long Radius Elbow

Concentric & Eccentric Reducer

Equal, Short Branch, Cross, Reducing Tee

Hose Adaptor

Pipe Hanger

Sanitary Tube

Tube End Cap

# MINOX tank equipment

## Product Overview

Air Vent

Breather Vent Filter

Inline Sight Glass

Level Gauge

Manhole Cover

Spray Ball

Tank Sight Glass

# MINOX sanitary union

## Product Overview

Clamp Union

DIN Union

DS Union

Hygienic 11853-1 & Aseptic 11864-1

Hygienic 11853-2 & Aseptic 11864-2 Flange

IDF Union

RJT Union

SMS Union

# *FUJIKIN* manual valves
## Product Overview

## Manual Valves

### Globe Valves


Needle Valves


Stop Valves


Bellows Valves


Metal Diaphragm Valves

### Angle Valves


Needle Valves


Stop Valves

### Manifold/Gauge Valves


Manifold/Gauge Valves

### Ball Valves


Ball Valves

### Plug Valves


Plug Valves

### Diaphragm Valves


Diaphragm Valves


Weirless Diaphragm Valves

# *FUJIKIN* automatic valves
## Product Overview

## Automatic Valves

### Globe Valves


Needle Valves


Stop Valves


Bellows Valves


Metal Diaphragm Valves


All Metal Diaphragm Valves

### Ball Valves


Ball Valves

### Gate Valves


Gate Valves

### Diaphragm Valves


Diaphragm Valves


Weirless Diaphragm Valves

### Y Type


Stop Valves

### Pinch Valves


Pinch Valves

# *FUJIKIN* fittings
## Product Overview

## Double Compression Ring Types Fittings

### Stainless Steel


V-LOK (Standard)


FINELOK PURE® (Oil Free)


FINELOK PURE® (Oil Free・Liquid Use)


Super Double Bite Fittings (For Harsh Conditions)


Powerfullok (Certified)

### Brass


Powerfullok

## Ring Joint Type Fittings

### Brass


Ring Joint

## Welding Type Fittings

### PFA


PURE FIT®

# *FUJIKIN* fittings
## Product Overview

## Welding Type Fittings

### PFA

PURE FIT®

## Weld Type Fittings

### Stainless Steel

Auto Weld Fittings

## Cone & Thread Type Fittings

### Stainless Steel

UJUN, UJU (Ultra High Pressure Hydrogen Gas Compatible)

# *FUJIKIN* flow control
## Product Overview

## Equipment Name

### Flow Control Systems (FCS®)


Flow Control Systems (FCS®)

### Mass Flow Controllers


Mass Flow Controllers

### Integrated Gas Systems (IGS®)


Integrated Gas Systems (IGS®)

### Compressors/Pumps


Compressors/Pumps

### Static Mixers


Static Mixers

### Sealing Tape Automatic Wrapping Machine


Sealing Tape Automatic Wrapping Machine

# *FUJIKIN* flow control
## Product Overview

## Equipment Name

### Static Mixers

Static Mixers

### Sealing Tape Automatic Wrapping Machine

Sealing Tape Automatic Wrapping Machine

### Water Vapor Generator

Water Vapor Generator

### PFA Welding Machine

PFA Welding Machine

# *FUJIKIN* others
## Product Overview

## Tools

### Kabo Tools


Rapid Ratchet Wrench


Flexible Ratchet Wrench


Gearless Ratchet Wrench Bearing System


Non-Slip Spherical Combination Wrench


Rapid Double Open Wrench


Flexible Monkey Wrench


Flexible Screwdriver


Double Joint Flexible Ratchet Screwdriver


Multi Functional Screwdriver


T-shaped Preset Torque Screwdriver With Ratcheting


Exchangeable Angle USB Digital Torque Wrench ETT-BI+ Series


RAPID RATCHETING WRENCHES TOOL SET


TWISTER ADJUSTABLE NON-SLIP WRENCH


PROFESSIONAL INDUSTRIAL TORQUE WRENCH-CW CCW CLICKS


120 TEETH RATCHET HANDLE


NON-SLIP SHALLOW SOCKETS


NON-SLIP DEEP SOCKETS


NON-SLIP IMPACT DRIVE SOCKETS


NON-SLIP DEEP IMPACT SOCKETS


SPHERICAL SHALLOW SOCKETS


SPHERICAL DEEP SOCKETS

## Wastewater Purification System

### Wastewater Purification System


Wastewater Purification System

# *FUJIKIN* others
## Product Overview

## Filters

### FUFL, FUFT

FUFL, FUFT

### UFL (Ultra High Pressure Hydrogen Gas Compatible)

UFL (Ultra High Pressure Hydrogen Gas Compatible)

## Liquid Leak Detector

### FINE BUBBLE® Liquid Leak Detector

FINE BUBBLE® Liquid Leak Detector

### V-Lok Tools

V-Lok Toolset

## Healthcare • Health Management

### Air Dosimeter

Air Dosimeter

# KOBOLD
## Product Overview

Variable Area Flowmeter-Plastic-Low Flow KSV

Variable Area Flowmeter-Plastic-Low Flow KFR

Variable Area Flowmeter-Plastic KSK

Bourdon Tube Pressure Gauges MAN-R, MAN-Q

All Stainless Steel Bourdon Tube Pressure Gauges MAN-R

Bourdon Tube Pressure Gauges for Exceptional Safety MAN-R...S

Magnetic Level Switches M

Magnetic Level Switches for Side Installation MS

Bypass Level Switch NBA, NBE

# KOBOLD
## Product Overview

Temperature Switch TWR

Bi-Metal Temperature Switch TBS

Thermal Reed Switches TRS

Transmitter / Controller APM-1

Gel-filled pH-combined Electrode APS-Z

Gel-filled ORP Combined Electrode ARS-Z

Humidity / Temperature Measuring Instrument AFK-G

Humidity Measuring Instrument with Analoque Output AFA-G

Humidity / Temperature Measuring InstrumentAFK-E

# KOBOLD
## Product Overview

Turbidity Measurement System ATS-K

Turbidity Measurement System ATA-K

Transmitter for Turbidity Measurement System ATT-K


Density meter DWF


Mass Flowmeter Coriolis TMU/UMC-4

Flow Restrictors REG

Flow Restrictors - Multiple Element REG-8

Flow Restrictors - Multiple Element REG-9

# MODENTIC
## Product Overview

## NEEDLE VALVES

### NEEDLE VALVES

NV-0060

NV-0061

- NV-0060 Female X Female screwed end
- NV-0061 Male X Female screwed end
- 1/8" ~1" ( DN8 ~ DN25 )
- CWP : 6000 psi
- Body : SS 316 ( Investment casting )

### ANGLE NEEDLE VALVES

NV-0062

NV-0063

- NV-0062 Female X Female screwed end
- NV-0063 Male X Female screwed end
- 1/8" ~1" ( DN8 ~ DN25 )
- CWP : 6000 psi
- Body : SS 316 ( Investment casting )

## SCREWED END GATE • GLOBE • CHECK • NEEDLE VALVES AND STRAINERS

### GATE VALVES GT-200

**Design Feature**
- 1/2" – 2" (DN15 - DN50)
- Non-Rising stem, solid disc

| | |
|---|---|
| **Body / Disc** | ASTM A351 Gr.CF8M (EN1.4408) |
| **Packing** | PTFE |
| **Working Pressure** | 200 PSI / PN16 |
| **End Connection** | Threaded end |

### GLOBE VALVES GB-200

**Design Feature**
- 1/4" – 2" (DN8 - DN50)
- Rising stem, solid disc

| | |
|---|---|
| **Body / Disc** | ASTM A351 Gr.CF8M (EN1.4408) |
| **Packing** | PTFE |
| **Working Pressure** | 200 PSI / PN16 |
| **End Connection** | Threaded end |

# MODENTIC
## Product Overview

## FIRE SAFE APPROVED BALL VALVES

### MD-51FS-150/300
API 607 4th

**Design Feature**
- Reduced Bore
- 3/4" – 6" ( DN20 - DN150)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 class 150/300
- ANSI B16.5 class 150/300 RF

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M |
| **Ball / Stem** | CF8M / SS 316 |
| **Seat** | RTFE (15% glass fiber filled) |
| **Temperature Range** | -4 to 356 °F ( -20 to 180 °C) |

### MD-52FS-150/300
API 607 4th

**Design Feature**
- Full Bore
- 1/2" – 6" ( DN15 - DN150)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 class 150/300
- ANSI B16.5 Class 150/300 R

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M |
| **Ball / Stem** | CF8M/ SS 316 |
| **Seat** | RTFE (15% glass fiber filled) |
| **Temperature Range** | -4 to 356 °F ( -20 to 180 °C) |

## THREE PIECES BALL VALVES

### V-155

**Design Feature**
- Full port : 1/4" – 2-1/2" (DN8-DN65)
- Reduced port : 3/8" – 2-1/2" (DN10-DN65)
- Blow-out proof stem , Anti-static design
- ISO 5211 mounting flange
- Handle with locking device
- End connection :Thread end, Socket weld, Butt weld end

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M (1.4408) |
| **Ball / Stem** | CF8M / SS316 |
| **Seat** | RTFE |
| **Working Pressure** | 1/4"- 1" 2000 psi (PN 140 ) |
| | 1-1/4" – 2" 1500 psi (PN100 ) |
| | 2-1/2" 1000 psi (PN 63) |

### V-255

**Design Feature**
- Full port : 1/4" – 2" (DN8-DN50)
- Reduced port : 1/2" – 2-1/2" (DN15-DN6
- Blow-out proof stem, Anti-static design
- ISO 5211 mounting flange
- Handle with locking device
- End connection :Thread end, Socket weld, Butt weld end

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M (1.4408) |
| **Ball / Stem** | CF8M / |
| **Working Pressure** | 1/4"- 1" 2000 psi ( PN 140 ) |
| | 1-1/4"- 2"" 1500 psi ( PN100 ) |

# MODENTIC
## Product Overview

## METAL SEATED BALL VALVES

### MD-52Q-150/300 — Floating Type
**Metal Seated, API 6FA Fire Safe Design**

**Design Feature**
- Full Bore
- 1/2" – 8" (DN15 - DN200)
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150/300
- ANSI B16.5 Class 150/300 RF

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M |
| **Ball / Stem** | CF8M + Hard Cr. / SS 316 |
| **Seat** | SS 316 + Stellite #6 |
| **Tightness Rates** | ΔP : ASME / FCI 70-2 Class IV |

### MD-52QT-150/300 — Trunnion Mounted Type
**Metal Seated**

**Design Feature**
- Full Bore
- 4" – 8" (DN100 - DN200)
- Blow-out proof stem
- Anti-static design
- Trunnion mounted type
- ANSI B16.10 Class 150/300
- ANSI B16.5 Class 150/300 RF

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M |
| **Ball / Stem** | CF8M + Hard Cr. / SS 316 |
| **Seat** | SS 316 + Stellite #6 |
| **Tightness Rates** | ΔP : ASME / FCI 70-2 Class IV |

## ISO 5211 Direct Mounted BALL VALVES

### V-83HP — ONE PIECE REDUCED PORT
**ONE PIECE BALL VALVE**

**V-83HP**
800 psi (PN40) • 1/4" - 2"

01 **Threaded End**
02 **Blow-out-proof Stem Design**
03 Temperature Range : -4 to 356 °F (-20 to 180 °C)
04 BODY : ASTM A351 Gr.CF8M (1.4408)
05 BALL : SS316 / CF8M
06 STEM : SS316
07 SEAT : PTFE

### V-168 — TWO PIECES FULL PORT
**TWO PIECES BALL VALVE**

**V-168**
1000 psi (PN63) • 1/4" - 2"

01 **Threaded End**
02 **Blow-out-proof Stem Design**
03 Temperature Range : -4 to 356 °F (-20 to 180 °C)
04 BODY : ASTM A351 Gr.CF8M (1.4408)
05 BALL : CF8M
06 STEM : SS316
07 SEAT : PTFE / RTFE

# MODENTIC
## Product Overview

## MULTI WAY BALL VALVES

### K-301 3 Way L / T port

**Design Feature**
- Standard Bore
- 1/4" – 2" (DN8 - DN50)
- Blow-out proof stem
- 2 seats design for L port
- 3 seats design for T port

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M (1.4408) |
| **Ball / Stem** | CF8M / SS316 |
| **Seat** | PTFE |
| **End Connection** | Threaded end |
| **Temperature Range** | -4 to 356 °F (-20 to 180 °C) |
| **Working Pressure** | 1/4" – 2" 1000 psi (PN 63) |

### K-302 3 Way L / T port

**Design Feature**
- Standard Bore
- 1/4" – 2" (DN8 - DN50)
- Blow-out proof stem
- 3 seats design

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M (1.4408) |
| **Ball / Stem** | CF8M / SS316 |
| **Seat** | PTFE |
| **End Connection** | Threaded end |
| **Temperature Range** | -4 to 356 °F (-20 to 180 °C) |
| **Working Pressure** | 1/4" – 2" 1000 psi (PN 63) |

## V-FLOW BALL VALVES

### VF-27

**Design Feature**

- 1/2" – 6" ( DN15 - DN150)
- ISO 5211 Mounting Flange
- Blow-out proof stem
- Anti-static design
- Face to Face : DIN 3202 F1/F4/F5
  ANSI B16.10 CLASS 150/300/600
  JIS B2002
- Flange dia. : EN1092-1 PN10/16/25/40 RF
  ANSI B16.5 CLASS 150/300/600 RF
  JIS 2010 10K/20K

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M (1.4408) |
| **Ball / Stem** | CF8M / SS316 |
| **Seat** | 50%PTFE + 50%S.S |

### VF-28

**Design Feature**

- 1/2" – 6" ( DN15 - DN150)
- ISO 5211 Direct Mounting Flange
- Blow-out proof stem
- Anti-static design
- Face to Face : DIN 3202 F1/F4/F5
  ANSI B16.10 CLASS 150/300/600
  JIS 2002
- Flange dia. :
  EN1092-1 PN 1016/25/40 RF
  ANSI B16.5 CLASS 150/300/600 RF
  JIS 2010 10K/20K

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M (1.4408) |
| **Ball / Stem** | CF8M / SS316 |
| **Seat** | 50%PTFE + 50%S.S |

# MODENTIC
## Product Overview

## HIGH PRESSURE BALL VALVES
Other materials are available upon request

### HPV-30

**Design Feature**
- 1/4" - 1-1/2" Full Bore
  2" Reduced Bore
- 2 Pieces body design
- Blow-out proof stem
- ISO 5211 mounting flange
- Handle with locking device
- End connection : Threaded end

| | |
|---|---|
| **Body** | ASTM A351 Gr.CF8M |
| **Ball / Stem** | CF8M / SS316 |
| **Seat** | Derlin / Peek |
| **Temperature Range** | -4 to 176 °F (-20 to 80 °C) for Derlin |
| | -4 to 500 °F (-20 to 260 °C) for Peek |
| **Working pressure(CWP)** | 3000 psi (PN210) |

### HPV-40 • HPV-41

**Design Feature**
- ISO 5211 mounting flange
- Blow-out proof stem
- Anti-static design
- Bar material body

**HPV-40** 3600 Psi Full Bore • 1/4" – 2" (DN8 - DN50)
**HPV-41** 6000 Psi Full Bore • 1/4" – 2" (DN8 - DN50)
**HPV-40A** 3600 Psi Reduced Bore • 1/4" – 2" (DN8 - DN50)
**HPV-41A** 6000 Psi • Reduced Bore • 1/4" – 2" (DN8 - DN50)

| | |
|---|---|
| **Body** | AISI 1025 / AISI316 (Bar material) |
| **Ball / Stem** | CF8M / 17-4PH |
| **Seat** | Derlin / Peek |
| **Temperature Range** | -4 to 176 °F (-20 to 80 °C) for Derlin |
| | -4 to 500 °F (-20 to 260 °C) for Peek |
| **Working pressure(CWP)** | HPV-40 3600 psi (PN260) |
| | HPV-41 6000 psi (PN420) |

# SHARK

## Product Overview

AIR RECEIVER TANK

LOW PRESSURE

AIR FILTER

HIGH PRESSURE

BOOSTER COMPRESSOR

OIL FREE

# SHARK
## Product Overview



SCREW OPEN TYPE

AIR DRYER


MEDIUM PRESSURE


SCREW DIRECT DRIVE

COMPLETE PERMANENT MAGNET

DOUBLE STAGE

SUNWIN
**Product Overview**

## Compressed Air Filter Elements

Air filter Engineering produces a comprehensive range of compatible or equivalent replacement elements suitable for installation in other competing brands of filters. Every element is built to the same exacting standards at Air filter Engineering.

## Ball Valve With Drain Port

The design of free floating ball automatic drainage which do not need to consume electricity and truly achieve cost savings for customers.

## Timer Controlled Condensate Drainer

The SUNWIN timer controlled condensate drain combines an adjustable electronic timer controlled drain, a ball valve and a mesh strainer into one compact easy to install package.

## High Pressure Air Filters

The filter housing adopts the numerical control precision machining and the high temperature pressure test experiment, the materials include 316L, 304 stainless steel, carbon steel and forged aluminum, respectively 4.0mpa, 8.0 mpa different pressure levels.

SUNWIN
**Product Overview**

## In Line Water Separator For Air Compressor

Operating pressure max.: 16bar
Volume flow rate: 1~25 Nm³/min
Material housing: Aluminium
Operating temp. Range: 1.5~80°C

## Air Compressor Regulator Oil Water Separator Filter

The oil water separators installed before compressed air filter and any other drying equipment. The water separators can remove 99 % of liquid water, making downstream purification more efficient.

## Sterile Air Filters

Sunwin Sterile Air filter is designed specifically to remove over 99.99998% of bacteria sized contaminant. The stainless steel filter housings are also designed for protection of the compressed air system where need the sterile air.

# AFRISO
## Product Overview

## Domestic technology

With a comprehensive range of building technology products, AFRISO prides itself in "Making Heating Systems Safe". Irrespective of whether the heating system uses regenerative energy or fossil fuels. In addition to this extensive range, a large selection of alarm instruments for the fast detection of level, unwanted liquid spillage, leakage, gas or smoke is available.


Level indicators and level controllers

Level sensors, overfill prevention systems and PTC thermistor type level controllers


Leak detectors, leak monitoring systems and leak protection linings


Alarm units, probes and signalling devices

AFRISO Smart Home

Equipment for fuel oil storage tanks and oil carrying pipes

# AFRISO
## Product Overview

## Domestic technology

With a comprehensive range of building technology products, AFRISO prides itself in "Making Heating Systems Safe". Irrespective of whether the heating system uses regenerative energy or fossil fuels. In addition to this extensive range, a large selection of alarm instruments for the fast detection of level, unwanted liquid spillage, leakage, gas or smoke is available.

Equipment for heating systems, boiler rooms and chimneys

Equipment for surface heating and cooling systems

Valves and control technology for radiators and hydraulic balancing

Water technology


Pressure measuring instruments domestic technology


Temperature measuring instruments domestic technology

# AFRISO
## Product Overview

## Industrial technology

AFRISO is at home wherever there is measuring, controlling or monitoring required. As a full range supplier, we provide a comprehensive portfolio of mechanical and electronic pressure, temperature and level instruments as well as the required mounting and installation accessories as well as display, control and evaluation devices.

Mechanical pressure measuring instruments

Process separator, chemical seal

Electronic pressure measuring instruments

Temperature measuring instruments / temperature controllers

Level indicators / level controllers

Alarm units and gas alarm systems

# AFRISO
## Product Overview

## Portable measuring instruments

Professional measuring systems for building technology and industrial applications. Suitable measuring systems for any application. AFRISO offers solutions for official measurements adjustment, servicing, maintenance and repair work.

Flue gas analysis


Flow measurement

Pressure measurement / leak location


Temperature/moisture measurement

Universal sensor module system (Bluetooth® Smart)


Inspection and service

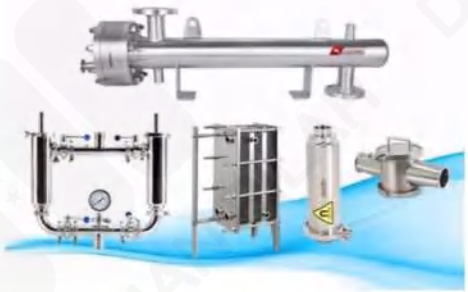
# KINGLAI
## Product Overview

Pipe fittings

Sanitary valve BioClean

Sanitary pump

Heat exchanger and filter



Tanks and tank accessories

Semiconductor (NanoPure)

Vacuum (AdvanTorr)

Cavity

Vacuum gate valve (US GNB)

# Burkert
## Product Overview


Solenoid Valves


Microfluidic Valves and Pumps


Process and Control Valves


Mass Flow Controllers


Electromotive Valves


Solenoid Control Valves


Pneumatics and Process Interfaces


Filtration Modules


Sensors, Transmitters and Controllers


Additional Products

DUA BERLIAN
PILAR