**KIESELMANN** 

## Butterfly valves and ball valves



#### MANUAL LEVER

Our ergonomic thermal protection handle in the plastic black/red design. Other colours are available on request. A stainless steel handle is also available.

1233





## Content

<b>INTRODUCTION</b> Valve technology: The standard and the ball	4
<b>BUTTERFLY VALVES</b> Butterfly valves, intermediate flange butterfly and three-way butterfly valves	6
LEAKAGE BUTTERFLY VALVES	8
<b>BALL VALVES</b> Ball valves, three-way ball valves, rinsing connection and heating jacket	10
<b>CONTROL AND SWITCHING</b> Manual levers, actuators, control heads and positioners	12

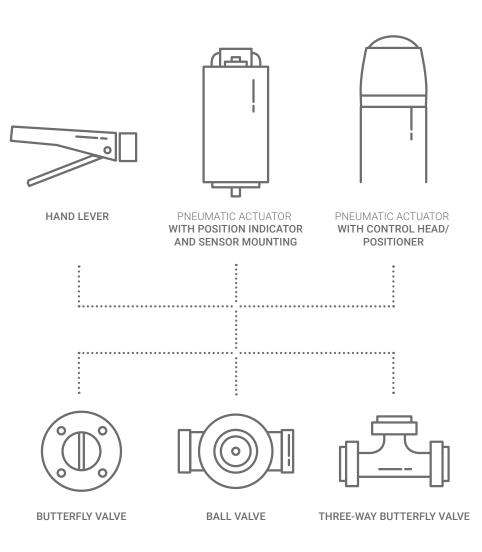
**KIESELMANN VALVE TECHNOLOGY** 

# The standard and the ball

Save space and costs: KIESELMANN butterfly valves are the space-saving, inexpensive solution. Our ball valves offer you free and even passages.



KIESELMANN stainless steel valves: Highest quality in dimensional accuracy and surface finish. All sealing elements used have the necessary approvals for the food industry. The modular design of our valves allows quick and easy switching from a manual lever to a pneumatic actuator with sensors or control head.





#### **BUTTERFLY VALVES**

## The space-saving solution

KIESELMANN butterfly valves are the space-saving solution for shutting off product flows in process systems such as on panels and tanks in a hygienic and inexpensive way. They are also available as intermediate flange butterfly valves as well as numerous other connection variants, such as welding and threaded ends. We manufacture all valves at our headquarters in Knittlingen.



Intermediate flange butterfly valve with k-flex seal to the flange closures

#### The sealing elements used all have suitability

certifications for use in the food industry. The ergonomic thermal protection handle of our butterfly valves is available with a 90° lock or optionally with shift limit. Alternatively, these valves are also available with a stainless steel handle.

#### **Automatically cost-effective**

Automation is also possible with this cost-effective valve solution. Our modular system makes it possible to guickly and inexpensively convert the manual lever to a pneumatic actuator without disconnecting any pipeline connections to the pipeline. The actuators are available with sensors or control head KI-TOP.



#### DOCUMENTATION

Here you can download all important data, information and certificates about our products as PDF files.

#### **TECHNICAL DATA**

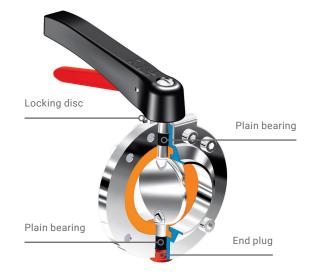
Sizes butterfly valve	DN 10-150/1"-4"
Sizes intermediate flange butterfly valve	DN 15-200/1"-4"
Materials in product contact	1.4301/AISI 304 1.4307/AISI 304L 1.4404/AISI 316L
Seals	EPDM (SIP 140 °C, 30 min) HNBR (SIP 95 °C, 30 min) VMQ (SIP 110 °C, 30 min) FKM (SIP 95 °C, 30 min)
Surfaces in product contact	Ra ≤ 0,8 µm
Operating pressure DN 10-65/1"-2½" DN 80-100/3"-4" DN 125 DN 150 DN 200**	16 bar* 10 bar 6 bar 6 bar 6 bar
Operating temperature	95 °C
Control air	5.5 – 8 bar Lower control air pressures possible
Connection variant	Welded, threaded, flange, clamp and conical socket/ nut connection

\* Valves with flanged connection PN10 may only be operated with an operating pressure of up to 10 bar.

\*\* Nominal size only available as intermediate flange butterfly valves.

#### **ADVANTAGES**

- > Ergonomic thermal protection handle, 90° lock or optional shift limit
- > Standard or shortened handle design, fiberglass (reinforced plastic material), available in your choice of colours or stainless steel
- > Vacuum insert suitable
- > Easy installation, many connection options
- > Three-way butterfly valves with switching combinations
- > Service-friendly intermediate flange design
- > Tailor-made and long-term spare parts supply





#### LEAKAGE BUTTERFLY VALVES

### Secure and adaptive

KIESELMANN leakage butterfly valves provide increased process security. Mix-proof separation of different media is ensured via the dual-sealing, one-piece valve disc. Runoff-drains allow direct detection of any leaks. Identified, eliminated: Thanks to our maintenance-friendly valve design. The drains can also function as rinse connections, ideal for Cleaning-in-Place (CIP) processes.

#### KIESELMANN leakage butterfly valves are generally available in intermediate flange version.

This design and the split housing allow the seals to be easily and quickly replaced.

#### **Functional principle**

When closed, the butterfly valve with a tandem seal ensures that different media remain separated without leaking.

Any leaks at the butterfly valve seal flow without pressure through the leakage drain port at the leakage outlets.

The leakage chamber can be integrated into a CIP circuit via the rinsing connections. For demanding products, we generally recommend cleaning the leakage chamber.

#### TECHNICAL DATA

Sizes	DN 50-150/2"-4"
Materials in product contact	1.4301/AISI304 1.4307/AISI304L 1.4404/AISI316L
Seals	EPDM (SIP 140 °C, 30 min) HNBR (SIP 95 °C, 30 min) VMQ (SIP 110 °C, 30 min)
Surfaces in product contact	Ra ≤ 0.8 µm
<b>Operating pressure:</b> DN 50-100/2"-4" DN 125-150	10 bar 6 bar
Operating temperature	95 °C
Control air	5.5–8 bar Lower control air pressures possible





- > Cost-effective leakage protection
- > Sealing materials EPDM, HNBR
- Hygienically safe due to easy cleaning of the leakage chamber, CIP appropriate
- Easy-to-maintain design with just one sealing element





PRODUCT VIDEO Visit us on YouTube. Get to know the functions of our leakage butterfly valves.



#### **BALL VALVES**

## A nice piece of work

KIESELMANN straight-way ball valves provide pipe-level, piggable passages for liquid, viscous and particulate media. Your solution for almost all applications in the beverage and food industry.







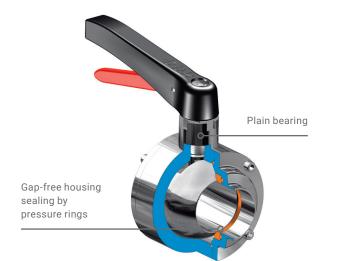
Our ball valves are also available with rinsing connections?

Safe, robust and flexible: Three-way ball valves from KIESELMANN offer additional options for process control.

#### The best solution for every requirement

KIESELMANN three-way ball valves have been used successfully in the beverage and food industry for many years.

KIESELMANN ball valves are easily adaptable: Our intelligent modular system makes it easy to switch from a manual lever to an automated, pneumatic actuator at any time. The actuators of the ball valves can be equipped with a sensor or control head.



#### **TECHNICAL DATA**

<b>Sizes</b> Ball valves Three-way ball valves	DN 25-100/1"-4" DN 25-80/1"-3"
Materials in product contact	1.4301/AISI304 1.4404/AISI 316L
Seals	EPDM (SIP 140 °C, 30 min) NBR (SIP 100 °C, 30 min) FKM (SIP 140 °C, 30 min) VMQ (SIP 90 °C, 30 min)
Surfaces in product contact	Ra ≤ 0.8 µm, electro-polished
Operating pressure	16 bar (straight-way ball valve) 10 bar (three-way ball valve)
Operating temperature	95 °C
Control air	5.5–8 bar Lower control air pressures possible



#### **ADVANTAGES**

- > Robust, designed to be easy to install
- > Spring preloaded shaft seal
- > Piggable

#### Optional:

- > Full PTFE cavity fillers with minimal clearance volume
- > Rinsing connections for cleaning
- > Heating jacket

**CONTROL AND SWITCHING** 

## With hand and head

Manually great. And automatically better. Whether simply manual, automatic pneumatic or with control head, we offer you the right actuators. Automate valves easily. The modular design of the KIESELMANN valves makes it possible to convert from a manual lever to a pneumatic actuator at any time. Our actuators are equipped with mechanical position indicator, sensor mounting and compressed air connection.

#### Power & brains: Actuators with KI-TOP control heads.

Our control heads already contain control electronics and pilot valves. They support all common communication interfaces, such as PLC, AS-i and IO-Link, and can be connected via various ways, such as cable entry or M12 connectors.

The connection to the supply air is made by compressed air quick connector on the control head.

The control board can be fitted with an LED all-round display. For optimal visual control.

#### Extra safe in Ex-zones

In areas with highly flammable and explosive substances, such as spirits, our TÜV tested control heads ensure maximum safety. Two versions are available: Zones 1 and 21 as well as 2 and 22, which comply with Directive 2014/34/EU.





#### operation Manual lever

#### The handy way.

The KIESELMANN thermal protection handles fit well in your hand and are easy and safe to operate. The handles are available with a 90° lock or with shift limit. Optional also as stainless steel hand lever.



#### ADVANTAGES

- Ergonomic thermal protection handle (also in colour of choice)
- > Different sizes depending on nominal diameter

#### **PNEUMATIC ACTUATOR** in three sizes

#### The actuators PDA 75, PDA 100 and PDA 125

provide the perfect performance for your processes. The flexibility of our modular valves is also continued with our actuators. They are compatible with all KIESELMANN rotary valves and can be exchanged in a few simple steps.

#### **PNEUMATIC ACTUATOR** with position indicator and sensor mounting

The actuator has the position indicator with sensor mounting. The installation of inductive sensors with M12x1 thread can be used to query the "open" and "closed" positions. By screwing the sensor to the limit position the required switching gap for the signal transmission is established.



#### ADVANTAGES

- > Three actuator sizes PDA 75/100/125
- > Five year warranty
- > Three functions can be chosen
  - air-opening air closing
  - air-opening spring closing
  - $\mbox{\cdot}$  spring opening air closing



When the valve is closed, the position indicator is at 90° angle from the valve passage, and when the valve is open it is even to the valve passage.

#### ADVANTAGES

- Standard delivery: Actuator with position indicator and sensor mounting
- Precise positioning of the sensors, no adjustment required
- > Clearly visible optical position indicator

#### **PNEUMATIC ACTUATOR** with control head KI-TOP

The alternative to the central control cabinet: The digital control head KI-TOP with automation components. The integrated electronics controls the solenoid valve, detects status and returns it. The control heads consist of a bottom part with bayonet lock and a plastic or stainless steel cover (protection class IP 65).

### with positioner

Positioners offer the highest flexibility in metering and flow reduction. They are the intelligent solution for cost-effectively implementing simple control tasks with butterfly valves. For high control accuracy, the control valve series is the right choice.



Visual control of the valve position e.g. green = open, red = closed, flashing = shift.



Control head KI-TOP, ASi ES with selective emergency stop (optional) and two freely assignable control inputs.

#### ADVANTAGES

- Precise position monitoring, optionally with automatic learn mode
- Control and indication of up to four valve positions
- > Fully automatic
- > Optional: LED all-round display









For precise, safe process control: our control valves with digital, electropneumatic positioner.

Electro-pneumatical positioner 8615.

#### ADVANTAGES

- Regulation of volume flows
- > Space-saving
- > Cost-effective
- > Can be used for simple regulation



#### KIESELMANN WORKSHOP

In this video we show you the simple installation of a positioner on a KIESELMANN actuator.



#### **KIESELMANN Online Shop** From anywhere, at any time: search, find, enquire and order.

More than 8,000 articles accessible at **shop.kieselmann.de/en** 

#### KIESELMANN GmbH

Paul-Kieselmann-Str. 4–10 75438 Knittlingen +49 7043 371-0 sales@kieselmann.com www.kieselmann.com

