

EVOGUARD

The valve series for aseptic applications



Safety first

EVOGUARD

Microbiologically sensitive products need to be treated with special care. The highest safety along the entire product handling chain is needed to guarantee that quality and shelf life will leave no grounds for complaint. With its new modular system of parts for aseptic valves within the EVOGUARD valve range, KRONES now offers the right components for all applications within the aseptic process. The new concept underlying these aseptic valves is based on extensive tests, which were carried out under production conditions in the valve technology field, and on the use of modern methods of analysis and engineering design. With this data in particular it has been possible to realise optimised details of design on all components. For you this means not only top performance from the individual components but also coherent concepts for your process as a whole.



Versions

- Aseptic seat valve DN 25 – DN 125
- Aseptic double seat valve DN 40 – DN 100
- Aseptic sampling valve
- Aseptic sampling system



Aseptic seat valve



Aseptic double seat valve



Aseptic sampling valve

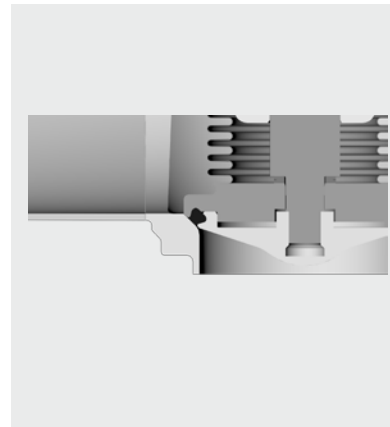


Aseptic sampling system

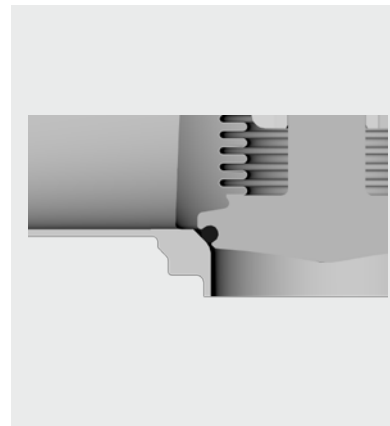
The aseptic series in detail

The EVOGUARD aseptic range takes account of all the requirements imposed on aseptic processes and safe product handling. Both the aseptic seat valves and the aseptic double seat valves have new important details at key points of valve design in order to ensure a high level of production safety.

- The housing withstands very high loads from operating pressures of PN25. The configuration and optimised geometry in accordance with EHEDG specifications ensure high reliability in the production process.
- The metal bellows provides for hermetic sealing of the product space from the atmosphere. Its multilayer design and optimised guidance by means of a support element result in prolonged service life and prevent the bellows from being overloaded during dismantling.
- The valve disc has a flow-efficient design. It is possible to choose between a single-piece version with a seal made of PTFE compound and a two-piece threaded version with a seal made of EPDM/FDA or FKM HF.

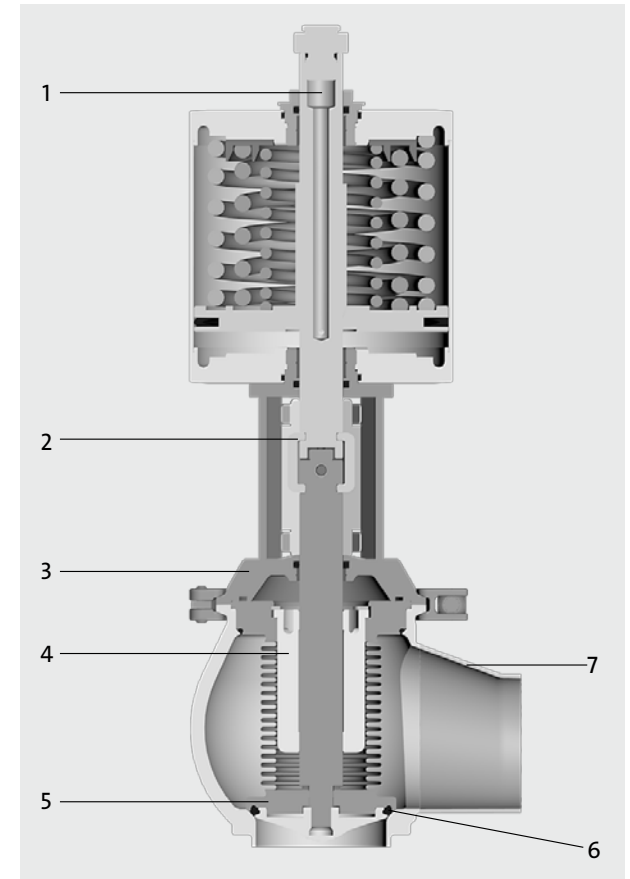


Two-piece valve disc, threaded, with seal made of EPDM/FDA or FKM HF



Single-piece valve disc with seal made of PTFE compound

- 1 Internal air-flow on the version with a control head
- 2 Valve shaft with rotational decoupling
- 3 Connection for leakage discharge
- 4 Support element
- 5 Valve disc
- 6 Metal stop
- 7 Optimised single-piece housing



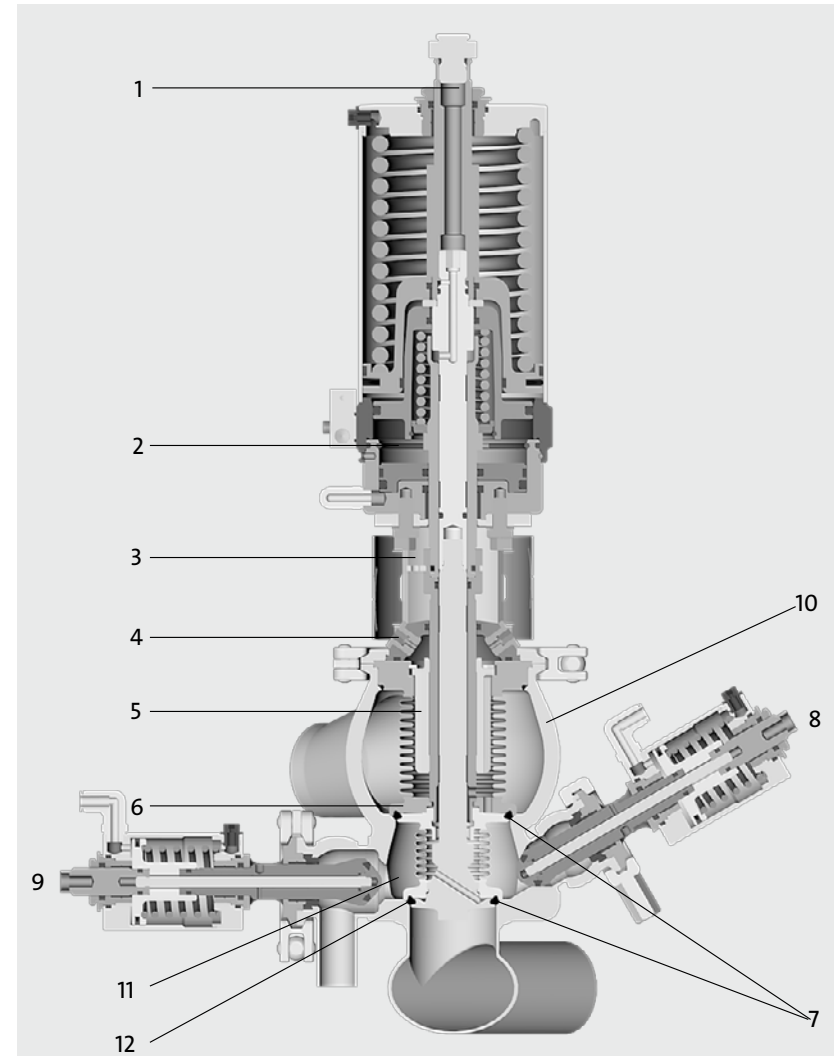
Aseptic double seat valves

In addition to the use of seat valves, the integration of aseptic double seat valves based on the same design principle makes it possible to control numerous product and media flows not only under optimum aseptic conditions but also fully automatically and in minimum space.

The aseptic double seat valve is the nodal point for connections between individual pipe lines:

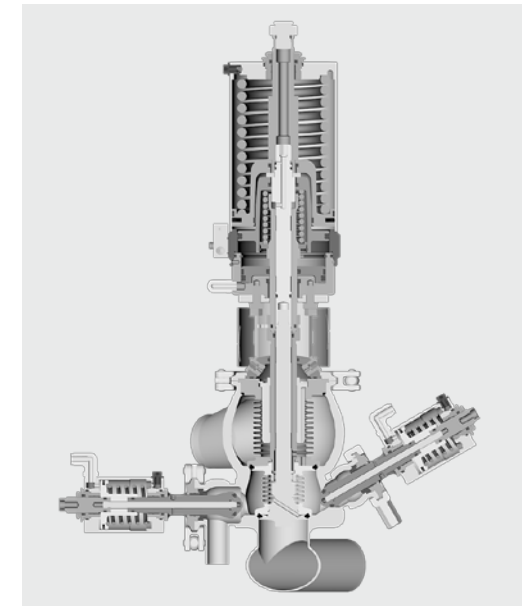
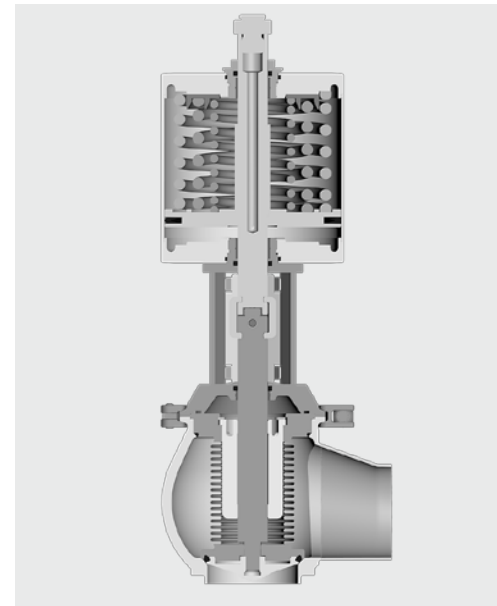
- Using independently working valve discs, each with its own seal, it is possible to realise the safe separation of hostile products. The safety chamber between the valve discs is connected via the flush valves.
- Cleaning and/or sterilisation of the safety chamber is performed via the flush valves or by lifting the upper or lower valve disc.
- Free cross-sections in the valve housing enable gentle handling of the product without pressure loss, resulting in lower energy consumption.
- The actuator's integrated lifting functions permit fast cycle times and low air consumption.
- With the option for using a temperature sensor it is possible to monitor the temperature directly in the housing.

- 1 Internal air-flow on the version with a control head
- 2 Actuator with integrated lifting function
- 3 Valve shaft with rotational decoupling
- 4 Connection for leakage discharge
- 5 Support element
- 6 Upper valve disc
- 7 Metal stop
- 8 Flush valve NC
- 9 Flush valve NO
- 10 Optimised single-piece housing
- 11 Safety chamber
- 12 Lower valve disc



Aseptic valves in modular design

Versions		
Types	Aseptic seat valve Aseptic tank outlet valve	Aseptic double seat valve
Housing	DN 25 – DN 100: PN 25 DN 125 – DN 150: PN 16	DN 40 – DN 100: PN 25 DN 125: PN 16
Housing types	According to the modular system	According to the modular system
Nominal diameters	DN 25 – DN 125 DN 150 on request	DN 40 – DN 100 DN 25 and DN 125 on request
Actuator	Pneumatic actuator NC/NO/AA Product pressure 6 bar Product pressure 10 bar	Pneumatic actuator NC
Additional components	Proximity switch M12 x 1 Control head	



Modular system of the aseptic seat valve (left)

Modular system of the aseptic double seat valve (right)

Design features

- Connections for leakage monitoring and bellows monitoring
- Optional use of a two-piece valve disc, threaded, with defined installation space for the seal made of EPDM/FDA or FKM HF or for integration of a single-piece valve disc with PTFE compound as sealing material
- Metal stop of the valve disc for protecting the elastomer seals against overload
- External air connection or internal airflow with integrated control head
- Air connection for superimposed compressed air
- Valve shaft connection with rotational decoupling
- Housing can be completely drained for optimum cleaning conditions

Design and configuration of all valves comply with the requirements of the Pressure Equipment Directive 97/23/EC and the EU Machinery Directive 2006/42/EC

Sampling

Aseptic sampling valve or aseptic sampling system for safe and aseptic sampling as a supplement to the aseptic valve range



■ Safety in aseptic applications

The aseptic valves prevent contamination of the product because they are hermetically sealed off from the atmosphere, thus creating microbiological safety right along your production routes.

■ Robust components

The multilayer metal bellows and the integrated support element are high-performance components with a long service life even when exposed to high loads from temperature, flow or pressure.

■ Consistent integration in the process

With its complete process concept including steam barrier, condensate seal and temperature measurement, our aseptic valve range covers all elements needed for safe product handling.

■ Complete valve range

Thanks to the combination of aseptic valve technology and “classic” valve versions you now get the complete range for the handling of product and cleaning media from a single source.

■ User experience

KRONES is present in the food and beverage industry: We know how to configure processes in this industry. You too can benefit from this experience in the planning and integration of your process workflows and their valve interfaces.



We do more.



IT solutions

The SitePilot modular system includes IT solutions which we developed especially for the beverage and food industry. Whether you want to increase the utilisation of your line capacity, monitor product quality, or make spare parts handling more efficient: With SitePilot, you will always get the best result.

enviro

High-performance technology with low consumption of resources offering safety for humans and the environment – this is all guaranteed by the enviro sign. TÜV SÜD (technical control board) as an impartial assessor has confirmed, that the enviro method leads to energy- and media-efficient and environment-compatible machines and lines.

Lifecycle Service

Your company is unique – why be satisfied with conventional solutions? The KRONES Lifecycle Service will support you and your production also after the purchase of new machines. These are services which are individually tailor-made to suit your products and location.

KRONES Academy

Make your colleagues high performers: The training of KRONES Academy provides first-hand trade information proven in field. You will find the suitable know-how package for almost any field and hierarchy level ranging from technical courses to management training.

KRONES Service Line

You need support with a technical problem? Or you have an urgent question about your line? No problem: We are just a call away from you. Dial +49 9401 708090 to get quick and straightforward assistance – in several languages around the clock!

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