

# GEMBRA Single Seat Valves GEMBRA Double Seat Valves



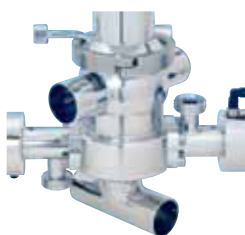
**GEMBRA**



**KIESELMANN**  
FLUID PROCESS GROUP

## Totally Aseptic

The Gembra series of process valves represents the pinnacle of aseptic design. Using established and well proven hermetic shaft isolation methods but in an updated form we are able to deliver not just the highest security but also longer life.



Available in single seat, changeover, tank outlet and double seat configurations the Gembra range has achieved EHEDG Certification at the highest level.

The flagship of the Gembra range is a true double seat valve in aseptic form. The design integrates the fundamentals of double seat protection with the stringent requirements of aseptic processes. The leakage area is full volume and serviced by two PTFE faced valves that enable complete cleaning and sterilisation before product contact during transit from upper to lower port. The highest possible security.

Hermetic shaft sealing is achieved with diaphragms made from *k-flex*, an FDA compliant material with all the inert properties of PTFE, but with added flexibility. Its natural surface characteristic is to reject contamination or adhesion making it very easy to clean and sterilise.

The characteristic KIESELMANN split groove design enables product seals to be semi-rigid, comprised of a stainless steel support structure with a *k-flex* shell.

The diaphragm technique allows an optimal transition of product thanks to its large opening range and tangential incoming flow of the diaphragm. The dome and dead-space free housing with coupled with the design of the diaphragm results in a gentle flow that preserves product quality. All seals in touch with product are made of *k-flex* sealing material. *k-flex* does not only ensure a long service life, high resistance to aggressive media and temperatures but is also very easy to clean.

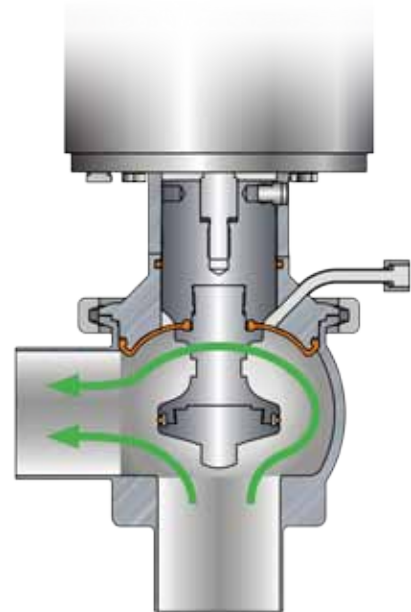
### TECHNICAL DATA

<b>Installation sizes:</b>	DN 40 - 80 tube grade according to DIN 11850 - series 2 DIN 11866 series A
<b>Materials</b>	
<b>Product contact:</b>	1.4404 / AISI 316L
<b>Non-product contact:</b>	1.4301 / AISI 304
<b>Seal materials</b>	
<b>Product contact:</b>	<i>k-flex</i> FDA compliant
<b>Surfaces</b>	
<b>Product contact:</b>	Ra ≤ 0,8 µm e-polished
<b>Product temperature:</b>	max. 95°C
<b>Sterilisation temperature:</b>	max. 140°C, 30 min.
<b>Ambient temperature:</b>	+4° - +45°C
<b>Product pressure</b>	
<b>Valve functions:</b>	DN 40 - 65 max. 10 bar DN 80 max. 8 bar
<b>Membrane pressure resistance:</b>	max. 30 bar
<b>Control air:</b>	5,5 - 8 bar

## GEMBRA - The Ultimate Product for hygiene safety

### Advantages of GEMBRA Technology

- ▶ Contamination free aseptic function due to diaphragm
- ▶ Hygienic design with excellent cleanability
- ▶ Durable *k-flex* seal material
- ▶ Big opening stroke
- ▶ Product conserving media flow
- ▶ Fast and simple assembly with easily accessible parts
- ▶ cost efficient maintenance



Optimised flow in the GEMBRA valve

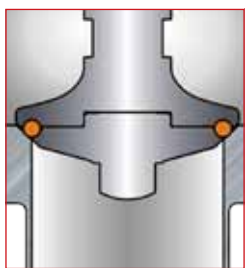
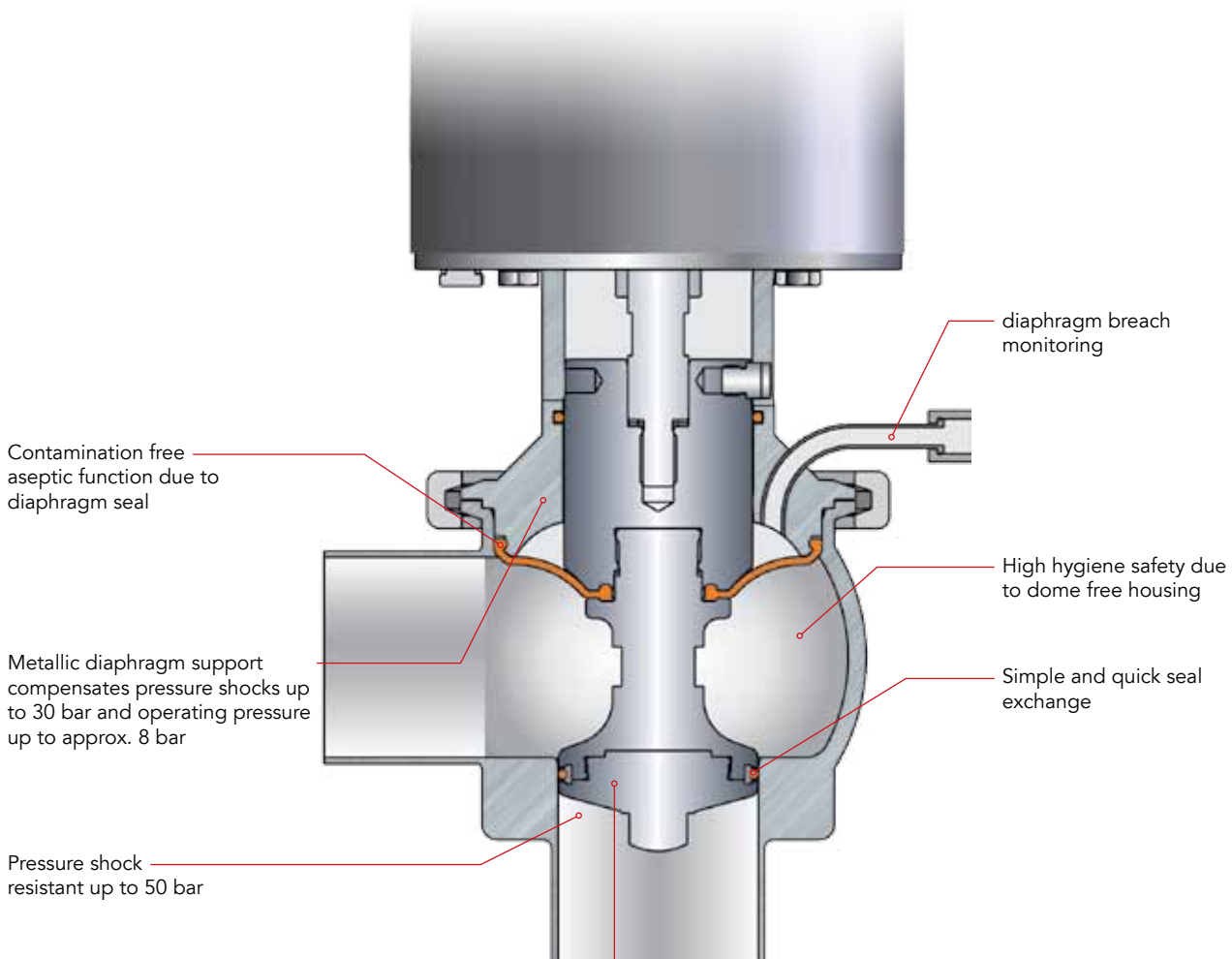
Diaphragms made from *k-flex* form the hermetic shaft seal and benefit greatly from a high level of flexibility even when there are rapid temperature changes. The high temperature resistance, low flow resistance and dynamic profile of the diaphragm ensure high process reliability. The smooth and even contour of the diaphragms and the high surface quality of the stainless steel housing allow a free product flow and optimal cleaning.



# GEMBRA Single Seat Valves

## GEMBRA Single Seat Valve with Radial Seal

Secure expulsion of fruit pieces from the seal



### Alternative: GEMBRA Single Seat Valve with Axial Sealing

This version benefits from a longer stroke to allow large particles to pass through the valve unhindered.

*k-flex* sealing with metallic stop



Housing types:  
Angle, Tee, Changeover and Tank outlet valve

## GEMBRA Single Seat Valves - the suitable Valve for each Application

### GEMBRA Single Seat Angle Valves:

- ▶ Contamination free, aseptic shut off



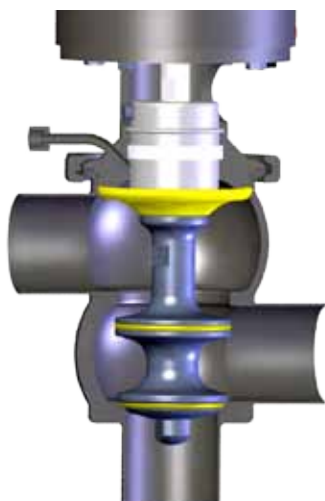
### GEMBRA Single Seat T-Valves:

- ▶ Contamination free aseptic shut off  
and distribution



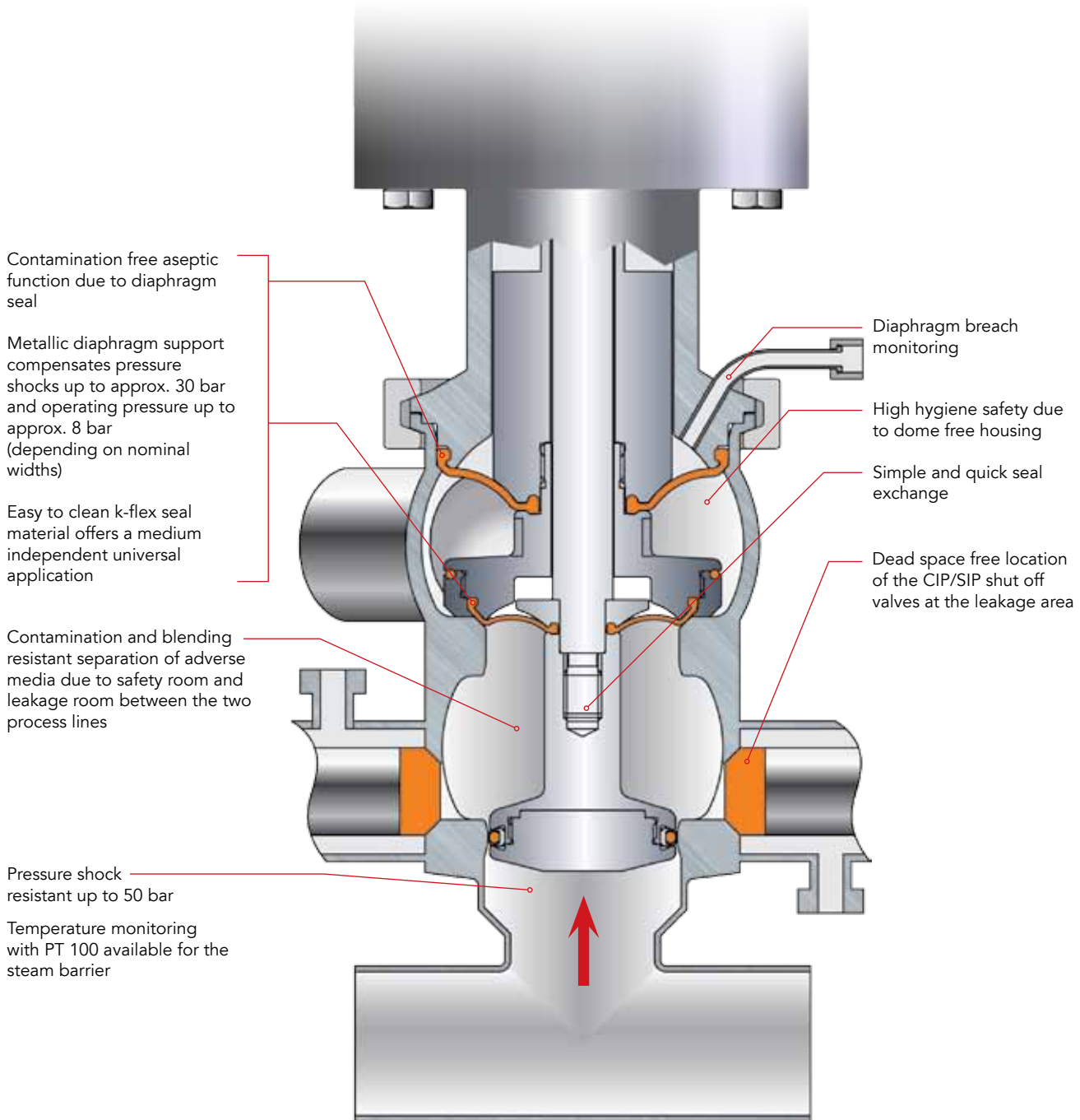
### GEMBRA Single Seat Changeover Valves:

- ▶ Contamination free aseptic shut off,  
switching and distribution



# GEMBRA Double Seat Valves

## GEMBRA Double Seat Valves - the strongest argument for aseptic process reliability

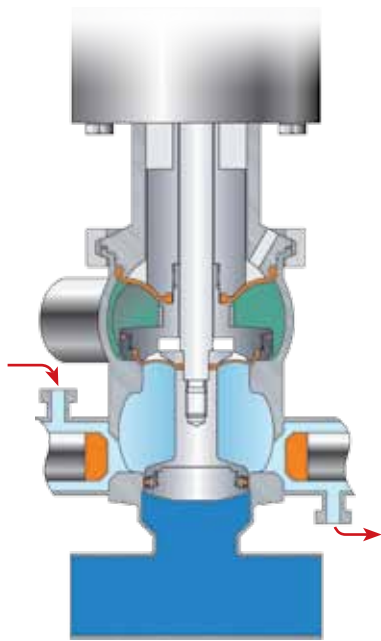


GEMBRA double seat valve with PT 100

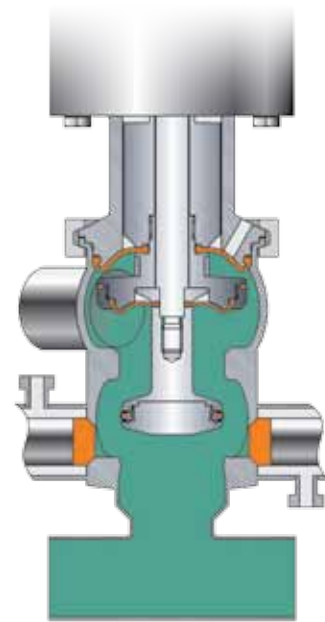


Housing types:  
Double seat routing valves, double seat tank outlet valve

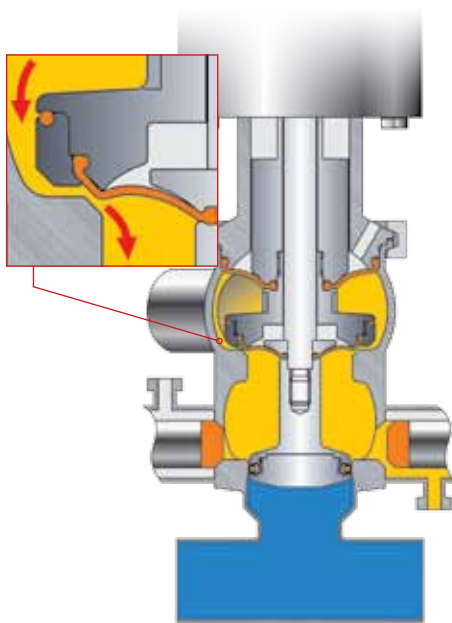
## Valve Functions GEMBRA Double Seat Valves



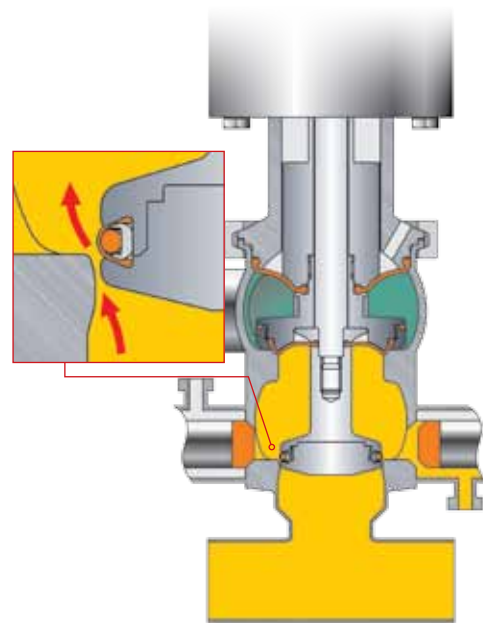
**Valve closed**  
▶ Steam barrier active



**Valve open**  
▶ Steam barrier inactive



**Cycle top**  
▶ Upper seat cleaning  
drain valve open



**Cycle bottom**  
▶ Lower seat cleaning  
drain valve open



# Our Product Programme



- ▶ **Sanitary pipes**
- ▶ **Fittings and tube accessories**
- ▶ **Valves and process components**
  - Butterfly valves
  - Leakage butterfly valves
  - Ball valves
  - Single seat valves
  - Double seat valves
  - Safety valves
  - Tank top units
  - Sample valves
  - Aseptic valves
- ▶ **Cleaning units**
  - Sprayballs
  - Rotating cleaning heads
- ▶ **Planning and construction of plants**
  - CIP plants
  - Pigging technology
  - Thermal systems
  - Turnkey projects

We hope that this small glimpse at our capabilities has been interesting.

If you would like any further information then please do not hesitate to get in touch with us and we will be pleased to answer any questions you may have.

**Just call us or send us an e-mail.**