



# KFC SEALING ELEMENTS

## USE OF SEALING ELEMENTS:



Ball Valve KHE

Ball Valve KHA

Ball Valve KHA-NEW

- » Sealing elements will be used in the ball valve models KHA, KHA-NEW and KHE.
- » For the model KHA and KHA NEW two sealing elements and for model KHE, one sealing element is used.
- » The purpose of the sealing elements is to guarantee tightness inline when the ball valve is closed.

## STRUCTURE:

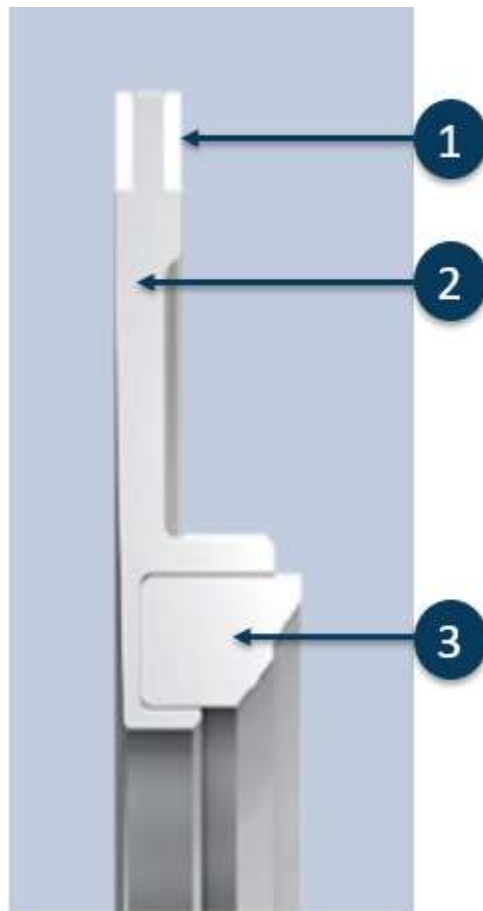


- » (1) Support ring (for high mech. stability).
- » (2) U – sleeve (is fixing support and cover disc).
- » (3) Diaphragm discs (support and cover disc) are holding the seal ring in place.
- » (4) Seal ring (will be chambered from 3 sides from support and cover disc).

## OVERVIEW SEALING ELEMENTS:



## SEALING ELEMENT FIRE SAFE:

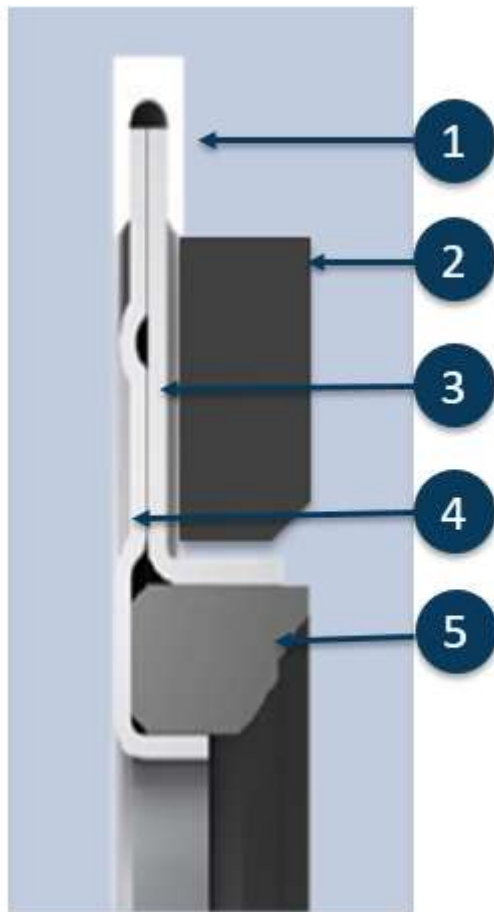


- » (1) 2 flat seals GRAPHITE.
- » (2) One piece disc 1.4462 (made of one piece – no cover and support disc) for higher mechanical stability. The support does not have to be used.
- » (3) Seal ring KFC. The seal ring is chambered from 3 sides from the support and cover disc to prevent moving or flowing.

### Application:

- » The Fire Safe sealing element is used for high flammable media. Applicable temperature range -60°C to 300°C.

## SEALING ELEMENT KFC:

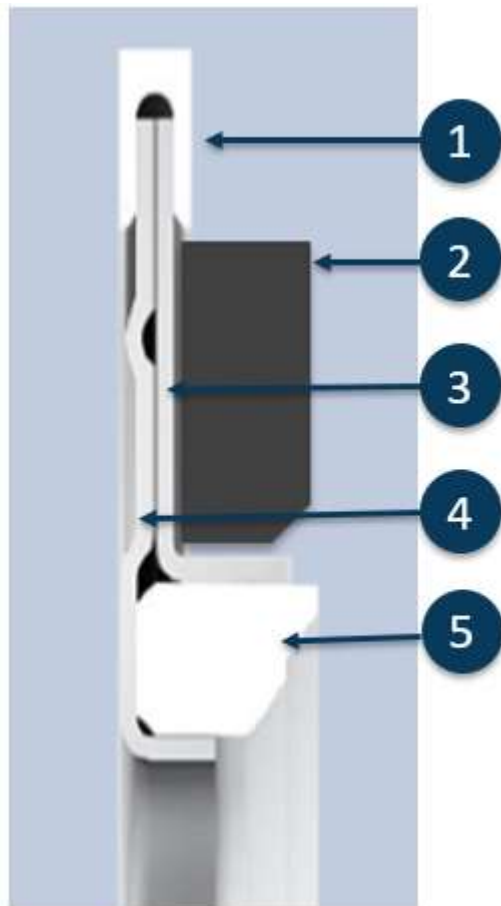


- » (1) U – sleeve, material PURE PTFE.
- » (2) Support ring, material SINT D10 (for KHA-VIII, carbon steel body) or AISI 316L (for KHA- Xc, stainless steel body).
- » (3) Cover disc, material 1.4401.
- » (4) Support disc, material 1.4401.
- » (5) Seal ring KFC, material 75% PTFE + 25% graphite. The seal ring is chambered from 3 sides from the support and cover disc to prevent moving or flowing.

### Application:

- » The KFC sealing element is valid to use for the most liquids, acids and gases without solids or abrasive particles. 90% of all applications will be fulfilled with the KFC sealing element. The KFC sealing element is vacuum tight until  $10^{-6}$  mbar.l./sec. Applicable temperature range  $-60^{\circ}\text{C}$  to  $300^{\circ}\text{C}$ .

## SEALING ELEMENT PURE PTFE:



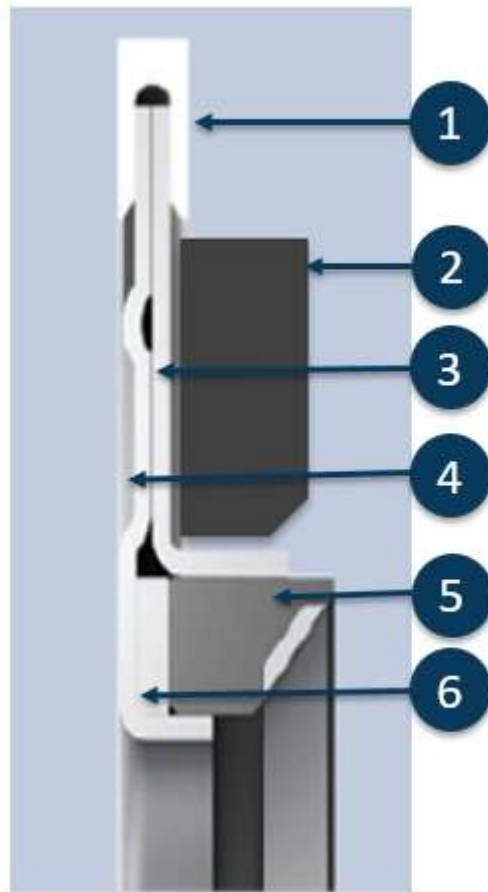
- » (1) U – sleeve, material PURE PTFE.
- » (2) Support ring, material SINT D10 (for KHA-VIII, carbon steel body) or AISI 316L (for KHA-Xc, stainless steel body).
- » (3) Cover disc, material 1.4401.
- » (4) Support disc, material 1.4401.
- » (5) Seal ring PURE PTFE. The seal ring is chambered from 3 sides from the support and cover disc to prevent moving or flowing.

### Application:

- » The PTFE sealing element is especially used in the chemical industry for special mixtures of different chemical components (without solids or particles). Further more PTFE is used for very cold medias (down to  $-196^{\circ}\text{C}$ ) like liquified nitrogen or  $\text{CO}_2$ . Applicable temperature range  $-196^{\circ}\text{C}$  to  $200^{\circ}\text{C}$ .



## SEALING ELEMENT METAL:



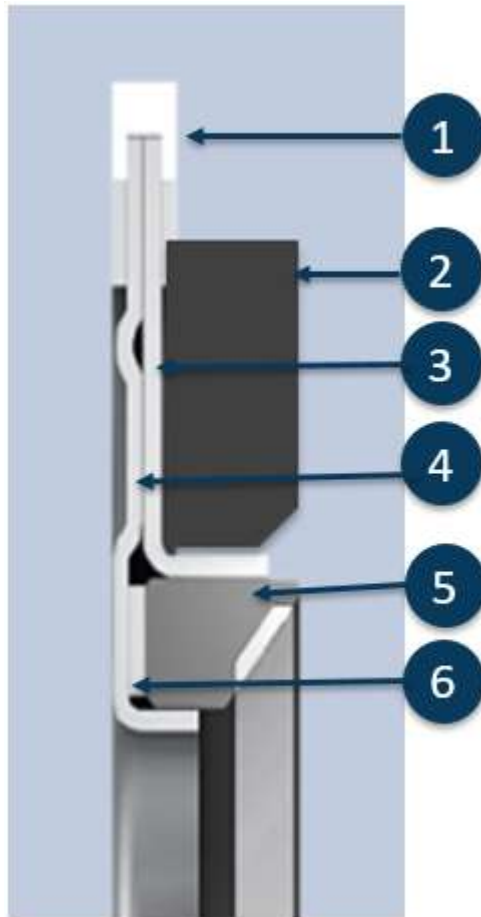
- » (1) U – sleeve, material PURE PTFE.
- » (2) Support ring, material AISI 316L.
- » (3) Cover disc, material 1.4401.
- » (4) Support disc, material 1.4401.
- » (5) Seal ring METAL 1.4404 with STELLITE LAYER. The seal ring is chambered from 3 sides.
- » (6) Insert washer GRAPHITE.

### Application:

- » The METAL sealing element is especially used for media with containing solids or particles. Applicable temperature range - 60°C to 300°C.



## SEALING ELEMENT METAL SPECIAL:

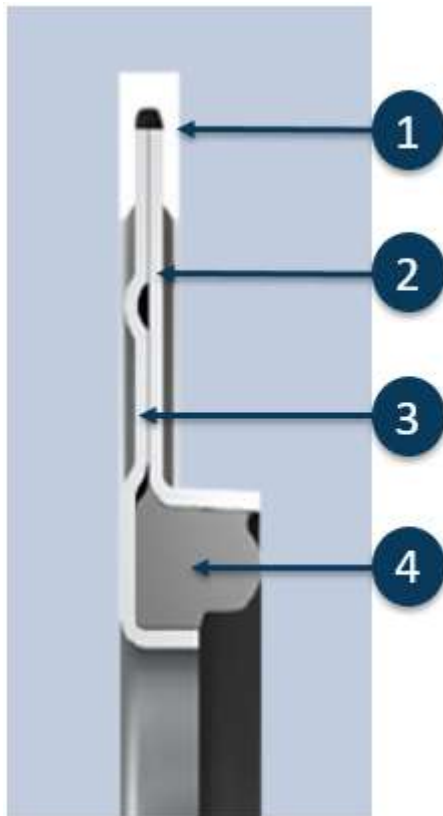


- » (1) U – sleeve, material PTFE and graphite.
- » (2) Support ring, material AISI 316L.
- » (3) Cover disc, material 1.4401.
- » (4) Support disc, material 1.4401.
- » (5) Seal ring METAL 1.4404 with STELLITE LAYER. The seal ring is chambered from 3 sides.
- » (6) Insert washer GRAPHITE.

### Application:

- » The METAL SPEACIAL sealing element is used for high service temperatures from - 60°C up to 400°C.

## SEALING ELEMENT VITON:

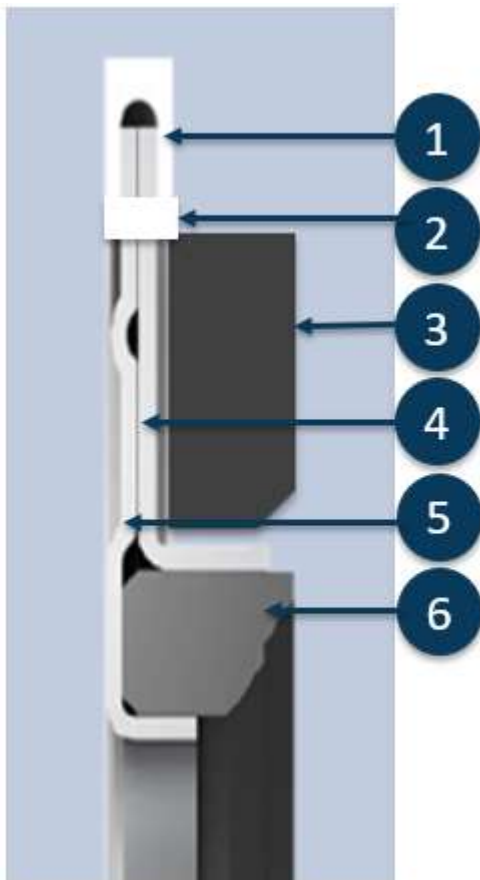


- » (1) U – sleeve, VITON.
- » (2) Cover disc, material 1.4401.
- » (3) Support disc, material 1.4401.
- » (4) Seal ring VITON. The seal ring is chambered from 3 sides from the support and cover disc to prevent moving or flowing.

### Application:

- » The VITON sealing element is especially used in vacuum applications. The VITON sealing element is vacuum tight until  $10^{-6}$  mbar.l./sec. Applicable temperature range  $-25^{\circ}\text{C}$  to  $150^{\circ}\text{C}$ .

# SEALING ELEMENT KFC WITH PRESSURE RELIEF DRILLING:

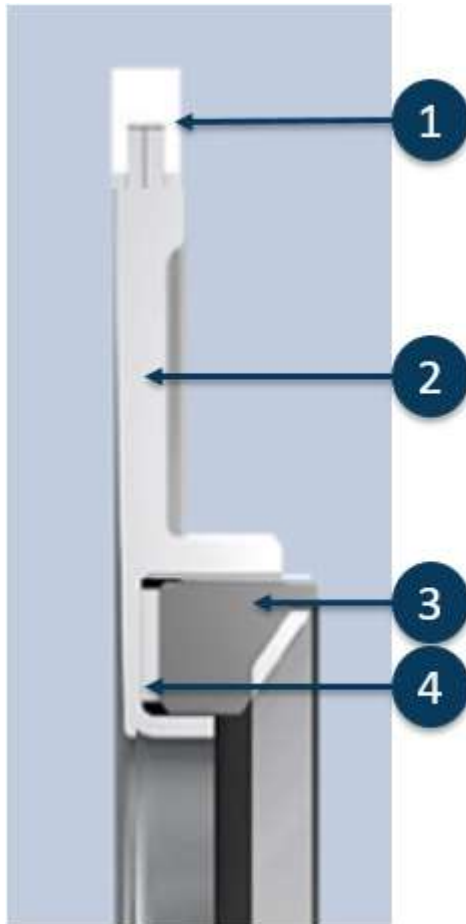


- » (1) U – sleeve, material PURE PTFE.
- » (2) Drilling in the sealing element for pressure relief
- » (3) Support ring, material SINT D10 (for KHA-VIII, carbon steel body) or AISI 316L (for KHA- Xc, stainless steel body).
- » (4) Cover disc, material 1.4401.
- » (5) Support disc, material 1.4401.
- » (6) Seal ring KFC, material 75% PTFE + 25% graphite. The seal ring is chambered from 3 sides from the support and cover disc to prevent moving or flowing.

## Application:

- » The sealing element with pressure relief drilling will be used for media which expand quickly at temperature changes. To prevent a too high internal pressure, the additional relief drilling ensures a quick pressure relief of the valve cavity. Applicable temperature range - 60°C to 300°C.

## HACO SEALING ELEMENT METAL:



- » (1) U – sleeve, material PURE PTFE.
- » (2) One part disc 1.4462 stainless steel.
- » (3) Seal ring METAL, material 1.4404 stainless steel with STELLITE layer. The seal ring is chambered from 3 sides by the one-part disc.
- » (4) Insert ring TOP CHEM.

### Application:

- » The HACO sealing element is used for media with containing solids or particles, especially coffee powder applications. Applicable temperature range -60°C to 300°C.