

**KSB mechanical seals**  
**for industrial applications**



## Single-source supplier: your partner for pumps, valves and service

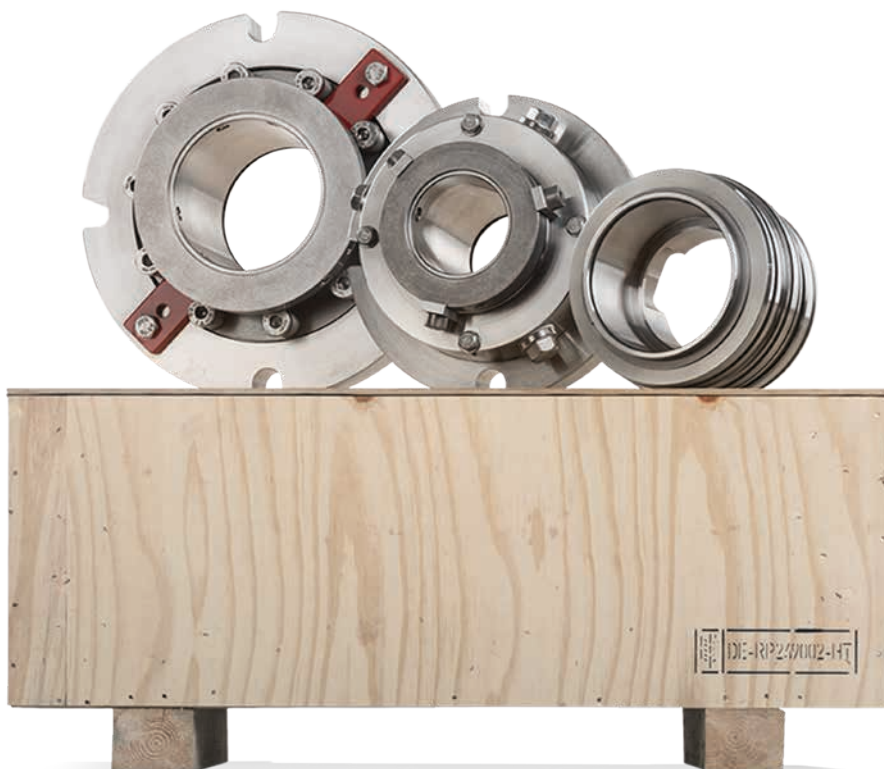
We are your partner for the entire product life cycle. Customized service solutions, rapid reaction times and an extensive product portfolio – no other competitor offers a comparable range of products and services.

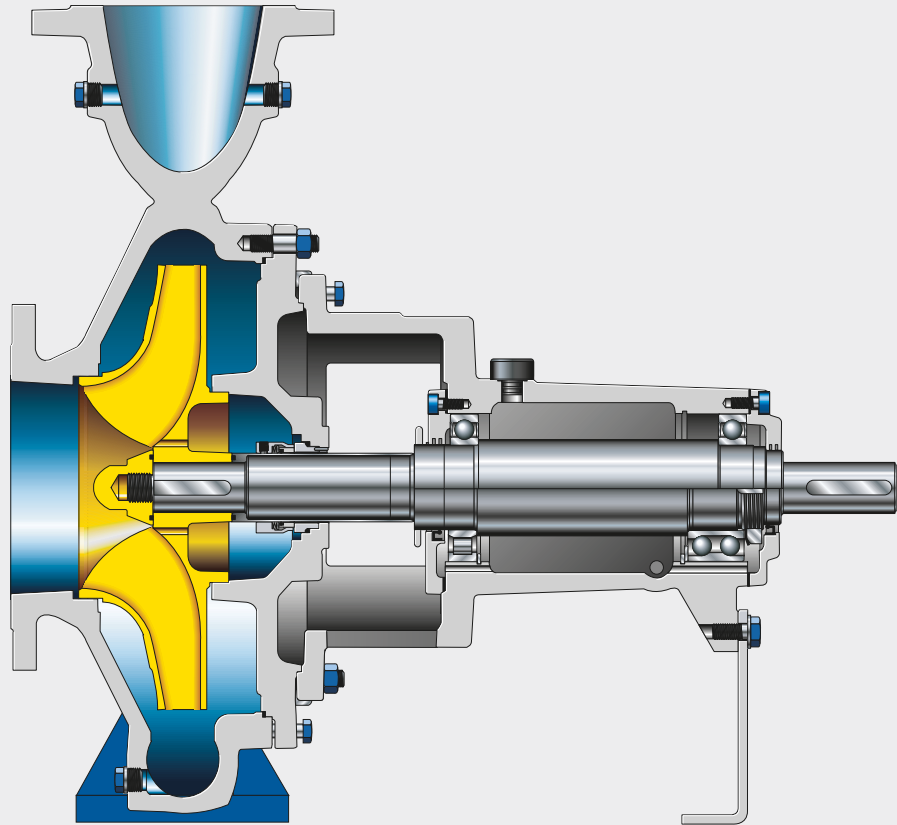


From initial consultancy to planning, installation, operation, maintenance and comprehensive service concepts, we are on hand as your reliable partner to provide solutions for every situation and requirement – over the entire product life cycle. We offer service and spare parts solutions as part of our comprehensive customer care – not only for KSB pumps and valves but also for all sorts of rotating equipment of all makes.

### KSB mechanical seals

KSB's range of tailored spare parts services plays a major role in the service portfolio. One of these topics is KSB mechanical seals. Impressing with a robust design, they offer service-friendly installation and optimal integration in the seal chamber. Tried and tested quality.

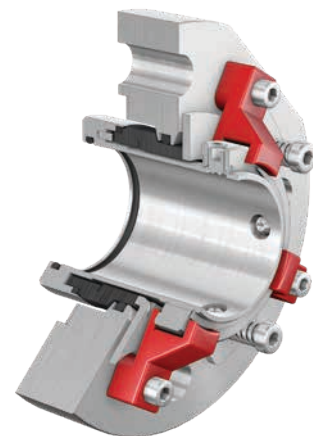




## Tailored **sealing** for every setting

High operating pressures, extreme temperatures and aggressive fluids place the highest and most diverse demands on a seal, thereby influencing the operating reliability of the pump and system. As your one-stop contact, KSB offers a complete package of individual sealing solutions for every application – ensuring maximum safety and reliability.

KSB offers the full range of services, whether it's providing pumps and valves, all-in system solutions and services or spare parts solutions that cover the system's entire life cycle. One highlight of our comprehensive range are our own, low-wear mechanical seals which, together with the pump, form a perfectly matched and optimised system. Our customers so benefit from extended service lives and less maintenance costs thanks to high-quality and robust seal arrangements and to the optimisation of the entire pump system.





# Perfect sealing solutions for KSB standardised chemical pumps

KSB offers a wide range of perfectly fitting mechanical seals for any kind of application of these pumps. The portfolio includes standardised seals according to EN 12756 for low and middle requirements as well as single acting and double acting cartridge seals for high end applications.



## 4C / 4CN

### for CPK / CPKN

Design	Single mechanical seal
Type	Stationary, balanced
Operating pressure	Up to 25 bar dynamic Up to 37.5 bar static
Temperature	-15 °C to 150 °C



## 4CP

### for CPK / CPKN / MegaCPK

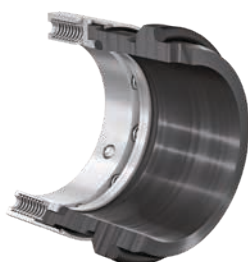
Design	Single cartridge seal
Type	Stationary, balanced
Operating pressure	Up to 25 bar dynamic Up to 37.5 bar static
Temperature	-40 °C to 150 °C



## 4CPD

### for CPK / CPKN / MegaCPK

Design	Double cartridge seal
Type	Stationary (inboard) Dynamic (outboard) Double pressure balanced
Operating pressure	Up to 25 bar dynamic Up to 37.5 bar static
Temperature	-40 °C to 150 °C
Variant 4CPDF with pumping ring available	



## 5A and 5B

### for all type series with a standardised seal to EN 12756

Design	Single mechanical seal
Type 5A	Dynamic, unbalanced
Type 5B	Dynamic, balanced
Operating pressure	5A: Up to 16 bar dynamic 5B: Up to 25 bar dynamic Up to 37.5 bar static
Temperature	-50 °C to 220 °C

Also available with pumping screw and as double mechanical seal



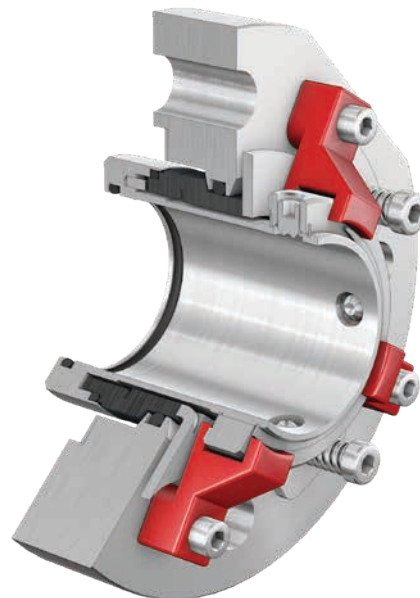
## 4M

### for MCPK and Etanorm

Design	Single cartridge seal
Type	Stationary, balanced
Operating pressure	Up to 25 bar dynamic Up to 37.5 bar static
Temperature	-15 °C to 140 °C



UNITAS S is a mechanical seal type series of single cartridge seals in stationary design. Variants with lip seal (UNITAS Q) and throttling bush (UNITAS T) for connecting a liquid, steam or gas quench are also available. The sealing elements are designed for universal use and fit into the seal installation spaces of various pump manufacturers. UNITAS for MCPK features a centring diameter at the seal cover that ensures an optimum radial installation position of the mechanical seal in KSB's MCPK pump type series. The multi-spring arrangement of UNITAS is located outside the fluid handled, protected against contamination.



#### UNITAS S

##### for MegaCPK

Design	Single cartridge seal
Type	Stationary, balanced
Operating pressure	Up to 25 bar dynamic Up to 37.5 bar static
Temperatur	-40 °C to 220 °C

Mechanical seal also available in quench arrangement.



# Perfect sealing solutions for water, hot water and heat transfer services

The mechanical seals for water, hot water and heat transfer applications are especially designed for the relevant KSB pump type series. Together with the pump the seals form a perfectly matched and optimized system. This ensures longer service lives and an improved system availability.



## 4EYS

### for Etanorm SYT

Design	Single mechanical seal*
Type	Dynamic, unbalanced
Operating pressure	Up to 25 bar, dynamic Up to 37.5 bar, static
Temperature	-15 °C to 140 °C

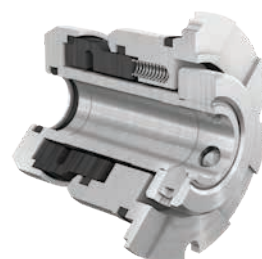
\*In tandem arrangement (as 4EYT) also for use as double seal



## 4EB

### for Etanorm-R / Etaline-R

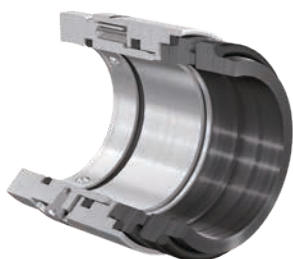
Design	Single mechanical seal of modular design
Type	Stationary, balanced
Operating pressure	Up to 25 bar, dynamic Up to 37.5 bar, static
Temperature	-40 °C to 140 °C



## 4MC

### for Movitec

Design	Single cartridge seal
Type	Stationary, balanced
Operating pressure	Up to 40 bar dynamic Up to 45 bar, static
Temperatur	-40 °C bis 200 °C



## 4HL

### for HPK-L / Etanorm RSY

Design	Single mechanical seal
Type	Dynamic, balanced
Operating pressure	Up to 40 bar, dynamic Up to 60 bar, static
Temperature	-40 °C to 130 °C



## 4HLQ

### for HPK-L

Design	Single mechanical seal with quench system
Type	Stationary, balanced
Operating pressure	Up to 16 bar, dynamic Up to 24 bar, static
Temperature	-15 °C to 100 °C

Mechanical seal in similar design also available for Etanorm RSY



## 4RPQ

### for RPH

Design	Single cartridge seal
Type	Stationary, balanced
Operating pressure	Up to 40 bar, dynamic Up to 60 bar, static
Temperature	-60 °C to 150 °C



# KSB auxiliary systems

KSB is able to provide the full range of seal auxiliary systems for all kinds of application. The KSB thermosyphon systems, quench systems and heat exchangers supply the mechanical seal with clean and cool fluid in order to increase the seal's life time.

## Thermosyphon System

The SDPN16 system supplies double acting mechanical seals with pressurized barrier fluid or unpressurized buffer fluid (Plan 53A or 52). It is used for applications where leakage to atmosphere must be minimized, collected or completely ruled out.

## Quench System

The KWT51 system is used to provide an atmospheric quench to single acting mechanical seals. It is used for services where leakage to atmosphere must be collected or diluted.

## Heat exchanger

The RWT23 tube in tube heat exchanger is used to cool the pumped fluid in the seal chamber of single or double acting mechanical seals. It prevents the vaporization of the pump fluid between the seal faces. This markedly increases the seal life.

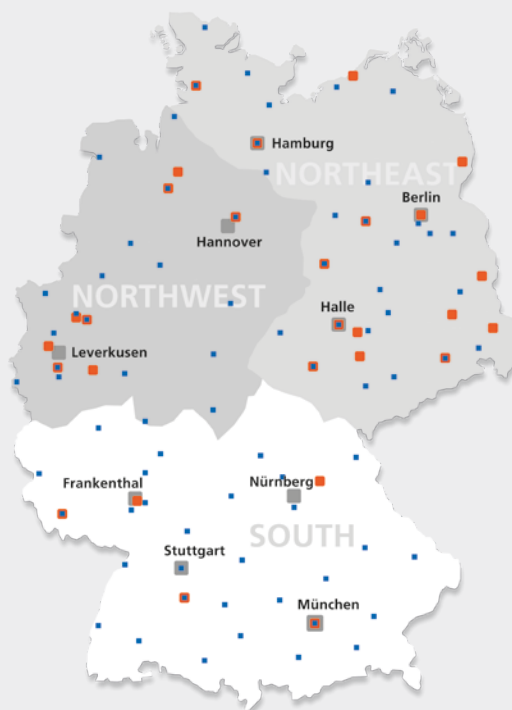


Pressure	Up to 16 bar
Temperature	-60 °C to 200 °C
Total volume	8 litres

Pressure	Unpressurised
Temperature	-40 °C to 120 °C
Total volume	3 litres

## RWT23

Process side	Up to 120 bar / -29 °C to 270 °C
Cooling water side	Up to 20 bar / -29 °C to 100 °C



- KSB sales branch
- KSB service centre
- Service partner

**Talk to us – we are here to help, anywhere and at any time.**

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Call your sales house from Germany at € 0.14/minute (mobile phone charges may be higher).

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