

► Our technology. Your success.

Pumps • Valves • Service



Unpacking premium solutions for the food and beverage industry



Safe and sterile solutions for the entire food and beverage sector

Proactive planning, sustainable action: KSB's comprehensive product portfolio in the food and beverage field is proof of highest technical expertise and demonstrates that we attach great importance to the hygienic design of our products and to achieving the highest possible degree of process reliability for our customers. Our energy-efficient and service-friendly solutions thereby provide our customers with the added value of competitively priced processes and at the same time warrant the safety of people and the environment. See for yourself what KSB has in store for you!

Cost-effective solutions from a single source

Our pumps and valves are used in a wide range of applications, for example in brewing processes, in the manufacture of dairy products and in the production of fruit juices and confectionery products. Our product range does not just cover high-performance products for use in sterile processes, but also our solutions expertise for bespoke customer specifications and

special applications. With our know-how from more than 140 years of experience as one of the leading manufacturers of pumps, valves, automation and drive technology in the world, we have the high-end solutions you expect for the success and safety of your processes. And as your reliable partner, you benefit from our all-in support during the entire life cycle of our products.



The best solution for every application from the only full-range supplier

As a systems supplier, KSB has the best solution for every area in the food and beverage manufacturing industry. For these fields, we can offer our customers a wide range of solutions which are sure to meet the stringent requirements posed by your sterile, hygienic and auxiliary processes. Including products meeting the highest degrees of dependability. See for yourself: the table below lists some of the applications filled with KSB products.



Check out our comprehensive product range on video: KSB's life science film

Our products are used in the manufacture of a variety of drinks

Alcoholic beverages:

- Beer
- Wine
- Spirits

Non-alcoholic beverages:

- Mineral water
- Fruit juice
- Soft drinks

KSB products play a part in the manufacture of a wide variety of foods

- | | |
|------------------------------|--------------|
| ■ Sugar | ■ Chocolate |
| ■ Yeast | ■ Honey |
| ■ Yoghurt, milk, whey, cream | ■ Pies |
| ■ Pet food | ■ Jam |
| ■ Gelatine | ■ Ice cream |
| | ■ Edible oil |





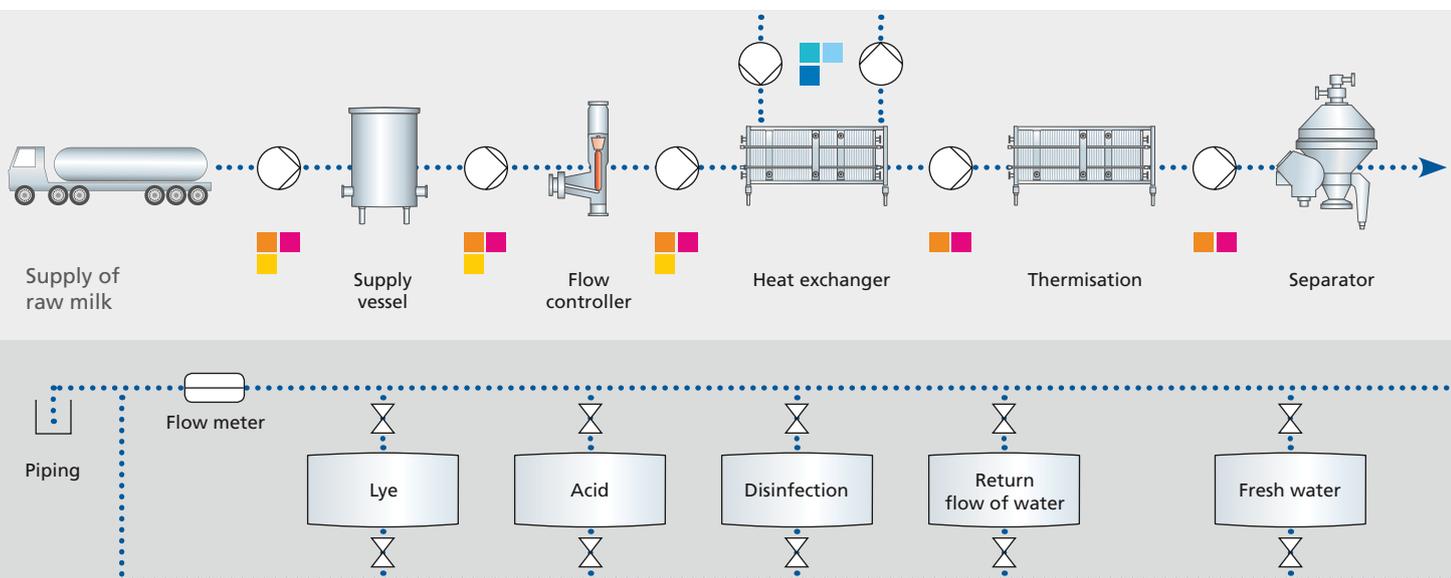
Your first choice for all sterile processes – **the Vita range**

In the field of sterile process engineering in the food and beverage industry, the five type series making up KSB's Vita range provide safe and innovative solutions for almost all transport duties and sterile processes.

KSB's Vita pumps are ideally suited for applications subject to hygienic standards, prolong the shelf life of the final product, and optimise cleaning processes, because they are designed with very little dead

volume. The high quality and reliability of our pumps as well as their excellent efficiencies are the result of the continuous improvements achieved by our Research and Development.

Dairy processes comprising KSB products. For safe and reliable processes in the manufacture of dairy products



VITACHROM**

The service-friendly annular casing pump for all sterile processes

- Designed without dead volume; excellent surface finish
- Highly CIP/SIP-compatible, EHEDG-certified
- Exclusively made of certified materials
- Service-friendly design for short downtimes

Q [m³/h] Up to 340
 H [m] Up to 100
 p [bar] Up to 12
 T [°C] Up to +110
 (SIP up to +140)



Higher temperatures on request



VITACAST**

The highly efficient volute casing pump for all sterile processes

- The highly efficient hydraulic system reduces energy consumption
- Robust design, long service life and reliable operation
- Highly CIP/SIP-compatible, EHEDG-certified
- Comprehensive selection chart with 29 sizes; available in a variety of materials

Q [m³/h] Up to 540
 H [m] Up to 105
 p [bar] Up to 10 (up to 14 for individual sizes on request)
 T [°C] Up to +140



VITAPRIME*

The self-priming side channel pump for all sterile processes

- Highly versatile
- Ideally suited as a CIP return pump

Q [m³/h] Up to 55
 H [m] Up to 45
 p [bar] Up to 10
 T [°C] Up to +14



Higher temperatures on request

VITALOBE

The sturdy rotary lobe pump for gentle handling of sensitive and highly viscous fluids

- No narrow clearances; highly CIP/SIP-compatible
- Sturdy design for maximum operating reliability
- Various options of materials, rotors, connections, etc.

Q [m³/h] Up to 5,700 l/min (300 m³/h)
 H [m] Up to 200
 p [bar] Up to 30
 T [°C] -40 up to +180
 Viscosity up to 200,000 mPas
 Volume displaced up to 11.4 l per revolution



VITASTAGE

The multistage centrifugal pump for low flow rates and higher pressures

- Suitable for horizontal or vertical installation
- CIP/SIP-compatible
- Various connection options and seal materials

Q [m³/h] Up to 12,5
 H [m] Up to 150
 p [bar] Up to 16
 T [°C] Up to +140



Higher temperatures on request



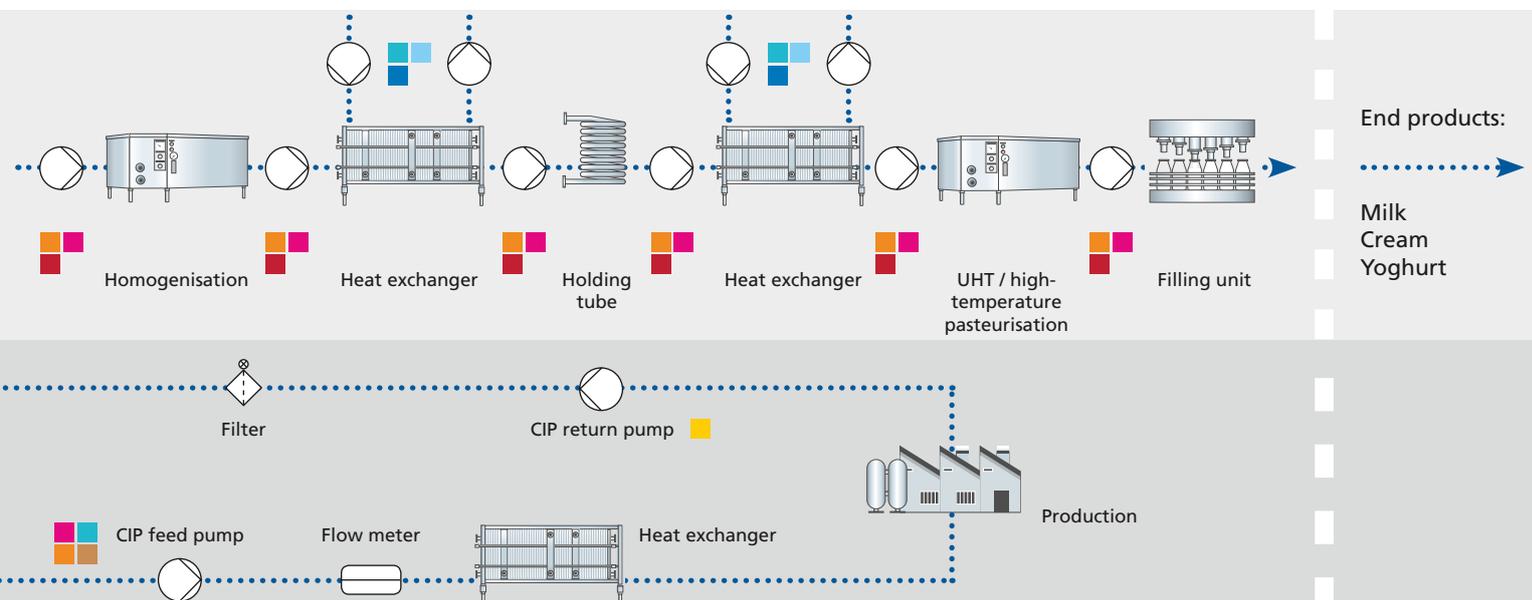
We offer our customers nothing but the best: Our products ensure compliance with the high standards in the fields of food quality, hygiene, food safety and suitability for contact with food, and offer explosion protection.

* available with the most efficient magnet-less pump IE5 motor KSB SuPremE**** and the PumpDrive variable speed system

** available with the most efficient magnet-less pump IE5 motor KSB SuPremE****, the PumpDrive variable speed system and the PumpMeter monitoring unit

*** IE5 in accordance with IEC/T5 60034-30-2 up to 15/18.5 kW (only for 1500 rpm types rated 0.55 kW, 0.75 kW, 2.2 kW, 3 kW, 4 kW: IE5 in preparation)

■ Vitachrom
 ■ Vitacast
 ■ Vitaprime
 ■ Vitalobe
 ■ Vitastage
 ■ Etachrom
 ■ Etanorm SYT
 ■ Movitec



KSB pumps for use in every field of application

KSB supplies state-of-the-art pumps to the oldest brewery in the world

Founded in 1040, the Bavarian State Brewery of Weihenstephan is the oldest existing brewery in the world. But, being equipped with KSB pumps, it has the technical facilities of a modern company.



- KSB pumps meet the brewery's demands for highest process and operational reliability
- Dependable, service-friendly and durable Vitacast pumps for use in sterile environments
- Trend-setting technology safeguards hygienic applications and optimises cleaning processes
- Highest efficiencies for efficient processes

More pumps and valves by KSB

As a full-range supplier, KSB not only supplies pumps for sterile production processes, but optimally matched system solutions. KSB's portfolio includes the perfect products for all hygienic and auxiliary processes.

Hygienic processes

In secondary processes, KSB products confidently and cost-effectively master all requirements to be met. For example, they are ideally suited for integration in cleaning processes.

Support processes

Our support process solutions can be perfectly matched to each other and automated; and by systematically developing our products further, our solutions are capable of optimising processes.



Movitec®
High-pressure in-line pump with PumpDrive variable speed system, PumpMeter monitoring unit and KSB SuPremE® IE5 motor*



Etachrom® B / Etachrom® L
Horizontal single-stage annular casing pump. Also available with PumpDrive, PumpMeter and KSB SuPremE® IE5 motor*



KWP®
Horizontal radially split volute casing pump in back pull-out design. Also available with PumpDrive, PumpMeter and KSB SuPremE® IE5 motor*



Etanorm® / Etabloc®
Horizontal volute casing pump / close-coupled volute casing pump with PumpDrive variable speed system, PumpMeter monitoring unit and KSB SuPremE® IE5 motor*



SISTO-C
Maintenance-free diaphragm valve

Highest energy savings and best service **with KSB**

Energy: we spend all ours to save lots of yours

KSB's FluidFuture energy efficiency concept looks at the entire hydraulic system and identifies potential energy cost savings throughout the entire system life cycle. Major energy savings can be achieved in connection with the high-efficiency, magnet-free KSB SuPremE® IE5 motor*. The combination of the high-precision PumpDrive variable speed system and the PumpMeter monitoring unit for optimum data collection also results in low-stress operation and a longer service life. For more information go to www.ksb.com/fluidfuture



Service and spare parts solutions to ensure everything runs like clockwork

We offer first-class service throughout the entire life cycle of your systems and during all project phases. Our comprehensive service package includes premium spare parts solutions for pumps and valves. With original spare parts we help avoid system downtimes and guarantee a high degree of safety and reliability. KSB supports you with the service packages you require: from installation and commissioning, inspections and maintenance right through to repairs on site or at one of our more than 170 service centres worldwide. With more than 3,000 experts, we are there for you, twenty four hours a day, seven days a week, capable of meeting the most stringent requirements thanks to SCC^P-approvals.

All information at www.ksb.com/service



The highest level of efficiency: The KSB SuPremE® IE5 motor* combined with the high-precision PumpDrive variable speed system. For double energy savings with KSB

* IE5 in accordance with IEC/TS 60034-30-2 up to 15/18.5 kW (only for 1500 rpm types rated 0.55 kW, 0.75 kW, 2.2 kW, 3 kW, 4 kW: IE5 in preparation)





Technology that **makes its mark**

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don't miss out, sign up now:
www.ksb.com/newsletter



Your local KSB representative:



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