

► Our technology. Your success.

Pumps • Valves • Service



Your ideal solution for heating, ventilation and air-conditioning: **In-line pumps from KSB**



Maximum efficiency with the **right in-line pump** for your requirements

Opt for state-of-the-art pump technology from KSB for your heating, ventilation and air-conditioning systems. Our extensive range of high-efficiency in-line pumps covers all applications in this area. In combination with KSB's comprehensive service portfolio, you will find that KSB offers the ideal solution for your requirements.



Etaline

More flexibility for confined spaces



Etaline Z

More availability for reliable operation

From air-conditioning systems and cooling circuits to district heating, KSB offers a wide variety of high-performance pump solutions. The new Etaline L / DL pump series completes our in-line pump range, ensuring that KSB covers all applications. Thanks to their close-coupled design, these high-efficiency in-line pumps are ideal for space-saving installation in building services.

They are the perfect addition to our strong product range, which includes the flexible Etaline / Etaline Z in-line pump and the Etaline R for larger applications. Efficient, safe and reliable – discover the many individual product strengths and enjoy optimised energy efficiency at all levels.

Maximum efficiency – KSB pump set FluidFuture®

As part of our FluidFuture® energy efficiency concept, we look at the hydraulic system as a whole and identify all potential energy savings. Optimum energy savings can be obtained by combining the premium type series with the KSB SuPremE® IE5* motor, the world's most efficient magnet-less pump motor.

KSB offers ground-breaking drive and automation solutions to ensure that pump sets are operated with maximum efficiency. Etaline is equipped with economical IE3 motors as standard. Pump sets fitted with the PumpDrive variable speed system and the PumpMeter pump monitoring unit help to ensure demand-driven operation for absolute system availability. More information at www.ksb.com/fluidfuture



* 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)



New: Etaline L

More energy efficiency
for small-scale
applications

New: Etaline DL

More reliability for
every application

Etaline R

More space for
large applications

Efficient in every application – the **flexible Etaline / Etaline Z**

The Etaline in-line pump is KSB's flexible solution for a wide variety of building services applications. Its in-line design enables horizontal or vertical installation directly in the piping, making it the ideal solution for complex structures such as high-rise buildings or skyscrapers.

Flexible, efficient, reliable – Etaline impresses with its variable design and numerous advantages. One of the most important advantages is its small footprint: compared with conventional installation types, the in-line design saves a huge amount of space – and also cuts costs. The Etaline Z twin pump also ensures maximum availability and absolute operating reliability of your system.



The horizontal **Etaline** variant with KSB SuPremE® IE5* motor, PumpDrive and PumpMeter

Maximum flexibility

- Flexible installation thanks to in-line design
- Finely graduated range of sizes: available in 22 different hydraulic sizes
- Highly versatile and suitable for the most diverse of requirements thanks to large variety of materials
- Broad application range: flange connections drilled to EN or ASME
- Comprehensive choice of standardised mechanical seals: from Code 6 to 11 as standard

Ease of service and maintenance

- Replaceable casing wear rings and shaft sleeve
- Global service network
- Service available around the clock in many countries
- Fast availability of spare parts

High level of operating reliability guaranteed

- Designed for 16 bar: able to handle various intake conditions and high pressures
- Good NPSH values – allows operation at relatively low inlet pressures
- Minimal wear due to low vibration and smooth running
- High level of reliability ensured by twin pump design

Energy-efficient at all levels

- High efficiencies thanks to improved hydraulic system
- Impeller diameter trimmed to match the operating point as standard
- Pump sets comprising the world's most efficient magnet-less pump motor: the KSB SuPremE® IE5* motor
- Demand-driven operation and full transparency with PumpDrive and PumpMeter
- FluidFuture® – energy efficiency concept for the entire hydraulic system



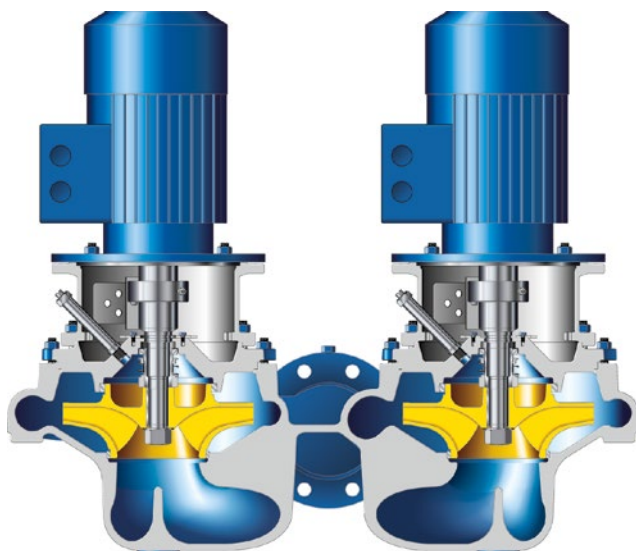
Technical data

DN	32–200
Q [m ³ /h]	max. 700
H [m]	max. 95
p [bar]	max. 16
T [°C]	-30 to +140

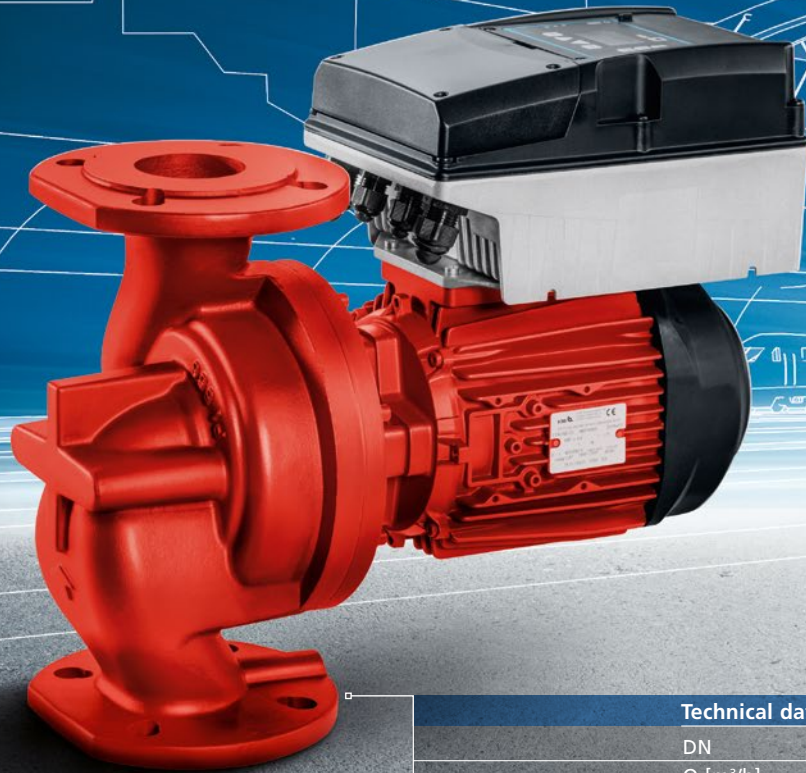


Technical data

DN	32–200
Q [m ³ /h]	max. 1,095
H [m]	max. 38.5
p [bar]	max. 16
T [°C]	-30 to +140



Cross-sectional view of Etaline Z – designed for maximum efficiency right from the beginning



Technical data	
DN	25–80
Q [m³/h]	max. 95
H [m]	max. 21
p [bar]	max. 10
T [°C]	-15 to +120

Etaline L/DL – the ideal solution for small applications

The addition of the new close-coupled Etaline L in-line pump to KSB's pump portfolio means that KSB now offers a complete range of dry-installed in-line pumps for building services applications. Just like Etaline, the Etaline L in-line pump impresses by ensuring maximum efficiency and operating reliability for your system.

Thanks to its extremely economical design, Etaline L keeps your system's energy costs as low as possible. As is customary with KSB pumps, high-efficiency IE3 motors are used as standard. For the new in-line pump series, the IE3 motors additionally feature a long shaft. To ensure reliable operation, Etaline L is equipped with high-quality standardised mechanical seals. KSB offers absolute reliability with its twin pump design, Etaline DL.



Technical data

DN	32–80
Q [m³/h]	max. 150
H [m]	max. 21
p [bar]	max. 10
T [°C]	-15 to +120

More flexibility for heating, ventilation and air-conditioning

- Etaline L/DL completes the KSB in-line pump range for building services applications
- Highly versatile and suitable for the most diverse of requirements thanks to a large variety of materials
- Union connection for small pump sizes to DIN EN ISO 228-1

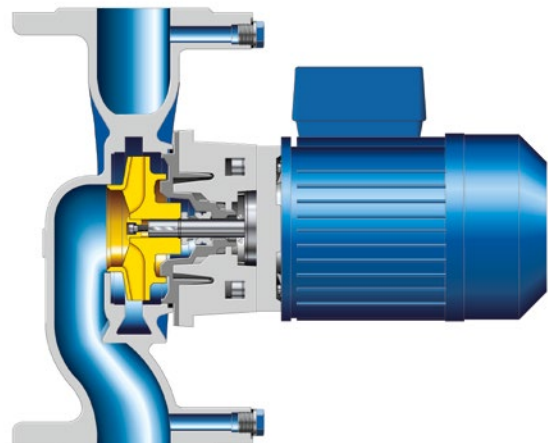
Optimum energy efficiency

- High overall efficiencies and low energy costs thanks to the perfect combination of an energy-efficient motor and advanced hydraulic system
- High-efficiency IE3 motors with long shaft as standard
- Demand-driven operation with PumpDrive

Absolute operating reliability

- Reliable operation due to high-quality mechanical seals and confined casing gasket
- Maximum operating reliability with the Etaline DL twin pump

Flexible, efficient and reliable – Etaline L/DL stands for high overall efficiencies in building services applications.



The solution for larger challenges – **Etaline R**



Technical data

DN	150–350
Q [m ³ /h]	max. 1,900
H [m]	max. 93
p [bar]	max. 25
T [°C]	-30 to +140

KSB has extended its selection chart for in-line pumps to include the new Etaline R pump, which is ideal if you need higher performance data. The vertical in-line pump offers all the usual advantages of KSB in-line pumps for all large-scale applications.

When it comes to large-scale applications in heating, ventilation and air-conditioning systems, Etaline R is the right solution for maximum efficiency. The newly developed hydraulic system with optimum impeller/volute casing geometry ensures best efficiency levels and maximum energy savings. This is additionally helped by trimming the impeller to match the operating point as standard. Etaline R also impresses with regard to operating reliability: depending on the selected material, the pressure boundary and mechanical seals are designed for handling up to 140 °C, ensuring reliable operation under all conditions.

Large variety of applications

- Can be used for every application and at up to 140 °C thanks to fluid-dependent material combinations for impeller and mechanical seals
- Wide range of material variants for mechanical seals as standard
- Space-saving design: installation surface smaller than for baseplate-mounted pumps

Ease of service

- Replaceable discharge-side and suction-side casing wear rings
- Cartridge seal

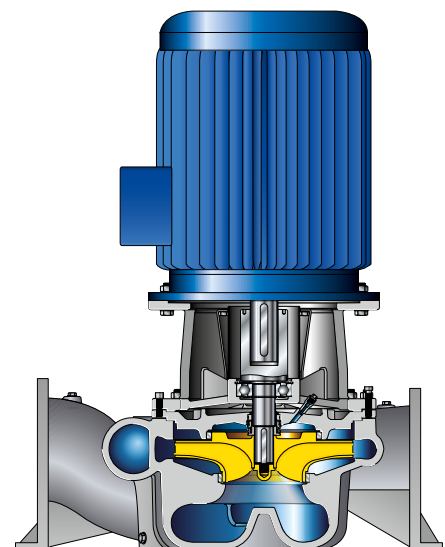
High level of operating reliability guaranteed

- Pressure boundary and mechanical seal designed for up to 16/25 bar and 140 °C depending on the material variant selected
- Intermediate bearing in the lantern

Energy-efficient operation

- High degree of efficiency thanks to new hydraulic system
- Maximum efficiency by trimming the impeller to match the operating point
- FluidFuture® – maximum energy savings for the entire system
- Demand-driven operation with PumpDrive R

Built to offer excellent operating reliability with an optimised hydraulic system – the advantageous design of Etaline R impresses in large-scale applications.



Flexibility with the Etaline series – the right pump for every application

In-line pumps from KSB are available in a wide range of variants and with tailored system solutions. Drawing on many years of experience and our comprehensive system expertise, we will find the ideal solution to suit your building services requirements.

Etaline



DN	32–200
Q [m³/h]	max. 700
H [m]	max. 95
p [bar]	max. 16
T [°C]	-30 to +140

Description:

Single-stage volute casing pump in in-line design with standardised motor; pump shaft and motor shaft are rigidly connected.



Applications:

Hot-water heating systems, cooling circuits, air-conditioning systems, water supply systems, service water supply systems and industrial recirculation systems.

● PumpMeter, PumpDrive, control unit/switchgear, KSB SuPremE

www.ksb.com/etaline

Etaline Z



DN	32–200
Q [m³/h]	max. 1,095
H [m]	max. 38.5
p [bar]	max. 16
T [°C]	-30 to +140

Description:

Single-stage volute casing pump in in-line twin design with standardised motor; pump shaft and motor shaft are rigidly connected.



Applications:

Hot-water heating systems, cooling circuits, air-conditioning systems, water supply systems, service water supply systems and industrial recirculation systems.

● PumpMeter, PumpDrive, control unit/switchgear, KSB SuPremE

www.ksb.com/etaline-z

Etaline L/DL



Etaline L:	
DN	25–80
Q [m³/h]	max. 95
H [m]	max. 21
p [bar]	max. 10
T [°C]	-15 to +120

Etaline DL:	
DN	32–80
Q [m³/h]	max. 150
H [m]	max. 21
p [bar]	max. 10
T [°C]	-15 to +120

Description Etaline L:

Single-stage close-coupled in-line volute casing pump with common motor/pump shaft and uncooled mechanical seal.



Description Etaline DL:

Single-stage close-coupled in-line volute casing pump with common motor/pump shaft and uncooled mechanical seal used as twin pump.



Applications:

Hot-water heating systems, cooling circuits, air-conditioning systems, water supply systems, service water supply systems, swimming pools (only Etaline L) and industrial recirculation systems.

 PumpDrive, control unit/switchgear

www.ksb.com/etaline_l

Etaline R



DN	150–350
Q [m³/h]	max. 1,900
H [m]	max. 93
p [bar]	max. 25
T [°C]	-30 to +140

Description:

Vertical close-coupled in-line volute casing pump with standardised motor.



Applications:

Hot-water heating systems, cooling circuits, air-conditioning systems, water supply systems, service water supply systems and industrial recirculation systems.

 PumpMeter, PumpDrive, control unit/switchgear, KSB SuPremE

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