

**KSB Building Services.
Solutions from a Single Source.**



You can make great plans with us.

If your plans aspire to great heights, you are at the right address with KSB. For many decades we have proven ourselves to be trusted partners in the design and construction of international building projects.

All our products conform to international, national and company-specific standards as a matter of routine; this no longer presents technical challenges. At KSB we accept only the limits imposed by technical feasibility. As a result, we follow an active and continuous programme of research and development.

This is certainly one of the reasons that our products are regarded as “the best on the market”.

Although we take pride in our highly advanced pumps, valves and systems for water supply, drainage and heating, we know that there are more important considerations – in particular for our customers. They need all-in solutions, tailor-made to meet their requirements. Our all-in approach to all-in solutions starts with the connection of automation modules to the pump hardware, continues with efficiency optimisation (Life Cycle Costs)



and extends beyond our comprehensive engineering, consultation and service packages. The KSB sales office near you looks forward to advising you in person.

What can we do for you?

Follow us now on a quick review of some of the most exciting KSB building projects.

These include a variety of building types, such as:

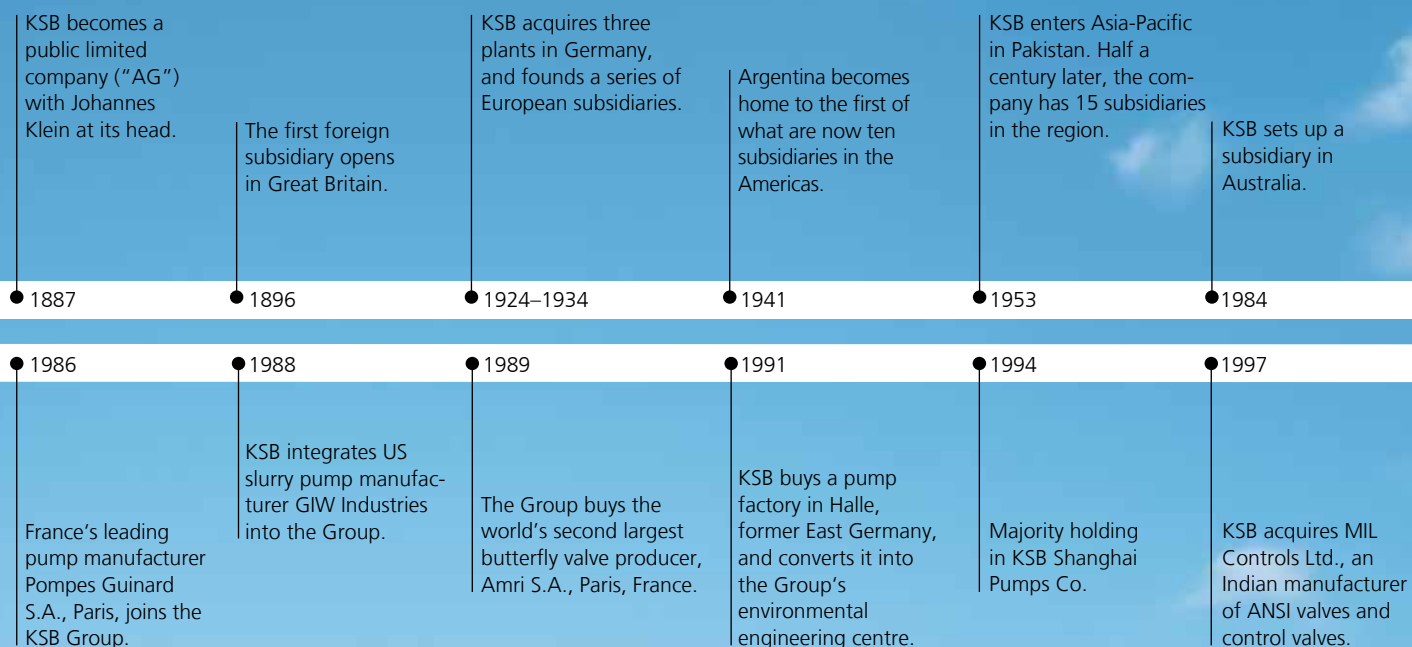
- office and hotel blocks
- industrial complexes
- public buildings.

As you can see, KSB supplies solutions for all types and sizes of construction projects. Efficient, reliable, international – the dependable choice for your project.



For 140 years we have been working for the future.

The KSB success story begins in 1871. Johannes Klein founds the “Frankenthaler Maschinen- & Armatur-Fabrik Klein, Schanzlin & Becker”, paving the way for today’s global business.



Into the record books with KSB.

Records are there to be broken.

The Burj Khalifa in the United Arab Emirates takes this message very seriously. The Tower has put the previous record holder and all pretenders to the crown of the tallest building in the world in their place for a long time to come. Dubai's new landmark has a height of 828 metres and 189 floors. And to make quite sure no one can contest its title, this mega-skyscraper can be extended vertically at any time. Precisely when a building projected to be taller is being erected somewhere in the world.



Progress made by 12/12/08. At this point about 162 floors had been constructed.

The builders of the Burj Khalifa have made it their mission to be top of the world – in every respect. So they opted for KSB engineering in the cooling systems of the desert project. KSB Middle East won an order for a total of **31 Omega coolant pumps**, which operate on the five service floors. These are situated on the basement levels and on the 17th, 40th, 73rd and 109th floors, although minor changes are still possible depending on the final height of the building. The 31 KSB pumps are used to provide continuous circulation of coolant in these pressure zones. The largest pump used is an **Omega 300-435 A** designed for a volume flow rate of a massive 415 l/s and a discharge head of 47 m.

But as if this were not enough: To cool such a colossal building with its planned 779 apartments at a mean midday outdoor temperature of 46°C to a work-friendly office temperature, further cutting-edge technology from KSB is needed along with a lot of KSB know-how.

We find it immediately next to the “Khalifa Tower” in a technical services building for the generation of cooling water. Here another **36 Omega pumps** with a maximum drive rating of 500 kW contribute to creating a comfortable working environment in the “Burj”. At night, when the demand for cooling water is slightly lower with a decrease in air temperature to “just” 33°C, the pumps are also used for producing ice. During periods of peak load at midday, the ice melts again and is mixed with the cooling water for additional cooling. This means there is no need for large quantities of equipment, and operating costs can be kept down.



A KSB Omega axially split volute casing pump. With 68 others of its type, it helps to cool the tallest building in the world in one of the hottest regions on earth.

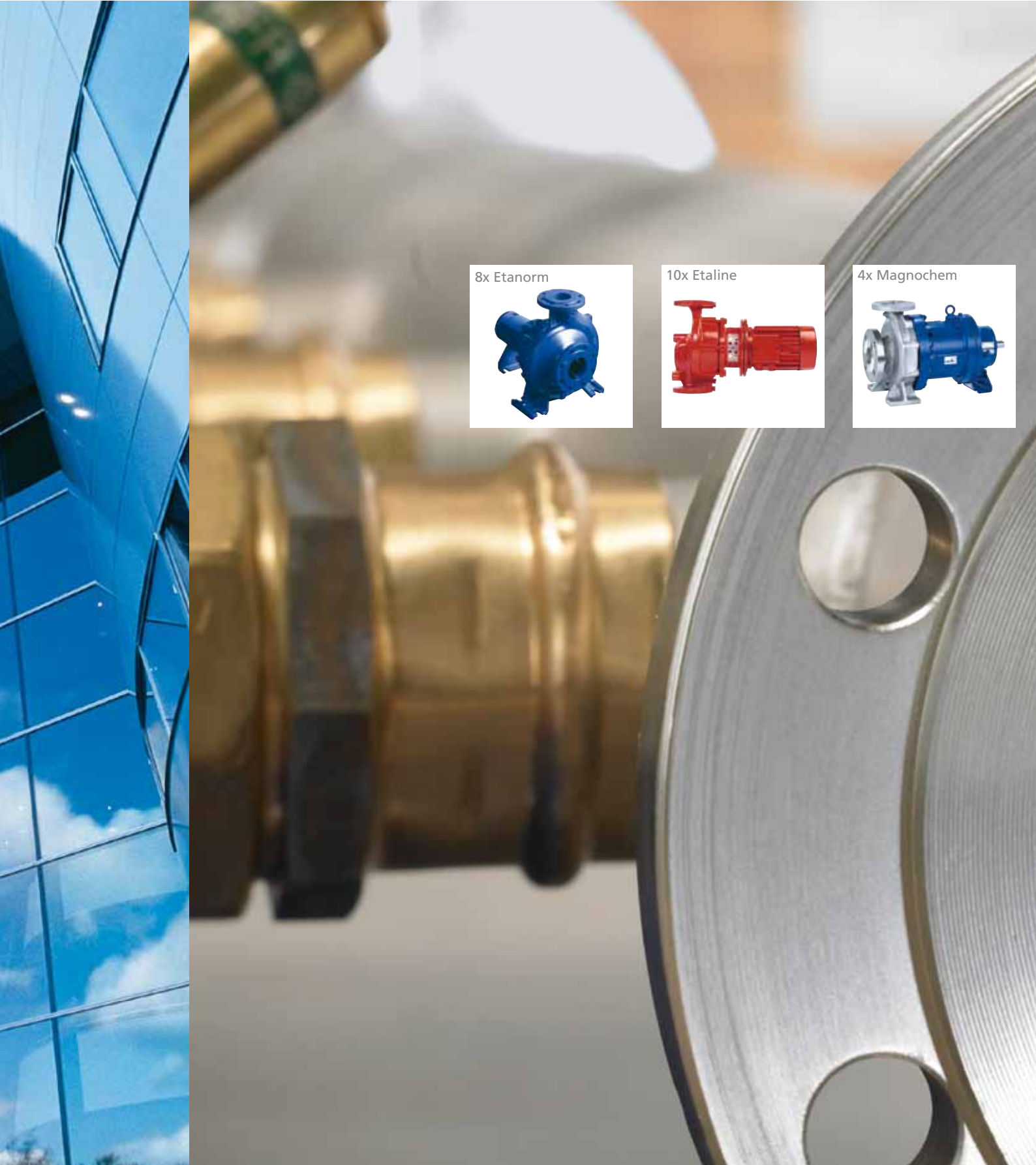
Enthralling: Automobile assembly live.

Volkswagen's Transparent Factory in Dresden, Germany

Wherever architectural innovation is to be found, KSB is not far away. This is certainly the case at Volkswagen's Transparent Factory ("Gläserne Manufaktur"), one of the many attractions of Dresden, the capital of Saxony. With the opening of this unique production facility in 2002, the Wolfsburg-based auto maker Volkswagen created not only 800 jobs in the region but an architectural showcase. The futuristic façade features two 150 m glass enclosed sections, giving visitors a fascinating insight into modern auto manufacturing techniques. Here, customers and visitors may watch workers wearing white gloves carefully assemble the luxury limousine of their choice (or their dreams).



Reassuring: Infrastructure by KSB.



8x Etanorm



10x Etaline



4x Magnochem



35x Rio



BOA-Control IMS



BOA-H



BOA-SuperCompact



KSB creates the climate for top performance

Where Phaetons or Bentleys are being built, working conditions must be perfect. KSB was the natural choice for all the supply and disposal services required in the Transparent Factory. As the lowest and most reliable bidder we delivered approximately 90 pumps & pumping systems and about 170 BOA-Control and BOA-SuperCompact valves to Saxony. For a project of this size our “Building Services” and “Industry” and “Water” divisions worked in close cooperation to provide all the pumps and accessories for heating, cooling and sanitary purposes, including hermetically sealed Magnochem pumps for newly developed refrigeration units. KSB thus played a significant part in the creation of another high-tech production facility in Germany.

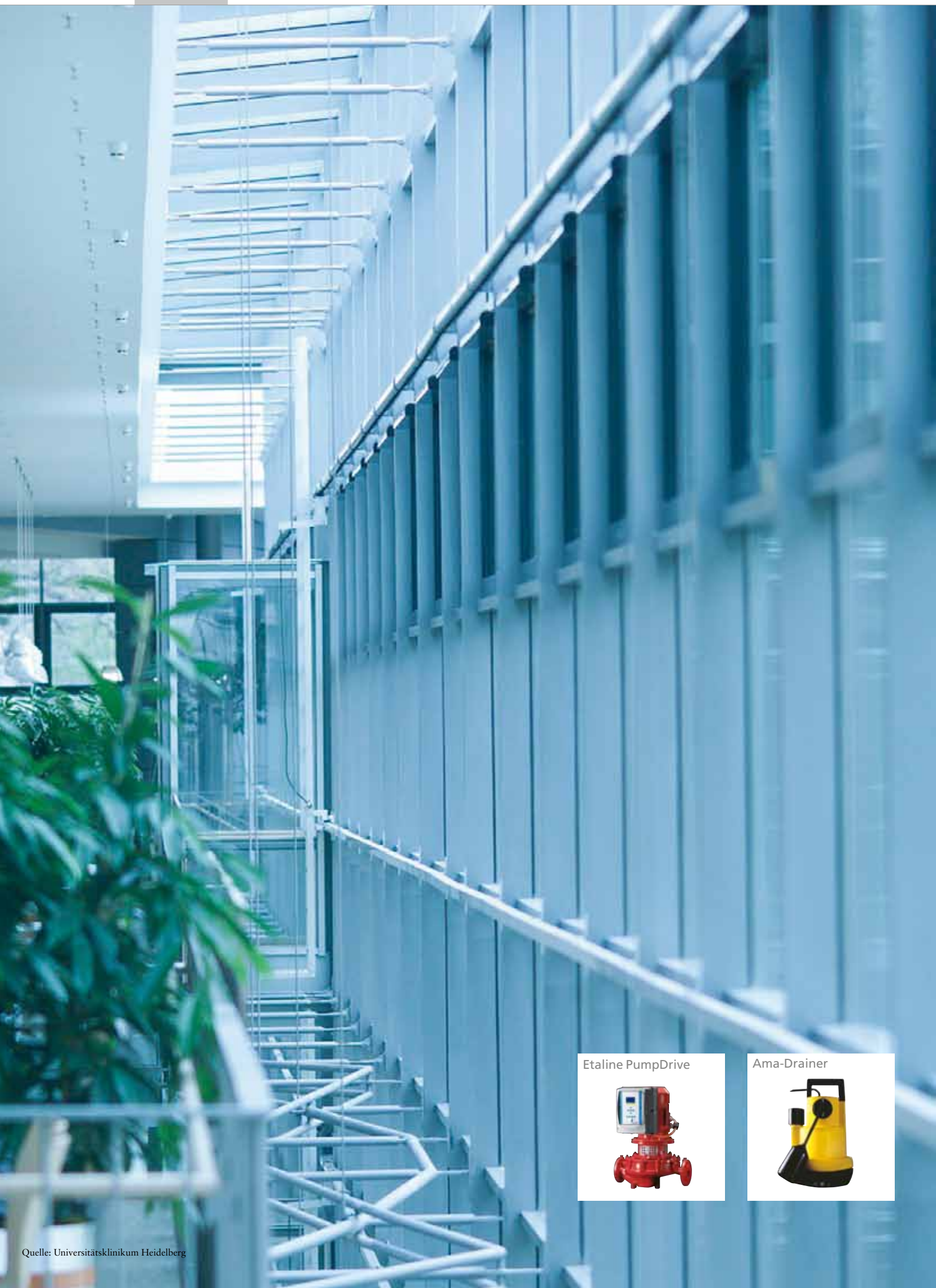
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Etaline PumpDrive



Ama-Drainer



KSB – When reliability is vital.

Medical facilities apply the strictest reliability standards to their equipment. It was therefore logical that after public tender, both the medical clinic and the children's clinic of the University of Heidelberg chose KSB as their system supplier. The selection was made not only on the basis of KSB advanced technology, future compatibility and competitive price – the extremely short delivery time of only 2 weeks enabled implementation to begin promptly.

KSB delivered 42 Compacta UZF 33.2 units for the sanitary installations, 4 Etanorm pumps for the recirculation of cooling water in the refrigerating units, 2 Etaline PumpDrive pumps for water recirculation in the heating system and 8 dual waste water lifting units with Ama-Drainer pumps.

In addition, 110 BOAX-S butterfly valves and 46 BOA-H globe valves were installed in the heating manifolds. To ensure the highest standards of hygiene, 130 SISTO diaphragm valves were

fitted to the drinking water supply system. Thanks to strict adherence to standards and KSB system-based concepts, all pumps and valves could be installed within a very short time. Since its commissioning in 2003, the installation has provided staff and patients with fresh water, heating and waste water disposal services.

Our round-the-clock, on-the-spot service guarantees reliable and uninterrupted operation.

In addition, our demand-oriented maintenance intervals ensure low life cycle costs (LCC) and economical operation.

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BOA-H



BOAX-S



Compacta



Etanorm



SISTO valves



With KSB, comfort starts before lift-off.

Munich airport (airport code MUC) was commissioned in 1992 and is one of the most important air traffic hubs in Germany. Rated by the number of passengers carried, it is currently the 8th largest airport in Europe. In 2003 Terminal II was opened, which increased airport capacity considerably. The new terminal was conceived from the outset as a hub; its outstanding minimum connecting time makes it the best airport in Europe for connections. Between 20 and 25 million passengers are served every year at 124 check-in counters. The airport occupies an area of 260,000 m² and has a gate length of 980 m.



Hyamat



Etaline PumpDrive



Compacta



Trialine



CPKN



Both the consultants and operators of Terminal II were convinced by the quality of KSB high-tech products.

As a result, our entire Building Services product range was ordered for this project. Over 200 Etaline PumpDrive units, numerous Compacta UZ units, pumps and valves of various types are providing reliable service in all buildings, exterior areas and the energy supply centre.

Munich airport has its own energy supply centre, which operates independently and provides heating and cooling for all buildings. This energy supply centre is equipped entirely with KSB products, which assist in the generation and distribution of energy and are responsible for maintaining correct working temperatures at the airport.

Other applications of KSB technology can be seen in the car park, the car rental centres and the delivery bays to businesses within the terminal. Our products can also be found in the aircraft cleaning hangars and wherever rainwater must be removed rapidly, which includes the apron and the elevated taxiways. For air travel in greater comfort and safety.

Our on-the-spot maintenance specialists ensure that KSB equipment performs perfectly and so makes a major contribution to uninterrupted airport operations. Our tailor-made maintenance concepts can recognise faults as they develop and so virtually eliminate equipment failures.

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Systematic savings: BOA-Systronic by KSB.

High, and still rising, energy prices in Germany have become a constant source of vexation both for tenants and for property owners.

Well-engineered and highly efficient energy-saving solutions are therefore increasingly in demand from consultants and their clients. One example is the engineering office of Lorek VDI-TGA from Hanover, which opted for KSB expertise when it was engaged by the operator WEG Bindingweg, Hanover, to design the heating, drinking and hot-water systems for a large building complex with a total of 366 housing units. For this extensive Bindingweg project in Hannover, KSB presented a persuasive concept for highly efficient operations.

We installed the smart BOA-Systronic system solution, plus other valves from the BOA series. In addition, two Etaline PumpDrive boiler circuit pumps and three Riotec Z hot-water circulators were installed. Because of the size and associated operating costs of the building complex, which was opened in January 2005,

a very high level of efficiency was of paramount importance. BOA-Systronic is used for three secondary heating circuits, which are matched to the flow-controlled oil burner (primary side), and keeps the main feed manifold from supplying more than the volume of hot water actually needed. This effective system solution has resulted in impressive energy savings.

This project illustrated once more that expertise, consulting, planning and service are crucial and, what's more, value-for-money benefits offered by KSB. And as a result of our customary short delivery times, our customers can also start saving money within a very short space of time.

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Residential buildings
Bindingweg



Etaline PumpDrive



KSB Automation: comfort up, life cycle costs down.

The automation of pumps has many advantages. Not only for users (who have less to worry about), but also equipment owners benefit from lower energy, operating and maintenance costs which repay automation investment very rapidly.

Here is a small selection of KSB automation solutions:

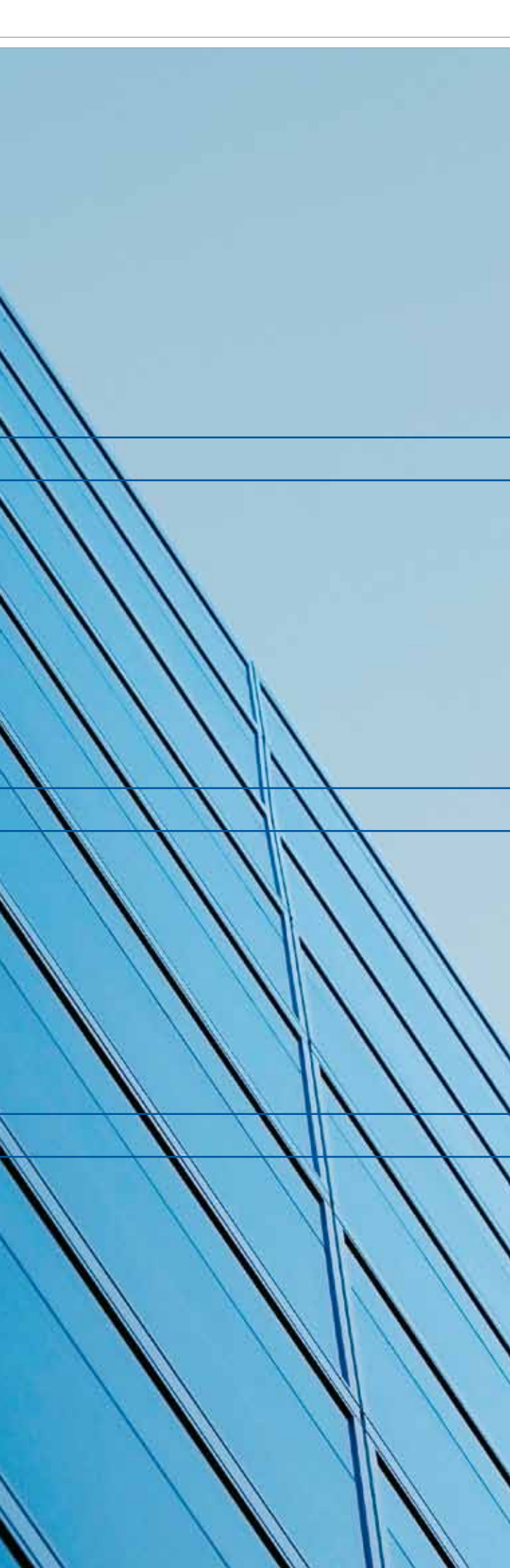
- **BOA-Systronic:** Intelligent heating control with BOA-Systronic – the water flow is matched exactly to radiator demand. Repayment of investment within 2 years.
 - Up to 70 % lower operating costs. Future-oriented: drastically reduced energy consumption for the circulator pump.
 - Lower commissioning costs and improved reliability. Automated: adjustment of water volumes in the main supply/return section of the heating circuit and calibration of control valves.
 - A second alternative planning concept can even reduce the investment costs for the pumps and valves installed in the main supply/return section of the heating circuit.
 - Lower planning costs: simple system selection with economic efficiency analysis; control valve is specified automatically.
 - Future-oriented technology: quadrupled efficiency will prepare your installation for current and future requirements such as energy saving regulations and energy demand certification.
 - Compatible technology: well-proven components for standard control systems.
- **PumpDrive:** Whether in heating, air-conditioning or service water systems: the PumpDrive motor-mounted speed control system matches pump output to demand - quickly, precisely and continuously. Controlled variables include differential pressure, liquid level, temperature and flow rate. With PumpDrive, energy savings of up to 60 % can be achieved, resulting in substantially lower life cycle costs.
- **LevelControl:** Level control system based on float switches or hydrostatic pressure measurement, ideal for automatic tank drainage.
- **PumpMeter:** For greater transparency of your pump operations, this new pump monitoring unit keeps you informed about potential ways to save energy. PumpMeter helps improve pump availability as well as energy efficient operation.

Whatever your plans are, we have the solution.

Water supply

Drainage

HVAC



Reliability by design.



Simple solutions.



Everything under control.

KSB – Infrastructure for all your plans, from a single source.

High availability, compact design, easy to fit: water supply products by KSB will perform reliably and efficiently at all stages of the supply chain, from water transport to storage and provision.



Rapid, clean, reliable: drainage solutions by KSB for the transportation of all types of waste water. For washrooms, showers and toilets, fixed or portable installation.



Heating, cooling and air conditioning under control: reliable and energy efficient, compensated for exterior temperature and time of day. Make your plans with KSB technology.





Water supply / Pressure boosting

Hyamat VP

Pressure boosting with continuously variable speed control of each pump

Our reliability expert supplies drinking water, service water or cooling water with a maximum level of operational dependability. Fully electronic control makes for optimum load distribution among the pumps installed and reduces switching frequency, resulting in a longer service life.

Design

Fully automatic pressure boosting package unit, with 2 to 6 vertical high-pressure pumps and continuously variable speed control of each pump. Fully electronic control of the required supply pressure, with standard volt-free contact, general fault indication or reporting of system availability as well as live-zero monitoring of the connected sensors. Configuration and function as per DIN 1988, Part 5.

Applications

- Pressure boosting in residential buildings, hospitals, office buildings, hotels, department stores, industry, etc.

Benefits

- Efficient and convenient with motor-mounted PumpDrive (suitable for all motor brands)
- Reliable operation as the unit is started and stopped smoothly, thus reducing pressure surges and check valve slam

- Continuous speed adjustment automatically matches the flow rate produced to demand. Also, a constant high pressure is ensured at any flow rate.
- Even distribution of pump operating hours due to automatic pump changeover
- Easy on the pumps: lower switching frequency reduces pump wear
- Integrated BoosterControl Advanced control unit ensures straightforward commissioning, high system availability, economic operation, easy servicing, etc.

Technical data

DN:	R2 – DN 250
Q m³/h:	up to 660
H m:	up to 160
p bar:	up to 16
T °C:	up to +70



Water supply / Pressure boosting



Movitec PumpDrive High-pressure in-line pump with speed control system



Applications

Pressure boosting, fire fighting, cooling water circulation.

Benefits

- Reliable: product-lubricated plain bearing of tungsten carbide, cast pump foot, torsion-resistant pump shroud and confined O-rings
- Long service life: corrosion-resistant hydraulic components made of stainless steel
- Easy to service:
 - can be fitted with any standardised mechanical seal (to EN12756)
 - can be fitted with Easy Access and cartridge seals allowing quick replacement
- Flexible: large variety of materials and connections as well as extended temperature and pressure range

Technical data

DN:	25–100
Q m ³ /h:	up to 113
H m:	up to 401
p bar:	up to 40
T °C:	-20 up to +140
n 1/min:	1,450/2,900; 1,750/3,500
Height:	up to 1,350 mm
Length:	up to 380 mm

Hya-Eco K / Hya-Eco VP Pressure boosting / fire-fighting system, 2 to 3 pumps



Applications

Residential buildings, hospitals, office buildings, hotels, department stores, industry, etc.

Benefits

- Even distribution of pump operating hours due to automatic pump changeover
- Corrosion-resistant stainless steel piping
- Low-noise operation since the flow noise is dampened by the water-filled shroud
- High operating reliability thanks to continuous functional monitoring of connected sensors
- Fire-fighting units Hya-Eco VP with continuously variable speed adjustment using frequency inverters

Technical data

Rp:	2
Q m ³ /h:	up to 70
H m:	up to 100
p bar:	up to 10
T °C:	up to +70
n rpm:	up to 2,850

Hya-Solo E Pressure boosting unit, 1 pump

Applications

Water supply for residential and office buildings, irrigation / spray irrigation, rainwater harvesting, service water systems in industry and trade.

Benefits

- Corrosion-resistant hydraulic system
- Reserve volume for low water withdrawal quantities, low switching frequency thanks to DVGW-approved direct-flow accumulator
- Added reliability due to integrated dry running protection
- Easy adaptation to operating conditions by setting the start-up pressure to values from 2 to 3.5 bar

Technical data

Rp:	1 1/4
Q m³/h:	6
H m:	up to 50
p bar:	up to 10
T °C:	up to +60
n rpm:	up to 2,900



Hya-Solo DV Pressure boosting unit, 1 pump

Applications

Residential buildings, department stores and industrial plants, water supply systems for residential and office buildings, irrigation / spray irrigation and rainwater harvesting systems, service water supply systems in trade and industry.

Benefits

- Anti-vibration mounts prevent solid-borne sound transmission
- Discharge pipe always filled due to check valve
- Compact design saves space
- DVGW-approved direct-flow accumulator to DIN 4807-5

Technical data

Rp:	1 1/4 – DN 100
Q m³/h:	up to 110
H m:	up to 150
p bar:	up to 16
T °C:	up to +70



Hya-Solo D FL / Hya-Duo D FL fire-fighting systems in accordance with DIN 14462

New: The compact fire-fighting station with drinking water separation Hya-Solo D FL Compact / Hya-Duo D FL Compact available for sale from March 2011

Applications

Fire-fighting systems for residential and retail buildings, as well as commercial and industrial premises.

Benefits

- Improved efficiency thanks to daily operation check run
- Monitoring for broken wires and short circuits of pressure switches and remote on/off
- Corrosion-resistant hydraulics and pump shroud in stainless steel
- Greater safety thanks to automatic minimum flow control
- Ensured availability thanks to shut-off valves
- Easy installation, ready-to-plug-in package unit, flow rate based control function (option)
- Sufficiently hygienic installation thanks to built-in timer to control a flushing device in the inlet line of the Hya-Solo D FL
- Elastic elements ensure set-up without impact sound interference.
- Also available as a redundant model (dual-pump system Hya-Duo D FL) with optional, retrofittable acoustic cladding

Technical data

DN: R1 up to DN100
 Q m³/h: up to 110
 H m: up to 160
 p bar: up to 16
 T °C: up to +70
 n min⁻¹: 2,900



Hyamat K Pressure boosting, 2 to 6 pumps

Applications

Residential buildings, department stores and industrial plants, water supply systems for residential and office buildings, irrigation / spray irrigation and rainwater harvesting systems, service water supply systems in trade and industry.

Benefits

- Up to six high-pressure pumps are started up/stopped in line with service demand
- Even distribution of pump operating hours due to automatic pump changeover
- High operating reliability thanks to continuous functional monitoring of connected sensors
- Installation free from solid-borne sound transmission due to anti-vibration mounts
- Corrosion-resistant stainless steel piping

Technical data

DN:	2–200
Q m³/h:	up to 450
H m:	up to 160
p bar:	up to 16
T °C:	up to +70
n rpm:	up to 2,900



Hyamat V Pressure boosting unit with continuously variable speed control of one pump

Applications

Residential buildings, department stores and industrial plants, water supply systems for residential and office buildings, irrigation / spray irrigation and rainwater harvesting systems, service water supply systems in trade and industry.

Benefits

- General fault signalling via volt-free contact
- Output automatically matched to demand thanks to a continuously speed-controlled base load pump
- Even distribution of pump operating hours due to automatic pump changeover
- High operating reliability thanks to continuous functional monitoring of connected sensors

Technical data

DN:	2–200
Q m³/h:	up to 450
H m:	up to 160
p bar:	up to 16
T °C:	up to +70



S 100 D / UPA 100 C Submersible borehole pump

Applications

Domestic and general water supply, irrigation and spray irrigation, lowering of groundwater levels, fountains and pressure boosting, air-conditioning systems, fire protection and cooling circuits.

Benefits

- High operating reliability and long service life due to maintenance-free and wear-resistant pump bearings
- Easy to commission and service: vent valve for operation with automatic control units such as Controlmatic E or Cervomatic EDP
- Highly corrosion-resistant - suction casing, valve housing and stage casing made of stainless steel

Technical data

DN:	100
Q m³/h:	up to 16
H m:	up to 400
p bar:	–
T °C:	up to +30
n rpm:	up to 2,900

For well diameters from
150 mm: UPA 150 C



Drainage

Compacta

Submersible sewage lifting unit

Factory-automated with LevelControl Basic

Drainage made simple: Compacta is available with one or two pump units. It handles domestic sewage, clear and fibre-laden waste water and faeces reliably and quietly. Configurable from a plug-in single-pump package unit to a small micro-processor controlled sewage lifting unit, Compacta will meet any waste water challenge in your project.

Design

Submersible single or duplex sewage lifting unit for automatic disposal of sewage and faeces below the flood level.

Benefits

- Maximum operating reliability achieved by innovative self-diagnosing control unit
- Trouble-free operation thanks to large passage
- Easy installation and removal due to variable connections

Applications

- Basement flats, bars, basement party rooms and saunas, cinemas and theatres, department stores and hospitals, hotels, restaurants, schools
- Public buildings, industrial plants
- Joint sewage disposal for rows of houses

Technical data

DN: 80–100

Q m³/h: up to 140

H m: up to 24

p bar: –

T °C: up to +40, for max. 5 minutes up to +65

n rpm: up to 2,800



Drainage



Amarex N Submersible motor pump DN 32 to 100

Automation possible with LevelControl Basic 2



Applications

For handling all types of waste water on municipal, industrial and commercial premises, particularly for pumped drainage.

Benefits

- Easy and straightforward installation – Re-usable and polarised cable entry with KSB plug connection ensures correct installation.
- Absolutely reliable and non-clogging: thanks to optimised cutter. Additional hydraulic system (D-type impeller) specially designed for fluids with high solids content and sludge.
- Up to 50 % more efficient than the pump's predecessor thanks to optimised hydraulics, resulting in considerably lower energy costs.

Technical data

DN:	32 – 100
Q m ³ /h:	up to 190
H m:	up to 49
p bar:	-
T °C:	up to +55
n rpm:	up to 2,900

Amarex KRT

Submersible motor pump DN 100 to DN 700 with cooling jacket

Automation possible with PumpDrive/LevelControl



Applications

Water and waste water engineering, handling of all types of abrasive or aggressive waste water in industry, especially untreated waste water containing long fibres and solid substances, fluids containing gas / air as well as raw, activated and digested sludge.

Benefits

- Flexible installation
- Permanent monitoring by various sensors ensures trouble-free pump operation
- Closed cooling system for optimum cooling under all operating conditions

Technical data

DN:	100 – 700
Q m ³ /h:	up to 10,800
H m:	up to 100
p bar:	-
T °C:	up to +60
n rpm:	up to 2,900

CK 800 packaged pumping station

Ready-to-connect pumping station (plastic collecting tank)

Factory-automated with LevelControl Basic 2

Applications

For waste water disposal below the flood level and the redevelopment of premises. Disposal of waste water in private, commercial, industrial and municipal sectors, joint sewage disposal for several houses or apartments, pumped drainage. Can also be retrofitted.

Benefits

- Versatile – tank cover available for load classes A, B and D
- Reliable – pump control using hydrostatic pressure measurement
- Long service life – high-quality, corrosion-resistant installation components

Compact design.

Equipped with one or two powerful Amarex submersible waste water pumps, also available in explosion-proof version. Collecting tank design to DIN 1986-100 and EN 752/EN 476/EN 1671.

Technical data

DN:	32 – 50
Q m ³ /h:	up to 22
H m:	up to 49
p bar:	-
T °C :	up to +40
n rpm:	up to 2,900



mini-Compacta U1.60 Submersible sewage lifting unit

Factory-automated with LevelControl Basic

Applications

Drainage of toilet facilities below the flood level, e.g. in

- Basement flats
- Bars, basement party rooms and saunas
- Cinemas and theatres
- Department stores and hospitals
- Hotels, restaurants and pubs or schools

Benefits

- KSB's smallest lifting unit to EN 12050-1
- The only lifting unit on the market with a steep characteristic curve: trouble-free operation even in lower lying basement flats
- Maximum operating reliability achieved by innovative self-diagnosing control unit
- Low flow noise due to anti-vibration mounted motor
- Manufactured to worldwide standards (DIN, ISO, EFQM)
- Optional 10-year spare parts warranty
- C design for aggressive media, with integrated check valve (only available with free-flow impellers)

Technical data

DN:	32 – 100
Q m ³ /h:	up to 36
H m:	up to 25
T °C :	+40
n rpm:	up to 2,900



HVAC

Etaline PumpDrive / Etaline Z PumpDrive

In-line pump with motor mounted speed control system

Our all-rounder on the “savings” topic is used in heating, air-conditioning and service water systems. The motor-mounted PumpDrive frequency inverter makes for perfect control of Etaline and Etaline Z (twin pump) units. Controlled variables include differential pressure, liquid level, temperature and flow rate. Whatever the application, PumpDrive considerably reduces life cycle costs, enabling energy savings of up to 60 %.

Design

Close-coupled in-line circulator pump, also in twin pump design, motor with integrated frequency inverter. Pump shaft and motor shaft are rigidly connected.

Applications

- Hot water heating systems
- Cooling circuits
- Air-conditioning systems
- Water supply
- Service water supply systems
- Industrial recirculation systems

Benefits

- Intelligent speed control with PumpDrive
- Minimised installation work due to in-line design

Technical data

DN:	32–200
Q m ³ /h:	up to 788
H m:	up to 100
p bar:	16
T °C:	-10 up to +110
n rpm:	up to 4,200



HVAC



Etanorm PumpDrive / Etabloc PumpDrive

Standardised close-coupled pump with motor-mounted speed control system



Applications

For irrigation and spray irrigation, drainage, water supply, heating and air-conditioning systems, condensate handling, swimming pools.

Handling of hot water, cooling water, fire-fighting water, seawater, oil, brine, drinking water, cleaning agents, brackish water, service water.

Benefits

- Optimised hydraulics ensure high efficiency and low operating costs
- Extremely robust - for continuous round-the-clock operation
- Wear-resistant and robust bearings for a long service life
- PumpDrive matches pump output to demand - quickly, precisely and continuously
- PumpDrive can help save up to 60 % in energy costs

Technical data

DN:	32–150
Q m³/h:	up to 602
H m:	up to 102
p bar:	up to 16
T °C:	up to +110
n rpm:	up to 4,400

Etaline-R vertical in-line pump with norm motor

Automation possible with PumpDrive/PumpMeter

Applications

- Air-conditioning
- Cooling circulation
- Heating systems
- District heating
- District cooling
- Service water systems
- Water supply
- Industrial circulation systems
- Heat recovery systems

Technical data

DN:	150 to 350
Q m³/h:	up to 1,900
H m:	up to 97
p bar:	up to 25
T °C:	-30 to +140
n min⁻¹:	up to 1,450

Benefits

- Excellent efficiency as pressure sleeve and bearing ring seals can handle up to 16/25 bar and temperatures up to 140 °C (depending on materials)
- Hydraulic optimisation: customisable solutions through exact adaptation of the impeller disc to the operation point (standard). High hydraulic efficiency thanks to optimal impeller disc/volute casing geometry
- Efficient drive with high performance IE2 standard motors
- Easy replacement
- Optimal serviceability thanks to easy replacement of pressure rings and suction-side split rings. Bearing ring seals in cartridge design



Multitec High-pressure pump in ring-section design

Automation possible with PumpDrive

Applications

Water and drinking water supply, pressure boosting and irrigation. In industry, power stations, heating, filtering, fire-fighting, reverse osmosis systems, washing plants and snow-making installations.

Technical data*

DN:	32–150
Q m³/h:	up to 850
H m:	up to 630
p bar:	up to 63
T °C:	up to +200
n rpm:	up to 2,900

Benefits

- Service-friendly: bearing assembly and mechanical seal easy to dismantle
- Designed with one shaft seal only, so operating costs are reduced
- Versatile thanks to a wide range of materials and models

* Higher ratings possible upon request.



Valves

Everything under control with valves by KSB.

KSB always goes the whole way. That's why our comprehensive product range also includes the valves to match any pump application in your project. It's good to know everything's under control.



BOA-CVE control valves

Maintenance-friendly control valves in passage form with permanent or 3-point drive.

Applications

Standard heating, ventilation and air-conditioning systems, as well as drinking water applications.

Benefits

Wide range of applications, also for large valves.

Drives available with pulling loads up to 14,000 N.

soft-sealing

Available as CVE variants for all soft-sealing standard series:

BOA-CVE SuperCompact
BOA-CVE Compact
BOA-CVE Compact EKB
BOA-CVE Control IMS

Technical data

DN:	15–200
p bar:	6/10/16
T °C:	-10 to +120 (EKB up to +80)
Kvs values:	3–700 m³/h
Power supply:	24 V / 230 V AC/DC
Control signals:	VDC 0/2–10, 4–20 mA, 3 point

hard-sealing

BOA-CVE H

Hard-sealing control valve in passage form with permanent or 3-point drive.

BOA-H Mat E **NEW**

Automatic shut-off valve in passage form with 3-point drive.

Technical data

DN:	20–150
p bar:	16/25
T°C:	-10 to +350

Valves



BOA-SuperCompact Maintenance-free soft-seated wafer-type shut-off valves in DN face-to-face length



Applications

Hot water heating systems up to 120 °C.
Air-conditioning systems. Other fluids on request.

Technical data

DN: 20–150
200 with flanged ends,
type BOA-Compact
p bar: 6/10/16
T °C: -10 to +120

BOA-Control IMS with BOATRONIC M2 Maintenance-free soft-seated balancing and shut-off valves with flow rate and temperature sensor

Applications

Hot water heating systems up to 120 °C. Cold water for air-conditioning systems. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and uncoated cast iron, for example in open cooling circuits.

Technical data

DN: 15–200
250–350 type BOA-H
p bar: 16
T °C: -10 to +120



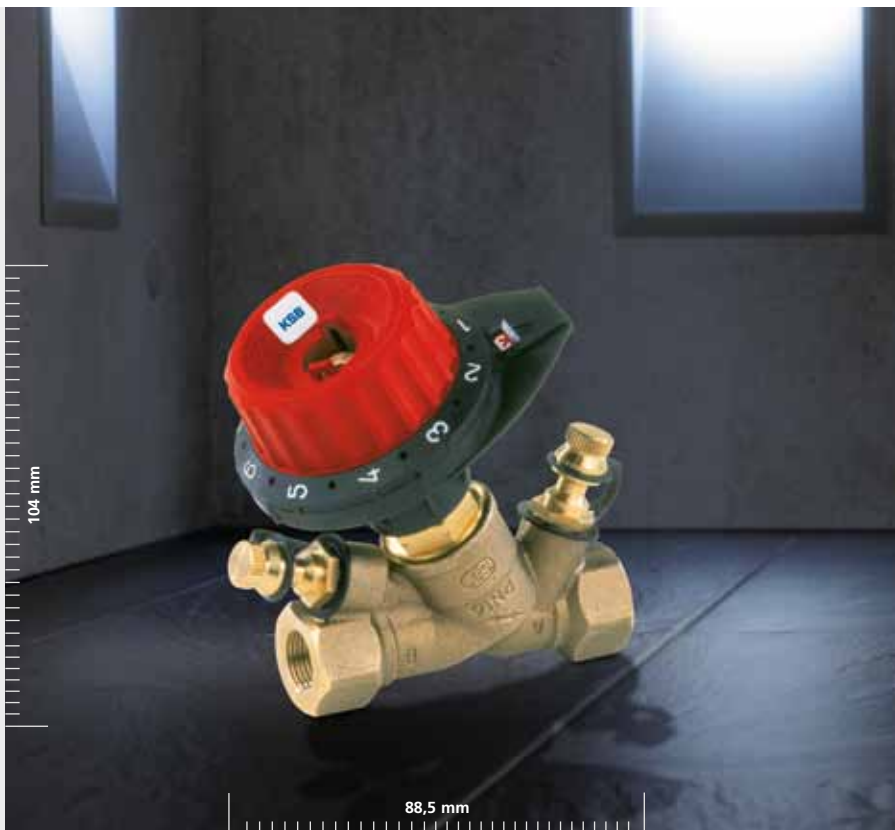
BOA-Control SAR Maintenance-free soft-seated balancing and shut-off valves

Applications

Hot water heating systems up to 120 °C. Air-conditioning systems. Other fluids on request.

Technical data

DN: 3/8"–2"
10–50
p bar: 16
T °C: -25 to +120



BOA-Compact Maintenance-free soft-seated shut-off valves with short face-to-face length



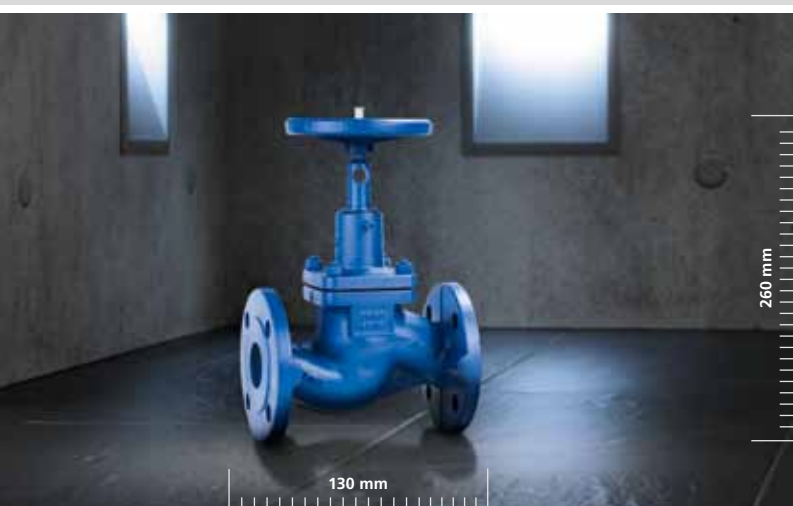
Applications

Hot water heating systems up to 120 °C. Air-conditioning systems. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and cast iron. Other fluids on request.

Technical data

DN: 15–200
p bar: 6/16
T °C: -10 to +120

BOA-H (Nodular cast iron) Maintenance-free metal-seated bellows-type shut-off valves



Applications

Hot water heating systems. High-temperature hot water heating systems. Heat transfer systems. General steam applications in building services and industry. Other fluids on request.

Technical data

DN: 15–350
p bar: 16/25
T °C: -10 to +350

BOA-H (Steel) Maintenance-free metal-seated bellows-type shut-off valves



Applications

Industrial systems, building services and power stations. Water, steam, gas and other non-aggressive fluids. Other fluids on request.

Technical data

DN: 10–350
p bar: 25/40
T °C: -10 to +450

DANAİS 150 Heavy-duty butterfly valve with plastomer or metal seat ring

Applications

Petroleum, gas, chemical and petrochemical industry, nuclear power stations, sugar industry, paper industry, geothermal energy, shipbuilding, low-pressure steam, vacuum service, building services.

Technical data

DN: 50–600
p bar: 25
T °C: -50 to +260



BOAX-S / -SF Maintenance-free soft-seated centered-disc butterfly valves for building services

Applications

Heating and air-conditioning systems, drinking water.

Technical data (BOAX-S)

DN: 20–600
p bar: 6/10/16
T °C: -10 to +130

Technical data (BOAX-SF)

DN: 20–600
p bar: 10/16
T °C: -10 to +130



BOA-Compact EKB Maintenance-free soft-seated flanged-end shut-off valves with electrostatic plastic coating and short face-to-face length



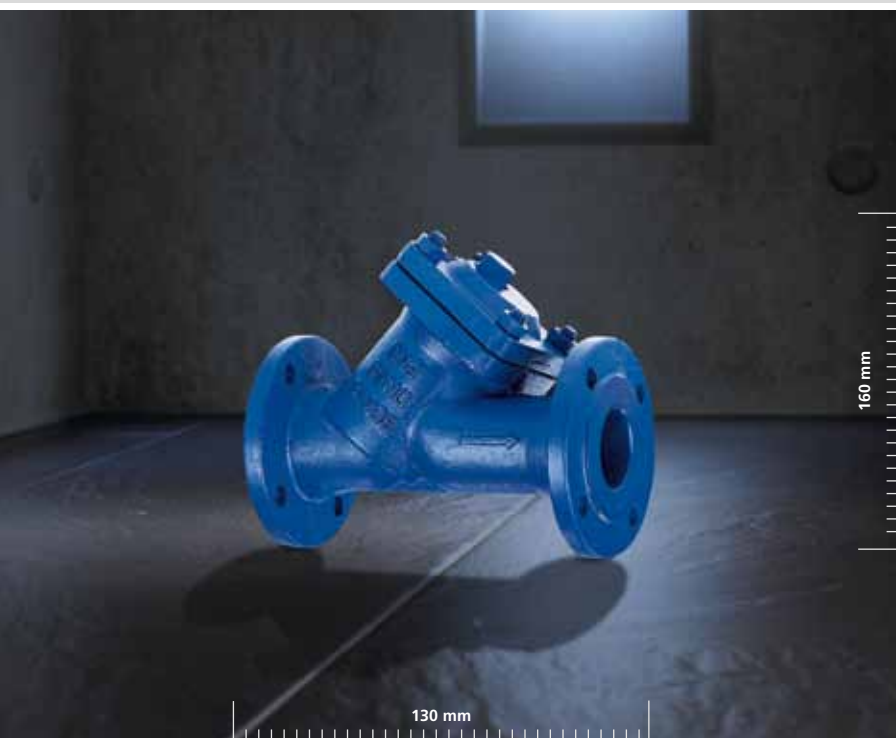
Applications

Water supply systems, drinking water. Air-conditioning systems. Cooling circuits. For installation in copper pipes the installation instructions must be complied with (see operating manual). Not suitable for steam or fluids liable to attack EPDM and the electrostatic plastic coating. Other fluids on request.

Technical data

DN: 15–200
p bar: 10/16
T °C: -10 to +70

BOA-S Flanged-end strainer with standard or fine mesh



Applications

Hot water heating systems.
High-temperature hot water heating systems.
Heat transfer systems to DIN 4754. General steam applications in building services and industry. Other fluids on request.

Technical data

DN: 15–300
p bar: 6/16/25
T °C: -10 to +350

SISTO 16 RGA Maintenance-free diaphragm valves with gunmetal body

Design

Diaphragm valve with threaded sockets in high-quality gunmetal body. Designed without dead volumes, the valve meets all hygienic requirements of drinking water applications. Valve materials are in accordance with DVGW (German organisation for technical standards in the gas and water industries) Worksheet W 270 and KTW recommendations on the use of elastomers in drinking water applications. DIN-DVGW approved and registered.

Applications

Drinking water, particularly drinking water installations to DIN 1988, seawater, service water of any quality

Technical data

DN: 15 – 80
p bar: 16
T °C: -10 to +90



SISTO 16 TWA Maintenance-free soft-seated glandless diaphragm valves

Design

Diaphragm valve with high-quality plastic coating. Designed without dead volumes, the valve meets all hygienic requirements of drinking water applications. Valve materials are in accordance with DVGW (German organisation for technical standards in the gas and water industries) Worksheet W 270 and KTW recommendations on the use of elastomers in drinking water applications. DIN-DVGW approved and registered.

Applications

Drinking water, particularly drinking water installations to DIN 1988, water containing chlorine, seawater, etc.

Technical data

DN: 15 – 200
p bar: 16
T °C: -10 to +90



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KSB EasySelect homepage

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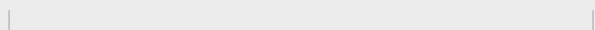
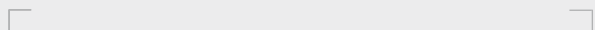
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