



# **Product Portfolio 2022**

# **Pumps I Automation**

# 150 YEARS FLOW ROUND



2

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# Our goal: Quality down to the smallest detail

At KSB, customer satisfaction, safety and reliability take top priority when it comes to quality assurance. Besides ensuring compliance with international quality standards, all KSB pumps and valves have to fulfil even higher internal quality standards.

Our integrated quality management system includes a detailed evaluation process for our production sites and suppliers worldwide. As a KSB customer, you can therefore rest assured that no matter where or when you order, you will always experience consistently high quality. Thanks to our continuous improvement process, we produce pumps and valves with a long service life, excellent efficiency and low wear – as guaranteed by our internal certification system and the "Made by KSB" quality seal.

#### How KSB puts quality into daily practice

- Quality is when our customers are satisfied: We focus all of our efforts on our customers. Our global customer satisfaction analysis shows us how well we're doing.
- Quality is what every employee delivers: Everyone at KSB plays a part in creating a positive customer experience. To ensure the best results, all employees undergo continuous professional development.
- Quality is how processes interlock: We continuously check and improve work processes and the working environment.
- Quality is what our supply chain contributes: We set our quality targets in cooperation with our partners. This helps us raise quality across the entire supply chain to the highest level.
- Quality is how mistakes are dealt with: If we detect quality deviations, we determine the causes in order to eliminate them permanently.



As a signatory to the United Nations Global Compact, KSB is committed to the ten principles of the international community in the areas of human rights, labour standards, environmental protection and anti-corruption.







4

# Creating the extraordinary. With passion.

We love what we do and that's why we go the extra mile to create truly extraordinary products for our customers. Our passion has been the secret to our success for 150 years and the reason why our pumps, valves and services continue to set new standards around the world.

KSB's superior products have the crucial edge in applications ranging from building services and industry to chemicals and petrochemicals, water supply and waste water treatment through to power stations and mining. Our innovative products and carefully devised solutions fulfil the highest requirements in terms of efficiency, availability and operating reliability. And that's just the start! Through our in-house research and development, unique engineering expertise and smart digital services, we are constantly expanding the boundaries of what is possible for our customers.

Our range of services is rounded off by a comprehensive service and spare parts portfolio that guarantees the highest quality, even when dealing with non-KSB products. Across KSB, our qualified and committed employees are passionately dedicated to keeping everything running smoothly for our customers.

KSB: Keeping everything flowing for 150 years.

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CAD portal	http://ksb.partcommunity.com
BIM	https://www.ksb.com/en-gb/software-and-know-how/configuration-tools

6

### Pumps

Design / Application	Type series	Page	Factory-automated	Automation available	Water Transport and Water Treatment	Industry	Energy Conversion	Building Services	Solids Transport
	Calio-Therm S NC/NCV	28							
Drinking water circulators, fixed speed	Calio-Therm NC	28						-	
	Calio-Therm	28							
Drinking water circulators, variable speed	Calio-Therm S	28							
	Calio S	29							
	Calio	29							
Circulators, variable speed	Calio Z	29							
circulators, variable speed	Calio Pro	29	-						
	Calio Pro Z	29	-						
	Etaline	30							
	Etaline Z	30		1.1					
	Etaline-R	30		1.1		_		1	
In-line pumps	ILN	30		i i i				-	
	ILNC	31		10.0					
	ILNR	31		1.1					
	Megaline	31		1.1					
	Etanorm	31							
	Etabloc	32		1.1				-	
	Etachrom B	32		1.1					
Standardised / close-coupled pumps	Etachrom L	32		1.1			-	-	
	Etanorm V	32				_		-	
	Meganorm	33		1.1	-	-	-		
	Megabloc	33		1.1	_	_		1	
	HPK-L	33		1.1		-	-	1	
Hot water pumps	НРН	33		1.1		-	-	1	
	НРК	33		100		-	-		
	Etanorm SYT / RSY	34		1.1					
Hot water / thermal oil pumps	Etabloc SYT	34		1.1					
	Etaline SYT	34		1.1		_		-	
	MegaCPK	34		1.1				_	
Standardised chemical pumps	CPKN	35					-		
	СРКНО	35							
	Magnochem	36							
	Magnochem 685	36							
Seal-less pumps	Magnochem-Bloc	36							
	Etaseco / Etaseco-I	36							
	Etaseco RVP	36							
	RPH	37							
	RPH-LF	37							
	RPHb / RPHd / RPHbd	37							
	RPH-V	37							
	CTN	37							
	CHTR	38							
Process pumps	CHTRa	38							
	CINCP / CINCN	38							
	INVCP	38							
	Estigia	38							
	RWCP / RWCN	39							
	WKTR	39							
	Hya-Rain / Hya-Rain N	40							
Rainwater harvesting systems		40							

Design / Application	Type series	Page	Factory-automated	Automation available	Water Transport and Water Treatment	Industry	Energy Conversion	Building Services	Solids Transport
	Multi Eco	40							
	Multi Eco-Pro	40			-				
Domestic water supply systems with automatic	Multi Eco-Top	40			-				
control unit / swimming pool pumps	Ixo N	41			-				
	Ixo-Pro	41			-				
	Filtra N	41							
	KSB Delta Macro	41							
	KSB Delta Solo/Basic Compact	41							
	KSB Delta Basic	41			-				
	KSB Delta Primo	42			-	-			
	KSB Delta Solo	42			-				
	Hya-Solo D	42							
Pressure booster systems	Hya-Solo D Hya-Solo D FL	42	-		-	-			
Pressure booster systems	-								
	Hya-Duo D FL	43							
	Hya-Solo D FL Compact	43					-		
	Hya-Duo D FL Compact	43							
	Hya-Duo D FL-R	43							
	Surpress Feu SFE	43							
	Safety Boost	44							
	AmaDrainer 3	44		_					
	AmaDrainer 4 / 5	44		-				-	
Drainage pumps / waste water pumps	AmaDrainer 80/100	44		_				-	
	Ama-Porter F / S	44		_					
	Rotex	45						-	
	MK / MKY	45		-				-	
	Amaclean	45							
	AmaDrainer-Box Mini	45							
	AmaDrainer-Box	45							
	Evamatic-Box N	46							
	mini-Compacta	46							
Lifting units / package pump stations	Compacta	46							
	CK 800 Pump Station	46							
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	Ama-Porter CK Pump Station	47							
	SRL	47							
	SRA	47							
	Amarex	48							
Submersible motor pumps	Amarex N	48							
	Amarex KRT	48		•					
	Amacan K	48							
Submersible pumps in discharge tubes	Amacan P	48							
-	Amacan S	49		•					
	Amamix	50							
Mixers / agitators / tank cleaning units	Amaprop	50							
	Amaline	50							
	Sewatec	51							
	Sewatec SPN	51		_	-				
Pumps for solids-laden fluids	Sewabloc	51							
. ango for some factrificities	KWP	51							
		51			-				

Design / Application	Type series	Page	Factory-automated	Automation available	Water Transport and Water Treatment	Industry	Energy Conversion	Building Services	Solids Transport
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	LSA	52							
	LCC-M	52							
	LCC-R	52							
	ТВС	52							
	LCV	53							
	FGD	53							
Slurry pumps	MHD	53							
	LHD	53							
	MDX	53							
	ZW	54							
	HVF	54							
	DWD	54							
	TDW	54							
	Etaprime L	55							
	Etaprime B	55							
Self-priming pumps	EZ B/L	55							
	AU	55							
	AU Monobloc	55							
	UPA C 100 EE	56							
	UPA C 100 EN	56							
	UPA C 150	56							
	UPA 200, UPA 250	56							
Submersible borehole pumps	UPA 300, UPA 350	56							
	UPA 400 - UPA 1100	57							
	UPA D	57							
	UPA S 200	57							
Vertical turbine pumps	B Pump	57							
	Comeo	58							
	Movitec H(S)I	58							
High-pressure pumps	Movitec	58							
2 Francisco Fran	Movitec VCI	58							
	Multitec	58							
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Axially split pumps	RDLO	59							
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	Vitachrom	59							
	Vitacast	60							
Hygienic pumps for the food, beverage and	Vitacast Bloc	60		-	-				
pharmaceutical industries	Vitaprime	60							
	Vitastage	60							
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Design / Application	Type series	Page	Factory-automated	Automation available	Water Transport and Water Treatment	Industry	Energy Conversion	Building Services	Solids Transport
	CHTA / CHTC / CHTD	61							
	HGB / HGC / HGD	61							
	HGI	61							
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Pumps for power station conventional islands	SEZ	62							
	SEZT	62							
	PHZ	62							
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	RER	64							
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Pumps for desalination by reverse osmosis	Multitec-RO	66							
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Design / Application	Type series	Page	Water Transport and Water Treatment	Industry	Energy Conversion	Building Services	Solids Transport
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Automation and drives	KSB UMA-S	26					
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		NC/NCV																														
	i	Calio-Therm 5 NC/NCV Calio-Therm NC		Calio-Therm	Calio-Therm S		Calio S	Calio	Calio Z	Calio Pro Z		Etaline	Etaline Z	Etaline-R	ILN		Megaline		Etanorm	Etabloc	Etachrom B	Etachrom L	Etanorm V	Meganorm	Megabloc							
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Service water	circu		ulat			ulat												<u>, c</u>										$\square$	$\perp$	$\perp$		$\perp$
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River, lake and groundwater		+								+																			+	-	+	+
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Gas-containing liquids																																
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Toxic liquids High-temperature hot water		+	-		$\square$		$\vdash$	-			-															$\vdash$	$ \rightarrow$	$\rightarrow$	+	+	+	+
Heating water																	_	-		$\rightarrow$	-	-						$\rightarrow$	+	-	+	+
Highly aggressive liquids		+-						-				F	-	-	-				⊢		+			-	_				+	-	+	+
Industrial service water																													+			
Condensate	] [																	1														
Corrosive liquids																																
Valuable liquids																											$\square$	$\square$	$\perp$	$\perp$		$\perp$
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Volatile liquids	┥┝							-				P							-		┛	-		-	-	$\vdash$	$\rightarrow$	$\rightarrow$	+	+	+	+
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Rainwater / stormwater		_		$\vdash$	$\mid \mid$			$\rightarrow$	_	_		_	$\left  - \right $					-			_	_			-	$\mid \mid$	$ \rightarrow$	$\rightarrow$	+	+	+	+
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Lubricants		+		$\vdash$	$\left  - \right $		$\vdash$	+	+		-	-	$\vdash$		$\vdash$	+	+-		-	$\vdash$	+	$\neg$		-		$\vdash$	$\rightarrow$	+	+	+	+	+
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Swimming pool water		+			$\vdash$		$\vdash$	+	+	+																$\vdash$	$\neg$	+	+	+	+	+
Brine		$\top$			$\square$			1													$\uparrow$							$\uparrow$	+	-	╈	+
Feed water																																
Dipping paints																		-						_								
Drinking water							$\square$																			$\square$	$ \rightarrow $	$\square$	$\downarrow$	$\perp$	$\downarrow$	$\perp$
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Hot water		-		•							4	P												-	-	$\vdash$	$ \rightarrow$	$\rightarrow$	+	+	+	+
Wash water																																

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		Multi Eco	Multi Eco-Pro	Multi Eco-Top Ixo N	lxo Pro	Filtra N		KSB Delta Macro	KSB Delta Solo/Basic Compact	KSB Delta Basic	KSB Delta Primo	KSB Delta Solo	Hya-Solo D	Hya-Solo D FL	Hya-Duo D FL	Hya-Solo D FL Compact	Hya-Duo D FL Compact	Hya-Duo D FL-R	Surpress Feu SFE	Safety Boost													
Waste water with faeces	bs						ns																										_
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Food and beverages	ith	-	+		-	-			-				_	_						+		-	-	-				_	-	-	$\vdash$	+	—
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Harmful liquids	r su																														Ц	$\square$	
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Coolants													_																		Ц	$ \downarrow$	
Cooling lubricant				_	_				_				_									_	_					_	_	_	$\square$	$\rightarrow$	
Cooling water		$\rightarrow$	+	_		-		-	-				_	_		_		_	$\rightarrow$	$\rightarrow$	_	-	+	-	_			_	_	-	$\vdash$	$\rightarrow$	
Volatile liquids Fire-fighting water		$\rightarrow$	+	_	+	$\vdash$		-	-		$\left  - \right $	_	_							-	_	-	+	$\vdash$	-			+		+	$\vdash$	+	
Solvents		+	+		-	$\vdash$		-	-		$\vdash$		_					-	-	$\dashv$		+	+	$\vdash$		$\vdash$	$\square$	+	-	+	$\vdash$	+	
Seawater		$\dashv$	+	+	-	-					$\square$		-						$\neg$	$\dashv$		+	$\vdash$	-	-		$\vdash$	+	+	1	$\vdash$	+	
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Polymerising liquids		$ \rightarrow$	_		-	_		L	<u> </u>		$\square$		_						_	_		_	-	_		$\square$				_	$\square$	$ \rightarrow$	
Rainwater / stormwater		$\rightarrow$	+	_	-	-		-					-						-			_	-	-		$\mid \mid$	$\square$		_	-	$\vdash$	$\dashv$	
Cleaning agents Raw sludge		+	+	_	-	$\vdash$		-	-		$\square$	_	_		_			-	+	+		-	+	$\vdash$	-	$\vdash$		-+	+		$\vdash$	+	
Lubricants		+	+	+	+	$\vdash$			-	$\square$	$\vdash$		_	_		$\square$		$\neg$	+	$\neg$		+	+	$\vdash$	-	$\vdash$		-	+	+	$\vdash$	$\rightarrow$	—
Grey water		+	+	+	+	-					$\vdash$					$\square$		$\neg$	+	+	-	+	+	+	-		$\vdash$	+	+	+	$\vdash$	+	—
Swimming pool water		$\uparrow$	+	+	1														$\uparrow$	$\neg$		1	$\uparrow$	1						1	$\square$	+	_
Brine																																	_
Feed water																															$\square$		
Dipping paints					_														_							$\square$					$\square$	$ \downarrow$	
Drinking water					-	_						-	-						_	-		_	-	_	_	$\square$		_	_		$\vdash$	$\rightarrow$	
Thermal oilHot water		+	+	_	-	-		-	-		$\vdash$		_					-	+		_	-	-	-	-	$\left  - \right $				-	$\vdash$	$\rightarrow$	
Hot water Wash water		+	+	_	-	$\vdash$		-	-		$\vdash$	_	_	Η	_	-			$\dashv$	-	-	+	+	$\vdash$	-	$\vdash$	$\vdash$		+	+	$\vdash$	+	—
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	AmaDrainer 3	AmaDrainer 4 / 5	AmaDrainer 80/100	Ama-Porter F / S	Rotex	MK / MKY					mini-Compacta	Compacta	_	CK 1000 Pump Station	Ama-Porter CK Pump Station		SRA	_		Amarex N										
Waste water with faeces	sdr						s 🛯	_										sd		_		_				_		$\vdash$	_	<u> </u>
Waste water without faeces	no					-	Lifting units / package pump stations											sdund	<u> </u>			_						$\vdash$		<u> </u>
Aggressive liquids	ter	_	-		$\rightarrow$		b b	+	_	_									_			_	-			_		$\vdash$	_	+
Inorganic liquids	wat	_	-		-	_	<u>۾</u>	+	_		<u> </u>							Submersible motor	_		_	-	-			_		$\vdash$	_	
Activated sludge	ste	_	-			_	e –	_			_	_	_					le l	•			_	-			_				
Brackish water	Na		-		$\rightarrow$	_	– íg	+	_				_	_	_			ersit	_			-	-			_		$\vdash$	_	+
Service water Distillate	bs / \				$\rightarrow$		bac	+			-							- ŭ			-		-		_	_		$\vdash$	+	+
Slurries	- E	-	-		$\rightarrow$	_	ts/	+	_	_	-			-	<u> </u>			Sul		-	_	-	-			_		-+		+
Explosive liquids	Je p	-	$\vdash$		+	-1	<u>-</u>	+			-			<u> </u>				┝		-	_	-	-			_		$\vdash$	+	+-
Digested sludge	naç	+	-		$\rightarrow$	-	<u>l</u>	┼		_	-			-	-			ŀ				+	$\vdash$					-+	+	+-
Solids (ore, sand, gravel, ash)	Drainage pumps / waste water pumps	+	-		-+	-	Ē	+	+		-			-								+	-	$\left  - \right $			$\left  - \right $	$\rightarrow$	+	+
Flammable liquids		+	-		+	_	┠	+	+	-	-			-						+	-	+	-	$\vdash$		-		+	+	+
River, lake and groundwater					$\dashv$			┼	+	-	-			-	-							-	-	$\vdash$	$\neg$	1	$\vdash$	+	+	+
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Food and beverages		1	1		$\neg$			1	+									ŀ				+	1						+	+
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Corrosive liquids		_	-		$\rightarrow$	_		+	_	_	_							-				_	-			_			_	-
Valuable liquids		_	-		$\rightarrow$	_		+	_	_								-	_	_	_	-	-		_	_		$\vdash$	_	+
Fuels	-	_	-		$\rightarrow$	_	-	+	_	_	-			<u> </u>				-	_	_	_		-			_			+	+
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Cooling lubricant Cooling water	-	-	-		-	_	-	+	_	_	-							ŀ		_	_	+	-		_	_		-+	+	+
Volatile liquids	-		-		$\rightarrow$	_		+	+	_		-			-			ŀ				-	-			_		-+	+	+
Fire-fighting water				$\left  - \right $	-+	_	┠	+	+		-		$\square$	-		$\left  - \right $		-	_	+	_	-	-	$\vdash$	_		$\left  \right $	$\vdash$	_	+
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Seawater		-	-		+	-		┼	+	-				-			$\square$				-	-	-	$\vdash$	+	+	$\vdash$	+	+	+-
Oils		+	1		+			+	+	+	Ē			-					-+'	+	·	+	1		+		$\left  \right $	$\rightarrow$	+	+
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Pharmaceutical fluids			1		$\neg$			╈	$\uparrow$											1		1	1		$\neg$		$\square$	$\uparrow$	+	$\uparrow$
Polymerising liquids		1	1		$\neg$			1	$\uparrow$		1											1	1					$\top$		$\uparrow$
Rainwater / stormwater																				1			1							$\square$
Cleaning agents																					İ									
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Grey water																				•   ī				$\square$						
Swimming pool water			_		$\square$																		_	$\square$				$\square$		<u> </u>
Brine		_			$ \rightarrow$			$\downarrow$		_	-											_		$\square$				$\vdash$		<u> </u>
Feed water		_			$ \downarrow$			+	_	_	-										_	_		$\square$		_		$\vdash$		<u> </u>
Dipping paints					-+	_		+	_	_	-			<u> </u>				-	-+	+	_	-					$\left  - \right $	$\rightarrow$	_	+
Drinking water		_			-+	_		+	_	_	-			_						$\downarrow$		-	-	$\mid \mid$		_	$\left  \right $	$\vdash$		
Thermal oil		+		$\left  - \right $	-+			+	_		-			<u> </u>		$\left  - \right $				+	_	+		$\left  - \right $			$\left  \right $	$\rightarrow$	_	+
Hot water					$\rightarrow$	_		+	+		-			-		$\left  - \right $		-		+	_	-		$\left  - \right $			$\left  - \right $	$\vdash$	_	+
Wash water			1																				1							

		Amacan K	Amacan P	Amacan S		Amamix	Amaprop	Amaiine	Countrol	Sewater Sewater SDN	Sewahor Sewahor	KWP	KWP-Bloc		WBC	LSA	LCC-M	BC	rcv T	GD	DHD	문			DWD	MQ		Etaprime L	Etaprime B	EZ B/L	AU	AU Monobloc
Waste water with faeces	_	◄	< · ►			- 1		_					-		>					<u> </u>	2		2 1							ш		◄
Waste water with naces	- ¥		-		듣⊢				≌⊢					Slurry pumps		-	-	+	-		-+		-	-	+-	+	Self-priming pumps	<u>i</u>	+	-		
Aggressive liquids	- 11			_	n 6			-	<u></u>			i.		Ind				-	-	$\vdash$	$\rightarrow$		+	_	+-	┿	- 3			-		
Aggressive inquids			-		cleaning			-		+	+	-		Irry		-					$\rightarrow$		+	-	+	+		ת 📕	+-	-		⊢
Activated sludge	sch				- Ge				ls-lo				+	SIL				+-			$\rightarrow$		+	-	+-	+-	- 1.5		+	-	$\left  - \right $	-
Brackish water	- iel		-		ž	-				-		-	+				+	+	+	$\vdash$	$\rightarrow$		+	-	+-	+-	-1					
Service water					agitators / tank		-		or s	+	+							+-	-		$\rightarrow$		+	-	+-	+-	- S			-		<u> </u>
Distillate	- E		-	-	ors				ps 1	+	+	+-	-					+-	+		$\rightarrow$	-	+	-	+	+	-	F	+-	1		
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Explosive liquids	ldis'			—	/ ag		+	- '	┺┝─	+	+	+-	+-		-	_		+-	+		-		+		+-	+-	-		+	1		
Digested sludge	mer			-	ers.		+						1			$\rightarrow$	+	+	1	$\square$	$\dashv$		+	+	+	+	1		+			
Solids (ore, sand, gravel, ash)				-	Mixers /		+		F	+	+																i		+	1		
Flammable liquids				-			+			+	+	+	+			$\neg$	+	+			$\neg$			+	+	+			1	1		
River, lake and groundwater	_																	1			-		╈		1	$\uparrow$				1		
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Food and beverages														1											+	$\uparrow$			1			
Gas-containing liquids																										1						
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Corrosive liquids																									_	┶	_		$\vdash$			
Valuable liquids					-					_	_	_	_					_	_		$ \rightarrow$				$\downarrow$	+	_	_	<u> </u>	<u> </u>		<u> </u>
Fuels	-							_		_		_	_					_	_						_	┶	_	_	_			<u> </u>
Coolants					-					_			_												$\downarrow$	+	_	_	_			<u> </u>
Cooling lubricant			_	_	-	_	_	_		_	_	_				_	_	_	_		$\rightarrow$	_	_	_	+	+	-	-	+	-		-
Cooling water				_	-			_		+	+							+	_	$\square$			_	_	+	+	-					⊢
Volatile liquids		$\vdash$			-		+	_		+	+	_	-				_	+	_	$\left  - \right $	-		+	_	+	+	-0	-	+	-		-
Fire-fighting water		$\vdash$	_	_	-	_	+	_		+	+	+-					_	+		$\left  - \right $	$\rightarrow$		+	_	+	+	-	-				
Solvents		$\vdash$	-+	_	-	_	_	_	-	+	+				-		+	+		$\vdash$	-	_	+	_	+	+	-	-	╞	-	┢═┤	
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Organic liquids	_	$\vdash$	+	-	-		+	-		+	+	+-	+			-+	+	+-	+	$\left  - \right $	-+	+	+	+	+	+-	-	┍╴	+-	-	$\vdash$	
Pharmaceutical fluids		$\vdash$		—	-		+	-		+	+	+-	+			-+	+	+-	+	$\vdash$	-+	-+	+	-	+	+-	-		+	$\vdash$	$\vdash$	
Polymerising liquids							+	-		+	+	+	+				+	+	+	$\vdash$	-	+	+	+	+	+			+	-	$\vdash$	
Rainwater / stormwater							+						1			$\rightarrow$	+	+	1	$\square$	$\dashv$		+	+	+	+	1		+			
Cleaning agents	_						$\neg$			+	╞	+	1				+	+	1		$\neg$		+	-	+	+				1		
Raw sludge												1	1								-		+		1	1			1	1		
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Grey water						ĺ																										
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Brine																																
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Dipping paints																																
Drinking water																				$\square$											$\square$	
Thermal oil	-																								$\perp$	$\perp$			$\perp$		$\square$	
Hot water	_																	_	_	$\square$					$\perp$	1	_		$\perp$		$\square$	-
Wash water								- E																			and the second se					

	UPA C 100 EE	UPA C 100 EN	UPA C 150	UPA 200, UPA 250	UPA 300, UPA 350	UPA 400 - UPA 1100	UPA D	UPA 5 200	B Pump		Comeo	Movitec H(S)I	Movitec	Movitec VCI Multitec		Omega	RDLO	RDLP		Vitacast/Vitacast Bloc	Vitaprime	Vitastage	Vitalobe		CHTA / CHTC / CHTD	HGB / HGC / HGD	HGI	HGM YNK	LUV / LUVA	WKTB	
Waste water with faeces	sd								sd	bs					SQ				es					sb .							
Waste water without faeces		$\perp$			$\square$				sdwnd	High-pressure pumps					Axially split pumps									slan		$ \rightarrow$	$\perp$	$\perp$	$\perp$		L
Aggressive liquids		_	_		$\rightarrow$	_		_	he	le		_			i.	_	_				_	_		ile	$\rightarrow$	$\rightarrow$	+	+	+		$\vdash$
Inorganic liquids		+-	-		$\rightarrow$	_	_		Vertical turbine	essu	$\vdash$		$\rightarrow$	_	V SD	_	-			_	+	-		tior	$\dashv$	$\rightarrow$	+	+	+-	<u>   </u>	$\vdash$
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Explosive liquids	- ~ -	+	$\square$																e a l		1			ver	1		+	+	+	H	
Digested sludge																			rag					bod							
Solids (ore, sand, gravel, ash)																			beverage and pharmaceutical industries					Pumps for power station conventional islands							
Flammable liquids					$\square$														°,					sdu					$\perp$	$\square$	
River, lake and groundwater																			Hygienic pumps for the food,		_			Pur	$ \rightarrow$	$\rightarrow$	$\perp$	$\perp$	_		L
Liquefied gas		_	-		$\rightarrow$	$\rightarrow$		_		-			_			-	-		e –					ŀ	$\rightarrow$	$\rightarrow$	+	+	+		<u> </u>
Food and beverages		+-	-		$\rightarrow$	-		_	_	-		_	$\rightarrow$	_	-	-	-							ŀ	$\rightarrow$	$\rightarrow$	+	+	+-	$\vdash$	⊢
Gas-containing liquids Gas turbine fuels		-	+		$\rightarrow$			-		-	$\vdash$		$\rightarrow$		_	-	-		sq –	_	-	-		ŀ	$\rightarrow$		+	+	+	$\vdash$	┝
Filtered water		+-	+		-+	-		-		-	$\vdash$		+			⊢	-			_	+-	-		ŀ	-+	-	+	+	+	$\vdash$	-
Geothermal water		+-	+		$\rightarrow$	$\neg$				-			$\rightarrow$		_		-	-	2	-	+	-			$\rightarrow$	-	+	+	+	$\vdash$	
Harmful liquids		+	+											+	-			-	gle		-				+	-	+	+	+	$\vdash$	
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Corrosive liquids Valuable liquids		+-	-		$\rightarrow$	$\rightarrow$		-	-	-	$\vdash$		$\rightarrow$	+	-	-	-		┢	_				ŀ	$\rightarrow$	$\rightarrow$	+	+	+-	$\vdash$	-
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Coolants		+-	+		$\rightarrow$	$\neg$		-	-	-	$\vdash$		$\rightarrow$		-		-		┢		+	-		ŀ	$\rightarrow$	$\rightarrow$	+	+	+	$\vdash$	-
Cooling lubricant		+	+		$\rightarrow$	$\neg$				-			$\rightarrow$				+		F		+	-			$\rightarrow$	$\rightarrow$	+	+	+	$\vdash$	-
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Oils		_	_		$ \rightarrow$					_							_				_			-	$\rightarrow$	$\rightarrow$	$\perp$	$\perp$	_		L
Organic liquids		+-			$\rightarrow$	-+		_	_	-	$\vdash$	_	$\rightarrow$	-	-	-	-		-	-	-	-			$\dashv$	+	+	+	+	$\vdash$	$\vdash$
Pharmaceutical fluids Polymerising liquids		+	-	$\left  - \right $	+	+	-+	_		-	$\vdash$	-	-	_	-	-	-								+	+	+	+	+	$\vdash$	$\vdash$
Rainwater / stormwater		+-	+		+	$\dashv$	-+	-	-		$\vdash$	$\rightarrow$	+	+	-		$\vdash$		-	+	+-	-			+	+	+	+	+	$\vdash$	⊢
Cleaning agents		+	+		+	+					$\vdash$		+				+		-	-	+	-			+	+	+	+	+	$\vdash$	-
Raw sludge		+	$\uparrow$		$\neg$	+						$\neg$	+	+							1				+	+	+	+	+		
Lubricants		1	1		$\uparrow$	$\uparrow$							$\uparrow$				T				1				$\uparrow$	$\uparrow$	+	+	1		
Grey water																															
Swimming pool water																															
Brine				$\square$	$\square$						$\square$														_	$\square$		$\perp$	$\perp$		
Feed water		+	$\vdash$		$ \rightarrow$	_					$  \downarrow  $				-						_	<u> </u>			┛	┛	■₽		<b>⊥</b>		<u> </u>
Dipping paints		+-	+		_				_		╞	_	_		-	-	-		-		-	-			$\dashv$	+	+	+	+	$\vdash$	$\vdash$
Drinking water Thermal oil			-							4	╞═┤				-	F									+	+	+	+	+	$\vdash$	$\vdash$
		1	1	i		- 1															1								1	1 1	1
Hot water		+-	1		-+						$\vdash$	$\rightarrow$	+							-	+	-			$\rightarrow$	+	+	+	+	$\vdash$	$\vdash$

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Solids transport	tom	+-	$\left  \right $	+				$\left  - \right $	$\rightarrow$	+	+	-+	$\rightarrow$	$\rightarrow$	+	+			$\vdash$	$\left  - \right $				+-	-	$\square$	$\vdash$	+	-	+
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Fire-fighting systems	<u>-</u>	-	$\left  \right $	-+	-		-	$\left  - \right $	$\rightarrow$	_	-+	-+								$\left  \right $	_	_		+	-			_	-	+
Geothermal energy	Domestic water supply systems with automatic control unit / swimming pool		$\square$	$\rightarrow$			-	$\square$	$ \rightarrow$	_		_	$\rightarrow$	_	-+		_		- -			_	_	_			$\square$	_		
Drawdown of groundwater levels	em:	_	$\square$				1												$\square$					1	_					-
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Flood control / coast protection (stormwater)	Idd	1			Ť					Í											Ť			1	1					
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Nuclear power stations	N N	+	$\left  \right $			-					+		-	-		+	-	_			-	+		+	+					+
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Boiler feed applications	mes	_		_		_			_	_	$\rightarrow$	_	$\rightarrow$	_	_	$\rightarrow$	_	_			$\rightarrow$	_	_	_	_				_	
Boiler recirculation	<u>5</u>	_				_																							_	
Waste water treatment plants																														
Air-conditioning systems																														
Condensate transport																														$\Box$
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Paint shops		1																						1					1	+
Food and beverage industry		+	$\left  \right $							-	+	$\rightarrow$	-	-							$\rightarrow$	+		+	+				-	+
Seawater desalination / reverse osmosis		+	$\left  \right $			-		$\left  \right $			+		$\rightarrow$	-				+-			$\rightarrow$			+-	+					+
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Mixing			$\left  \right $		_	_	-				_		_	_	_	_	_		$\left  \right $		-	-+		_				_		
Offshore platforms		_				_								_				_				$\rightarrow$		_					_	<u> </u>
Pulp and paper industry		_				_								_				_												<u> </u>
Petrochemical industry																														
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Pipelines and tank farms																														
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Flue gas desulphurisation		1	$  \uparrow  $		$\uparrow$			$\square$		$\uparrow$			$\neg$		$\uparrow$			1						1	1					$\square$
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Cleaning of stormwater tanks / storage sewers		1					F	+	-	-	-+	-+	+	+	+	+	+				-	-	+	+	-			-	-	+
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		+	$\left  - \right $	$\rightarrow$	+		-	$\left  - \right $	$\rightarrow$	+	+	-+	$\rightarrow$	$\rightarrow$	+	+	+		$\vdash$	$\left  - \right $	-+	-+		+-	+		$\vdash$	+	+-	+
Dredging		+	$\left  \right $	-+	+	-	-	$\left  - \right $	$\rightarrow$	+	-+	-+	$\rightarrow$	$\rightarrow$	-+	+			$\left  - \right $	$\left  - \right $	-+	-+	_	+-	-		$\vdash$	_	+-	+
Shipbuilding		-	$\left  \right $	$\rightarrow$	_		-	$\left  \right $	$\rightarrow$	_	-+	-+	$\rightarrow$	$\rightarrow$	-+	-	_	_		$\left  - \right $	_	_	_	-	-			_	-	+
Sludge disposal		-						$\square$	$ \downarrow$				$\downarrow$	$\rightarrow$	_			_	$\square$					_	-			_	_	
Sludge processing																														1
Snow-making systems																														
Heavy oil and coal upgrading																														
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Keeping in suspension		1		+	+				$\rightarrow$	+	+	+	+		+	+	+	+			$\rightarrow$		+	+	1			+	+	+
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		+	$\left  - \right $	-+	+	-	-	$\left  - \right $	-+	-+	-+	-+	$\rightarrow$	$\rightarrow$	-+	-+	+		$\left  - \right $	$\left  - \right $	-+	-+		+-	+	$\left  - \right $			+-	+
Draining of pits, shafts, etc.		+	$\left  - \right $	$\rightarrow$	+	_	-	$\left  \right $	-+	-+	-+	-+	$\rightarrow$	$\rightarrow$	-+				$\left  - \right $	$\left  - \right $	-+	-+	_	+		$\left  - \right $		_	+-	+
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Heat recovery systems		-					-																	-	-				-	$\vdash$
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Pressure boosting	du				1		, p							1	1		Cubmoreible motor pumpe					1					1			—
Sludge thickening	n l	-			1	1	its				-	+		1	1		- Ū	۲ <u>–</u>				+-					+	$\vdash$		
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District heating				_	-	<u> </u>							-	-	_	$\square$	_		-	$\square$		_		$\square$			_	$\square$		
Solids transport																												$\square$		
Fire-fighting systems																												Ľ		
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Drawdown of groundwater levels											$\uparrow$				1												1		$\uparrow$	1
Maintenance of groundwater levels		+	+	1	1						+	1			1	$\vdash$						+			+	+	+	$\vdash$	+	1
Domestic water supply		+	+	+	+	-				+	+	+	+	+	+	$\left  \right $	-		+-			+	$\square$	$\left  \right $	-+	+	+	$\vdash$	+	
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Flood control / coast protection (stormwater)		$\rightarrow$		_							_	_	-	-	-	$\vdash$	_		-		_	_			_	_	_	$\vdash$	_	<u> </u>
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Nuclear power stations																														
Boiler feed applications																												(		
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Paint shops	┥	$\rightarrow$		_	-	-						_	+	+			_	-	-			+-	$\left  - \right $		$\rightarrow$	_		$\vdash$	_	
Food and beverage industry	┥	$\rightarrow$		_		<u> </u>							-	-			_					_			_		_	$\vdash$		<u> </u>
Seawater desalination / reverse osmosis		$\rightarrow$			_									_			_					_					_	$\square$		
Mixing																	_											$\square$		
Offshore platforms																														
Pulp and paper industry																														
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Refineries		$\rightarrow$	+	-	-	-					+	+	-	-	-	$\vdash$	-	-	+			+-	$\vdash$	$\vdash$	$\rightarrow$		+	$\vdash$	+	
Flue gas desulphurisation		$\rightarrow$	-+		-	-				-+	+	_	+	+	-	$\vdash$	-	-	+	⊢■		+-	$\vdash$	$\left  - \right $	-+	_		$\vdash$	+	
Rainwater harvesting		$\rightarrow$	-+		-	-		_			_	_	-	-	-	$\vdash$	_	-	+_			+		$\left  \right $	-+	_		$\vdash$	-+	
Cleaning of stormwater tanks / storage sewers		$\rightarrow$		_	-	<u> </u>						_	-	-	-							-		$\square$			_	$\vdash$	$\square$	
Recirculation		$ \downarrow$											_			$\square$		-				_		$\square$			_	$\square$		
Dredging																												$\square$		
Shipbuilding						L																								
Sludge disposal																														
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Snow-making systems		$\dashv$	+		1						+			1	1	$\vdash$			+			1	$\square$		$\neg$	$\neg$	1	(T	+	-
Heavy oil and coal upgrading		+	+	+	+	-				$\neg$	+		+	+	1	$\vdash$	_		+			+	$\square$		$\dashv$	+	+		+	+
Swimming pools		+	+	-	-					+	+	+	+	-	1	$\vdash$	-		+	$\vdash$		+	$\square$		+	+	+	$\vdash$	+	+-
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Solar thermal energy systems		$\rightarrow$	_	-	-	-					+	-	-	-	-	$\vdash$	_	-	+	$\left  - \right $	_		$\vdash$	$\left  - \right $	$\rightarrow$	_		$\vdash$	+	
Fountains		+		_	-	-					+	_	-	-	-	$\vdash$		-	-	$\vdash$		+	$\square$	$\square$	$\rightarrow$	_		$\vdash$	+	
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# Drive, variable speed system and monitoring

#### **KSB SuPremE**

environmentally friendly. Applications For use with dry-installed variable speed pumps which can be driven by standardised foot- mounted and/or flange-mounted motors. https://www.ksb.com/en-gb/lc/SD8C	Number of pumps       ≤ 1       Description         U [V]       Power supply via PumpDrive, PumpDrive R variable       IEC-compatible sensorless magnetless synchronous reluctance motor (exception: motor sizes         0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4 / IE5 (super/ultra premium efficiency) to IEC TS 60034-30-2:2016 for operation on a KSB PumpDrive 2, PumpDrive 2 Eco or PumpDrive R variable speed system. Suitable for connection to three-phase 380 - 480 V power supply (via PumpDrive). The motor mounting point comply with EN 50347 specifications to ensure compatibility with standardised IEC frame motor applications and full interchangeability with IE2 or IE3 standardised asynchronous motors. Envelope dimensions lie within the limits for IE2 / IE3 motors as recommended in DIN V 42673 (07-2011). The motor is controlled without rotor position sensors. The efficiency of the motor also exceeds 95 percent of nominal efficiency when the motor runs at 25 percent of its nominal power on a quadratic torque-speed curve. The motor is magnetless which means that so called rare earths are not used in production. Drive production is thus sustainable and
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#### **KSB UMA-S**

.141	Number of pumps	≤ 1	Description
	U [V] Other mains voltages on request	5 .00	Permanent-magnet submersible synchronous motor, for operation on a KSB PumpDrive R variable speed system. NEMA connections and identical outside diameters ensure full interchangeability with comparable 6-inch or 8-inch asynchronous motors. The motor is controlled without rotor position sensors. The motor efficiency is 5 - 12 % above that of asynchronous motors. Given the design and functionality the use of permanent magnets is essential. <b>Applications</b> Exclusively for submersible borehole pumps in the range of 4 to 250 kW.
			https://www.ksb.com/en-gb/lc/U02A

#### PumpDrive 2 / PumpDrive 2 Eco

	Number of pumps P [kW] U [V] Frequency inverter	<ul> <li>Description</li> <li>Modular self-cooling frequency inverter that enables continuously variable speed control of asynchronous and synchronous reluctance motors by means of analog standard signals, a field bus or the control panel. As PumpDrive is self-cooling, it can be mounted on a motor, on the wall or in a control cabinet. Up to six pumps can be controlled without needing an additional controller.</li> <li>Applications</li> <li>Air-conditioning systems, heat generation, heat distribution, water supply systems, water extraction, water treatment, water distribution, water transport, refrigeration, cooling distribution, heat generation, heat distribution, fluid transport, cooling lubricant distribution, industrial water supply, tank drainage, waste water transport</li> </ul>
		https://www.ksb.com/en-gb/lc/P10A

#### PumpDrive R

Number of pumps ≤ 6 P [kW] 55 U [V] 3~380 - 480 Frequency inverter 1 per motor	Modular self-cooling frequency inverter that enables continuously variable speed control of asynchronous and synchronous reluctance motors by means of analog standard signals, a field bus or the control panel. As PumpDrive R is self-cooling, it can be mounted on the wall or in a control cabinet. Up to six pumps can be controlled without needing an additional controller. PumpDrive R extends the power range of PumpDrive 2 up to a rated power of 250 kW (standard) / 1400 kW (on request). <b>Applications</b> Air-conditioning systems, heat generation, heat distribution, water supply systems, water extraction, water treatment, water distribution, water transport, refrigeration, cooling distribution, heat generation, heat distribution, fluid transport, cooling lubricant distribution, industrial water supply, tank drainage, waste water transport
	https://www.ksb.com/en-gb/lc/K01A

### PumpMeter

· · · · · · · · · · · · · · · · · · ·	≤ 1 24	Description Device for monitoring the operation of one pump. It is an intelligent pressure transmitter for pumps, with on-site display of measured values and operating data. It records the load profile of the pump in order to indicate any potential for optimising energy efficiency and availability. The device comprises two pressure sensors and a display unit. PumpMeter is supplied completely assembled and parameterised for the pump it is used with. It is ready for operation as soon as the M12 plug connector is plugged in. Applications Air-conditioning systems, cooling circuits, cooling lubricant distribution, heating systems, water treatment plants, water supply systems, water distribution systems, water transport systems, water extraction systems
		https://www.ksb.com/en-gb/lc/P28A

#### KSB Guard

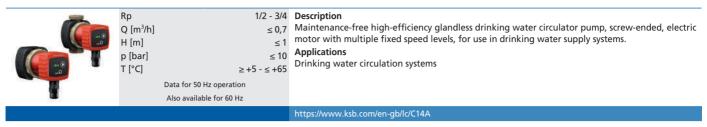
Sensor units U [V AC]	<b>Description</b> Smart solution for condition monitoring of pumps and other rotating machinery. Sensors on the machinery record measurement data, which is processed in the KSB Cloud. Information on the machinery status can be accessed via mobile phone or computer. Simple retrofitting of the sensor unit for measuring vibrations and temperature during operation of dry-installed pumps and other rotating machinery. Components of the KSB Guard system: sensors, transmission unit and KSB Guard Gateway. For dry-installed pumps the sensors in the sensor unit and the corresponding transmission and battery unit are comprised in the KSB Guard app is required to retrieve operating data. Data from up to 40 pumps can be transmitted via one KSB Guard gateway. <b>Applications</b> Monitoring dry-installed pumps as well as submersible pumps and mixers, optimising and improving system availability
	https://www.ksb.com/en-gb/lc/G01A

### KSB Leakage Sensor

S.	Installation type T [°C]	<b>Description</b> The KSB Leakage Sensor is an intelligent monitoring system for measuring and displaying mechanical seal leakage on site. It comprises a leakage measuring instrument and a display unit. <b>Applications</b> Industry (heat transfer fluid market)
KSB Leakage Sensor		https://www.ksb.com/en-gb/lc/L05A

### Drinking water circulators, fixed speed

#### Calio-Therm S NC/NCV



#### **Calio-Therm NC**

Rp Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤7 ≤10	Applications Drinking water supply systems, hot water supply systems and similar systems in industry and building services (e.g. cooling water recirculation)
		https://www.ksb.com/en-gb/lc/C20A

### Drinking water circulators, variable speed

#### **Calio-Therm**

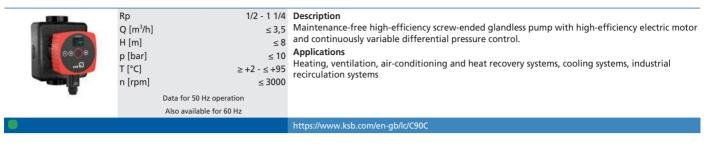
Rp DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤ 24 ≤ 12	Maintenance-free high-efficiency variable speed glandless drinking water circulator pump, screw- ended or flanged, electric motor and continuously variable differential pressure control for use in drinking water supply systems and hot water supply systems. Applications Drinking water supply systems, hot water supply systems and similar systems in industry and
		https://www.ksb.com/en-gb/lc/C23A

#### **Calio-Therm S**

9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Rp Q [m³/h] H [m] p [bar] T [°C] ≥ +2 n [rpm] Data for 50 Hz operation Also available for 60 Hz	DescriptionMaintenance-free high-efficiency variable speed glandless drinking water circulator pump, screw- ended, electric motor and continuously variable differential pressure control for use in drinking water supply systems and hot water supply systems.Applications Hot water supply, drinking water circulation systems and similar systems in industry and building services (e.g. cooling water recirculation).
		https://www.ksb.com/en-gb/lc/C91C

### Circulators, variable speed

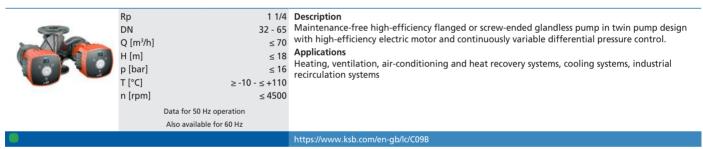
#### Calio S



#### Calio

		$\begin{array}{ll} H \ [m] & \leq 18 \\ p \ [bar] & \leq 16 \\ \Gamma \ [^{\circ}C] & \geq -10 - \leq +110 \\ n \ [rpm] & \leq 4500 \\ \end{array}$	Applications Heating, ventilation, air-conditioning and heat recovery systems, cooling systems, industrial recirculation systems
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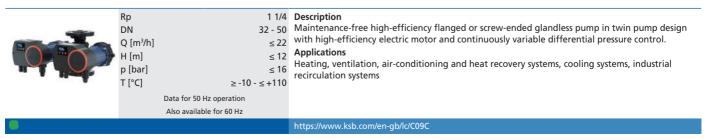
#### Calio Z



#### **Calio Pro**



#### Calio Pro Z



# In-line pumps

#### Etaline

Data for 50 Hz operation Data for 50 Hz operat		$ \begin{array}{llllllllllllllllllllllllllllllllllll$	motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX- compliant version available. Applications Hot water heating, cooling circuits, air-conditioning, water supply systems, service water supply systems, industrial recirculation systems
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#### Etaline Z

	DN Q [m³/h] H [m] p [bar] T [°C]	< 1095	shaft are rigidly connected. An M12 module (accessory) enables redundant operation of Etaline Z without the need for a higher-level controller. With KSB SuPremE, a magnetless synchronous
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https://www.ksb.com/en-gb/lc/E13B

#### **Etaline-R**

DN Q [m³/h] H [m] p [bar] T [°C]	≤ 1900	DescriptionVertical close-coupled pump with volute casing in in-line design with magnet-less KSB SuPremEmotor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanentmagnets) of efficiency class IE4/IE5 and PumpDrive variable speed system.ApplicationsHot water heating, cooling circuits, air-conditioning, water supply systems, service water supplysystems, industrial recirculation systems
		https://www.ksh.com/en-ah/lc/F22A

ILN

	DN	65 - 400	Description
	Q [m³/h] H [m]	≤ 3310 ≤ 112 ≤ 16	dismonthed without removing the nining and the motor. ATEX compliant version available
	p [bar] T [°C]	≤ 16 ≥ -20 - ≤ +70	Applications
	n [rpm]	≥ -20 - ≤ +70 ≤ 3000	Hot-water heating systems, cooling circuits, air-conditioning systems, marine applications, water
	Data for 50	0 Hz operation	
	Also availa	able for 60 Hz	
Control unit			https://www.ksb.com/en-ab/lc/I15A

ILNC

	≤ 370	Hot-water heating systems, cooling circuits, air-conditioning systems, marine applications, water
Control unit		https://www.ksb.com/en-gb/lc/116A

ILNR

DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤ 1600	<ul> <li>Description</li> <li>Vertical volute casing pump in in-line design, single-stage, with closed single-entry impeller.</li> <li>Equipped with replaceable casing wear rings in pump casing and casing cover. ILNR with flexible coupling.</li> <li>Applications</li> <li>Marine applications, cargo tank cleaning, scrubbers, brine circulation, ballast water, bilge water</li> </ul>
	Also available for 60 Hz	

### Megaline

DN Q [m³/h] H [m] p [bar] T [°C]	≤ 600	closed radial impeller, with multiply curved vanes, single mechanical seal to EN 12756.
		https://www.ksh.com/en-gh/lc/M518

# Standardised / close-coupled pumps

#### Etanorm

https://www.ksb.com/en-gb/lc/E04B		DN Q [m³/h] H [m] p [bar] T [°C]	< 1930	<ul> <li>Description</li> <li>Horizontal volute casing pump, single-stage, with ratings and main dimensions to EN 733, long-coupled, back pull-out design, with replaceable shaft sleeves / shaft protecting sleeves and casing wear rings, with motor-mounted variable speed system. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available.</li> <li>Applications</li> <li>Pumping clean or aggressive liquids not chemically or mechanically aggressive to the pump materials in water supply systems, cooling circuits, swimming pools, fire-fighting systems, irrigation systems, drainage systems, heating systems, air-conditioning systems, spray irrigation systems</li> </ul>
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#### Etabloc

https://www.ksb.com/en-gb/lc/E01B	Q H p	$\begin{array}{llllllllllllllllllllllllllllllllllll$	Single-stage close-coupled volute casing pump, with ratings to EN 733, with replaceable shaft sleeve and casing wear rings, with motor-mounted variable speed system. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available. Applications Pumping clean or aggressive liquids not chemically or mechanically aggressive to the pump materials in water supply systems, cooling circuits, swimming pools, fire-fighting systems, irrigation systems, drainage systems, heating systems, air-conditioning systems, spray irrigation systems
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#### **Etachrom B**

DN Q [m³/h] H [m] p [bar] T [°C]	$25 - 80$ $\leq 260$ $\leq 105$ $\leq 12$ $\geq -30 - \leq +110$ Data for 50 Hz operation Also available for 60 Hz	Horizontal single-stage close-coupled circular casing pump, with ratings and main dimensions to EN 733, with replaceable casing wear rings and motor-mounted variable speed system. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to
		https://www.ksb.com/en-gb/lc/E02A

#### Etachrom L

SANAR REAL	DN Q [m³/h] H [m] p [bar] T [°C]	≤ 260 ≤ 105 ≤ 12	magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available. <b>Applications</b> Cleaning systems (bottle rinsing, crate washing, etc.), water treatment plants, water supply systems, fire-fighting systems, spray irrigation systems, general irrigation systems, drainage systems, hot-water heating systems, air-conditioning systems, industrial washing plants, general industry, disposal of paint sludge, surface treatment
			https://www.ksb.com/en-gb/lc/E08A

#### Etanorm V

DN Q [m³/h] H [m] p [bar] T [°C]	≤ 625 < 100	<ul> <li>Description</li> <li>Single-stage volute casing pump for vertical installation in closed tanks under atmospheric pressure, with ratings to EN 733.</li> <li>Applications</li> <li>Phosphating solutions, lubricating oil supply and sealing oil supply for turbines, generators, large compressors, large gear units</li> </ul>
		https://www.ksb.com/en-gb/lc/EB5B

### Meganorm

DN Q [m³/h] H [m] p [bar] T [°C]	≤ 1160	chamber.
		https://www.ksb.com/en-gb/lc/M52B

# Megabloc

DN Q [m³/h] H [m] p [bar] T [°C]	≤ 550 < 140	EN 12756. <b>Applications</b> Water supply systems, irrigation systems, air-conditioning systems, building services systems, hotels, shopping centres, etc., fire-fighting systems, cooling circuits, general industry
		https://www.ksb.com/en-gb/lc/M44B

# Hot water pumps

#### HPK-L

	DN Q [m³/h] H [m] p [bar] T [°C]	- 1100	Description Horizontal radially split volute casing pump in back pull-out design to ISO 2858 / ISO 5199, single stage, single-entry, with radial impeller. Equipped with heat barrier, seal chamber air-cooled by integrated fan impeller, no external cooling. ATEX-compliant version available. Applications Pumping hot water and thermal oil in piping systems or tank systems, particularly in medium- sized and large hot-water heating systems, forced circulation boilers, district heating systems
KSB Leakage Sensor			https://www.ksh.com/en-gh/lc/H07B

НРК

HPH

DN Q [m³/h] H [m] p [bar] T [°C]	≤ 2350 ≤ 225 ≤ 110	Applications
		https://www.ksb.com/en-gb/lc/H01A

### Hot water / thermal oil pumps

#### **Etanorm SYT / RSY**

	DN Q [m³/h] H [m] p [bar] T [°C]	< 1900	Description Horizontal volute casing pump in back pull-out design, single-stage, with ratings and dimensions to EN 733, radially split volute casing with integrally cast pump feet, replaceable casing wear rings, closed radial impeller with multiply curved vanes, single mechanical seal to EN 12756, double mechanical seal to EN 12756, drive-end bearings: rolling element bearings, pump-end bearings: plain bearings, with magnetless KSB SuPremE motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 and PumpDrive variable speed system; ATEX-compliant version available. Applications Heat transfer systems, hot water recirculation
KSB Leakage Sensor			https://www.ksb.com/en-gb/lc/E44B https://www.ksb.com/en-gb/lc/E23A

#### **Etabloc SYT**

DN Q [m³/h] H [m] p [bar] T [°C]	≤ 280 ≤ 68 ≤ 16	0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 and PumpDrive variable speed system; ATEX-compliant version available. Applications Heat transfer systems, hot water recirculation
		https://www.ksb.com/en-gb/lc/E10B

#### Etaline SYT

### Standardised chemical pumps

#### MegaCPK

	P	DN 2 [m³/h] 4 [m] 9 [bar] ⊡ [°C]	≤ 1160 ≤ 162 ≤ 25	<ul> <li>Description</li> <li>Horizontal radially split volute casing pump in back pull-out design, with radial impeller, single-entry, single-stage, to DIN EN ISO 2858 / ISO 5199, in a large range of material and seal variants; also available as a variant with "wet" shaft and conical seal chamber. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to</li> <li>IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available.</li> <li>Applications</li> <li>Pumping aggressive, toxic, explosive, valuable, flammable, malodorous or harmful liquids in the chemical and petrochemical industries, in refineries, power stations and desalination plants as well as in the food industry and general industry.</li> <li>https://www.ksb.com/en-gb/Ic/M48A</li> </ul>
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#### **CPKN**

	DN		Description
2	Q [m <sup>3</sup> /h]		Horizontal radially split volute casing pump in back pull-out design, with radial impeller, single-
	H [m]	≤ 185	entry, single-stage, to ISO 2858 / ISO 5199. Also available as a variant with "wet" shaft, conical
	p [bar]	≤ 25	seal chamber and/or semi-open impeller. ATEX-compliant version available.
2 PI	T [°C]	≥ -40 - ≤ +400	Applications Pumping aggressive, toxic, explosive, valuable, flammable, malodorous or harmful liquids in the
		Data for 50 Hz operation	chemical and petrochemical industries, in refineries, power stations and desalination plants as
6-10 C		Also available for 60 Hz	well as in the food industry and general industry.
			https://www.ksb.com/en-gb/lc/C03A

#### **CPKNO**

		DN Q [m³/h] H [m] p [bar] T [°C]	< 150	Description         Horizontal volute casing pump in back pull-out design, with semi-open impeller, single-stage, to         ISO 2858 / ISO 5199. ATEX-compliant version available.         Applications         Pumping aggressive organic and inorganic fluids, fluids that tend to polymerise, and slightly gas- laden fluids.         https://www.ksb.com/en-gb/lc/C28A
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### Seal-less pumps

#### Magnochem

and the second sec	DN Q [m³/h] H [m] p [bar] T [°C]	version available.
		https://www.ksb.com/en-qb/lc/M00B

#### Magnochem 685

	DN	25 - 250	Description
	Q [m³/h]		Horizontal seal-less volute casing pump, with magnetic drive, radial impeller, single-entry, single-
A CONTRACTOR	H [m]	≤ 162	stage. Design to ISO 15783 / API 685 (centreline mounting, ASME flanges, and twice the
	p [bar]	≤ 40	permissible nozzle forces). ATEX-compliant version available.
	T [°C]	≥ -90 - ≤ +350	Applications Pumping aggressive, toxic, explosive, valuable, flammable, malodorous or harmful liquids in the
		Data for 50 Hz operation	chemical, petrochemical and general industries.
		Also available for 60 Hz	· · · ·

### Magnochem-Bloc

	DN Q [m³/h] H [m] p [bar] T [°C]	< 625	Applications
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#### https://www.ksb.com/en-gb/lc/M08B

#### Etaseco / Etaseco-I

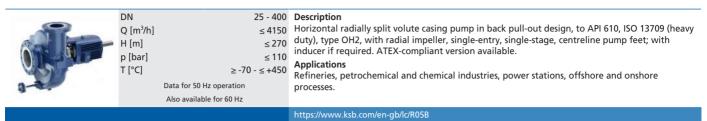
DN Q [m³/h] H [m] p [bar] T [°C]	< 250	canned motor, low noise emission, with radial impeller, single-stage, single-entry, casing connecting dimensions to EN 733, or in in-line design.
		https://www.ksb.com/en-gb/lc/E07A

#### **Etaseco RVP**

0	DN Q [m³/h] H [m] p [bar] T [°C]	≤ 44 ≤ 40 ≤ 16	connecting dimensions to EN 733, or in in-line design. <b>Applications</b> Pumping toxic, volatile or valuable liquids in environmental engineering and industrial applications and as coolant pump in cooling systems. Transport vehicles, environmental engineering and industry; applications where low noise emission, smooth running or long service
			intervals are required. https://www.ksb.com/en-gb/lc/ED5A

# **Process pumps**

#### RPH



#### **RPH-LF**

DN Q [m³/h] H [m] T [°C]	<b>Description</b> Horizontal single-entry single-stage radially split overhung centreline-mounted process pump with circular casing to API 610 (ISO 13709), type OH2. Special design for low flow rates. ATEX- compliant version available. <b>Applications</b> Refineries, petrochemical and chemical industries; applications with low flow rates.
	https://www.ksh.com/on-gh/lc/R29A

#### RPHb / RPHd / RPHbd

<b>S</b>	DN Q [m³/h] H [m] p [bar] T [°C]	≤ 5100 ≤ 550 < 100	<b>Description</b> Heavy-duty horizontal radially split between-bearings volute casing pump to API 610, ISO 13709 (heavy duty), type BB2, with radial impellers, single- or double-entry, single- or two-stage design with centreline pump feet. ATEX-compliant version available. <b>Applications</b> Refineries, petrochemical and chemical industries, offshore and onshore processes.

https://www.ksb.com/en-gb/lc/R23B

**RPH-V** 

	≤ 165 ⊃5	<b>Description</b> Vertical single-stage sump pump to API 610 and ISO 13709 (heavy duty), type VS4, with integral thrust bearing assembly and separate discharge line. ATEX-compliant version available. <b>Applications</b> Refineries, petrochemical and chemical industries, offshore and onshore processes.
		https://www.ksb.com/en-qb/lc/R55A

**CTN** 

	DN	25 - 250 / 250 - 400	Description
11.7	Q [m³/h]	≤ 950	Radially split vertical shaft submersible pump with double volute casing for wet and dry
Pt L	H [m]	≤ 115	installation, with radial impeller, single-entry, single-stage or two-stage; heatable model
T	p [bar]		Applications
	T [°C]	≥ 0 - ≤ +300	Pumping chemically aggressive liquids, also slightly contaminated or with a low solids content, in
		Data for 50 Hz operation	the chemical and petrochemical industries.
-		Also available for 60 Hz	
			https://www.ksb.com/en-gb/lc/C02A

#### CHTR



#### **CHTR**a

Contraction of the	DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤ 1200 ≤ 1550 ≤ 155 ≥ -40 - ≤ +205	optionally available in double-entry design for low NPSH requirements. ATEX-compliant version available. Applications Refineries, petrochemical industry, pipelines for crude oil and refinery products, water injection, feed water transport in power stations and industrial plants, mining, seawater desalination,
		Data for 50 Hz operation Also available for 60 Hz	feed water transport in power stations and industrial plants, mining, seawater desalination, reverse osmosis.
			https://www.ksb.com/en-gb/lc/C18A

#### **CINCP / CINCN**

DN Q $[m^3/h]$ H $[m]$ p $[bar]$ T $[^{\circ}C] \geq \cdot$ n $[rpm]$ Data for 50 Hz operation Also available for 60 H	$\leq 780$ $\leq 105$ $\leq 10$ $-10 - \leq +100$ $\leq 3000$ on	pipe (CINCN). ATEX-compliant version available.  Applications
		https://www.ksb.com/en-gb/lc/C39A

https://www.ksb.com/en-gb/lc/C40A

#### INVCP

IJ	DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤ 1600 ≤ 116 ≤ 10	(INVCN). ATEX-compliant version available.
			https://www.ksb.com/en-ab/lc/l22A

## Estigia

	DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	< 1160	specific fluid requirements. Supplied with discharge pipe extending above the cover plate, DN according to nominal flow rate. Sealing by lip seal, single or double cartridge mechanical seal. ATEX-compliant version available.
KSB SuPremE, PumpDrive, Frequency inverter			https://www.ksb.com/en-gb/lc/V20A

#### **RWCP / RWCN**

	DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	50 - 200 ≤ 700 ≤ 100 ≥ -10 - ≤ +100 ≤ 3000 Data for 50 Hz operation Also available for 60 Hz	sealed by mechanical seal or gland packing in accordance with various API piping plans. Oil- lubricated bearings. ATEX-compliant version available. Applications Refineries, chemical and petrochemical industries, steel works, descaling units, raw materials
NKTR	24		
1	DN Q [m³/h] H [m] p [bar]	40 - 150 ≤ 400 ≤ 500	Vertically suspended, double-casing, lineshaft, diffuser-type pump with integral thrust bearings

https://www.ksb.com/en-gb/lc/W18A

# **Rainwater harvesting systems**

## Hya-Rain / Hya-Rain N

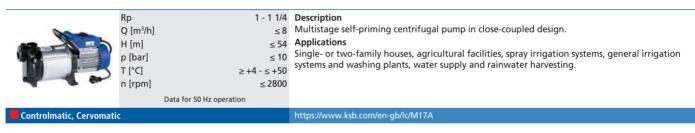
Rp Q [m <sup>3</sup> /h] :: H [m] ≤ p [bar] :: T [°C] ≥ 0 - ≤ + Data for 50 Hz operation	<ul> <li>Description</li> <li>Ready-to-connect package rainwater harvesting system in protective housing with automatic</li> <li>mains water back-up function if the rainwater storage tank is empty, with integrated dry running</li> <li>protection and demand-driven automatic pump control. Hya-Rain N version with analog level</li> <li>measurement in rainwater storage tank and integrated functional check run.</li> <li>Applications</li> <li>Rainwater harvesting and service water harvesting, general irrigation and spray irrigation</li> </ul>
	https://www.ksb.com/en-gb/lc/H12A

#### Hya-Rain Eco

Rp Q [m³/h] H [m] p [bar] T [°C]	1 ≤ 4 ≤ 43 ≤ 6 ≥ 0 - ≤ +35 Data for 50 Hz operation	demand-driven automatic pump control.
		https://www.ksb.com/en-gb/lc/H12A

# Domestic water supply / swimming pool pumps

#### Multi Eco



#### Multi Eco-Pro

Rp Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤ 54 ≤ 10	Multistage self-priming centrifugal pump in close-coupled design, with power cable, plug and Controlmatic E automatic control unit starting and stopping the pump in line with consumer demand and protecting it against dry running. Automated with automatic control unit.
		https://www.ksb.com/en-gb/lc/M18A

#### Multi Eco-Top

Rp Q [m <sup>3</sup> /h] H [m] p [bar] T [°C] n [rpm]	≤ 8 ≤ 54 ≤ 10	Multistage self-priming centrifugal pump in close-coupled design incl. accumulator with replaceable membrane in drinking water quality, total volume 20 or 50 litres, pressure switch for automatic pump operation and 1.5-metre power cable with plug.
		https://www.ksb.com/en-gb/lc/M19A

Ixo N

n [rpm] ≤ 2900 Data for 50 Hz operation S0 H
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Ixo-Pro

Rp Q [m³/h] H [m] T [°C]	< 60	<b>Description</b> Multistage submersible borehole pump with integrated pressure switch, flow sensor and lift check valve. Electronic dry running protection with four consecutive start-up attempts; integrated capacitor. 15-metre H07 RN-F power cable with shockproof plug included. <b>Applications</b> Rainwater harvesting, pressure boosting, water extraction, irrigation systems
		https://www.ksb.com/en-gb/lc/I06A

#### Filtra N

	Rp		Description
	Q [m <sup>3</sup> /h]	≤ 36	Single-stage self-priming centrifugal pump in close-coupled design.
	H [m]	≤ 21	Applications
	p [bar]	≤ 2,5	Pumping clean or slightly contaminated water, swimming pool water with a max. chlorine content of 0.3 %; ozonised swimming pool water with a max. salt content of 7 ‰.
	T [°C]	≥ +4 - ≤ +35	content of 0.3 %; ozonised swimming pool water with a max. salt content of 7 ‰.
	n [rpm]	≤ 2800	
		Data for 50 Hz operation	
			https://www.ksb.com/en-gb/lc/F00A

# Pressure booster systems

## **KSB Delta Macro**

Rp Q [m³/h] H [m] p [bar] T [°C]	< 960	<b>Description</b> Fully automatic package pressure booster system with two to four (F) / six (VC/SVP) vertical high- pressure pumps; available in cascade-controlled and two variable speed designs. Cascade control (F) for ensuring the required supply pressure. The VC and SVP versions ensure variable speed control of each pump by cabinet-mounted frequency inverter (VC) or motor-mounted PumpDrive variable speed system and KSB SuPremE motor (SVP), respectively, providing fully electronic control to ensure the required supply pressure. Automated with BoosterCommand Pro (+). <b>Applications</b> Pressure boosting in residential buildings, hospitals, office buildings, hotels, department stores, industry, etc.
		https://www.ksb.com/en-gb/lc/D12A

# KSB Delta Solo/Basic Compact

		Rp		Description
(m)		Q [m³/h]	≤ 18	Fully automatic ready-to-connect package single-pump pressure booster system / dual-pump
	<u> </u>	H [m]		pressure booster system with variable speed system
a the	- PER	p [bar]	≤ 10	
et insta	and the	T [°C]	≥ 0 - ≤ +40	Domestic water supply, water supply systems, spray irrigation systems, general irrigation systems, service water systems, rainwater harvesting
			Data for 50 Hz operation	service water systems, rainwater narvesting

https://www.ksb.com/en-gb/lc/D05B

Pumps

Rp		<b>Description</b> Fully automatic pressure booster system with two to three (MVP) / four (SVP) vertical high-
Q [m³/h] H [m] p [bar] T [°C]	≤ 134 ≤ 16 ≥ 0 - ≤ +60	pressure pumps in two variable speed versions. The MVP and SVP variable speed versions ensure variable speed control of each pump by motor-mounted frequency inverter for asynchronous motors (MVP) or by PumpDrive variable speed system and KSB SuPremE motor (SVP), respectively.
	Data for 50 Hz operation	Applications Pressure boosting in residential buildings, hospitals, office buildings, hotels, department stores, industry, etc.
		https://www.ksb.com/en-gb/lc/D07A

#### **KSB** Delta Primo

Rp Q [m³/h] H [m] p [bar] T [°C]	< 124	Fully automatic package pressure booster system with two to three (VC) / four (F/SVP) vertical high-pressure pumps; available in cascade-controlled and two variable speed designs. Cascade control (F) for ensuring the required supply pressure. The VC and SVP versions ensure variable speed control of each pump by cabinet-mounted frequency inverter (VC) or motor-mounted
		https://www.ksb.com/en-gb/lc/D08A

## KSB Delta Solo

Rp Q [m³/h] H [m] p [bar] T [°C]	145	Fully automatic single-pump system available in two variable speed versions. The MVP and SVP variable speed versions ensure variable speed control of each pump by motor-mounted frequency inverter for asynchronous motors (MVP) or by PumpDrive variable speed system and KSB SuPremE motor (SVP), respectively, providing fully electronic control to ensure the required supply
		https://www.ksb.com/en-ab/lc/D11A

# Hya-Solo D

Rp DN Q [m³/h] H [m] p [bar] T [°C]	< 110	rainwater harvesting and service water supply systems in trade and industry.
		https://www.ksb.com/en-gb/lc/H17A

# Hya-Solo D FL

E	Rp DN Q [m³/h] H [m] p [bar] T [°C]	≤ 110	<b>Description</b> Fully automatic package single-pump system. The system is started and stopped as a function of pressure. Design and function as per DIN 14462. <b>Applications</b> Fire-fighting systems to DIN 14462
			https://www.ksb.com/en-gb/lc/H16A

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#### Hya-Duo D FL



# Hya-Solo D FL Compact

DN Q [m³/h] H [m] p [bar] T [°C] D	< 48	<b>Description</b> Fully automatic ready-to-connect break tank package booster set for fire fighting, comprising a single-pump system and break tank. The system is started and stopped as a function of pressure. Design and function as per DIN 14462. <b>Applications</b> Fire-fighting systems to DIN 14462
		https://www.ksb.com/en-gb/lc/H45A

## Hya-Duo D FL Compact

DN Q [m³/h] H [m] p [bar] T [°C]	< 48	Applications
		https://www.ksb.com/en-gb/lc/H46A

## Hya-Duo D FL-R

DN Q [m³/h] H [m] p [bar] T [°C]	≤ 210 ≤ 160	Fully automatic package single-pump system. The system is started and stopped as a function of pressure. Design and function as per DIN 14462.
		https://www.ksb.com/en-gb/lc/H26A

#### **Surpress Feu SFE**

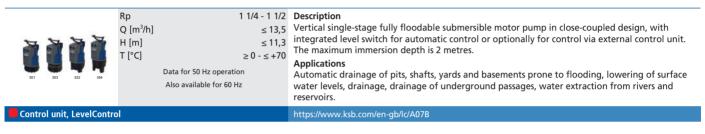
Rp Q [m³/h] H [m] p [bar] T [°C]	≤ 40	Description Fully automatic pressure booster system with two horizontal close-coupled pumps (one pump on stand-by duty). Design complies with APSAD regulation R5. Pressure-controlled starting and stopping. Automated with BoosterControl. Applications Water supply and pressure boosting for wall hydrants, fire protection.
		https://www.ksb.com/en-gb/lc/SC3A

#### **Safety Boost**

DN Q [m³/h] H [m] p [bar] T [°C]	<7	Troughs rainwater harvesting systems car washes supply lines in waste water treatment plants
		https://www.ksb.com/en-ab/lc/SA2A

# Drainage pumps / waste water pumps

#### **AmaDrainer 3**



## AmaDrainer 4 / 5

	Rp Q [m³/h] H [m] T [°C]	< 50	<ul> <li>Description</li> <li>Vertical single-stage fully floodable submersible motor pump in close-coupled design, IP68, with or without level control, max. immersion depth: 7 m.</li> <li>Applications</li> <li>Automatic drainage of pits, shafts, yards and cellars at risk of flooding, lowering of surface water levels, drainage, drainage of underground passages, water extraction from rivers and reservoirs.</li> </ul>
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Control unit, LevelControl

https://www.ksb.com/en-gb/lc/A76A

#### AmaDrainer 80/100

	Rp DN Q [m³/h] H [m] T [°C]	100 ≤ 130	or without level control, max. immersion depth: 10 m. <b>Applications</b> Automatic drainage of pits, shafts, yards and cellars at risk of flooding, lowering of surface water levels, drainage, drainage of underground passages, water extraction from rivers and reservoirs.
Control unit, LevelContro	0		https://www.ksb.com/en-gb/lc/A76A

#### Ama-Porter F / S

	DN Q [m³/h] H [m] T [°C]	< <	≤ 40 ≤ 16 +40	Description         Vertical single-stage fully floodable submersible waste water pump in close-coupled design (grey cast iron variant), non-explosion-proof.         Applications         Handling waste water, especially waste water containing long fibres and solid substances, liquids containing gas/air, removing waste water from flooded rooms and surfaces.
Control unit, LevelContro	bl			https://www.ksb.com/en-gb/lc/A10A

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#### Rotex

O [m³/h] ≤ 24	Applications
	https://www.ksb.com/en-gb/lc/R04A

#### MK / MKY

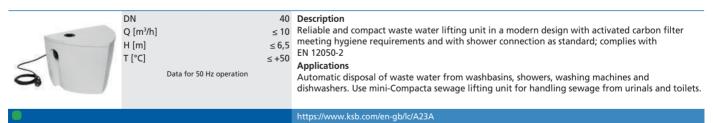
		$ \begin{array}{llllllllllllllllllllllllllllllllllll$	primary and secondary heating circuits, for direct installation in heating tanks or heat exchangers in the secondary circuits of heat transfer systems (MKY).
Control uni	Control unit, LevelControl		https://www.ksb.com/en-gb/lc/M02A

# Lifting units / package pump stations

#### Amaclean

Ø [mm] DN Installation depth [m]	50 - 100	DescriptionSelf-cleaning tank insert for grouted installation in new concrete structures or in concretestructures in need of refurbishment. Designed to prevent soiling of the structure and clogging ofthe pumps by heavily waste or fibre loaded waste water. Suitable for pump stations emittingunpleasant odours and/or gases.ApplicationsWaste water disposal, rainwater disposal
		https://www.ksb.com/en-gb/lc/A15A

#### **AmaDrainer-Box Mini**



#### **AmaDrainer-Box**

30 23 M	DN Q [m³/h] H [m] T [°C]	:	≤ 46 ≤ 24 ≤ +40	Description         Stable above-floor plastic collecting tank or impact-resistant underfloor plastic collecting tank, with floor drain and odour trap, both with AmaDrainer submersible motor pump starting and stopping automatically and swing check valve         Applications         Automatic disposal of waste water from washbasins, showers, washing machines, garage driveways, basements and rooms prone to flooding
				https://www.ksb.com/en-gb/lc/A23A

	DN Q [m³/h] H [m] T [°C]	Data for 50 Hz operation	Applications
			https://www.ksb.com/en-gb/lc/EB7A

# mini-Compacta

KSB D.	DN Q [m³/h] H [m] T [°C]	Data for 50 Hz operation Also available for 60 Hz	< 36	<b>Description</b> Floodable single-pump sewage lifting unit or dual-pump sewage lifting unit for automatic disposal of domestic waste water and faeces in building sections below the flood level. <b>Applications</b> Basement flats, bars, basement party rooms, basement saunas, cinemas, theatres, department stores, hospitals, hotels, restaurants, schools.
				https://www.ksb.com/en-gb/lc/M09B

## Compacta

	DN	80 - 100	Description
<b>A</b>	Q [m³/h]	≤ 145	Floodable single-pump sewage lifting unit or dual-pump sewage lifting unit for automatic
	H [m]	≤ 24,5	disposal of waste water and faeces in buildings and building sections below the flood level.
and the second second	T [°C]	≤ +40	Applications
		Data for 50 Hz operation	Basement flats, bars, basement party rooms and saunas, cinemas and theatres, department stores and hospitals, hotels, restaurants, schools, other public buildings, industrial facilities,
			underground train stations or for joint sewage disposal from rows of houses.
			https://www.ksb.com/en-gb/lc/C00B

# **CK 800 Pump Station**

DN Q [m³/h] H [m] T [°C] Data for 50 Hz operation	≤ 22 < 49	<b>Description</b> Single-pump station / dual-pump station as ready-to-connect package system, with PE-LLD (polyethylene) collecting tank for buried installation. Equipped with either one or two submersible waste water pumps of type Amarex N S (explosion-proof or non-explosion-proof) or Ama-Porter (non-explosion-proof). Tank design to DIN 1986-100 and EN 752/EN 476. <b>Applications</b> Drainage of buildings and premises, waste water disposal, premises renovation, joint sewage disposal for multiple residential units, pumped drainage
		https://www.ksb.com/en-gb/lc/C05A

### **CK 1000 Pump Station**

DN Q [m³/h] H [m] T [°C] Data	≤ 40,3 - 27 2	Description Single-pump station / dual-pump station as ready-to-connect package system, with PE-LLD (polyethylene) collecting tank for buried installation. Equipped with either one or two submersible waste water pumps of type Amarex (explosion-proof or non-explosion-proof) or Ama-Porter (non-explosion-proof). Tank design to DIN 1986-100 and EN 752/EN 476. Applications Drainage of buildings and premises, waste water disposal, premises renovation, joint sewage disposal for multiple residential units, pumped drainage
		https://www.ksb.com/en-gb/lc/C05A

# **Ama-Porter CK Pump Station**

DN Q [m <sup>3</sup> /h] H [m] T [°C] Data for 50 Hz operation	≤ 40 < 16	DIN 1986-100 and EN 752/EN 476. Applications Drainage of buildings and premises, waste water disposal, premises renovation, joint sewage disposal for multiple residential units, pumped drainage
		https://www.ksb.com/en-gb/lc/C05A

#### SRL

H [m] T [°C] Bata for 50 Hz operation → +40 Applications Joint disposal water treatment	l of domestic, municipal and industrial waste water to the sewer system / waste
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#### SRA

	DN Q [m³/h] H [m] T [°C]	≤ 200 < 75	<b>Description</b> Dual-pump station as ready-to-connect package system, with fibreglass collecting tank for buried installation <b>Applications</b> Site remediation, disposal of domestic, municipal and industrial waste water, joint sewage disposal for multiple residential units
Amacontrol, LevelCon	trol		https://www.ksb.com/en-gb/lc/S90A

# Submersible motor pumps

#### Amarex

	DN Q [m³/h] H [m] T [°C]	≤ 320	<b>Description</b> Vertical single-stage submersible motor pump for wet installation, with free-flow impeller (F-max) or open dual-vane impeller (D-max), stationary or transportable version. Single-stage, single-entry close-coupled pump sets which are not self-priming. ATEX-compliant version available. <b>Applications</b> Waste water transport, waste water management, drainage systems, waste water treatment plants, stormwater transport, recirculation, sludge treatment
Control unit, LevelContro	ol 👘		https://www.ksb.com/en-gb/lc/A31B

#### **Amarex N**

	DN Q [m³/h] H [m] T [°C]	≤ 190	Description         Vertical single-stage submersible motor pump for wet installation, with cutter (S), stationary or transportable version. Amarex N pumps are floodable, single-stage, single-entry close-coupled pump sets which are not self-priming. ATEX-compliant version available.         Applications         Pumping waste water, especially untreated waste water containing long fibres and solid substances, liquids containing gas or air, and raw, activated and digested sludge; dewatering and water extraction, drainage of rooms and areas at risk of flooding.
Control unit, LevelContro			https://www.ksb.com/en-gb/lc/A31A

#### **Amarex KRT**

	DN Q [m³/h] H [m] T [°C] n [rpm] Data for 50 Hz operation Also available for 60 Hz	≤ 10080	next-generation impeller types, for wet or dry installation, stationary or transportable version, with energy-saving motor and models for use in potentially explosive atmospheres.
PumpDrive, Amacontrol	LevelControl		https://www.ksb.com/en-ab/lc/A30B

# Submersible pumps in discharge tubes

#### Amacan K

<b>e</b>	DN	700 - 1400	Description
	Q [m³/h]		Wet-installed submersible motor pump for installation in discharge tubes, with channel impeller,
	H [m]	≤ 30	single-stage, single-entry. ATEX-compliant version available.
	т [°С]	≥ 0 - ≤ +40	Applications
	n [rpm]	≤ 980	Handling pro cleaned chemically poutral waster water industrial offluent and sowage, fluids not
	ii [i piii]	3000	containing any stringy substances, pre-treated by screens or overflow sills; as waste water,
		Data for 50 Hz operation	combined sewage and activated sludge pumps in waste water treatment plants, irrigation and
The second second second second second second second second second second second second second second second s		Also available for 60 Hz	drainage pumping stations.
Amacontrol			https://www.ksb.com/en-gb/lc/A05A

## Amacan P

	DN Q [m³/h] H [m] T [°C] n [rpm]	≤ 25200 ≤ 12 > 0 - < +40	Applications
Amacontrol			https://www.ksb.com/en-gb/lc/A28A

Pumps			
Amacan 5			
¥P.	DN	650 - 1300	•
<u>A</u>	Q [m³/h]	≤ 10800	Wet-installed submersible motor pump for installation in discharge tubes, with mixed flow
1	H [m]	≤ 40	impeller, single-stage. ATEX-compliant version available.
	T [°C]	≥ 0 - ≤ +40	Applications
	n [rpm]	≤ 1450	Pumping water not containing stringy material in irrigation and drainage pumping stations, general water supply systems, water pollution control and flood control.
		Data for 50 Hz operation	
		Also available for 60 Hz	
Amacontrol			https://www.ksb.com/en-gb/lc/A29A

# Mixers / agitators / tank cleaning units

#### Amamix

Sept.	Propeller Ø [mm] T [°C] Installation depth [m] Data for 50 Hz ope Also available for	$\geq 0 - \leq +40$ $\leq 30$	Description         Horizontal submersible mixer with self-cleaning ECB propeller, close-coupled design, direct drive.         ATEX-compliant version available.         Applications         Handling municipal and industrial waste water and sludges as well as applications in environmental engineering.
Amacontrol			https://www.ksb.com/en-gb/lc/A09A

## Amaprop

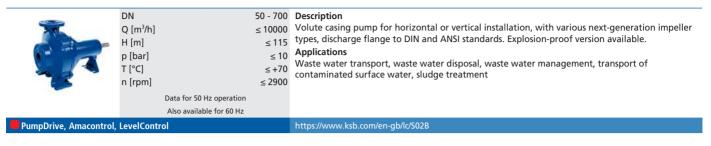
R	T[°C] >0-	≤ +40 ≤ 12	Description Horizontal submersible mixer with self-cleaning ECB propeller, close-coupled design, with coaxial spur gear drive. ATEX-compliant version available. Applications In environmental engineering, particularly in municipal and industrial waste water and sludge treatment, for circulating, keeping in suspension and inducing flow in nitrification tanks and denitrification tanks, activated sludge tanks, biological phosphate elimination tanks, flocculation tanks and sludge storage tanks
Amacontrol			https://www.ksb.com/en-gb/lc/A11A

#### Amaline

(F)	$\sim$	DN Q [m³/h] H [m] T [°C] n [rpm]	≤ 6600	nine Explosion-proof version available
Amacontr	(al			https://www.ksh.com/en-ah/lc/A08B

# Pumps for solids-laden fluids

#### **Sewatec**



#### **Sewatec SPN**

		≤ 32400 < 115	<b>Description</b> Vertical volute casing pump with multi-channel impellers (K), discharge flange to DIN and ANSI standards. <b>Applications</b> Waste water transport, waste water disposal, waste water management, transport of contaminated surface water
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#### **Sewabloc**

	DN Q [m³/h] H [m] p [bar] T [°C] n [rpm] Data for 50 Hz operation Also available for 60 Hz	≤ 1000 ≤ 90 < 10	available. Applications Waste water transport, waste water disposal, waste water management, transport of
PumpDrive, LevelControl			https://www.ksb.com/en-gb/lc/S01B

PumpDrive, LevelControl

#### KWP

0	DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤ 15000 ≤ 100 ≤ 10	Applications Paper industry, cellulose industry, sugar industry, food industry, power plants, chemical industry,
PumpDrive			https://www.ksb.com/en-gb/lc/K07A

#### **KWP-Bloc**

	DN Q [m <sup>3</sup> /h] H [m] p [bar] T [°C] n [rpm]	≤ 325 ≤ 100 ≤ 10	<ul> <li>Description</li> <li>Horizontal or vertical radially split close-coupled volute casing pump, single-stage, single-entry, available with various impeller types: closed multi-channel impeller, open multi-vane impeller and free-flow impeller.</li> <li>Applications</li> <li>Paper industry, cellulose industry, sugar industry, food industry, chemical industry, petrochemical industry, flue gas desulphurisation, industrial engineering, waste water transport</li> </ul>
PumpDrive			https://www.ksb.com/en-gb/lc/K09A

#### WBC

Q [m³/h] H [m] p [bar] T [°C]	≤ 80	<b>Description</b> Patented design with state-of-the-art hydraulic system and highly wear-resistant materials for high-pressure applications. The pump casing is designed to withstand maximum stresses, e.g. during pressure surges. <b>Applications</b> Ideal for the single-stage or multistage transport of ore and tailings over long distances and for dredging.
		https://www.ksb.com/en-ab/lc/W09A

## LSA

	Q [m³/h] H [m]	Description Premium design white cast iron pump for long service life handling severe slurries. The
	p [bar] T [°C]	 maintenance-friendly single-wall construction and heavy section white cast iron wet end combined with the cartridge bearing assembly provide maximum reliability, a long service life and ease of maintenance.
		Applications Ore and tailings transport, cyclone feed, dredging (dry-installed or submerged operation) and industrial processes.
		https://www.ksb.com/en-gb/lc/L14A

### LCC-M

	H [m] p [bar]	≤ 90	Applications
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https://www.ksb.com/en-gb/lc/L13A

## LCC-R

Q [m <sup>3</sup>		Description
H [m]		Interchangeable rubber-lined or part-metal design allows adaptation of existing pumps to new
p [bai	ii] <u> </u>	applications by simply exchanging the pump wet end.
	] ≤+65	<b>Applications</b> The pumps are suitable for moderate heads, fine particles and highly corrosive slurries.

https://www.ksb.com/en-gb/lc/L19A

TBC

Q [m³/h] H [m] p [bar] T [°C]	≤ 90 < 45	DescriptionHorizontal high-pressure end-suction centrifugal pump offering maximum resistance to wear and ease of maintenance. The conventional single-wall design transfers stress loads from the wear parts to the casing covers in high-pressure applications. Pump components made of highly wear- resistant white cast iron.Applications High-head high-flow hydrotransport of mined ore, tailings, dredged material, for pipeline booster stations and other severe duties.
		https://www.ksb.com/en-gb/lc/T08A

LCV

	Ţ	Q [m³/h] H [m] p [bar] T [°C]	≤ 38 < 11	<b>Description</b> Rugged vertical shaft submersible pump with casing, impeller and suction plate / liner made of white cast iron, bearing assembly located outside the fluid handled. Replaceable wetted parts made of white cast iron or natural rubber. <b>Applications</b> Particularly suitable for use in industrial processes and for transporting tailings in mines and pits.
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FGD

Q [m³/h] H [m] p [bar] T [°C]	≤ 30	Flue gas desulpurisation systems and process circuits
		https://www.ksb.com/en-gb/lc/F01A

#### MHD

Q [m³/h] H [m] p [bar] T [°C]	≤ 115	DescriptionHorizontal volute casing pump for high-volume hydrotransport of solids. For pumping slurries of large and very large particle sizes with a very good suction behaviour and high efficiency. Pump components made of white cast iron.Applications ldeal for pipeline pressure booster stations and severe mining duties. Highly suitable for loading and unloading duties on (cutter) suction dredgers.
		https://www.ksb.com/en-ab/lc/M35A

LHD

Q [m³/h] H [m] p [bar] T [°C]	≤ 105	<b>Description</b> Horizontal volute casing pump for high-volume hydrotransport of solids. For pumping slurries of large and very large particle sizes with a very good suction behaviour and high efficiency. Used in low-pressure applications. Pump components made of white cast iron. <b>Applications</b> Ideal for handling sand and gravel, on dredgers for land reclamation and as booster pumps.
		https://www.ksb.com/en-gb/lc/L12A

MDX

Q [m³/h] H [m] p [bar] T [°C]	<ul> <li>Description</li> <li>Pump designed with the latest technology from GIW. Superior wear properties and extremely long service life handling aggressive slurries.</li> <li>Applications</li> <li>Designed for SAG and ball mill discharge duties, cyclone feed, screen feed and other ore mining and treatment processes.</li> </ul>
	https://www.ksb.com/en-gb/lc/M42A

#### ZW

Q [m <sup>3</sup> /h] H [m] p [bar] T [°C] ≥0	≤ 35 ≤ 10	Description Rugged vertical shaft submersible pump with casing, impeller and suction cover made of white cast iron, top and bottom impeller inlet. Long-life bearings not exposed to fluid handled. Replaceable wetted components. Applications Particularly suitable for pumping abrasive slurries, dewatering, floor clean-up and process applications.
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HVF

Q [m³/h] H [m] p [bar] T [°C]	≤ 50 < 11	<b>Description</b> The pump provides continuous operation without shutdown or operator intervention. The new hydraulic design removes air from the impeller eye while the pump is running, and the pump can be retrofitted into any existing operation. <b>Applications</b> For use in all froth pumping applications in the mineral processing and industrial minerals industries.
		https://www.ksh.com/ep-gh/lc/HAAA

#### DWD

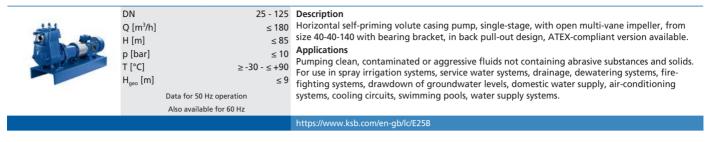
Q [m³/h] H [m] p [bar] T [°C]	< 90	the internal wear parts handle abrasive slurries, the outer casing acts as the high pressure containment component for safety. Designed primarily for use in ocean going vessels, the DWD dredge pump is a robust design, built to withstand the world's most aggressive dredge applications. Applications Inboard and underwater pumps for cutter suction dredges (CSD) and trailing suction hopper dredges (TSHD).
		https://www.ksb.com/en-gb/lc/D06A

### TDW

Q [m³/h] H [m] p [bar] T [°C]	< 105	Description         High head, low suction head pump specifically engineered for operation in tailings pond dewatering applications. This pump offers a fully integrated expeller shaft seal for flush-free operation. The balanced, 4-vane, large free passage impeller helps to minimise vibration. A robust mechanic end ensures reliable operation in a wide range of operating conditions. The wet-end wear components including the high speed capable impeller are made of high chrome cast white iron for maximum wear life and long production cycles.         Applications         Developed to meet the unique requirements of tailings pond dewatering services where seal flush water is not available. Ideal for water reclamation service where solids are present and high head is required.
		https://www.ksb.com/en-gb/lc/T07A

# Self-priming pumps

#### **Etaprime L**



#### **Etaprime B**

	≤ 130 ≤ 70 < 10	Applications Pumping clean, contaminated or aggressive fluids not containing abrasive substances and solids. For use in spray irrigation systems, service water systems, drainage, dewatering systems, fire-
		https://www.ksh.com/on-ah/lc/EB1B

#### EZ B/L



#### AU

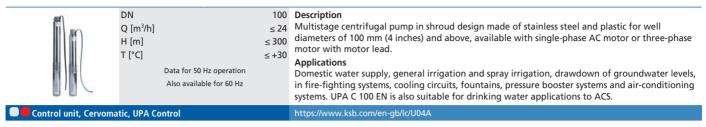
DN Q [m³/h] H [m] p [bar] T [°C]	≤ 600 ≤ 52 < 10	Pumping clean contaminated and aggressive fluids also containing solids. In fresh water and
		https://www.ksh.com/en.ah/lc/A93A

#### **AU Monobloc**

DN Q [m³/h] H [m] p [bar] T [°C]	< 53	Applications
		https://www.ksb.com/en-gb/lc/A94A

# Submersible borehole pumps

#### **UPA C 100 EN**



#### UPA C 100 EE

	DN Q [m <sup>3</sup> /h] H [m] T [°C] Data for 50 Hz operation Also available for 60 Hz	100 ≤ 18 ≤ 600 ≤ +30	Description         Multistage centrifugal pump in ring-section design made of stainless steel for well diameters of 100 mm (4 inches) and above, available with single-phase AC motor or three-phase motor with motor lead.         Applications         Domestic water supply, general irrigation and spray irrigation, drawdown of groundwater levels, in fire-fighting systems, cooling circuits, fountains, pressure booster systems and air-conditioning systems. UPA C 100 EE is also suitable for drinking water applications to ACS.
Control unit, Cervomatic, UPA Control			https://www.ksb.com/en-gb/lc/U04A

#### UPA C 150

	DN Q [m³/h] H [m] T [°C] Data for 50 Hz operation Also available for 60 Hz	< 79	All-stainless steel single-stage or multistage centrifugal pump in ring-section design, suitable for vertical or horizontal installation, for well diameters of 150 mm (6 inches) and above.
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PumpDrive, KSB UMA-S

https://www.ksb.com/en-gb/lc/U16A

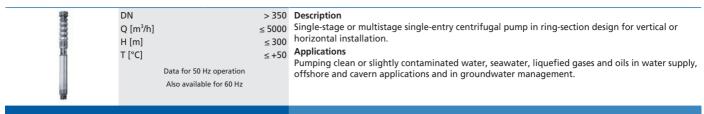
#### UPA 200, UPA 250

with	DN	200 - 250	Description
	Q [m³/h]	≤ 330	Single-stage or multistage single-entry centrifugal pump in ring-section design for vertical or
	H [m]	≤ 460	horizontal installation. Optionally available with lift check valve or connection branch. For well
	T [°C]	≤ +50	diameters of 8 inches and above.
1	Data fo	or 50 Hz operation	Applications Pumping clean or slightly contaminated water in general water supply, spray irrigation and
		vailable for 60 Hz	general irrigation, drawdown and maintenance of groundwater levels, fountains and pressure
	A150 U		booster systems, mining, fire-fighting systems, emergency water supply, etc.
PumpDrive, KSB UMA-S			https://www.ksb.com/en-gb/lc/U17A
Fulliputive, KSB OlviA-S			https://www.ksh.com/en-gh/lc/L19A

#### UPA 300, UPA 350

	DN Q [m³/h] H [m] T [°C]	< 840	available with lift check value or connection branch. For well diameters of 12 inches and above
PumpDrive, KSB UMA-S			https://www.ksb.com/en-gb/lc/U20A https://www.ksb.com/en-gb/lc/U21A

#### UPA 400 - UPA 1100



#### UPA D

		DN Q [m <sup>3</sup> /h] H [m] T [°C] Data for 50 Hz operation Also available for 60 Hz	≤ 5000 < 1500	DescriptionMultistage double-entry centrifugal pump in ring-section design for vertical or horizontal installation.ApplicationsPumping clean or slightly contaminated water, seawater, liquefied gases and oils in water supply, offshore and cavern applications and in groundwater management.
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#### UPA S 200

DN Q [m <sup>3</sup> /h] H [m] T [°C] Data for 50 Hz operation Also available for 60 Hz	Single-stage or multistage single-entry centrifugal pump in ring-section design for vertical or horizontal installation. Optionally available with lift check valve or connection branch. For well diameters of 9 inches and above
	https://www.ksb.com/en-gb/lc/U17A

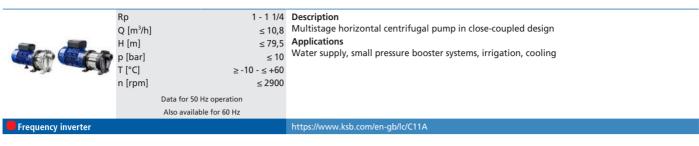
# Vertical turbine pumps

**B** Pump

Q $[m^3/h]$ $\leq 2600$ H $[m]$ $\leq 160$ p $[bar]$ $\leq 16$ T $[^{\circ}C]$ $\geq -10 - \leq +105$ e $[mrrc]$ $\approx 2000$	Pumping clean water in agriculture, collection and irrigation, public water supply, industry, tire-
	https://www.ksb.com/en-gb/lc/B60A

# **High-pressure pumps**





## Movitec H(S)I

<u>G</u>	Rp Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤ 27 - 105	operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor
KSB SuPremE, PumpDrive, PumpMeter			https://www.ksb.com/en-gb/lc/M06A

#### Movitec

	Rp DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	25 - 125 ≤ 160 ≤ 401 ≥ -20 - ≤ +140	<b>Description</b> Multistage vertical high-pressure centrifugal pump in ring-section design with suction and discharge nozzles of identical nominal diameters arranged opposite to each other (in-line design), close-coupled. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available. <b>Applications</b> Spray irrigation, general irrigation, washing, water treatment, fire-fighting and pressure booster systems, hot water and cooling water recirculation, boiler feed systems, etc.
KSB SuPremE, PumpDrive, PumpMeter			https://www.ksb.com/en-gb/lc/M12A

#### **Movitec VCI**

		Rp Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤ 22,5 < 249	
KSB SuPremE, PumpDrive				https://www.ksb.com/en-gb/lc/M94A

#### **Multitec**

	DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	≤ 1500 ≤ 1000 ≤ 100	speed system. ATEX-compliant version available.
KSB SuPremE, PumpDrive	e, PumpMeter		https://www.ksb.com/en-gb/lc/M07A

# Axially split pumps

# Omega

	DN Q [m <sup>3</sup> /h] H [m] p [bar] T [°C] n [rpm]	≤ 2880 < 210	stations, extraction duties in desalination systems, power stations, fire-fighting systems,
PumpDrive, PumpMeter			https://www.ksb.com/en-gb/lc/O00A

# RDLO

	DN Q [m³/h] H [m] p [bar] T [°C] n [rpm]	< 10000	Pumping water with a low solids content, e.g. in waterworks, irrigation and drainage pumping stations, extraction duties in desalination systems, power stations, fire-fighting systems, shipbuilding, district heating or cooling.
PumpMeter, Frequency inverter			https://www.ksb.com/en-gb/lc/R08A

#### RDLP

Frequency inverter https://www.ksb.com/en-qb/lc/R09A		Q [m³/h] ≤ 1 H [m]	0
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# Hygienic pumps

## Vitachrom

	DN	50 - 125	Description
	Q [m³/h] H [m] p [bar] T [°C]	≤ 340 ≤ 100 ≤ 12 ≥ -30 - ≤ +110	
		Data for 50 Hz operation Also available for 60 Hz	clearances. Its wetted components are made of 1.4404/1.4409 (AISI 316L/CF3M) stainless steel. Vitachrom is EHEDG-certified. All materials comply with FDA standards and EN 1935/2004. ATEX- compliant version available.
			Applications Hygienic handling of fluids in the food, beverage and pharmaceutical industries as well as in the chemical industry.
KSB SuPremE, PumpDriv	e, PumpMe	ter	https://www.ksb.com/en-gb/lc/V00A

#### Vitacast

	O [m³/h] < 540	IE5 and PumpDrive variable speed system. All wetted components are made of 1.4404/1.4409 (AISI 316L/CF3M) stainless steel. Designed with very little dead volume: open impeller.
KSB SuPremE, PumpDrive	e, PumpMeter	https://www.ksb.com/en-gb/lc/V01A

## Vitacast Bloc

	⊣ [m] < 105	Service-friendly volute casing pump with magnetless KSB SuPremE motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/ IE5 and PumpDrive variable speed system. All wetted components are made of 1.4404/1.4409 (AISI 316L/CF3M) stainless steel. Designed with very little dead volume; open impeller, electropolished surface, excellent efficiency. Hygienic design for the highest requirements on cleanability (CIP/SIP-compatible), certified by the TNO Nutrition and Food Research Institute to EHEDG standards. All materials comply with FDA standards and EN 1935/2004. Trolley available among other accessories. ATEX-compliant version available. Applications
KSB SuPremE, PumpDriv	- PumpMeter	Hygienic handling of fluids in the food, beverage and pharmaceutical industries as well as in the chemical industry. https://www.ksb.com/en-gb/lc/V05A

# Vitaprime

A CONTRACTOR	Also Other ra	< 58	magnets) of efficiency class IE4/IE5 and PumpDrive variable speed system. All wetted components are made of 1.4404/1.4409 (AISI 316L/CF3M) stainless steel. Hygienic design for the highest cleanability requirements (CIP/SIP-compatible). All materials comply with FDA standards and EN 1935/2004. Trolley available among other accessories. ATEX-compliant version available. <b>Applications</b> Hygienic handling of fluids in the food, beverage and pharmaceutical industries as well as in the chemical industry.
KSB SuPremE, PumpDrive	9		https://www.ksb.com/en-gb/lc/V07A

# Vitastage

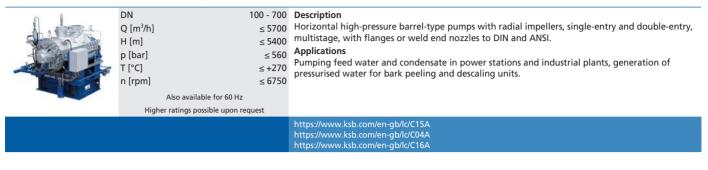
Q [m³/h] H [m] p [bar]	150	<b>Description</b> Multistage centrifugal pump in close-coupled design for vertical or horizontal installation. All wetted components are made of 1.4401/1.4408 (AISI 316/CF8M) stainless steel. Versatile, robust and especially energy-efficient. CIP/SIP-compatible. All materials comply with FDA standards and EN 1935/2004. Trolley also available among other accessing.
T [°C]		EN 1935/2004. Trolley also available among other accessories.
	ata for 50 Hz operation Also available for 60 Hz	Applications Processes with hygienic requirements in the food and beverage industries and in the chemical
Othe	r ratings possible on request	industry. https://www.ksb.com/en-ab//c/V08A

# Vitalobe

	DN	25 - 200	Description
	Q [m³/h]	≤ 342	Sturdy rotary lobe pump in hygienic design, bi-directional operation possible, horizontal or
man participa	H [m]	≤ 200	vertical orientation of connections. Hygienic design, excellent CIP/SIP compatibility due to its
	p [bar]	≤ 20	vertical orientation of connections. Hygienic design, excellent CIP/SIP compatibility due to its almost complete lack of dead volume or narrow clearances. All wetted components made of 1.4404/1.4409 (AISI 316L/CF3M) stainless steel; various rotor types, shaft seals and process
A DOLLAR	T [°C]	≥ -40 - ≤ +180	connections available. Installed as a pump set with gear unit and standardised motor. Vitalobe is
	Viscosity [cP]	≤ 200000	
	Data for 50 Hz operation		Accessories include a trolley, a heatable casing or casing cover and a pressure relief arrangement.
	Also available	for 60 Hz	ATEX-compliant version available.
	Other ratings poss	ible on request	Applications
			Hygienic and gentle handling of sensitive or high-viscosity fluids in the food, beverage and pharmaceutical industries, the chemical industry and general process engineering.
KSB SuPremE, PumpDriv	e		https://www.ksb.com/en-gb/lc/V06A

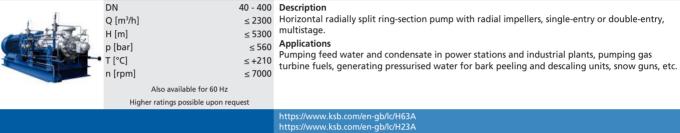
# Pumps for power station conventional islands

## CHTA / CHTC / CHTD



## HGB / HGC / HGD





#### HGI



#### **HGM**

	Q $[m^{3}/h]$ ≤ 350 H $[m]$ ≤ 1400	Description Horizontal radially split product-lubricated multistage ring-section pump with radial impellers, axial and radial single-entry inlet. Applications Pumping feed water in power stations, boiler feed systems and condensate transport in industrial plants.
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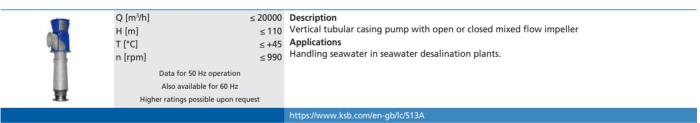
#### **YNK**

Q [m³/h] ≤ 520 H [m] < 54	0
	https://www.ksb.com/en-gb/lc/Y01A

Pumps

June Contraction	Q [m <sup>3</sup> /h] ≤ 7 H [m] ≤ p [bar] ≤ T [°C] ≤ +	<ul> <li>Description</li> <li>Vertical spherical casing pump, radial impellers, single-entry, single- to three-stage. Suitable for very high inlet pressures and temperatures. Integrated wet winding motor to VDE. Product-lubricated bearings, no need for oil supply systems. Design to TRD, ASME or IBR.</li> <li>Applications</li> <li>Hot water recirculation in forced-circulation, forced-flow and combined-circulation boilers for very high pressures and in solar power towers.</li> <li>https://www.ksb.com/en-gb/lc/L02A</li> </ul>
WKTB		
	H [m] < p [bar] T [°C] ≤ +	<ul> <li>300 Description</li> <li>500 Vertical can-type ring-section pump on base frame, multistage, first-stage impeller designed as a double-entry suction impeller, radial impellers. Flanges to DIN or ANSI.</li> <li>500 Applications</li> <li>Pumping condensate in power stations and industrial plants.</li> </ul>
		https://www.ksb.com/en-gb/lc/W07A
SEZ		
	H [m] T [°C] ≤	<ul> <li>Description</li> <li>Solution</li> <li>Solution</li> <li>Vertical tubular casing pump with open mixed flow impeller, pump intake with inlet nozzle or suction elbow, pull-out design available, discharge nozzle arranged above- or underfloor, flanges to DIN or ANSI standards available.</li> <li>Applications</li> <li>Pumping raw water, pure water, service water and cooling water in industry, water supply systems, power stations and seawater desalination plants.</li> </ul>

SEZT



https://www.ksb.com/en-gb/lc/S10B

PHZ

<b>M</b>	H [m] < 25	<ul> <li>Description</li> <li>Vertical tubular casing pump with mixed flow propeller, pump intake with inlet nozzle or suction elbow, pull-out design available, discharge nozzle arranged above- or underfloor, flanges to DIN or ANSI standards available.</li> <li>Applications</li> <li>Raw water, pure water, service water and cooling water in industry, water supply systems, power stations and seawater desalination plants.</li> </ul>
		https://www.ksb.com/en-gb/lc/P05A

#### PNZ

	Q [m³/h] H [m] T [°C] n [rpm] Data for 50 Hz o Also available fo	≤ 15 ≤ +80 ≤ 990	Description         Vertical tubular casing pump with axial propeller, pump intake with inlet nozzle or suction elbow, pull-out design available, discharge nozzle arranged above- or underfloor, flanges to DIN or ANSI standards available.         Applications         Raw water, pure water, service water and cooling water in industry, water supply systems, power stations and seawater desalination plants.
置	Higher ratings possible	upon request	
			https://www.ksb.com/en-gb/lc/P06A

## SNW

I	DN 3 Q [m³/h] H [m] p [bar] T [°C] n [rpm] Data for 50 Hz operation Also available for 60 Hz Higher ratings possible upon requ	≤ 6500 ≤ 60 ≤ 10 ≤ +60 ≤ 1500	<b>Description</b> Vertical tubular casing pump with mixed flow impeller, single-stage, with maintenance-free Residur bearings, discharge nozzle arranged above- or underfloor. <b>Applications</b> Irrigation and drainage, stormwater pumping stations, for raw water and pure water, water supply, cooling water.
			https://www.ksh.com/ep-gh/lc/S14A

## PNW

DN 3 Q [m³/h] H [m] p [bar] T [°C] n [rpm] Data for 50 Hz operation Also available for 60 Hz Higher ratings possible upon requ	≤ 9000 ≤ 10 ≤ 10 ≤ +60 ≤ 1500	<b>Description</b> Vertical tubular casing pump with axial propeller, single-stage, with maintenance-free Residur bearings, discharge nozzle arranged above or below floor level. <b>Applications</b> Irrigation and drainage, stormwater pumping stations, for raw water and pure water, water supply, cooling water.
		https://www.ksb.com/en-gb/lc/P02A

#### **Beveron**

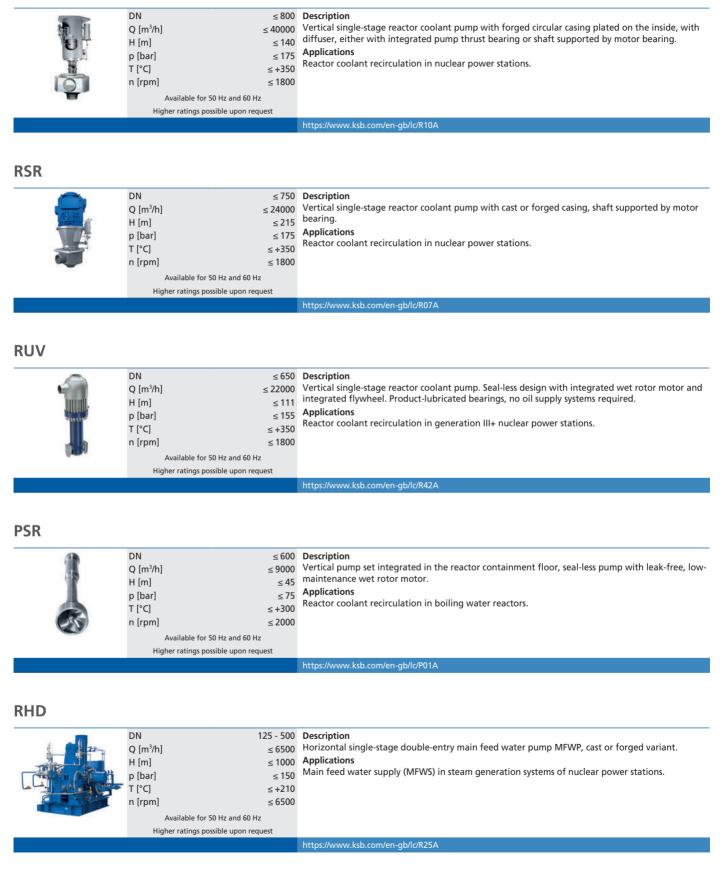
Q [m <sup>3</sup> /s] H [m] Data for 50 Hz operation Also available for 60 Hz Higher ratings possible upon requ	 <b>Description</b> Concrete volute casing pump with mixed flow impeller, single-stage, with zero-maintenance Residur bearings lubricated by the fluid handled. <b>Applications</b> Coast protection and flood control, irrigation and drainage, low-lift pumping stations, reservoir filling, cooling water, raw and pure water.
	https://www.ksb.com/en-gb/lc/B33A

SPY

NUMBER OF STREET	DN	350 - 1200	Description
	Q [m <sup>3</sup> /h]	≤ 21600	
	H [m]	≤ 50	Applications
N. T	p [bar]	≤ 10	Irrigation, drainage and water supply systems, for pumping condensate, cooling water, service
	T [°C]	≤ +105	water, etc.
	n [rpm]	≤ 1480	
	Data f	or 50 Hz operation	
	Also a	available for 60 Hz	
	Higher ratin	gs possible upon request	
			https://www.ksb.com/en-gb/lc/S15A

# Pumps for nuclear power stations

#### RER



#### **LUV Nuclear**

DN Q [m <sup>3</sup> /h] H [m] p [bar] T [°C] Data for 50 Hz operation Also available for 60 Hz	≤ 7000 ≤ 300 ≤ 320 ≤ +430	Applications
		https://www.kch.com/on.ah/lc/12EA

#### RHM

DN Q [m <sup>3</sup> /h] H [m] p [bar] T [°C] n [rpm] Available for 50 Hz and 60 Hz Higher ratings possible upon requ	≤ 300 ≤ 2100 ≤ 220 ≤ +180 ≤ 8000	systems, emergency feed water systems, start-up and shutdown feed water systems, high-pressure
		https://www.ksb.com/en-qb/lc/R26A

#### RVM



#### RHR

	DN		Description
Contraction of the second seco	Q [m³/h]	≤ 6000	Horizontal circular casing pump with forged or cast pressure boundary and diffuser.
100	H [m]	≤ 190	Applications
	p [bar]	≤ 63	Core flooding, emergency cooling and residual heat removal systems, ancillary systems, acid feed
and a	T [°C]	≤ +200	system and low-pressure injection system, component cooling water systems.
A. E.	n [rpm]	≤ 3600	
	Available for 50 Hz and 60 Hz		
			https://www.ksb.com/en-gb/lc/R27A

#### RVR

		DN Q [m <sup>3</sup> /h] H [m] p [bar] T [°C] n [rpm] Available for 50 Hz and 60 Hz	≤ 6000 ≤ 190 ≤ 63 ≤ +200 ≤ 3600	<b>Description</b> Vertical circular casing pump with forged or cast pressure boundary and diffuser. <b>Applications</b> Core flooding, emergency cooling and residual heat removal systems, ancillary systems, acid feed system and low-pressure injection system, component cooling water systems.
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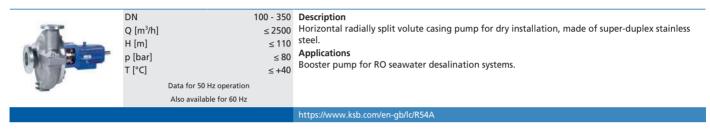
#### RVT

Pumps

Į.	Q $[m^{3}/h]$ ≤ 1100 H $[m]$ ≤ 131	Applications Low-pressure injection systems, emergency feed water systems, emergency cooling and residual heat removal systems
	Higher ratings possible upon request	
		https://www.ksb.com/en-gb/lc/R63A

# Pumps for desalination by reverse osmosis

RP	H-	RO
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#### **Multitec-RO**

	DN Q [m <sup>3</sup> /h] H [m] p [bar] T [°C] n [rpm]	≤ 850 ≤ 1000 ≤ 100	super duplex stainless steel. Applications High-pressure pump for RO seawater desalination systems and geothermal systems (re-injection
KSB SuPremE, PumpDrive			

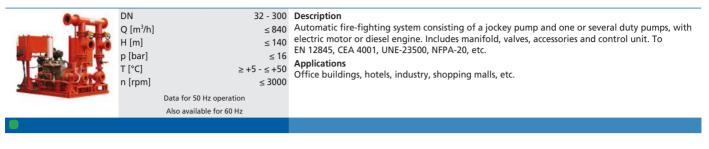
# Positive displacement pumps

#### RC / RCV

https://www.ksb.com/en-gb/lc/R41A			≤ 78 ≤ 100 < 10	<b>Description</b> Helical gear pump, self-priming, with bypass valve, close-coupled design, for horizontal installation with baseplate or vertical installation. With mechanical seal. <b>Applications</b> Fuel feed, handling fuel, lubricating oil and viscous fluids, lubrication systems.
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# **Fire-fighting systems**

EDS

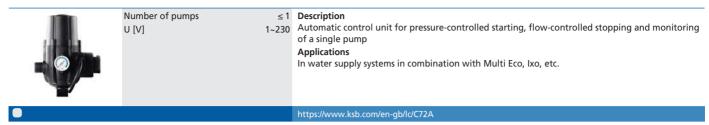


#### DU / EU

	Q [m³/h] ≤ 2500 H [m] ≤ 150 p [bar] ≤ 25	<b>Description</b> Automatic fire-fighting system consisting of pumps with electric motor or diesel engine and control unit. To EN 12845, CEA 4001, UNE-23500, NFPA-20, FM, etc. <b>Applications</b> Office buildings, hotels, industry, shopping malls, etc.
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# **Control units**

### **Controlmatic E**



### **Controlmatic E.2**

<b>.</b>	Number of pumps U [V]	Description Automatic control unit for pressure-controlled starting, flow-controlled stopping and monitoring of a single pump Applications In water supply systems in combination with Multi Eco, Ixo, etc.
		https://www.ksb.com/en-gb/lc/C72A

#### **Cervomatic EDP.2**

Consumation (2002)	Number of pumps U [V]	Description         Automatic control unit for pressure-controlled starting and either pressure-controlled or flow-controlled stopping and monitoring of a single pump.         Applications         In water supply systems with pumps of the Multi Eco, Ixo, etc. type series with single-phase or three-phase motors
		https://www.ksb.com/en-gb/lc/C19A

#### LevelControl Basic 2

 	<ul> <li>Description         Level control unit for controlling and protecting either one or two pumps. DOL starting up to 4 kW, star-delta starting up to 22 kW. Higher ratings on request.     </li> <li>Applications         Tank drainage using float switches, digital switches, 420 mA, pneumatic (without compressor) or bubbler system in building services and waste water applications. Tank filling using float switches, digital switches, digital services and water supply applications.     </li> </ul>
	https://www.ksh.com/op.gh/k/J200

## **UPA Control**

Number of pumps P [kW] U [V]	≤1 3 1~230/3~400	<b>Description</b> The KSB switchgear is suitable for level control and protection of submersible borehole pumps, submersible motor pumps and dry-installed pumps with single-phase AC motors 1~230 V or three-phase motors 3~230 / 400 V / 50 Hz. The motor is started DOL. Enclosure: IP56, dimensions: $205 \times 255 \times 170$ mm (H × W × D). Applications Irrigation and filling or draining tanks in water supply applications in combination with 4-inch and 6-inch pumps.
		https://www.ksb.com/en-gb/lc/U05A

# Hyatronic N

0		<b>Description</b> Pump control system in control cabinet for cascade starting and stopping of up to six pumps.
	P [kW] 22 U [V] 3~400	Applications
6444	Available for higher ratings and other mains voltages on request.	For draining tanks and sumps in drainage and waste water disposal applications. For filling tanks in water supply applications. Level measurement using float switch or 420 mA sensor.

# Monitoring and diagnosis

## Amacontrol

attender to	Connections	Spring-loaded	
		terminals	Protection module for water and waste water products as all-in-one device. Depending on the
	Mounting	35 mm standard	variant, it can be used for motor temperature measurement, bearing temperature measurement,
		rail	leakage measurement, vibration measurement, voltage measurement and current measurement as well as for diagnosing a pump, pump system or submersible mixer to ensure trouble-free and
	T [°C]	≥ -30 - ≤ +70	reliable operation.
ARE LEVEL	Dimensions		Applications
A COLOR OF THE OWNER	H × W ×D [mm]	127,2 × 45 × 113,6	In water and waste water systems in combination with Amacan, Amamix, Amaprop, Amaline,
	U [V]	AC 115-230 ± 10%	Amarex KRT or Sewatec
	U [V]	AC/DC 24 ± 10%	
			https://www.ksb.com/en-gb/lc/A75B

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