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DANAÏS TBTII (Cryogenic) Flanged	60				

Our tradition: Competence since 1871

We have supplied generations of customers worldwide with pumps, valves, automation products and services. A company with that kind of experience knows that success is a process based on a stream of innovations. A process made possible by a close working alliance between developer and user, between production and practice.

Partners achieve more together. We do everything possible to ensure that our customers always have access to the ideal product and system solution. KSB is a loyal partner:

- Over 140 years' experience
- Present in more than 100 countries
- More than 16,000 employees
- More than 170 service centres worldwide
- Approximately 3,000 service specialists



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

We assist our customers right through the product life cycle

A comprehensive product range, short response times and tailored service and spare parts solutions – no other competitor offers a comparable range of products and services. In all phases of the product life cycle, we are on hand to ensure that our customers secure long-term value from their systems.

We offer our customers a variety of services and spare parts solutions around pumps, valves, and other rotating equipment – also for non-KSB products:

- Technical consultancy
- Installation and commissioning
- Services provided on-site and in our service centres
- Inspection and maintenance

- Maintenance inspection management
- Framework agreements such as TPM[®] Total Pump Management
- Efficiency analyses with the SES System Efficiency Service or PumpMeter
- Reverse engineering
- Inventory management
- Spare parts in manufacturer's quality
- On-site training sessions
- Refurbishment and decommissioning

Ready wherever you are: with a global service network and a 24-hour emergency service.



Our mission: Certified quality assurance

First-class products and excellent service take top priority at KSB. To maintain this level of excellence, we have developed a modern quality management system with globally applicable guidelines. It is based on the Business Excellence model of the European Foundation for Quality Management, which already ensures improved quality management Europewide.

Our guidelines define uniform quality for all KSB locations and have helped us to optimise our manufacturing processes. The results are shorter delivery times and global availability of our products. These guidelines govern the way we act so comprehensively that even the competence of our consulting and the good value for money we offer are clearly stipulated. Like the 'Made in Germany' quality seal, we introduced internal certification as a sign of the highest quality: 'Made by KSB'.

Our five key goals:

- Maximum customer satisfaction: We do everything to fulfil our customers' wishes on time and in full.
- Fostering quality awareness: We put our quality commitment into daily practice – from executives to employees, whose qualifications and competence we foster through continuing training.
- **Prevention rather than cure:** We systematically analyse errors and prevent the causes.
- Improvement in quality: We continually optimise our processes in order to work more efficiently.
- Involvement of suppliers: We attach great importance to working together fairly and openly to achieve our shared goals.



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



KSB Trademarks

Apart from the KSB umbrella brand, the following brand names identify quality products and services by the KSB Group:

omri

Butterfly valves

Under the AMRI brand, KSB sells its butterfly valves. They are used in building services, industry, water engineering and power generation applications. AMRI products include pneumatic, hydraulic and electric valve actuators as well as control systems.

Diaphragm valves

510[®]

Under the SISTO brand, KSB sells its diaphragm valves. They perform shut-off duties in building services, industrial, water management and power generation applications. Under this brand name, KSB offers special valves for sterile processes including biotech applications.



General Information

KSB's FluidFuture® energy efficiency concept	FluidFuture [®] is our comprehensive energy efficiency concept for your entire hydraulic system. Its aim is to improve your plant's efficiency. To make that reality, we've developed five interlocking modules. Together they enable us to identify and achieve savings right through the life cycle of your pumps and valves. You can maximise savings by optimising the overall efficiency of your plant, making it run more cost-effectively, efficiently and longer. FluidFuture [®] benefits your company, our environment and generations to come. More information at www.ksb.de/fluidfuture
Regional products	Not all depicted products are available for sale in every country. Products only available in individual regions are indicated accordingly. Please contact your sales representative for details.
Key to actuators	 In the Products section from page 27 the symbol ■ in conjunction with the relevant letter indicates the actuator type(s) available. m = manual (lever, handwheel, etc.) e = electric actuator p = pneumatic actuator h = hydraulic actuator
Trademark rights	All trademarks or company logos shown in the catalogue are protected by trademark rights owned by KSB Aktiengesellschaft and/or a KSB Group company. The absence of the "®" symbol should not be interpreted to mean that the term is not a registered trademark.

Valves

Design/Application	Type series	Page	FluidFuture	Automation	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport	Pharmaceuticals/ Food
	BOA-SuperCompact	27								
Soft-seated globe valves to DIN/EN	BOA-Compact	27								
Soft-seated globe valves to Different	BOA-Compact EKB	27								
	BOA-W	27								
	воа-н	28								
	BOA-H/HE/HV/HEV	28								
Bellows-type globe valves to DIN/EN	NORI 40 ZXLBV/ZXSBV	28								
benows type globe values to bilively	NORI 40 ZXLB/ZXSB	28								
	NORI 40 ZYLB/ZYSB	29								
	BOACHEM-ZXAB	29								
Bellows-type globe valves to ANSI/ASME	ECOLINE GLB 150-600	29								
Benows-type globe valves to ANSI/ASINE	ECOLINE GLB 800	29								
	NORI 40 ZXL/ZXS	30								
	NORI 40 ZXLF/ZXSF	30								
	NORI 160 ZXL/ZXS	30								
	NORI 160 ZXLF/ZXSF	30								
Clabs values to DIN/EN with sland pasking	NORI 320 ZXLF/ZXSF	30								
Globe valves to DIN/EN with gland packing	NORI 320 ZXSV	31								
	NORI 500 ZXSV	31								
	NORI 500 ZXLR/ZXSR	31								
	BOACHEM-ZXA	31								
	ECOLINE VA 16	31								
	ECOLINE GLC 150-600	32								
	ECOLINE GLF 150-600	32								
	ECOLINE GLF 800-2500	32								
Globe valves to ANSI/ASME with gland	ECOLINE GLV 150-300	32								
packing	SICCA 150-600 GLC	32								
	SICCA 900-2500 GLC	33								
	SICCA 800-2500 GLF	33								
	WADA GL 150	33								
	NUCA/-A/-ES, Types I, II, IV	33								
	NUCA-B	33								
	NUCA-F	34								
Globe valves for nuclear applications	NUCA-S	34								
	ZXNB	34								
	ZXNVB	34								
	ZYNB/ZYN	34								
Control systems to DIN/EN	BOA-Systronic	35								
	BOA-H Mat E	35								
Automated globe valves to DIN/EN	BOA-H Mat P	35						_		
	BOA-CVE C/CS/W/IMS/EKB	36				-		-		
Control valves to DIN/EN	BOA-CVE H	36				-		_		
	BOA-CVP H	36		_		-	-	-		
Palancing and chuit off volves to	BOA-Control/BOA-Control IMS	30		_		_				
Balancing and shut-off valves to DIN/EN	BOA-Control SAR	37				_		_	_	
Level control valves to DIN/EN	CONDA-VLC	37								
Pressure reducing valves to DIN/EN	CONDA-VIC	37								
Pressure sustaining valves to DIN/EN	CONDA-VKC	38								
TESSULE SUSTAILING VALVES TO DIMEN	BOAVENT-AVF	38								
Air valves to DIN/EN	BOAVENT-SIF BOAVENT-SVA	38								
		39								
	BOAVENT-SVF	39						_		
Vent valves for nuclear applications	SISTO-VentNA	39								
	SISTO-KRVNA	39								

Design/Application	Type series	Page	FluidFuture	Automation	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport	Pharmaceuticals/ Food
Start and stop control valves to DIN/EN	ZJSVA/ZXSVA	40								
	COBRA-SGP/SGO/SGF	40								
	COBRA-SMP	40								
	ECOLINE SP/SO	40								
	ECOLINE GT 40	41								
Gate valves to DIN/EN	STAAL 40 AKD/AKDS	41								
	STAAL 100 AKD/AKDS	41								
	AKG-A/AKGS-A	41								
	ZTS	41								
	ECOLINE GTB 800	42								
	ECOLINE GTC 150-600	42								
	ECOLINE GTF 150-600	42								
	ECOLINE GTF 800-2500	42								
Gate valves to ANSI/ASME	ECOLINE GTV 150-300	42								
	SICCA 150-600 GTC	43								
	SICCA 900-2500 GTC	43								
	SICCA 800-1500 GTF	43					-			
	WADA GT 150	43								
Gate valves for nuclear applications	ZTN	43				_				
Body pressure relief valve	UGS	44					_			
Knife gate valves to DIN/EN	HERA-BD	44				-				
Kine gate valves to Div/Liv	HERA-BDS	44				-		_		
Knife gate valves to ANSI/ASME	HERA-BHT	44			_	_				
Kine gate valves to ANSI/ASINE	HERA-SH	44			_	-			_	
		45			_					
	BOA-RPL									
	BOA-RFV	45					_			
	BOA-RVK	45				-	_			
	BOA-R	45								
Lift check valves to DIN/EN	NORI 40 RXL/RXS	46								
	NORI 160 RXL/RXS	46								
	NORI 320 RXL/RXS	46								
	NORI 500 RXLR/RXSR	46								
	RGS	46								
	BOACHEM-RXA	47								
	ECOLINE PTF 150-600	47								
Lift check valves to ANSI/ASME	ECOLINE PTF 800-2500	47								
	SICCA 800-2500 PCF	47								
	WADA SC 150	47								
	NUCA/-A/-ES, Type V	48								
Lift check valves for nuclear applications	RJN	48								
	RYN	48								
	COBRA-SCBS	48								
	ECOLINE WT/WTI	49								
	STAAL 40 AKK/AKKS	49								
	STAAL 100 AKK/AKKS	49								
	AKR/AKRS	49								
Swing check valves to DIN/EN	ZRS	49								
	SISTO-RSK/RSKS	50								
	SERIE 2000 PN 16	50								
	SERIE 2000 PN 25	50								
	SERIE 2000 Class 150	50								
	SERIE 2000 Class 300	50								

Design/Application	Type series	Page	FluidFuture	Automation	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport	Pharmaceuticals/ Food
	ECOLINE SCC 150-600	51								
	ECOLINE SCF 150-600	51								
	ECOLINE SCF 800-2500	51								
Swing check valves to ANSI/ASME	ECOLINE SCV 150-300	51								
	SICCA 150-600 SCC	51								
	SICCA 900-2500 SCC	52								
	WADA SC 150	52								
Swing check valves for nuclear applications	SISTO-RSKNA	52								
	ZRN	52								
Tilting disc check valves to DIN/EN	COBRA-TDC01/03	53								
	BOA-S	53								
Strainers to DIN/EN	NORI 40 FSL/FSS	53								
	BOACHEM-FSA	53								
Strainers to ANSI/ASME	ECOLINE FYC 150-600	54								
	ECOLINE FYF 800	54								
	BOAX-CBV13	54								
	BOAX-S	54								
	BOAX-SF	55								
	BOAXMAT-S	55								
	BOAXMAT-SF	55								
	BOAX-S Gaz	55								
	BOAX-SF Gaz	55								
	BOAX-B	56								
	BOAX-B Gaz	56								
	BOAX-B APSAD	56								
Control dies butterfluxielues	BOAX-B DVGW	56								
Centred-disc butterfly valves	BOAX-B FM	57								
	BOAX-B Mat E	57								
	BOAX-B Mat P	57								
	ISORIA 10	57								
	ISORIA 16	58								
	ISORIA 20	58								
	ISORIA 20 UL	58								
	ISORIA 25	58								
	MAMMOUTH	58								
	KE PLASTOMER	59								
	KE ELASTOMER	59								
	APORIS-DEB02	59								
	DANAÏS 150	59								
	DANAÏS MTII Class 150	60								
	DANAÏS MTII Class 300	60								
Double-offset butterfly valves	DANAÏS 300T	60								
	DANAÏS TBTII (Cryogenic) Side Entry	60								
	DANAÏS TBTII (Cryogenic) Flanged	60								
	DANAÏS TBTII (Cryogenic) AL	61								
	TRIODIS 150	61								
Triple-offset butterfly valves	TRIODIS 300	61								
	TRIODIS 600	61								
Butterfly valves for nuclear applications	CLOSSIA	62								
	MP-CI/MP-II	62								
Single-piece ball valves	PROFIN-VT1	62								
	ECOLINE BLT 150-300	62								
Two-piece ball valves	PROFIN-VT2L	63								
	ECOLINE BLC 1000	63								
Three-piece ball valves	PROFIN-SI3FIT/-SI3IT/-SI3LIT	63								

Design/Application	Type series	Page	FluidFuture	Automation	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport	Pharmaceuticals/ Food
	SISTO-KB	64								
	SISTO-KBS	64								
	SISTO-10	64								
	SISTO-10M	64								
Soft-seated diaphragm valves to	SISTO-16	64								
DIN/EN	SISTO-16S	65								
	SISTO-16RGA	65								
	SISTO-16TWA/HWA/DLU	65								
	SISTO-20	65								
	SISTO-C	65								
	MXN	66								
Diaphragm valves for nuclear applications	SISTO-20NA	66								
	SISTO-DrainNA	66								
Feed water bypass valves	ZJSVM/RJSVM	66								
Line blind valves	VTS	67								
Expansion and anti-vibration joints	ECOLINE GE1/GE2/GE3	67								
Expansion and anti-vibration joints	ECOLINE GE4	67								

Actuators

Design/Application	Type series	Page	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport	Pharmaceuticals/ Food
1	CR/CM	68						
Levers	S/SR/SP	68						
	MA	68						
Manual gearboxes	MN	68						
	MR	69						
	ACTELEC quarter-turn actuator (BERNARD CONTROLS, EZ and SQ type series)	69			-			
	ACTELEC quarter-turn actuator (BERNARD CONTROLS, LE type series)	69						
Electric actuators	ACTELEC quarter-turn actuator (AUMA, SQ type series)	69						
	ACTELEC multi-turn actuator (BERNARD CONTROLS)	69						
	ACTELEC multi-turn actuator (AUMA)	70						
	SISTO-LAE	70						
	ACTO	70						
Hydraulic actuators	DYNACTO	70						
	ENNACTO	71						
	ACTAIR	71						
	ACTAIR-B	71						
	DYNACTAIR	72						
Pneumatic actuators	DYNACTAIR-B	72						
	SISTO-LAD	72						
	SISTO-LAP	72						
	SISTO-C LAP	73						
Control construction	RMD	73						
Control accessories	DUALIS	73						

KSB offers a wide range of actuators. Just contact our specialists.

Automation

Design/Application	Type series	Page	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport	Pharmaceuticals/ Food
	AMTROBOX	74						
	AMTROBOX EEx ia	74						
	AMTROBOX ATEX Zone 22	74						
	AMTROBOX C	74						
Monitoring	AMTROBOX M	74						
	AMTROBOX R	75						
	AMTROBOX R EEx ia	75						
	AMTROBOX R Ex d	75						
	AMTROBOX S	75						
	AMTRONIC	76						
ON/OFF valve controllers	AMTRONIC Ex ia	76						
Desitioners	SMARTRONIC MA	76						
Positioners	SMARTRONIC AS-I	76						
Intelligent positioners	SMARTRONIC PC	77						

Fluids handled

		BOA-SuperCompact	BOA-Compact	BOA-Compact EKB	BOA-W		BOA-H	BOA-H/HE/HV/HEV	NORI 40 ZXLBV/ZXSBV	NORI 40 ZXLB/ZXSB	NORI 40 ZYLB/ZYSB	BOACHEM-ZXAB		ECOLINE GLB 150-600	ECOLINE GLB 800		NORI 40 ZXL/ZXS	NORI 40 ZXLF/ZXSF	NORI 160 ZXL/ZXS	NORI 160 ZXLF/ZXSF	NORI 320 ZXLF/ZXSF	NORI 320 ZXSV	NORI 500 ZXSV	NORI 500 ZXLR/ZXSR	BOACHEM-ZXA	ECOLINE VA 16		SICCA 150-600 GLC	SICCA 900-2500 GLC	SICCA 800-2500 GLF	ECOLINE GLC 150-600	ECOLINE GLF 150-600	ECOLINE GLF 800-2500	ECOLINE GLV 150-300	WADA GL 150	
Abrasive fluids	z					z							ш			b											ð									_
Waste water with faeces	N					Ž							SIV			kir											kir									_
Waste water without faeces						¯							SIVA			packing											pac									_
Aggressive fluids	globe valves to DIN/EN					globe valves to DIN/EN							AN			gland											b									_
Inorganic fluids	Ve					lve							ę			gla											gla									_
Activated sludge	va					va							/es			Ę											Ę									_
Brackish water	be					be							/al/			with								Í			Š									_
Service water	Ъ				- I -	glo) e			EN					Ì	ĺ	ĺ				Ξ								T	
Steam	Soft-seated					Bellows-type							globe valves to ANSI/ASME			DIN/EN		Π									Globe valves to ANSI/ASME with gland packing									—
Distillate	eat					s-ty		\neg								0											NSI	\neg								_
Explosive fluids	ft-s					NO							Bellows-type			valves to											A							\neg	\neg	_
Digested sludge	S					sell							WS-			alv											s to									_
Solids-laden fluids	1					"										e <											Ive									
Solids (ore, sand, gravel, ash)	1		1			Ì							ä			lobe											e v									_
Flammable fluids																ច											obe				\square					
River, lake and groundwater	1																										ซี									
Liquefied gas	1																																			
Fluids containing gas	1															1		Π									Ì									_
Gases	1															1											Ì			Π				Π		_
Harmful fluids	1																										ľ									_
Toxic fluids	1																										ľ									_
High-temperature hot water	1																	Π									Ì									_
Heating water	1															1											Ì									_
Highly aggressive fluids	1																										ľ									_
Condensate	1																										Ì									
Corrosive fluids	1					ľ																														_
Valuable fluids	1		1			ľ																					ľ									
Fuels	1																										ľ									_
Cooling water	1																										ľ									_
Highly volatile fluids																												\neg						\neg		—
Fire-fighting water								\neg																												_
Solvents																												\neg			\square		\neg	\neg		_
Seawater							\neg																					\neg						\rightarrow	+	—
Fluids containing mineral oils																		Π																	\neg	_
Oils			1																									-			<u> </u>					_
Organic fluids							\neg									1												\neg								_
Polymerising/crystallising fluids																																				_
Radioactive fluids																																		\neg		_
Cleaning agents																																				_
Raw sludge																																				
Lubricants																																				_
Grey water																																				_
Brine																																				
Feed water																																				
Dipping paints																																				
Drinking water																																				
Vacuum																																				_
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		NUCA/-A/-ES, Types I, II, IV	NUCA-B	NUCA-F	NUCA-S	ZYNB/ZYN	ZXNB	ZXNVB		BOA-Systronic		BOA-H Mat E	BOA-H Mat P		BOA-CVE C/CS/W/IMS/EKB	BOA-CVE H	BOA-CVP H		BOA-Control /BOA-Control IMS	BOA-Control SAR		CONDA-VLC		CONDA-VRC		CONDA-VSM		BOAVENT-AVF	BOAVENT-SVF	BOAVENT-SIF	BOAVENT-SVA		SISTO-VentNA	SISTO-KRVNA		ZJSVA/ZXSVA
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without faeces	applications								Control systems to DIN/EN	-	Automated globe valves to DIN/EN			Control valves to DIN/EN				Balancing and shut-off valves to DIN/EN			control valves to DIN/EN		Pressure reducing valves to DIN/EN		0		Air valves					Vent valves for nuclear applications			and stop control valves to DIN/EN	
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Abrasive Waste water with fa Waste water without f Aggressive Inorganic Activated s Brackish v Service v Dist Explosive Digested s Solids-laden Solids (ore, sand, gravel Flammable River, lake and ground Liquefie Fluids containin Harmful Toxic High-temperature hot v Heating v Highly aggressive Conde Corrosive Valuable Cooling Highly volatile Fire-fighting Sol Seav Fluids containing minera Organic Polymerising/crystallising Radioactive Cleaning a Raw s Lubri Grey v Feed v Dipping p Drinking v Va

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		COBRA-SGP/SGO/SGF	COBRA-SMP	ECOLINE SP/SO	ECOLINE GT 40	STAAL 40 AKD/AKDS	STAAL 100 AKD/AKDS	AKG-A/AKGS-A	ZTS		ECOLINE GTB 800	ECOLINE GTC 150-600	ECOLINE GTF 150-600	ECOLINE GTF 800-2500	ECOLINE GTV 150-300	SICCA 150-600 GTC	SICCA 900-2500 GTC	SICCA 800-1500 GTF	WADA GT 150		ZTN		HERA-BD		HERA-BDS	HERA-BHT	HERA-SH		NGS		BOA-RPL	BOA-RFV	BOA-RVK	BOA-R	NORI 40 RXL/RXS	
Abrasive fluids	z									Щ										ns		z		Щ				es		z						
Waste water with faeces	N									ASP										tio		N		ASR				alv		N						
Waste water without faeces	DO									ISI/										lica		ΟO		ISI/				relief valves				\square	\square			
Aggressive fluids	Gate valves to DIN/EN									Gate valves to ANSI/ASME										applications		Knife gate valves to DIN/EN		A				reli		Lift check valves to DIN/EN			\square			
Inorganic fluids	alve									s to								<u> </u>				alve		s to				pressure		alve			Щ		$ \rightarrow$	
Activated sludge	e S									lve										lol		e K		lve				รรร		<u>х</u>			\square			
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Steam Distillate		⊢		-						9									-	Gate valves for nuclear		Kn		Knife gate valves to ANSI/ASME				ã			$\mid \mid$	\vdash	\vdash			
Explosive fluids		-															<u> </u>		-	va				Knit							$\mid \mid$	\vdash	\vdash	\neg		
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Flammable fluids																<u> </u>		-					-										\square			
River, lake and groundwater				1												<u> </u>		<u> </u>															\square			
Liquefied gas																																		-		
Fluids containing gas	1																			1									Π				\square			
Gases	1			1																1									Π							
Harmful fluids	1																			1																
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Seawater		-	-	-	<u> </u>			\rightarrow	_				-	<u> </u>	<u> </u>	-	_	-	-												$\left - \right $	\vdash	\vdash	\rightarrow	\rightarrow	
Fluids containing mineral oils			-	-	-			-	-				-	-	-		-		-	-	_								_		\vdash	Н				
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Polymerising/crystallising fluids								+								1			1								\square						\square	\neg		
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Vacuum Thermal oils		-	-	-				_	_				-	-	-		<u> </u>		-						\square						\vdash	\vdash	\vdash		-	
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		NORI 160 RXL/RXS	NORI 320 RXL/RXS	NORI 500 RXL/RXS	RGS	BOACHEM-RXA		ECOLINE PTF 150-600	ECOLINE PTF 800-2500	SICCA 800-2500 PCF	WADA SC 150		NUCA/-A/-ES, Type V	RJN	RYN		COBRA-SCBS	ECOLINE WT/WTI	STAAL 40 AKK/AKKS	STAAL 100 AKK/AKKS	AKR/AKRS	ZRS	SISTO-RSK/RSKS	SERIE 2000 PN 16	SERIE 2000 PN 25	SERIE 2000 Class 150	SERIE 2000 Class 300		ECOLINE SCC 150-600	ECOLINE SCF 150-600	ECOLINE SCF 800-2500	ECOLINE SCV 150-300	SICCA 150-600 SCC	SICCA 900-2500 SCC	WADA SC 150	
Abrasive fluids	z						Щ					ns				z												щ								
Waste water with faeces	NE						ASN					tio				N												S SN								
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Aggressive fluids	Lift check valves to DIN/EN						Lift check valves to ANSI/ASME					Lift check valves for nuclear applications				Swing check valves to DIN/EN												Swing check valves to ANSI/ASME								
Inorganic fluids	alve						5					ar à				alve												5								
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Brackish water	lect						val					nu				lect												val								
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Solids-laden fluids					_							Ë														_			_							<u> </u>
Solids (ore, sand, gravel, ash)		-		-	-	_						-	_				-			<u> </u>				_	_	_	_	-	_		$ \square$				\vdash	<u> </u>
Flammable fluids		-									<u> </u>		<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>		-			_						_		$ \rightarrow$				$ \rightarrow$	<u> </u>
River, lake and groundwater		-	-	+		-							-		-		-			-		_				_	_	ŀ	_		$ \neg $				$ \rightarrow$	-
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Harmful fluids		H		F									H				┝━							-	-	-	-	ŀ	-	-					$ \rightarrow$	<u> </u>
Toxic fluids		F		F	F						-						⊢	-	-	-								ŀ	-		$ \rightarrow$	$ \neg $			\neg	<u> </u>
High-temperature hot water		F	F	+				_			-												-				=	ŀ								<u> </u>
Heating water		—		+-	+-	-				-			-	-	-				-	-	-	_		-	_	-	-	ŀ	-	-	-	-	F		\neg	<u> </u>
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Highly volatile fluids																												Ì								
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Solvents																																				
Seawater																																				
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Organic fluids		L	L																												\square					<u> </u>
Polymerising/crystallising fluids																										_			_							<u> </u>
Radioactive fluids			_		_								Ľ.													_			_						$ \rightarrow $	<u> </u>
Cleaning agents		\vdash			_								<u> </u>		_		<u> </u>			<u> </u>											$ \square$		$ \mid $		$ \rightarrow$	<u> </u>
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Lubricants		-	-	-		-				-	-		<u> </u>	-	-		-	-		-	\vdash					_			_		$ \rightarrow$		틷	$ \dashv$	$ \rightarrow$	<u> </u>
Grey water		-	-	-		-					-		-	-	-		-	-	-	-	\vdash		-	_	_				_		$ \square$			\square	$ \rightarrow$	<u> </u>
Brine Feed water											-		-	-	-		-	-						-	_	_									$ \rightarrow$	<u> </u>
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Dipping paints Drinking water		-	-	+-	+	-		-			-			-	-			-	-	-	$\left - \right $								_	\neg	$ \dashv$	$ \neg $	\mid	$ \neg $	$ \rightarrow$	<u> </u>
Vacuum		-	-	+	-	-		-	\vdash	_	-		-	-	-		⊢	-		-	\vdash		\neg	-	-	-	-		-	\neg	$ \neg $	$ \neg $		\neg	\dashv	<u> </u>
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Abrasive fluids	ns			z		z				Ē			es																					es		
Waste water with faeces	Itio			N		N				ASN			/alv																					valves		
Waste water without faeces	lice			DO		DO				ISI//			fly																					Ę		
Aggressive fluids	Swing check valves for nuclear applications			Tilting disc check valves to DIN/EN		Strainers to DIN/EN	<u> </u>			Strainers to ANSI/ASME			butterfly valves																					butterfly		
Inorganic fluids	ar			alve		ine				s to			but																					but		
Activated sludge	ncle			× <		tra	<u> </u>			ner				<u> </u>													_	_						et		
Brackish water	r n			hed	_	S	<u> </u>			raii			q-d	_														<u> </u>		_	_			offs	_	
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Steam Distillate	lve			di	-		-		_		-		Centred-disc	<u> </u>						<u> </u>									-	<u> </u>				Double-offset		
Explosive fluids	c va			tin	-		<u> </u>							<u> </u>													-		<u> </u>							
Digested sludge	lect		-	Ē			<u> </u>	-	-					-												-						-	-			—
Solids-laden fluids	р С				⊢													-				-							-							—
Solids (ore, sand, gravel, ash)	vin				-				_													-					_	_				_				—
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Liquefied gas																																				
Fluids containing gas																																				
Gases																																				
Harmful fluids																																				
Toxic fluids								_																												
High-temperature hot water																																				
Heating water					<u> </u>				_					<u> </u>																		_	_			
Highly aggressive fluids			_		<u> </u>		_	_	-					<u> </u>	-					_						_			_	_			-			
Condensate Corrosive fluids					-									<u> </u>	-	-									-	-							F			
Valuable fluids			<u> </u>		-									<u> </u>						-						-			-	<u> </u>		_				
Fuels					\vdash		-	-	_					<u> </u>						<u> </u>									<u> </u>							—
Cooling water							-																													
Highly volatile fluids			-		<u> </u>									⊢	-	-	-	—	-			-		_	-		-	-		-	-				-	
Fire-fighting water																																				
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Polymerising/crystallising fluids																																				
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Raw sludge		\vdash			-		<u> </u>		_		\vdash			<u> </u>		-	<u> </u>			-		<u> </u>			-	-			-							
Lubricants Grey water			-		-		<u> </u>		_		\vdash	\vdash		<u> </u>	-	-		\vdash	\vdash	-	\vdash	<u> </u>	$\left - \right $		-			-	-	-	\vdash		$\left \right $		\mid	
Brine			-		⊢		-		_		\vdash	\vdash		-	-	-	-	\vdash	\vdash	-	\vdash	-	$\left - \right $		-		-	-	-	-	\square					—
Feed water			-		-									-	-	-	-	-		-		-	$\left - \right $		-			-	-	-						—
Dipping paints					\vdash		⊢		-					-		-	-								-	-		-								
Drinking water																																				_
Vacuum									_																											_
Thermal oils																																				
Wash water								_	_											1	1		1						1		1					

	DANAÏS 150	DANAIS MTII Class 150	DANAÏS MTII Class 300	DANAÏS 300T	DANAIS TBTII Side Entry	DANAIS TBTII Flanged	DANAÏS TBTII AL		TRIODIS 150	TRIODIS 300	TRIODIS 600		CLOSSIA		MP-CI/MP-II	PROFIN-VT1		ECOLINE BLT 150-300	PROFIN-VT2L		ECOLINE BLC 1000	PROFIN-SI3FIT	PROFIN-SISII	PROFIN-SIBLI		PROFIN-VT3L	PROFIN-VT3F	PROFIN-VT33L		SISTO-KB	SISTO-KBS	SISTO-10	SISTO-10M	SISTO-16	SISTO-16S	
Abrasive fluids								/es				ns		/es			'es			(es									R						<u> </u>	
Abrasive fluids Waste water with faeces	_						_	valv				atic		valv			valves			Val							_		N			_	\rightarrow	_	<u> </u>	
Waste water without faeces		_	-				_	butterfly valves		_		applications	-	Single-piece ball valves	-		all	_	_	Three-piece ball valves	_	_	_	_	_	\rightarrow	_		Soft-seated diaphragm valves to DIN/EN	E			\rightarrow			
Aggressive fluids Inorganic fluids Activated sludge Brackish water Service water Steam Distillate	-						_	tter	_			apl	-	ce b			Fwo-piece ball		_	- e		_	+	+	_	\rightarrow	_		'es t	H		╞				
Activated sludge	-						_					ear	-	pie	-		pie		-	bie	-	+	+	+	+	-+	_		/alv	H	H		-			
Brackish water	-						_	fset				luc	⊢	<u>le</u>			ò			ee-	+	+	+	+	_		-		Ē	H	H		+			
Service water	-	-			-		-	-of				or r		Sing			F			두 -									Iraç							
Steam 2							_	Friple-offset				es f								-			+						apł				\neg			
Distillate								Ē				/alv																	d di							
Explosive fluids												الر ا																	ate							
Digested sludge							_					Butterfly valves for nuclear																	t-se						<u> </u>	
Solids-laden fluids			<u> </u>									But															_		Soft			$ \rightarrow$	$ \rightarrow$		<u> </u>	
Solids (ore, sand, gravel, ash)														-						_						_							\rightarrow	_	-	
Flammable fluids							_						-	-	╞					-	_	-	_					_								
River, lake and groundwater Liquefied gas	-	-	-										⊢		-				-	-	+					-	-	-					-	-		
Fluids containing gas		-	-		-		-			-	-									-		+	+	+	+	\rightarrow	_									
Gases										Π													+	\neg		\neg	_			\neg		글				
Harmful fluids		-		_	_		_			_																				Π			-			
Toxic fluids														1																			\neg			
High-temperature hot water																																				
Heating water																																				
Highly aggressive fluids							_													H							_			$ \square$		\rightarrow	$ \rightarrow$	$ \rightarrow$	_	
Condensate	-	_	_	_			_			_									-	- I-		_			_	-+	-	_								
Corrosive fluids Valuable fluids	•						_						-		-				-	-													\rightarrow			
Fuels							_						⊢		-				-	-		+	+	+	+	\rightarrow	_			$ \square$		\rightarrow	\rightarrow	\rightarrow		
Cooling water	-	-	-	-	-		_			-											_															
Highly volatile fluids							-								F	-		-	-	-	-	-				-	-	-			-	-				
Fire-fighting water					_		_																					Π					\neg			
Solvents		1																															\neg			
Seawater																																				
Fluids containing mineral oils																																				
Oils							_													- H-													\square	-		
Organic fluids							_							-						-							_					_	-			
Polymerising/crystallising fluids	-			<u> </u>			_						-						_	-	\rightarrow	-	_	+	_	\rightarrow	_									
Radioactive fluids	H						_						-						_	-	+				_		_	_					\rightarrow			
Cleaning agents Raw sludge	F	-	<u> </u>	<u> </u>			_						-		-				-	-	+				-		-	-					\rightarrow	-		
Lubricants		-					_													-	+									\rightarrow						
Grey water	-	-			-		-												-	-	-	-				-	-	—				-				
Brine											\vdash					\square					+	+	+	+	\uparrow	+					Π					
Feed water																																$ \uparrow $				
Dipping paints																																				
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Drinking water				<u> </u>											<u> </u>			_	_		-	-	_		=+	<u> </u>	_			\rightarrow	_	-	\rightarrow		<u> </u>	
Drinking water Vacuum Thermal oils																									_								■			

		SISTO-16RGA	SISTO-16TWA/HWA/DLU	SISTO-20	20100	NXM	SISTO-20NA	SISTO-DrainNA		ZJSVM/RJSVM		VTS		ECOLINE GE1/GE2/GE3	ECOLINE GE4																
Abrasive fluids	z				N N				es		es		ts																		
Waste water with faeces	IN/				tio			-	/alv		/alv		joir																		
Waste water without faeces					lice				SS \		ģ		n																		
Aggressive fluids	es to								ypa		blir		ati																		
Inorganic fluids	alve				Le			_	2 L		Line blind valves		vibr																	\perp	
Activated sludge	2 F							_	/ate				anti-vibration joints							_	_										<u> </u>
Brackish water	agr				_ 1		+		≥ 0				d aı	L						_	_	-			_	_				\rightarrow	<u> </u>
Service water	phr					-	+	_	Feed water bypass valves	_		_	and					\rightarrow	_	+	_	-			_	_	_	_	\rightarrow	\rightarrow	<u> </u>
Steam	dia	-			د ار	-		_					ion	L	_				_	+	_	_				_		_	-		
Distillate Explosive fluids	Soft-seated diaphragm valves to DIN/EN	-			Diaphragm valves for nuclear applications	-		_	}			_	Expansion	⊢	-			_	_	+	-	-			_	_		-+	\rightarrow		<u> </u>
Digested sludge	eat	-	-			-	+	-		_			dx	⊢	-		$\left \right $	\rightarrow	_	+	-	-	_		_			\rightarrow	\rightarrow	+	+
Solids-laden fluids	ft-s		-		hra				ł	_		_		⊢	-		$\left \right $	-	+	+	+-	-	-		-	\rightarrow	-	\rightarrow	\rightarrow	+	+
Solids (ore, sand, gravel, ash)	S		-		-lian		<u> </u>			-				-	-		$\left \right $	+	+	+	+	-			\rightarrow	\rightarrow		\rightarrow	+		+
Flammable fluids						-			ł					⊢	-					+	+	\vdash						+	+		+
River, lake and groundwater									ł											+	1								\rightarrow	-	+
Liquefied gas									ľ					F						┢		1							\neg	+	+
Fluids containing gas									Ì																						1
Gases									Ì											1		1								-	-
Harmful fluids	1								Ì																						
Toxic fluids																															
High-temperature hot water																															
Heating water																															
Highly aggressive fluids																															
Condensate					_																										
Corrosive fluids																														\square	<u> </u>
Valuable fluids					_																										<u> </u>
Fuels			_		_	-				_				L	_			_		-	_	-			_	_			\rightarrow	\rightarrow	<u> </u>
Cooling water		H			_			_	-	_							$\left \right $		_	-	_	-				_	_	\rightarrow	\rightarrow	+	<u> </u>
Highly volatile fluids			_		-	┝		_		_				L	_				_	-	_	_				_		_	-		
Fire-fighting water Solvents					-	-				_				-			$\left \right $			+		-								+	+
Seawater					-	┝		_		_		_		⊢	-		+	+	_	+	+	-	-			-+		-+	+	+	+
Fluids containing mineral oils					-	⊢	+	-	ŀ	_					-		+	+		+	+	-			-		-	\rightarrow	+		+
Oils		-	-			┝	+	_		_					-	$\left \right $	+	+	+	+	+	-	-			-+		-+	+	+	+
Organic fluids		-								—				⊢	-		\square	\neg		+		-				-+		+	+	+	+
Polymerising/crystallising fluids								-		-		-		\vdash			+	+	+	+	+					-+		+	+	+	+
Radioactive fluids									ł			_		⊢				-		+	+	1							\rightarrow		+
Cleaning agents																	$ \uparrow $	+	\neg	+	1				\neg	\neg		\neg	\uparrow	+	\top
Raw sludge	1								Ì											1										1	<u> </u>
Lubricants																															
Grey water																															
Brine																		Ţ											Ţ		
Feed water		Ľ				L																				[_		
Dipping paints																														\perp	<u> </u>
Drinking water																					_	_								\perp	<u> </u>
Vacuum		<u> </u>												L	_	- -		_	_		_	_								+	
Thermal oils		-			_	-				_				<u> </u>						_	_	-							_	+	+
Wash water																															

Spray irrigation	N	BOA-SuperCompact	BOA-Compact	BOA-Compact EKB	BOA-W		BOA-H	BOA-H/HE/HV/HEV	NORI 40 ZXLBV/ZXSBV	NORI 40 ZXLB/ZXSB	NORI 40 ZYLB/ZYSB	BOACHEM-ZXAB	1E	ECOLINE GLB 150-600	ECOLINE GLB 800	DL	NORI 40 ZXL/ZXS	NORI 40 ZXLF/ZXSF	NORI 160 ZXL/ZXS	NORI 160 ZXLF/ZXSF	NORI 320 ZXLF/ZXSF	NORI 320 ZXSV	NORI 500 ZXSV	NORI 500 ZXLR/ZXSR	BOACHEM-ZXA	ECOLINE VA 16		SICCA 150-600 GLC	SICCA 900-2500 GLC	SICCA 800-2500 GLF	ECOLINE GLC 150-600	ECOLINE GLF 150-600	ECOLINE GLF 800-2500	ECOLINE GLV 150-300	WADA GL 150	
Mining	IN/E					INE							ANSI/ASME			packing											ckir									_
Irrigation	D					D					_		ISI//	L		pa											pa									
Chemical industry	es to					es to							AN			gland											and	\square		\square					$ \rightarrow$	
Pressure boosting	alve					alve					_		globe valves to			g											g								$ \rightarrow$	
Disposal	e <					e v		_	_				lves			with											/ith	$ \rightarrow$							\rightarrow	
Drainage	lob					lob		_	_	_	_		va			Z	L	_		_	_	_	_	_			<u></u> –	_	$ \rightarrow$					\rightarrow	\rightarrow	
Descaling units	d g	-				e g	_		_	_	_		obe			DIN/EN										_	NSN-	\neg				_		\rightarrow	\rightarrow	_
District heating Solids transport	ate	-		$\left - \right $	\square	-typ				_	_		lg a	-	-		-		\square				_				SI/A	\dashv	\neg	$ \square$	$\left - \right $			-+	-+	
Fire-fighting systems	Soft-seated globe valves to DIN/EN	⊢			$\left - \right $	-SW					_		:ype	-	<u> </u>	s to	-						_				AN	\dashv	\neg	$ \neg $	$\left - \right $			\rightarrow	+	—
Gas pipelines	Sof	-	-	\vdash	\vdash	Bellows-type globe valves to DIN/EN				_	_		Bellows-type	⊢	-	Globe valves to	-	\vdash	\vdash	\vdash			_			\vdash	Globe valves to ANSI/ASME with gland packing	\neg	\neg	\neg	\vdash	-		\rightarrow	+	—
Gas pipelines Gas storage facilities			-		\square	ã				_	-		Nov		-	e ve	-						_				ves	\neg	\neg	$ \rightarrow$	\vdash	-		\rightarrow	\rightarrow	—
Maintaining groundwater levels			-							_	-		Be	-	-	lob							_				val	\neg	\neg		\square			\rightarrow	\rightarrow	—
Domestic water supply			<u> </u>							_	_					Ū							_				bbe	\neg								—
HVAC systems																											ថ								-	
Homogenisation																																			\neg	_
Industrial recirculation systems																																				_
Nuclear power stations																																				_
Boiler feed applications																																				_
Boiler recirculation																																				
Sewage treatment plants											_																									
Air-conditioning systems										_																		\square							\rightarrow	
Condensate transport									-	_	_												_				-		_						\rightarrow	
Fossil-fuelled power stations		<u> </u>	_						_	_	_															_	-								\rightarrow	
Cooling circuits							_	_	_	_	_			<u> </u>			<u> </u>										-	\neg						$ \rightarrow $	-+	_
Paint shops		-						-	_	_		-					<u> </u>								-		-	\neg		$ \square$				\rightarrow	-+	
Food and beverages industries Seawater desalination/reverse osmosis		-							_	_	_			┍	-		⊢						_		_		-	\rightarrow	-	$ \neg $				\rightarrow	\rightarrow	
Mixing		-						-	_	_	_			-	-		⊢							_			ŀ	\rightarrow	-	$ \dashv$	\vdash	-			\rightarrow	—
Paper and pulp industry			-							_	_			-	-												ŀ	\neg	-+	$ \rightarrow$	\vdash	-		\rightarrow	\rightarrow	—
Petrochemical industry																				H	=		-		Ē		-								-	—
Pharmaceutical industry								-	-	-	_	_		F	-		⊢	-	-	-	-	_	_	_	-		ŀ	=	-	-		-	_	-	\rightarrow	—
Pipelines and tank farms											-	_									_						F								+	—
Refineries																											F								\neg	_
Flue gas desulphurisation																																				
Rainwater harvesting																																				
Recirculation		L												L			L																	Ţ		
Shipbuilding																												\square		\square					\square	
Sludge disposal																												$ \downarrow$			\square			$ \rightarrow$	\rightarrow	
Sludge processing		L			\square				_	_	_			L			_											$ \rightarrow$		\square	\square			\rightarrow	\rightarrow	
Snow-making systems		L	L		\square				_	_	_			<u> </u>			⊢						_				-	\rightarrow	$ \rightarrow$	$ \square$	$\left - \right $	L		\rightarrow	\rightarrow	
Swimming pools		-			\square					_	_			<u> </u>	<u> </u>		<u> </u>		\square				_				-	\dashv		$ \square$	\vdash			\rightarrow	\rightarrow	
Keeping in suspension Thermal oil circulation		⊢			\square									-													-	\dashv	-	$ \square$	$\left - \right $			\rightarrow	-+	
Process engineering		-	-		\square			_	_	_	늼			╞													-	╞							-+	—
Heat recovery systems				$\left - \right $							-			⊢			-						-		-	\square	-	-		┍┻┤	⊢				\rightarrow	—
Hot-water heating systems		H		$\left - \right $	H				_	_	_			⊢	-		-	\vdash	\vdash	\vdash			_				-	\dashv	\neg	\neg	\vdash	-		\dashv	+	—
Washing plants		F	-								_						-									-	-	\neg	\neg	$ \rightarrow$				-+	-+	—
Washing plants Water treatment		\vdash	-		\vdash					-	-						-		\vdash							\vdash		\dashv	\neg	\neg		-		\rightarrow	+	—
Water extraction			-		\vdash					-	-			⊢	-				\vdash	\vdash						\square	-	\dashv	\neg	$ \rightarrow$	\square	-		\rightarrow	+	—
Water supply			-		\vdash					-	-						-		\square								-	\dashv	\neg			-		\neg	+	
Sugar industry					\square																							\neg						\neg	\neg	_

		NUCA/-A/-ES, Types I, II, IV	NUCA-B	NUCA-F	NUCA-S	ZYNB/ZYN	ZXNB	ZXNVB		BOA-Systronic		BOA-H Mat E	BOA-H Mat P		BOA-CVE C/CS/W/IMS/EKB	BOA-CVE H	BOA-CVP H		BOA-Control /BOA-Control IMS	BOA-Control SAR	_	CONDA-VIC	_	CONDA-VRC		CONDA-VSM		BOAVENI-AVF BOAV/ENT_CV/E	BOAVENT SIE	BOAVENI-SIF	-	sisto-VentNA	SISTO-KRVNA	
Spray irrigation Mining					_		_		DIN/EN		DIN/EN		_	/EN				/EN			DIN/EN	_	/EN		N N		£			_	annlicatione		+	EN EN
Irrigation	cati	-						-	N		N		_	DIN/EN				DIN/EN	_		ND	_	ND			_		_	+	+			+	DIN/EN
Chemical industry	pli	⊢			+	\rightarrow	+	-	to		to			to	_			to			to	-	to		to to		- 7	+	╈	+			+	
Pressure boosting	r ap								systems to		ves	-	-	Control valves to		-	-	shut-off valves to			control valves to	_	ves		ves		F	+	╈	+			+	control valves to
Disposal	clea								yste		val			val				val			val		val		val				1	+	for nuclear		+	val
Drainage	nu								ols		be			lo				off			lo		ing		ing					1			\uparrow	10
Descaling units	for			ĺ					Control		glo			ont				int-			ont		ğ		ain						Ľ,	5	T	ont
District heating									ပိ		ted			0				d sh			e		re		ust						100	6		d
Solids transport	/alv										ma.							ano			Level		ure		res									stc
Fire-fighting systems											Automated globe valves to							Balancing and					Pressure reducing valves to DIN/EN		Pressure sustaining valves to DIN/EN						Vant valvec			and stop
Gas pipelines	1015										Ā							anci					ā		Pre							>		Start a
Gas storage facilities																		Balá																Sta
Maintaining groundwater levels											_																			\perp			\perp	
Domestic water supply								_			-														-		Ľ						_	
HVAC systems						$ \rightarrow$					-											_			-				_	+	_		+	-
Homogenisation				_				_			-											_			-		┝		_	+	_		_	
Industrial recirculation systems	_	_		_	_	_	_				-		_									_			-	_	┝		_	+	_		+_	$\left\{ \right\}$
Nuclear power stations	_										-	_	_			_									-	_	┝	_	_	+	_	-		
Boiler feed applications Boiler recirculation	_	-		_	\rightarrow	\rightarrow	-+	_		_	-	_	-			-			<u> </u>			_			-	_	┢	_	+	+	-	-	+	
Sewage treatment plants	_	-		-	\rightarrow	-+	+	-		_	ŀ		-			_			-			_			ŀ	_	┢	+	+	+	-		+-	
Air-conditioning systems						-+	+	-		-	ŀ											-		_	-	-	┢		+	+	-		+	
Condensate transport	-					+	+					-	-		_	_	-		-	-					ŀ		┢	+	+	+			+	
Fossil-fuelled power stations						\neg	+																		ŀ			+	╈	+			+	
Cooling circuits																													+	+			\top	1
Paint shops	-																																\square	1
Food and beverages industries																																		1
eawater desalination/reverse osmosis] [
Mixing																																		
Paper and pulp industry																																		
Petrochemical industry																																		
Pharmaceutical industry	_																													\perp				
Pipelines and tank farms	-										-														_	_				_	_		\perp	
Refineries	_										-											_			-	_		_	_	+			\vdash	$\left \right $
Flue gas desulphurisation		<u> </u>		_				_			-		_									_			-	_	┝		_	+	_		\vdash	$\left\{ \right\}$
Rainwater harvesting	_	-						_		_	-	_	_									_			-	_	┢	_	_	+	_	-	+	
Recirculation	_	<u> </u>		_	\rightarrow	\rightarrow	\rightarrow	_		_	-	\rightarrow	_			<u> </u>	<u> </u>					_			-	_	┝	_	+	+	_	-	+	
Shipbuilding Sludge disposal		-				-	-	_			-		_						<u> </u>			_			-	_	┝	_	_	+	-		+	
Sludge processing		-				\rightarrow	-+	-		_	-	\rightarrow	_									_		_	┝	_	┢		_	+	-	-	+	$\left\{ \right\}$
Snow-making systems					\rightarrow	\rightarrow	+	-		_	ŀ		-		_							_			ŀ	-	┢	+	+	+			+	
Swimming pools					\rightarrow	\rightarrow	+			_	ŀ	-	-			-	-		-			-			ŀ		┢	+	+	+			+	
Keeping in suspension						-+				-	ŀ	\rightarrow	-		_	-	-					_			-		┢	-	+	+			+	
Thermal oil circulation	_				+	+	+				-														ŀ			-	+	+			+	
Process engineering					\neg	+	+				-		Ē							\square								+	+	+			+	1
Heat recovery systems	-				\neg	\uparrow	\uparrow																						╈	+			\uparrow	
Hot-water heating systems	-											_																	1	╈			1	
Washing plants																																		
Water treatment	-																										I							
Water extraction																													Ι					
Water supply	_																																	
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Soft-seated globe valves to DIN/EN

BOA-SuperCompact

	PN DN T [°C]	6/10/16 20 - 200 -10 to +120	Description: Globe valve to DIN/EN with wafer-type body, super-compact DN face-to-face length to EN 558/94, slanted seat, bonnetless; with flange alignment holes for centring, dead-end service and downstream dismantling; insulating cap with anti-condensation feature as standard, position indicator, soft main and back seat; maintenance-free, full insulation possible. Applications: Hot-water heating systems up to 120 °C. Air-conditioning systems. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and cast iron. Other fluids on request.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000312	

BOA-Compact

	PN DN T [°C]	6/16 15 - 200 -10 to +120	Description: Globe valve to DIN/EN with flanged ends, short face-to-face length to EN 558/14, slanted seat, bonnetless, EPDM-encapsulated throttling plug, soft main and back seat, position indicator, locking device, travel stop, insulating cap with anti-condensation feature; maintenance-free, full insulation possible. Applications: Hot-water heating systems up to 120 °C. Air-conditioning systems. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and cast iron. Other fluids on request.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000310	

BOA-Compact EKB

	PN DN T [°C]	10/16 15 - 200 -10 to +80	Description: Globe valve to DIN/EN with flanged ends, compact face-to-face length for drinking water supply systems, with electrostatic plastic coating inside and outside, slanted seat, bonnetless, EPDM-encapsulated throttling plug, position indicator, locking device, travel stop, soft main and back seat; maintenance- free (PN 10 DVGW-approved). Applications: Water supply systems, drinking water, air-conditioning systems. Cooling circuits. Suitable for installation in copper pipes as per installation instructions (operating manual). Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and the electrostatic plastic coating. Other fluids on request.	
📕 e, m			http://shop.ksb.com/catalog/k0/en/product/ES000311	

BOA-W

2015	PN DN T [°C]	6/16 15 - 200 -10 to +120	Description: Globe valve to DIN/EN with flanged ends, standard face-to-face length to EN 558/1, slanted seat, bonnetless, EPDM-encapsulated throttling plug, soft main and back seat, position indicator, locking device, travel stop, insulating cap with anti-condensation feature; maintenance-free, full insulation possible. Applications: Hot-water heating systems up to 120 °C. Air-conditioning systems. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and cast iron. Other fluids on request.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000309	

Bellows-type globe valves to DIN/EN

BOA-H

	PN DN T [°C]	16/25 15 - 350 -10 to +350	Description: Bellows-type globe valve to DIN/EN with flanged ends, with shut-off valve disc or throttling plug, standard position indicator with colour coding for identification of valve design, replaceable valve disc; bellows protected when valve is in fully open position; seat/disc interface made of wear and corrosion resistant chrome steel or chrome nickel steel. Applications: Hot-water heating systems, high-temperature hot water systems, cooling circuits, heat transfer systems, general steam applications in building services and industry. Other fluids on request.	
<mark>●</mark> m			http://shop.ksb.com/catalog/k0/en/product/ES000328	

BOA-H/HE/HV/HEV

AI	PN 25/40 DN 10 - 350 T [°C] -10 to +450	Description: Bellows-type globe valve to DIN/EN with flanged, butt weld or socket weld ends, with shut-off valve disc or throttling plug, seat/disc interface made of wear and corrosion resistant chrome steel or chrome nickel steel. Applications: In industrial plants, building services, power stations and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.
<mark>e</mark> , m, p		http://shop.ksb.com/catalog/k0/en/product/ES000329

NORI 40 ZXLBV/ZXSBV

ĀĀ	PN 25/40 DN 10 - 200 T [°C] -10 to +450	Description: Bellows-type globe valve to DIN/EN with flanged, butt weld or socket weld ends, tapered shut-off valve disc or throttling plug, two-piece stem, integrated position indicator, seat/disc interface made of wear and corrosion resistant chrome steel or chrome nickel steel. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.
📒 m		http://shop.ksb.com/catalog/k0/en/product/ES000334

NORI 40 ZXLB/ZXSB

ĀĀ	PN DN T [°C]	25/40 10 - 200 -10 to +450	Description: Bellows-type globe valve to DIN/EN with flanged, butt weld or socket weld ends, tapered shut-off valve disc or throttling plug, two-piece stem, integrated position indicator, seat/disc interface made of wear and corrosion resistant chrome steel or chrome nickel steel. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000332

NORI 40 ZYLB/ZYSB

	PN DN T [°C] -	25/40 15 - 300 10 to +450	Description: Bellows-type globe valve to DIN/EN with flanged or butt weld ends, Y-valve, replaceable throttling plug (up to DN 100) or shut-off valve disc (DN 125 and above), single-piece non-rotating stem, position indicator, travel stop, locking device; seat/disc interface made of wear and corrosion resistant chrome steel or chrome nickel steel. Applications: In heat transfer systems, industrial plants, building services and shipbuilding. For thermal oils, water, steam, gas and other non-aggressive fluids. Other fluids on request.	
m			http://shop.ksb.com/catalog/k0/en/product/ES000521	

BOACHEM-ZXAB

	PN DN T [°C]	10 - 40 15 - 200 -10 to +400	Description: Bellows-type globe valve to DIN/EN with flanged ends, body made of stainless steel, with replaceable shut-off valve disc or throttling plug. Applications: Process engineering, industry, building services, food and beverages industries, for aggressive fluids. Other fluids on request.	
📕 e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000337	

Bellows-type globe valves to ANSI/ASME

ECOLINE GLB 150-600

	Class NPS T [°C]	150 - 600 2" - 12" 0 to +427	Description: Globe valve to ANSI/ASME with flanged ends, cast steel/stainless steel body, trim and bellows made of stainless steel, with bolted bonnet, outside screw and yoke, sealed by graphite gland packing and metal bellows, stainless steel/ graphite gaskets. Applications: Petrochemical plants, chemical plants, power stations, process engineering and general industry; for thermal oil, steam, toxic and volatile fluids. Other applications on request.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000901	

ECOLINE GLB 800

Ĩ	Class NPS T [°C]	800 ½" - 2" 0 to +427	Description: Globe valve to ANSI/ASME, with threaded sockets (NPT) or socket weld ends (SW), forged steel/stainless steel body, trim and bellows made of stainless steel, outside screw and yoke, sealed by graphite gland packing and metal bellows, stainless steel/graphite gaskets. Applications: Petrochemical plants, chemical plants, power stations, process engineering and general industry; for thermal oil, steam, toxic and volatile fluids. Other applications on request.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000902	

Globe valves to DIN/EN with gland packing

NORI 40 ZXL/ZXS

ĀĀ	 Description: Globe valve to DIN/EN with flanged, butt weld or socket weld ends, with gland packing, with shut-off valve disc or throttling plug, rotating stem, seat/disc interface made of wear and corrosion resistant chrome steel or chrome nickel steel. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.
<mark>,</mark> € m	http://shop.ksb.com/catalog/k0/en/product/ES000339

NORI 40 ZXLF/ZXSF

AI	PN DN T [°C]	25/40 10 - 200 -10 to +450	Description: Globe valve to DIN/EN with flanged, butt weld or socket weld ends, with gland packing, with shut-off valve disc or throttling plug, non-rotating stem, integrated position indicator, seat/disc interface made of wear and corrosion resistant chrome steel or chrome nickel steel. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
e , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000341	

NORI 160 ZXL/ZXS

ĀI	PN DN T [°C]	63 - 160 10 - 200 -10 to +550	Description: Globe valve to DIN/EN with flanged, butt weld or socket weld ends, with gland packing, with shut-off valve disc or throttling plug, rotating stem, seat/disc interface made of wear and corrosion resistant 17 % chrome steel or Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
m			http://shop.ksb.com/catalog/k0/en/product/ES000343	

NORI 160 ZXLF/ZXSF

PN 63 - 16 DN 10 - 20 T [°C] -10 to +55	Globe valve to DIN/EN with flanged, butt weld or socket weld ends, with gland	
	http://shop.ksh.com/catalog/k0/en/product/ES000345	

NORI 320 ZXLF/ZXSF

	PN DN T [°C]	250 - 320 65 - 200 -10 to +550	 Description: Globe valve to DIN/EN with flanged or butt weld ends, with gland packing, with shut-off valve disc or throttling plug, non-rotating stem, integrated position indicator, seat/disc interface made of wear and corrosion resistant 17 % chrome steel or Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request. 	
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000348	

NORI 320 ZXSV

	PN DN T [°C]	Description: Globe valve to DIN/EN with flanged, butt weld or socket weld ends, gland packing, throttling plug, non-rotating stem, bayonet-type body/yoke connection, integrated position indicator, seat/disc interface made of Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.
e, m, p		http://shop.ksb.com/catalog/k0/en/product/ES000347

NORI 500 ZXSV

	PN DN T [°C]	250 - 500 10 - 65 -10 to +650	Description: Globe valve to DIN/EN with butt weld or socket weld ends, gland packing, throttling plug, non-rotating stem, bayonet-type body/yoke connection, integrated position indicator, seat/disc interface made of Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
📕 e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000350	

NORI 500 ZXLR/ZXSR

AI	PN 250 - 50 DN 10 - 5 T [°C] -10 to +58	Globe valve to DIN/EN with flanged, butt weld or socket weld ends, gland
📕 e, m, p		http://shop.ksb.com/catalog/k0/en/product/ES000351

BOACHEM-ZXA

	PN DN T [°C]	10 - 40 15 - 300 -10 to +400	Description: Globe valve to DIN/EN with flanged ends, body made of stainless steel, with gland packing, rotating stem, with shut-off valve disc or throttling plug. Applications: Process engineering, industry, building services, food and beverages industries, for aggressive fluids. Other fluids on request.	
m			http://shop.ksb.com/catalog/k0/en/product/ES000354	

ECOLINE VA 16

	PN DN T [°C]	16 15 - 250 -10 to +300	Description: Globe valve to DIN/EN with flanged ends, body made of cast steel, with gland packing, straight-way pattern, rotating stem, with shut-off valve disc or throttling plug. Applications: District heating, domestic water supply, air-conditioning systems, cooling circuits, high-temperature hot water heating systems, water supply.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000673	

32

Globe valves to ANSI/ASME with gland packing

ECOLINE GLC 150-600

	Class NPS T [°C]	150 - 600 2" - 12" -29 to +816	Description: Globe valve to ANSI/ASME with flanged ends, cast steel A216 WCB, Trim 8 (Stellite/13 % chrome steel) for Class 150/300/600, Trim 5 (Stellite/Stellite) for Class 600, with bolted bonnet, outside screw and yoke, graphite gland packing, stainless steel/graphite gaskets. Applications: Refineries, power stations, process engineering and general industrial applications; water, steam, oil, gas. Other applications on request.	
e , m			http://shop.ksb.com/catalog/k0/en/product/ES000775	

ECOLINE GLF 150-600

Ā	Class NPS T [°C]	150 - 600 ½" - 2" -29 to +816	Description: Globe valve to ANSI/ASME with flanged ends, forged steel A105, Trim 8 (Stellite/13 % chrome steel), with bolted bonnet, outside screw and yoke, graphite gland packing, stainless steel/graphite gaskets, reduced bore. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; for water, steam, gas, oil and other non-aggressive fluids.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000426	

ECOLINE GLF 800-2500

Ĩ	NPS	800 - 2500 ½" - 2" 29 to +538	Description: Globe valve to ANSI/ASME with threaded sockets (NPT), butt weld ends (BW) or socket weld ends (SW), Trim 8 (Stellite/13 % chrome steel), with bolted bonnet (Class 800) or welded bonnet (Class 1500 and 2500), outside screw and yoke, graphite gland packing, stainless steel/graphite gaskets, available in carbon steel and alloy steel. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; for water, steam, gas, oil and other non-aggressive fluids.	
📕 e, m			http://shop.ksb.com/catalog/k0/en/product/ES000796	

ECOLINE GLV 150-300

	Class NPS T [°C]	150 - 300 2" - 12" -29 to +816	Description: Globe valve to ANSI/ASME with flanged ends, cast steel A351 CF8/CF8M, Trim 2 (304/304) and Trim 10 (316/316) for Class 150/300, with bolted bonnet, outside screw and yoke, integral seat, graphite gland packing, stainless steel/graphite gaskets. Applications: Fine chemicals, food industry, general industry. For water, steam, gas and other fluids. Other applications on request.	
e. m			http://shop.ksb.com/catalog/k0/en/product/ES000584	

SICCA 150-600 GLC

	Class NPS T [°C]	150 - 600 2" - 10" 0 to +593	Description: Globe valve to ANSI/ASME with flanged or butt weld ends, bolted bonnet, outside screw and yoke. Rotating, rising stem, seat/disc interface made of 13 % chrome steel, Stellite hard-faced; with graphite gasket and gland packing, available in carbon steel, low-alloy steel and stainless steel. Applications: Refineries, power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000484	





SICCA 900-2500 GLC

	Class NPS T [°C]	900 - 2500 2" - 8" 0 to +650	Description: Globe valve to ANSI/ASME with butt weld ends, Y-pattern, pressure seal design, outside screw and yoke, rising stem and non-rising handwheel, Stellite hard-faced seat/disc interface and back seat, with graphite gasket and gland packing. Available in carbon steel and alloy steel. Applications: Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.	
📕 e, m			http://shop.ksb.com/catalog/k0/en/product/ES000485	

SICCA 800-2500 GLF

	Class NPS T [°C]	800 - 2500 ½" - 2" 0 to +650	 Description: Globe valve to ANSI/ASME with NPT (F) threaded ends or socket weld ends, bolted bonnet (Class 800) or welded bonnet (Class 1500/2500), outside screw and yoke, Stellite hard-faced body seat, disc seating face made of 13 % chrome steel, Stellite hard-faced, with graphite gasket and gland packing. Available in carbon steel and alloy steel. Applications: Refineries, power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request. 	
📕 e, m			http://shop.ksb.com/catalog/k0/en/product/ES000480	

WADA GL 150

	Class NPS T [°C]	150 ½" - 12" -196 to +100	Description: Globe valve to ANSI/ASME with flanged, butt weld or socket weld ends, made of cast steel A351 CF3M/CF8/CF8M, bolted bonnet, outside screw and yoke, Stellite hard-faced valve disc and back seat, with graphite or PTFE gland packing, stainless steel/graphite gaskets. Applications: Natural gas liquefaction and other liquefied gases.	
📕 e, m, p, h			http://shop.ksb.com/catalog/k0/en/product/ES000901	

Globe valves for nuclear applications

NUCA/-A/-ES, Types I, II, IV

ALL ALL	P _{max} [bar] DN T [°C]	max. 320 10 - 50 max. +365	Description: Globe valve for nuclear applications, with butt weld or socket weld ends, gland packing or bellows, replaceable seat (NUCA-ES), straight-way pattern, made of steel, stainless steel or nickel. Applications: Reactor cooling, moderator, safety feed, feed water, live steam and cleaning systems.
e , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000452

NUCA-B

	P _{max} [bar] DN T [°C]	max. 120 10 - 50 max. +300	Description: Bellows-type globe valve for nuclear applications, with butt weld ends, designed to meet safety-related requirements, straight-way pattern, made of steel or stainless steel, integrity maintained after limit switch failure. Applications: Reactor cooling, moderator, safety feed, feed water, live steam and cleaning systems.	
e			http://shop.ksb.com/catalog/k0/en/product/ES000453	

NUCA-F

	X	P _{max} [bar] DN T [°C]	max. 210 10 - 50 max. +365	Description: Bellows-type globe valve for nuclear applications, with butt weld or socket weld ends, designed to meet safety-related requirements, straight-way pattern, made of steel or stainless steel, integrity maintained after limit switch failure. Applications: Reactor cooling, moderator, safety feed, feed water, live steam and cleaning systems.	
e				http://shop.ksb.com/catalog/k0/en/product/ES000454	

NUCA-S

56	P _{max} [bar] DN T [°C]	max. 210 10 - 50 max. +365	Description: Bellows-type globe valve for nuclear applications, with butt weld ends, designed to meet safety-related requirements, straight-way pattern, made of steel or stainless steel, operability maintained after limit switch failure. Applications: Reactor cooling, moderator, safety feed, feed water, live steam and cleaning systems.	
e			http://shop.ksb.com/catalog/k0/en/product/ES000330	

ZXNB

	P _{max} [bar] DN T [°C]	max. 210 65 - 300 max. +365	Description: Bellows-type globe valve for nuclear applications, with butt weld ends, designed to meet safety-related requirements, in straight-way or angle pattern, or as two-way valve, made of steel or stainless steel. Applications: Reactor cooling, moderator, safety feed, feed water, live steam and cleaning systems.	
📕 e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000458	

ZXNVB

	P _{max} [bar] DN T [°C]	max. 210 4 - 25 max. +365	Description: Globe valve for nuclear applications, with butt weld or socket weld ends, gland packing or bellows, straight-way pattern, made of steel or stainless steel. Applications: Reactor cooling, moderator, safety feed, feed water, live steam and cleaning systems.	
<mark>, ●</mark> m			http://shop.ksb.com/catalog/k0/en/product/ES000457	

ZYNB/ZYN

	P _{max} [bar] DN T [°C]	max. 62 300 - 400 max. +365	Description: Globe valve for nuclear applications, with butt weld ends, designed to meet safety-related requirements, with gland packing or bellows, Y-valve, made of cast stainless steel. Applications: Residual heat removal systems in nuclear applications	
e			http://shop.ksb.com/catalog/k0/en/product/ES000331	

Control systems to DIN/EN

BOA-Systronic

PN DN T [°C]	6/10/16 20 - 200 +20 to +120	 Description: Energy-saving system for the combined operation of pump and control valve. The system provides an all-in solution designed to access untapped hydraulic savings potential. Irrespective of the pump technology used, it allows savings of 50 % in pump electricity while also reducing primary energy costs thanks to lower return flow temperatures. The system can be combined with all control systems and pumps with a 0-10 V control input. Straightforward integration in automation systems with optional BACnet gateway. Applications: Supply temperature control in HVAC installations with volume flow rates of 0.5 to 185 m³/h and temperature differentials of 3 to 30 °K. Threaded (DN 20) or flanged (DN 25 to DN 200) line connections; suitable for upgrading installed systems or district heating), all main feed manifolds, all control systems, all supply temperatures. 	
		http://shop.ksb.com/catalog/k0/en/product/ES000494	

Automated globe valves to DIN/EN

BOA-H Mat E

	PN DN T [°C]	16/25 20 - 150 -10 to +350	 Description: Automated globe valve to DIN/EN with flanged ends, with electric actuators and 3-point actuation, actuating forces from 2000 N to 14,000 N, stem sealed by maintenance-free PTFE V-packing (up to 250 °C) or graphite gland packing (up to 350 °C). Applications: General industrial facilities, process engineering, plant engineering, cooling circuits, heating systems. 	
e			http://shop.ksb.com/catalog/k0/en/product/ES000801	

BOA-H Mat P

	PN DN T [°C]	16/25 20 - 150 -10 to +350	 Description: Automated globe valve to DIN/EN with flanged ends, with pneumatic actuators in spring-to-open or spring-to-close design on option, actuating forces from 1500 N to 26,000 N, stem sealed by maintenance-free PTFE V-packing (up to 250 °C) or graphite gland packing (up to 350 °C). Applications: General industrial facilities, process engineering, plant engineering, cooling circuits, heating systems.
<mark>е</mark> р			http://shop.ksb.com/catalog/k0/en/product/ES000885

Control valves to DIN/EN

BOA-CVE C/CS/W/IMS/EKB

į į į į	PN DN T [°C]	6/10/16 15 - 200 -10 to +120	Description: Control valve to DIN/EN based on standard type series BOA-Compact, BOA-SuperCompact, BOA-W, BOA-Compact EKB and BOA-Control IMS, bonnetless pressure-retaining body, soft-seated. Leakage rate selectable from 0.05 % to drop-tight at kvs values between 6.3 and 700 m ³ /h and closing pressures of up to 16 bar. With intelligent microprocessor-controlled and pre-set electric actuators with actuating forces from 1200 N to 14,000 N; electronic configuration of valve characteristic, kvs value, control signal and actuating time using PC tool or manual parameterisation unit. Customised configuration can be implemented at the KSB factory on request. Applications: Hot-water heating systems up to 120 °C. Venting and air-conditioning systems. Water supply systems, drinking water. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and uncoated cast iron. Other fluids on request.	
e			http://shop.ksb.com/catalog/k0/en/product/ES000326	

BOA-CVE H

	PN	16/25	 Description:
	DN	20 - 150	Service-friendly control valve to DIN/EN with flanged ends, either with linear or equal-percentage control characteristic at kvs values of 2.5 to 340 m ³ /h and closing pressures of up to 25 bar; all internal parts are easy to replace without special tools, including the reversible seat; reduced noise level by standard two-stage pressure reduction combining a parabolic plug and multi-hole cage; with electric actuator. Applications:
	T [°C]	-10 to +350	General industrial facilities, process engineering, plant engineering, cooling circuits, heating systems.
e			http://shop.ksb.com/catalog/k0/en/product/ES000772

BOA-CVP H

	PN DN T [°C]	16/25 20 - 150 -10 to +350	Description: Service-friendly control valve to DIN/EN with flanged ends, either with linear or equal-percentage control characteristic at kvs values of 2.5 to 340 m ³ /h and closing pressures of up to 25 bar; all internal parts are easy to replace without special tools, including the reversible seat; reduced noise level by standard two-stage pressure reduction combining a parabolic plug and multi-hole cage; with pneumatic actuator. Applications: General industrial facilities, process engineering, plant engineering, cooling circuits, heating systems.
<mark>e</mark> p			http://shop.ksb.com/catalog/k0/en/product/ES000662



Balancing and shut-off valves to DIN/EN

BOA-Control/BOA-Control IMS

2015	PN 16 DN 15-350 T [°C] -10 to +120	 Description: BOA-Control IMS: Balancing valve to DIN/EN with flanged ends, bonnetless, throttling plug, scaled position indicator, travel stop and insulating cap with anti-condensation feature, maintenance-free; full insulation possible; with ultrasonic sensor system for measuring flow rate and temperature, sensors not in contact with fluid handled, constant measurement accuracy when combined with BOATRONIC MS or BOATRONIC MS-420, independent of minimum differential pressures. BOA-Control: Balancing valve to DIN/EN with flanged ends, bonnetless, throttling plug, scaled position indicator, travel stop and insulating cap with anti-condensation feature, maintenance-free; full insulation possible; prepared for measuring flow rate with ultrasonic sensors and for temperature measurement, sensors not in contact with fluid handled, constant measurement accuracy when combined with BOATRONIC MS, independent of minimum differential pressures. Applications: Hot-water heating systems up to 120 °C. Cold water for air-conditioning systems. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and uncoated cast iron. 	
e, m		http://shop.ksb.com/catalog/k0/en/product/E\$000323	

BOA-Control SAR

	PN DN T [°C]	16 10 - 50 -25 to +150	Description: Balancing valve to DIN/EN with female screwed ends; differential pressure measurement for flow metering with PFM 2000 measuring computer; digital travel position indicator with 40 settings, locking device and travel stop, maintenance-free. Applications: Hot-water heating systems up to 150 °C. Air-conditioning systems. Other fluids on request.	
m			http://shop.ksb.com/catalog/k0/en/product/ES000324	

Level control valves to DIN/EN

CONDA-VLC

PN DN T [°	N 25 - 300 [°C] -10 to +70	Description: Float valve to DIN/EN for controlling maximum and minimum liquid levels in tanks, with flanged ends (DN 40-300) or threaded ends (DN 25-32), body made of nodular cast iron; valve disc, stem, float and seat made of stainless steel. Applications: In water supply systems, industry and building services. For controlling water levels.	
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http://shop.ksb.com/catalog/k0/en/product/ES000835

Pressure reducing valves to DIN/EN

CONDA-VRC

PN DN T [°C]	16/25/40 15 - 150 -10 to +70	Description: Direct-acting pressure reducing valve to DIN/EN with flanged ends (DN 50-150) or threaded ends (DN 15-50), body made of nodular cast iron; valve disc, stem and seat made of stainless steel. Applications: In water supply systems for controlling downstream pressure, in fire-fighting systems for reducing excess pressure caused by pumps, in irrigation system as an efficient protection against water hammer, in industry and building services.	
		http://shop.ksb.com/catalog/k0/en/product/ES000834	

Pressure sustaining valves to DIN/EN

CONDA-VSM

PN DN T [°C]	16/25/40 50 - 150 -10 to +70	Description: Direct-acting pressure sustaining valve to DIN/EN with flanged ends, body made of nodular cast iron, valve disc, stem and seat made of stainless steel. Applications: In water supply systems for controlling upstream pressure, in irrigation or fire-fighting systems, industry and building services.	
		http://shop.ksb.com/catalog/k0/en/product/ES000678	

Air valves to DIN/EN

BOAVENT-AVF

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BOAVENT-SIF

PN DN T [°C]	16 25 - 200 -10 to +70	Description: Automatic air valve with one float and three functions. With flanged ends (DN 25-300R) or threaded ends (DN 25-150), body made of stainless steel, single-chamber design with polypropylene float. The air valve ensures proper operation of the piping system, allowing the entry and discharge of large volumes of air and release of air pockets in working conditions. Applications: Water supply system, clean water, irrigation.	
		http://shop.ksb.com/catalog/k0/en/product/ES000832	

BOAVENT-SVA

	16) - 200 :o +70	Description: Automatic air valve with one float and three functions. With flanged or threaded ends, body made of nodular cast iron, single-chamber design with polypropylene float. The air valve ensures proper operation of the piping system, allowing the entry and discharge of large volumes of air and release of air pockets in working conditions. Applications: Water supply, waste water, untreated waste water.	
		http://shop.ksb.com/catalog/k0/en/product/ES000833	

BOAVENT-SVF

PN DN T [°C]	16/25/40 25 - 300 -10 to +70	 Description: Automatic air valve with one float and three functions. With flanged ends (DN 25-300R) or threaded ends (DN 25-150), body made of nodular cast iron (PN 16-40) or carbon steel (PN 64), single-chamber design with polypropylene float. The air valve ensures proper operation of the piping system, allowing the entry and discharge of large volumes of air and release of air pockets in working conditions. Applications: Water supply system, clean water, irrigation.
		http://shop.ksb.com/catalog/k0/en/product/ES000832

Vent valves for nuclear applications

SISTO-VentNA

PN DN T [°C]	16 15 max. +100	Description: Vent valve for nuclear applications, with butt weld ends, soft-seated. Applications: Heating systems, air-conditioning systems.	
		http://shop.ksb.com/catalog/k0/en/product/ES000842	

SISTO-KRVNA

PN DN T [°C]	16 25 - 100 max. +100	Description: Vent valve for nuclear applications, with flanged or butt weld ends, soft- seated, with floating ball. Applications: Tank venting, drainage systems.	
		http://shop.ksb.com/catalog/k0/en/product/ES000839	

Start and stop control valves to DIN/EN

ZJSVA/ZXSVA

	PN DN T [°C]	Approx. 600 bar 65/60 - 250/125 -10 to +650	 Description: Start and stop control valve to DIN/EN, with butt weld ends, pressure seal design, billet-forged body, seat/disc interface made of wear and corrosion resistant Stellite, single-piece stem and throttling plug assembly for high differential pressures. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request. 	
e , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000428	

Gate valves to DIN/EN

COBRA-SGP/SGO/SGF

	PN DN T [°C]	16/25 25 - 600 -10 to +70	Description: Gate valve to DIN/EN with flanged ends, elastomer-coated wedge, bolted bonnet, rotating stem, inside screw, body made of nodular cast iron. Applications: Water supply and treatment systems, air-conditioning systems.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000828	

COBRA-SMP

	PN DN T [°C]	16 40 - 300 -10 to +110	Description: Gate valve to DIN/EN with flanged ends, bolted bonnet, metal-seated, rotating stem, inside screw, body and flexible wedge made of nodular cast iron, stem and seats made of stainless steel. Applications: Water supply systems, heating systems, air-conditioning systems, general industry, building services.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000829	

ECOLINE SP/SO

ā,	PN DN T [°C]	10/16/25 40 - 600 -10 to +110	Description: Gate valve to DIN/EN with flanged ends, bolted bonnet, metal-seated, rotating stem, inside screw, body made of cast iron, seats made of brass. Applications: Water supply systems, heating systems, air-conditioning systems, general industry, water engineering, building services.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000654	

ECOLINE GT 40

	PN DN T [°C]	10-40 50 - 600 -10 to +400	 Description: Gate valve to DIN/EN with flanged ends, bolted bonnet, body made of cast steel, non-rotating stem, with flexible wedge, seat/disc interface made of wear and corrosion resistant 13 % chrome steel or Stellite. Applications: In industrial plants, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request. 	
e. m			http://shop.ksb.com/catalog/k0/en/product/ES000676	

STAAL 40 AKD/AKDS

I.I.	PN DN T [°C]	10 - 40 50 - 600 -10 to +450	Description: Gate valve to DIN/EN with flanged or butt weld ends, bolted bonnet, body of forged or welded steel construction, non-rotating stem, split wedge with flexibly mounted discs for precise alignment with the body seats. Seat/disc interface made of wear and corrosion resistant 17 % chrome steel. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
emp			http://shop.ksb.com/catalog/k0/en/product/ES000469	

STAAL 100 AKD/AKDS

e e e e e e e e e e e e e e e e e e e	PN DN T [°C]	63 - 100 50 - 500 -10 to +550	Description: Gate valve to DIN/EN with flanged or butt weld ends, bolted bonnet, body of forged or welded steel construction, non-rotating stem, split wedge with flexibly mounted discs for precise alignment with the body seats. Seat/disc interface made of wear and corrosion resistant 17 % chrome steel or Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
📕 e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000369	

AKG-A/AKGS-A

	PN DN T [°C]	63 - 160 80 - 300 -10 to +550	Description: Gate valve to DIN/EN with flanged or butt weld ends, pressure seal design, body of forged or welded construction, non-rotating stem, split wedge with flexibly mounted discs for precise alignment with the body seats. Seat/disc interface made of wear and corrosion resistant 17 % chrome steel or Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000371	

ZTS

Ā	PN Class DN NPS T [°C]	Approx. 600 bar 4500 50 - 800 2" - 32" -10 to +650	Description: Gate valve to DIN/EN or ANSI/ASME, with butt weld ends, pressure seal design, billet-forged body, seat/disc interface made of wear and corrosion resistant Stellite, split wedge with flexibly mounted discs for precise alignment with the body seats. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000375	

Gate valves to ANSI/ASME

ECOLINE GTB 800

Ĩ	Class NPS T [°C]	800 ½" - 2" 0 to +427	Description: Gate valve to ANSI/ASME, with threaded sockets (NPT) or socket weld ends (SW), forged steel/stainless steel body, trim and bellows made of stainless steel, with bolted bonnet, outside screw and yoke, sealed by graphite gland packing and metal bellows, stainless steel/graphite gaskets. Applications: Petrochemical plants, chemical plants, power stations, process engineering and general industry; for thermal oil, steam, toxic and volatile fluids. Other applications on request.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000903	

ECOLINE GTC 150-600

T	Class NPS T [°C] -2	150 - 600 2" - 36" 29 to +816	Description: Gate valve to ANSI/ASME with flanged ends, cast steel A216 WCB, Trim 8 (Stellite/13 % chrome steel) for Class 150/300/600, Trim 5 (Stellite/Stellite) for Class 600, with bolted bonnet, outside screw and yoke, non-rotating stem, flexible wedge, graphite gland packing, stainless steel/graphite gaskets. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; for water, steam, gas, oil and other non-aggressive fluids.	
📕 e, m			http://shop.ksb.com/catalog/k0/en/product/ES000774	

ECOLINE GTF 150-600

	Class NPS T [°C]	150 - 600 ½" - 2" -29 to +816	Description: Gate valve to ANSI/ASME with flanged ends, forged steel A105, Trim 8 (Stellite/13 % chrome steel), with bolted bonnet, outside screw and yoke, non- rotating stem, single-piece wedge, graphite gland packing, stainless steel/ graphite gaskets, reduced bore. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; water, steam, gas, oil and other non-aggressive fluids.	
📕 e, m			http://shop.ksb.com/catalog/k0/en/product/ES000611	

ECOLINE GTF 800-2500

	Class NPS T [°C]	800 - 2500 ½" - 2" -29 to +538	Description: Gate valve to ANSI/ASME with threaded sockets (NPT), butt weld ends (BW) or socket weld ends (SW), Trim 8 (Stellite/13 % chrome steel), with bolted bonnet (Class 800) or welded bonnet (Class 1500 and 2500), outside screw and yoke, single-piece wedge, graphite gland packing, stainless steel/graphite gaskets, available in carbon steel and alloy steel. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; water, steam, gas, oil and other non-aggressive fluids.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000797	

ECOLINE GTV 150-300

T	Class NPS T [°C]	150 - 300 2" - 12" -29 to +816	Description: Gate valve to ANSI/ASME with flanged ends, cast steel A351 CF8/CF8M, Trim 2 (304/304) and Trim 10 (316/316) for Class 150/300, with bolted bonnet, outside screw and yoke, non-rotating stem, flexible wedge, integral seat, graphite gland packing, stainless steel/graphite gaskets. Applications: Fine chemicals, food industry, general industry; water, steam, gas and other fluids.
e, m			http://shop.ksb.com/catalog/k0/en/product/E\$000373

SICCA 150-600 GTC

	Class NPS T [°C]	150 - 600 2" - 24" 0 to +593	Description: Gate valve to ANSI/ASME with flanged or butt weld ends, bolted bonnet, outside screw and yoke, flexible wedge, non-rotating rising stem and non- rising handwheel, seat/disc interface made of 13 % chrome steel, Stellite hard- faced; with graphite gasket and gland packing, available in carbon steel, low- alloy steel and stainless steel. Applications: Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000482	

SICCA 900-2500 GTC

	Class NPS T [°C]	900 - 2500 2" - 24" 0 to +650	Description: Gate valve to ANSI/ASME with butt weld ends, pressure seal design, split- wedge design, outside screw and yoke, rising stem and non-rising handwheel, Stellite hard-faced seat/disc interface and back seat, with graphite gasket and gland packing. Available in carbon steel and alloy steel. Applications: Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.
e m			http://shop.ksh.com/catalog/k0/ep/product/ES000483

SICCA 800-1500 GTF

	Class NPS T [°C]	800 - 1500 ½" - 2" 0 to +593	Description: Gate valve to ANSI/ASME with NPT (F) threaded ends or socket weld ends, bolted bonnet (Class 800) or welded bonnet (Class 1500), single-piece wedge, outside screw and yoke, seat/disc interface made of 13 % chrome steel, Stellite hard-faced, with graphite gasket and gland packing. Available in carbon steel and alloy steel. Applications: Refineries, power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000479	

WADA GT 150

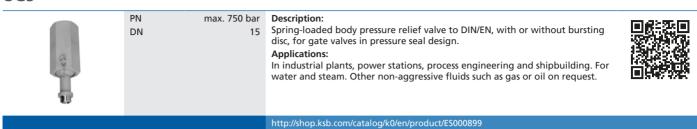
	Class NPS T [°C]	150 1" - 12" -196 to +100	Description: Gate valve to ANSI/ASME with flanged, butt weld or socket weld ends, made of cast steel A351 CF3M/CF8/CF8M, bolted bonnet, outside screw and yoke, flexible wedge, graphite or PTFE gland packing, stainless steel/graphite gaskets. Applications: Natural gas liquefaction and other liquefied gases.	
e, m, p, h			http://shop.ksb.com/catalog/k0/en/product/ES000888	

Gate valves for nuclear applications

ZTN				
e	P _{max} [bar] DN T [°C]	max. 320 80 - 700 max. +365	Description: Gate valve for nuclear applications, with butt weld ends, bolted or pressure seal bonnet, forged or welded body, non-rotating stem, in split-wedge or parallel-disc design, made of steel or stainless steel. Applications: Reactor cooling, safety feed, feed water, live steam, cleaning and condensate systems.	a the tree
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000456	

Body pressure relief valves

UGS



Knife gate valves to DIN/EN

HERA-BD

	PN DN T [°C]	10 50 - 1200 -10 to +120	Description: Knife gate valve to DIN/EN with wafer-type single-piece or two-piece body made of grey cast iron, bi-directional, with gland packing, non-rising stem, corrosion-protected by epoxy coating. Applications: In industrial plants, waste water and process engineering, food industry. For water, waste water and solids-laden fluids. Other fluids on request.
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000597

Knife gate valves to ANSI/ASME

HERA-BDS

0	Class DN T [°C]	150 50 - 600 -10 to +120	Description: Knife gate valve to ANSI/ASME with full-lug body made of carbon steel or stainless steel; bi-directional, with gland packing, rubber-lined, rising stem, non-rising handwheel. Applications: Primarily in mining for handling slurries, abrasive fluids and high-density fluids; also in pulp applications, cement plants, sewage treatment plants and the chemical industry. Other fluids on request.	
📕 e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000895	

HERA-BHT

	Class DN T [°C]	150 80 - 600 -10 to +100	 Description: Knife gate valve to ANSI/ASME, semi-lug body made of carbon steel or stainless steel, two-piece body, bi-directional, with gland packing, through-going blade, rising stem, non-rising handwheel, robust yoke for actuator mounting as standard. Applications: Primarily in mining for handling slurries and high-density fluids; excellent flow characteristic due to through-going blade; also in pulp applications and water applications. Other fluids on request. 	
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000891	

HERA-SH

	Class DN T [°C]	150 50 - 600 -10 to +180	Description: Knife gate valve to ANSI/ASME with full-lug body made of carbon steel or stainless steel, single-piece body, uni-directional, with gland packing, rising stem, non-rising handwheel. Applications: In industrial and waste water engineering, pulp and paper industry, food and beverages industry, chemical industry. For water, waste water and solids-laden fluids. Other fluids on request.	
📕 e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000844	

Lift check valves to DIN/EN

BOA-RPL

PN DN T [°C]	10/16 25 - 400 -10 to +70	Description: Ball check valve to DIN/EN with flanged or female/female-threaded ends, made of nodular cast iron, NBR-coated ball, bolted cover, suitable for installation in vertical or horizontal pipes. Applications: Water supply and treatment systems, waste water.	
		http://shop.ksb.com/catalog/k0/en/product/ES000635	

BOA-RFV

PN DN T [°C]	10/16/25/40/64 40 - 600 -10 to +90	Description: Lift check valve to DIN/EN with flanged ends, Venturi-type body, max. flow velocity 2.5 m/s. Body made of cast iron, check disc made of brass and cast iron, seat made of stainless steel. Suitable for installation in horizontal and vertical pipes. Rapid closure without surge pressures. Applications: Water supply systems, heating systems, air-conditioning systems.	
		http://shop.ksb.com/catalog/k0/en/product/ES000653	

BOA-RVK

PN DN T [°C]	6/10/16 15 - 200 -20 to +250	Description: Lift check valve to DIN/EN with wafer-type body, centring aided by the body shape, shut-off by spring-loaded plate or valve disc guided by three stainless steel guiding pins. Low-noise designs with plastic plate (DN 15-100) or valve disc with O-ring (DN 125-200), maintenance-free. Applications: Industrial plants and heating systems, liquids and gases, hot-water heating systems, high-temperature hot water heating systems, heat transfer systems. Any limits given in the technical codes must be complied with. Not suitable for fluids liable to attack the materials used. Other fluids on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000357	

BOA-R

PN DN T [°C]	6/16 15 - 350 -10 to +350	Description: Lift check valve to DIN/EN with flanged ends, spring-loaded valve disc, maintenance-free. Applications: Hot-water heating systems, high-temperature hot water heating systems, heat transfer systems. General steam applications in building services and industry. Other fluids on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000356	

Valves

NORI 40 RXL/RXS

0	hJ	PN DN T [°C]	25/40 10 - 300 -10 to +450	resistant chrome steel or chrome nickel steel. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
				http://shop.ksb.com/catalog/k0/en/product/ES000358	

NORI 160 RXL/RXS

(\$)	DN 1	53 - 160 10 - 200 to +550	Description: Lift check valve to DIN/EN, with flanged, butt weld or socket weld ends, check disc with closing spring, seat/disc interface made of wear and corrosion resistant 17 % chrome steel or Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
			http://shop.ksb.com/catalog/k0/en/product/ES000360	

NORI 320 RXL/RXS

PN DN T [°C] -	250 - 320 65 - 200 -10 to +550	 Description: Lift check valve to DIN/EN with flanged or butt weld ends, check disc with closing spring, seat/disc interface made of wear and corrosion resistant 17 % chrome steel or Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request. 	
		http://shop.ksb.com/catalog/k0/en/product/ES000474	

NORI 500 RXLR/RXSR

PN DN T [°C]	250 - 500 10 - 50 -10 to +580	Description: Lift check valve to DIN/EN, with flanged, butt weld or socket weld ends, check disc with closing spring, seat/disc interface made of wear and corrosion resistant Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000362	

RGS

http://shop.ksb.com/catalog/k0/en/product/ES000364		PN DN T [°C]	250 - 500 10 - 50 -10 to +580	Description: Lift check valve to DIN/EN, with butt weld or socket weld ends, Y-pattern, check disc with closing spring, pressure seal design, Hastelloy-faced body seats. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
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BOACHEM-RXA

PN DN T [°C]	10 - 40 15 - 300 -10 to +400	Description: Lift check valve to DIN/EN with flanged ends, body made of stainless steel, check disc with closing spring, lapped seat/disc interface. Applications: Process engineering, industry, building services, food and beverages industries, for aggressive fluids. Other fluids on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000366	

Lift check valves to ANSI/ASME

ECOLINE PTF 150-600

Class NPS T [°C]	150 - 600 ½" - 2" -29 to +816	Description: Lift check valve to ANSI/ASME with flanged ends, forged steel A105, Trim 8 (Stellite/13 % chrome steel), reduced bore, with bolted cover, spring-loaded valve disc. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; for water, steam, gas, oil and other non-aggressive fluids.	
		http://shop.ksh.com/catalog/k0/en/product/ES000424	

ECOLINE PTF 800-2500

Class NPS T [°C]	800 - 2500 ½" - 2" -29 to +538	Description: Lift check valve to ANSI/ASME with threaded sockets (NPT), butt weld ends (BW) or socket weld ends (SW), Trim 8 (Stellite/13 % chrome steel), with bolted cover (Class 800) or welded cover (Class 1500 and 2500), spring-loaded valve disc, available in carbon steel and alloy steel. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; for water, steam, gas, oil and other non-aggressive fluids.	
		http://shop.ksb.com/catalog/k0/en/product/ES000374	

SICCA 800-2500 PCF

Class NPS T [°C]	800 - 2500 1⁄2" - 2" 0 to +650	Description: Lift check valve to ANSI/ASME with NPT (F) threaded ends or socket weld ends, bolted cover (Class 800) or welded cover (Class 1500/2500), Stellite hard-faced body seat, disc seating face made of 13 % chrome steel, Stellite hard-faced, with graphite gasket. Available in carbon steel and alloy steel. Applications: Refineries, power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000481	

WADA SC 150

Class NPS T [°C]	150 ½" - 18" -196 to +100	Description: Swing/lift check valve to ANSI/ASME with flanged, butt weld or socket weld ends, made of cast steel A351 CF3M/CF8/CF8M, bolted cover, dash-pot function, graphite or stainless steel/graphite gaskets. Applications: Natural gas liquefaction and other liquefied gases.	
		http://shop.ksb.com/catalog/k0/en/product/ES000890	

Lift check valves for nuclear applications

NUCA/-A/-ES, Type V

P _{max} [bar] DN T [°C]	max. 410 10 - 50 max. +365	Description: Lift check valve for nuclear applications, with butt weld ends, replaceable seat (NUCA-ES), straight-way pattern, made of steel or stainless steel. Applications: Feed water and live steam systems.	
		http://shop.ksb.com/catalog/k0/en/product/ES000455	

RJN

and the second	P _{max} [bar] DN T [°C]	max. 140 80 - 600 max. +300	Description: Damped lift check valve for nuclear applications, with butt weld ends, individually selectable damping characteristic, made of steel or stainless steel. Applications: Feed water and live steam systems.	
			http://shop.ksb.com/catalog/k0/en/product/ES000459	

RYN

 P _{max} [bar] DN T [°C]	max. 210 65 - 300 max. +365	Description: Combined lift check/shut-off valve for nuclear applications, with butt weld ends, Y-pattern, with gland packing or bellows, made of steel or stainless steel. Applications: Feed water and live steam systems.	
		http://shop.ksb.com/catalog/k0/en/product/ES000333	

Swing check valves to DIN/EN

COBRA-SCBS

PN DN T [°C]	16 50 - 300 -10 to +300	Description: Swing check valve to British standards, with flanged ends, metal-seated, body and valve disc made of nodular cast iron, with bolted cover, stainless steel/ graphite gaskets. Applications: Water supply, treatment and distribution systems, waste water, irrigation, drinking water, seawater, air, gas, oil.	
		http://shop.ksb.com/catalog/k0/en/product/ES000827	

Not available for worldwide sale Actuator type / Automation

ECOLINE WT/WTI

PN DN T [°C]	16 50 - 300 -10 to +110	Description: Swing check valve to DIN/EN with wafer-type body; body and valve disc made of carbon steel (WT) or stainless steel (WTI), O-ring made of Viton. Applications: Irrigation systems, district heating, domestic water supply, sewage treatment plants, air-conditioning systems, cooling circuits, water supply systems.	
		http://shop.ksh.com/catalog/k0/en/product/ES000638	

STAAL 40 AKK/AKKS

PN DN T [°C]	10 - 40 80 - 400 -10 to +450	Description: Swing check valve to DIN/EN with flanged or butt weld ends, bolted cover, internally mounted hinge pin, body of welded steel construction, seat/disc interface made of wear and corrosion resistant 17 % chrome steel. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000471	

STAAL 100 AKK/AKKS

PN 63 - 100 DN 80 - 400 T [°C] -10 to +530	Description: Swing check valve to DIN/EN with flanged or butt weld ends, bolted cover, internally mounted hinge pin, body of forged or welded steel construction, seat/disc interface made of wear and corrosion resistant 17 % chrome steel or Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.
	http://shop.ksb.com/catalog/k0/en/product/ES000391

AKR/AKRS

PN DN T [°C]	63 - 160 80 - 300 -10 to +550	Description: Swing check valve to DIN/EN with flanged or butt weld ends, pressure seal design, internally mounted hinge pin, body of forged and welded construction, seat/disc interface made of wear and corrosion resistant 17% chrome steel or Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000394	

ZRS

PN DN T [°C]	Approx. 600 bar 50 - 800 -10 to +650	Description: Swing check valve to DIN/EN, with butt weld ends, pressure seal design, internally mounted hinge pin, billet-forged body; seat/disc interface made of wear and corrosion resistant Stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000396	

Valves

SISTO-RSK/RSKS

PN DN T [°C]	16 15 - 300 -20 to +140	Description: Swing check valve to DIN/EN with flanged ends, body with or without lining, soft-seated, no dead volumes, straight-way pattern, full bore, slanted seat; with internally mounted hinge pin, soft rubber encapsulated valve disc. Applications: In building services, industrial plants and power stations; suitable for drinking water, service water, from fluids handled in the food and beverages industry to abrasive and aggressive products in chemical and process engineering.	
		http://shap.ksh.com/catalog/k0/en/product/ES000397	

SERIE 2000 PN 16

PN DN T [°C]	max. 16 50 - 600 -5 to +200	Description: Dual-plate check valve with single-piece, wafer-type body made of lamellar graphite cast iron, metal/elastomer-seated, maintenance-free, EN/ASME/JIS connections possible. Applications: Building services: heating, air-conditioning, water supply, irrigation, water treatment. General processes: water, air, gas.	
		http://shop.ksb.com/catalog/k0/en/product/ES000393	

SERIE 2000 PN 25

PN DN T [°C]	max. 25 50 - 600 -18 to +343	Description: Dual-plate check valve with single-piece, wafer-type body made of nodular cast iron, metal/elastomer-seated or metal/metal-seated, maintenance-free, EN/ASME/JIS connections possible. Applications: Building services: heating, air-conditioning, water supply, irrigation, water treatment. General processes: water, air, gas.	
		http://shop.ksb.com/catalog/k0/en/product/ES000808	

SERIE 2000 Class 150

6	Class DN T [°C]	150 50 - 600 -196 to +538	Description: Dual-plate check valve with single-piece, wafer-type body made of steel, stainless steel or copper aluminium alloy, metal/elastomer-seated or metal/ metal-seated, maintenance-free, EN/ASME/JIS connections possible. Applications: Process engineering, chemical and petrochemical industry, sugar industry, paper industry, water supply, desalination, marine applications: water, air, gas, hydrocarbons. General processes: water, compressed air, gas.	
			http://shop.ksb.com/catalog/k0/en/product/ES000809	

SERIE 2000 Class 300

6	Class DN T [°C]	300 50 - 300 -196 to +538	Description: Dual-plate check valve with single-piece, wafer-type body made of steel, stainless steel or copper aluminium alloy, metal/elastomer-seated or metal/ metal-seated, maintenance-free, EN/ASME/JIS connections possible. Applications: Process engineering, chemical and petrochemical industry, sugar industry, paper industry, water supply, desalination, marine applications: water, air, gas, hydrocarbons. General processes: water, compressed air, gas.	
			http://shop.ksb.com/catalog/k0/en/product/ES000810	

Swing check valves to ANSI/ASME

ECOLINE SCC 150-600

Class NPS T [°C]	150 - 600 2" - 24" -29 to +816	Description: Swing check valve to ANSI/ASME with flanged ends, cast steel A216 WCB, Trim 8 (Stellite/13 % chrome steel) for Class 150/300/600, Trim 5 (Stellite/ Stellite) for Class 600, with bolted cover, internally mounted hinge pin (2"-12"), stainless steel/graphite gaskets. Applications: Refineries, power stations, process engineering and general industry; water, steam, oil, gas. Other applications on request.	
		http://shap.ksh.com/catalog/k0/ap/product/ES000776	

ECOLINE SCF 150-600

Class NPS T [°C]	150 - 600 ½" - 2" -29 to +816	Description: Swing check valve to ANSI/ASME with flanged ends, forged steel A105, Trim 8 (Stellite/13 % chrome steel), reduced bore, with bolted cover, internally mounted hinge pin. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; for water, steam, gas, oil and other non-aggressive fluids.	
		http://shop.ksb.com/catalog/k0/en/product/ES000799	

ECOLINE SCF 800-2500

A - D A	Class NPS T [°C]	800 - 2500 ½" - 2" -29 to +538	Description: Swing check valve to ANSI/ASME with threaded sockets (NPT), butt weld ends (BW) or socket weld ends (SW), Trim 8 (Stellite/13 % chrome steel), with bolted cover (Class 800) or welded cover (Class 1500 and 2500), internally mounted hinge pin, available in carbon steel and alloy steel. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; for water, steam, gas, oil and other non-aggressive fluids.	
			http://shap.ksh.com/catalog/k0/en/product/ES000798	

ECOLINE SCV 150-300

Class NPS T [°C]	150 - 300 2" - 12" -29 to +816	Description: Swing check valve to ANSI/ASME with flanged ends, cast steel A351 CF8/CF8M, Trim 2 (304/304) and Trim 10 (316/316) for Class 150/300, with bolted cover, integral seat, stainless steel/graphite gaskets. Applications: Fine chemicals, food industry and general industry. For water, steam, gas and other fluids. Other applications on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000335	

SICCA 150-600 SCC

Class NPS T [°C]	150 - 600 2" - 24" 0 to +593	 Description: Swing check valve to ANSI/ASME with flanged or butt weld ends, bolted cover, internally mounted hinge pin. Bigger sizes with anti-slam/dash pot arrangement (optional), graphite gasket. Seat/disc interface made of 13 % chrome steel, Stellite hard-faced. Available in carbon steel, low-alloy steel and stainless steel. Applications: Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request. 	
		http://shop.ksb.com/catalog/k0/en/product/ES000486	

Valves

SICCA 900-2500 SCC

Class NPS T [°C]	900 - 2500 2" - 24" 0 to +650	Description: Swing check valve to ANSI/ASME with butt weld ends, pressure seal design, internally mounted hinge pin, Stellite hard-faced seat/disc interface, with graphite gasket. Available in carbon steel and alloy steel. Applications: Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000487	

WADA SC 150

Class NPS T [°C]	150 ½" - 18" -196 to +100	Description: Swing/lift check valve to ANSI/ASME with flanged, butt weld or socket weld ends, made of cast steel A351 CF3M/CF8/CF8M, bolted cover, dash-pot function, graphite or stainless steel/graphite gaskets. Applications: Natural gas liquefaction and other liquefied gases.	
		http://shop.ksb.com/catalog/k0/en/product/ES000890	

Swing check valves for nuclear applications

SISTO-RSKNA

PN DN T [°C]	16 25 - 300 max. +100	Description: Swing check valve with flanged ends, body with or without lining, soft-seated, no dead volumes, straight-way pattern, full bore, slanted seat; with internally mounted hinge pin and soft rubber encapsulated valve disc. Applications: Waste water systems, pump systems.	
		http://shop.ksb.com/catalog/k0/en/product/ES000838	

ZRN

P _{max} [bar] DN T [°C]	max. 320 50 - 600 max. +365	Description: Swing check valve for nuclear applications, with butt weld ends, bolted cover, internally mounted hinge pin, forged body made of steel or stainless steel. Applications: Safety feed, feed water, live steam and condensate systems.	
		http://shop.ksb.com/catalog/k0/en/product/ES000399	

Tilting disc check valves to DIN/EN

COBRA-TDC01/03



Strainers to DIN/EN

BOA-S

PN DN T [°C]	6/16/25 15 - 400 -10 to +350	Description: Strainer to DIN/EN with flanged ends, with standard or fine screen; all nominal sizes with drain plug in the cover. Applications: Hot-water heating systems, high-temperature hot water heating systems, heat transfer systems. General steam applications in building services and industry. Other fluids on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000401	

NORI 40 FSL/FSS

PN 25/40 DN 15 - 300 T [°C] -10 to +450	Description: Strainer to DIN/EN with flanged or butt weld ends, body made of cast steel, with standard or fine screen; all nominal sizes with drain plug in the cover, optional magnetic inserts. Applications: In heat transfer systems, industrial plants, building services and shipbuilding. For thermal oils, water, steam, gas and other non-aggressive fluids. Other fluids on request.
	http://shop.ksb.com/catalog/k0/en/product/ES000523

BOACHEM-FSA

PN DN T [°C]	Description: Strainer to DIN/EN with flanged ends, body made of stainless steel, with standard or fine screen; all nominal sizes with drain plug in the cover. Applications: Process engineering, industry, building services, food and beverages industries, for aggressive fluids. Other fluids on request.	
	http://shop.ksb.com/catalog/k0/en/product/ES000402	

Strainers to ANSI/ASME

ECOLINE FYC 150-600

Class NPS T [°C]	150 - 600 2" - 12" -29 to +816	Description: Strainer to ANSI/ASME with flanged ends, Y-pattern, bolted cover, cast steel A216 WCB, screen made of stainless steel 304, mesh width 1.5 mm. Applications: Refineries, power stations, process engineering and general industrial applications; water, steam, gas, oil. Other applications on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000665	

ECOLINE FYF 800

Class NPS T [°C]	800 ½" - 2" -29 to +816	Description: Strainer to ANSI/ASME with threaded sockets (NPT) or socket weld ends (SW), Y-pattern, with bolted cover, forged steel A105, screen made of stainless steel 304. Mesh width 0.8 to 0.9 mm. Applications: Industrial applications, power stations, process engineering, refineries, oil and marine applications; for water, steam, gas, oil and other non-aggressive fluids.	
		http://shop.ksb.com/catalog/k0/en/product/ES000666	

Centred-disc butterfly valves

BOAX-CBV13

Ó	PN DN T [°C]	10/16 500 - 1200 -10 to +115	Description: Centred-disc butterfly valve with epoxy coating. Perfect shut-off in either flow direction. Flanged ends to EN standards, body made of nodular cast iron, valve disc made of stainless steel. Applications: Shut-off or control duties, drinking water, seawater, water supply, treatment and distribution systems, waste water, irrigation, ultra-pure water, air, oil.	
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000825	

BOAX-S

	PN [bar] 10/16 DN 20 - 600 T [°C] -10 to +130	Centred-disc butterfly valve for building services, with heat barrier and	
m_{n+} AMTROBOX/AMTRO		http://shop.ksh.com/catalog/k0/en/product/ES000388	

BOAX-SF

		PN [bar] DN T [°C]	10/16 20 - 600 -10 to +130	Description: Centred-disc butterfly valve for building services, with heat barrier and elastomer liner (EPDM XU or Nitrile K), with lever, manual gearbox or pneumatic actuator. Full-lug body (T4), suitable for downstream dismantling and dead-end service. Valve disc made of stainless steel 1.4308, connections to EN. Applications: Heating, ventilation, air-conditioning systems, for drinking water.	
m, p + AMT	ROBOX/AMTR	ONIC/SMARTRONI	IC	http://shop.ksb.com/catalog/k0/en/product/ES000389	

BOAXMAT-S

	PN DN T [°C] Enclosure	10/16 20 - 600 -10 to +130 IP65/IP67	Description: Centred-disc butterfly valve for building services, with heat barrier and elastomer liner (EPDM XU or Nitrile K), with electric actuator. Semi-lug body (T2), suitable for downstream dismantling and dead-end service. Valve disc made of stainless steel 1.4308, connections to EN, electric actuator by BERNARD CONTROLS: LE and EZ type series for on/off control. Applications: Heating, ventilation, air-conditioning systems, for drinking water.	
e			http://shop.ksb.com/catalog/k0/en/product/ES000496	

BOAXMAT-SF

	PN DN T [°C] Enclosure	10/16 20 - 600 -10 to +130 IP65/IP67	Description: Centred-disc butterfly valve for building services, with heat barrier and elastomer liner (EPDM XU or Nitrile K), with electric actuator. Full-lug body (T4), suitable for downstream dismantling and dead-end service. Valve disc made of stainless steel 1.4308, connections to EN, electric actuator by BERNARD CONTROLS: LE and EZ type series for on/off control. Applications: Heating, ventilation, air-conditioning systems, for drinking water.	
e			http://shop.ksb.com/catalog/k0/en/product/ES000565	

BOAX-S Gaz

Í.	DN 2	max. 10 20 - 600) to +60	Description: Centred-disc butterfly valve for gas installations, with elastomer liner (epichlorohydrin EG), with yellow lever, semi-lug body (T2), valve disc made of stainless steel 1.4308, connections to EN. Applications: Gas circuits	
m			http://shop.ksb.com/catalog/k0/en/product/ES000388	

BOAX-SF Gaz

J.	PN [bar] DN T [°C]	max. 10 20 - 600 -20 to +60	Description: Centred-disc butterfly valve for gas installations, with elastomer liner (epichlorohydrin EG), with yellow lever, full-lug body (T4), spherically machined valve disc made of stainless steel 1.4308, connections to EN. Applications: Gas circuits	
○● m			http://shop.ksb.com/catalog/k0/en/product/ES000389	

BOAX-B

		10/16 40 - 1000 -10 to +110	Description: Centred-disc butterfly valve, soft-seated (liner made of EPDM XC or Nitrile K). With lever, manual gearbox, pneumatic or electric actuator. Wafer-type body (T1), semi-lug body (T2), full-lug body (T4) or U-section body with flat faces (T5). Body types T2, T4 and T5 are suitable for downstream dismantling and dead-end service. Valve disc made of nodular cast iron or stainless steel. EN, ASME and JIS connections possible.	
			Applications: Engineering contractors. General water circuits, heating oil circuits, oil circuits. Shut-off and control duties in water management for water supply, water treatment, drainage and irrigation.	
e, m, p + AMTROBOX/A	AMTRONIC/SMAI	RTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000573	

BOAX-B Gaz

	PN [bar] DN T [°C]	10/16 40 - 300 -20 to +90	Description: Centred-disc butterfly valve, soft-seated (liner made of epichlorohydrin EG or Nitrile K), with lever; semi-lug body (T2) or full-lug body (T4), valve disc made of nodular cast iron, EN connections. Applications: Gas pipes to NF ROB.GAZ N°095.00	
80-0-				
m			http://shop.ksb.com/catalog/k0/en/product/ES000574	

BOAX-B APSAD

	PN [bar] DN T [°C]	max. 16 40 - 300 -10 to +110	Description: Centred-disc butterfly valve, soft-seated (liner made of EPDM XC), with manual gearbox to APSAD, semi-lug body (T2) suitable for downstream dismantling, valve disc made of nodular cast iron. Connections to EN. Applications: Fire protection	
~ }~				
m			http://shop.ksb.com/catalog/k0/en/product/ES000867	

BOAX-B DVGW

	PN [bar] 10/16 DN 40 - 300 T [°C] -20 to +60	Leven and the back (T2) as full the back (T4) we have discussed as fine duten and	
20-0°			
m		http://shop.ksb.com/catalog/k0/en/product/ES000574	

BOAX-B FM

	PN [bar] DN 40 - 3 T [°C] -10 to +1		
m		http://shop.ksb.com/catalog/k0/en/product/ES000904	

BOAX-B Mat E

	PN [bar] DN T [°C] Enclosure Actuator: Voltage	10/16 40 - 300 -10 to +110 IP65 230 V 50 Hz/ 24 V DC	Description: Centred-disc butterfly valve, soft-seated (liner made of EPDM XC or Nitrile K). With electric actuator. Semi-lug body (T2), full-lug body (T4) or U-section body with flat faces (T5). Body types T2, T4 and T5 are suitable for downstream dismantling and dead-end service. Valve disc made of nodular cast iron or stainless steel, EN and ASME connections possible. Electric actuator by BERNARD: LE/SD type series for on/off control or positioning through proportional control (4-20 mA). Applications: Engineering contractors. General water circuits, heating oil circuits, oil circuits. Shut-off and control duties in water management for water supply, water treatment, drainage and irrigation.	
e			http://shop.ksb.com/catalog/k0/en/product/ES000804	

BOAX-B Mat P

	PN [bar] DN T [°C] Enclosure Actuator: T [°C] Control pressure [bar]	10/16 40 - 300 -10 to +110 IP65 -20 to +80 3, 5, 6, max. 8	Description: Centred-disc butterfly valve, soft-seated (liner made of EPDM XC or Nitrile K). With pneumatic actuator. Semi-lug body (T2), full-lug body (T4) or U-section body with flat faces (T5). Body types T2, T4 and T5 are suitable for downstream dismantling and dead-end service. Valve disc made of nodular cast iron or stainless steel, EN and ASME connections possible, pneumatic scotch-yoke actuator with VDI/VDE interface for AMTROBOX C limit switch box and Namur interface for control air supply. Applications: Engineering contractors. General water circuits, heating oil circuits, oil circuits. Shut-off and control duties in water management for water supply, water treatment, drainage and irrigation.	
р			http://shop.ksb.com/catalog/k0/en/product/ES000803	

ISORIA 10

	PN [bar] DN T [°C]	max. 10 40 - 1000 -10 to +200	Description: Centred-disc butterfly valve, soft-seated, with lever, manual gearbox, pneumatic, electric or hydraulic actuator. Wafer-type body (T1), semi-lug body (T2), full-lug body (T4) or U-section body with flat faces (T5). Body types T2 and T4 are suitable for downstream dismantling and dead-end service with counterflange. EN, ASME, JIS connections possible. Applications: Shut-off and control duties in all industrial and energy sectors.	
e, m, h, p + AMTROBOX/AMTRONIC/SMARTRONIC		RONIC	http://shop.ksb.com/catalog/k0/en/product/ES000377	

ISORIA 16

Valves

	 max. 16 40 - 1000 10 to +200	Description: Centred-disc butterfly valve, soft-seated, with lever, manual gearbox, pneumatic, electric or hydraulic actuator. Wafer-type body (T1), semi-lug body (T2), full-lug body (T4) or U-section body with flat faces (T5). Body types T2 and T4 are suitable for downstream dismantling and dead-end service with counterflange. EN, ASME, JIS connections possible. Applications:	
-		Shut-off and control duties in all industrial and energy sectors.	

e, m, h, p + AMTROBOX/AMTRONIC/SMARTRONIC http://shop.ksb.com/catalog/k0/en/product/ES000378

ISORIA 20

Ó	PN [bar] max. 20 DN 32 - 600 T [°C] -10 to +80	Description: Centred-disc butterfly valve, soft-seated, with lever, manual gearbox, pneumatic, electric or hydraulic actuator. Semi-lug body (T2), full-lug body (T4). Body types T2 and T4 are suitable for downstream dismantling and dead- end service with counterflange. EN, ASME, JIS connections possible. Applications: Shut-off and control duties in all industrial and energy sectors.	
$\mathbf{P}_{\mathbf{A}}$ m h n + $\mathbf{A}\mathbf{M}\mathbf{T}\mathbf{P}\mathbf{O}\mathbf{P}\mathbf{O}\mathbf{X}/\mathbf{A}$		http://shop.ksh.com/catalog/k0/en/product/ES000379	

ISORIA 20 UL

0	PN [bar] DN T [°C]	max. 16 40 - 700 -10 to +80	Description: Centred-disc butterfly valve, soft-seated, with manual gearbox, semi-lug body (T2), full-lug body (T4). Body types T2 and T4 are suitable for downstream dismantling and dead-end service with counterflange. EN, ASME, JIS connections possible. Underwriter Laboratories (UL) approved. Applications: Fire protection	
m			http://shop.ksb.com/catalog/k0/en/product/ES000379	

ISORIA 25

	DN 32	nax. 25 - 1000 to +60	Description: Centred-disc butterfly valve, soft-seated, with lever, manual gearbox, pneumatic, electric or hydraulic actuator. Semi-lug body (T2), U-section body with flat faces (T5). Body types T2 and T5 are suitable for downstream dismantling and dead-end service with counterflange. EN, ASME, JIS connections possible. Applications: Shut-off service for liquids only.	
e. m. h. p + AMTROBOX/A	MTRONIC/SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000383	

MAMMOUTH

KQ.	PN [bar] DN T [°C]	6/10/16/20/25 1050 - 4000 0 to +65	Description: Centred-disc butterfly valve, soft-seated, with manual gearbox, electric, hydraulic or counterweight actuator, U-section body with flat faces (T5), connections to EN, ASME, JIS possible. Applications: Water supply, water treatment, irrigation, drainage, desalination (reverse osmosis, multi-stage flash), industry. Cooling circuits and fire protection. Shipbuilding, steel industry and power stations (hydraulic, thermal, nuclear). Shut-off and control duties in all industrial sectors.	
e, m, p + AMTROBOX/AM	RONIC/SMARTRON	NIC	http://shop.ksb.com/catalog/k0/en/product/ES000382	



KE PLASTOMER

	PN [bar] DN T [°C]	10 40 - 600 -20 to +200	Description: Centred-disc butterfly valve for chemical applications, sealed by plastomer liner (PFA Teflon), with lever, manual gearbox, pneumatic or electric actuator, wafer-type body (T1), full-lug body (T4), U-section body with raised faces (T6), connections to EN, ASME, JIS. Applications: Highly corrosive applications: toxic and highly corrosive fluids which cannot be handled by metals and/or elastomers, thus requiring the sole use of PFA. Moderately corrosive applications: moderately corrosive fluids requiring the use of a PFA liner in combination with a stainless steel valve disc. Fluids requiring absolutely safe handling.	
e, m, h, p + AMTROBOX/A	MTRONIC/SMAI	RTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000380	

KE ELASTOMER

	PN [bar] DN T [°C]	10 40 - 300 -20 to +150	Description: Centred-disc butterfly valve for chemical applications, sealed by elastomer liner, with lever, manual gearbox, pneumatic, electric or hydraulic actuator, wafer-type body (T1), full-lug body (T4), connections to EN, ASME. Applications: Moderately corrosive and/or abrasive industrial fluids; production of powdery products.	
e, m, h, p + AMTROBOX/Al	MTRONIC/SMA	RTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000380	

Double-offset butterfly valves

APORIS-DEB02

T G	PN DN T [°C]	10/16/25 150 - 2200 -10 to +80	Description: Double-offset butterfly valve with epoxy coating. Perfect shut-off in either flow direction. Flanged ends to EN standards, body and valve disc made of nodular cast iron. Applications: Shut-off or control duties; drinking water, seawater, air, water engineering.
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000824

DANAÏS 150

B	PN [bar] max. 2 or Class 15 DN 50 - 120 T [°C] -50 to +26	Double-offset butterfly valve with plastomer seat ring (also in fire-safe design), metal seat ring or elastomer seat ring (FKM [VITON R] or NBR [Nitrile]), with aland packing or without aland packing for correction fluids (maintenance)	
e, m, h, p + AMTROBOX/AMTRONIC/SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000427	

DANAÏS MTII Class 150

	PN [bar] or Class DN T [°C]	max. 25 150 50 - 600 -50 to +260	Description: Double-offset butterfly valve with plastomer seat ring or metal seat ring (fire- safe), glandless, maintenance-free, with lever or manual gearbox, pneumatic, electric or hydraulic actuator, body made of steel or stainless steel. Wafer-type body (T1), full-lug body (T4) or flanged body (T7) with flat or raised faces. Body types T4 and T7 are suitable for dead-end service. Connections to EN, ASME and JIS. Certified to German TA-Luft Technical Guidelines on Air Quality Control. Applications: Petroleum, gas, chemical and petrochemical industry, nuclear power stations, onshore and offshore plants. Steam, vacuum and all applications requiring offset-disc butterfly valves.	
e, m, h, p + AMTROBOX/AMTRONIC/SMARTRONIC			http://shop.ksb.com/catalog/k0/en/product/ES000381	

DANAÏS MTII Class 300

e	PN [bar] max. 50 or Class 300 DN 50 - 600 T [°C] -50 to +260	 Description: Double-offset butterfly valve with plastomer seat ring or metal seat ring (fire-safe), glandless, maintenance-free, with lever or manual gearbox, pneumatic, electric or hydraulic actuator, body made of steel or stainless steel, wafer-type body (T1), full-lug body (T4), flanged body (T7) with flat or raised faces. Body types T4 and T7 are suitable for dead-end service. Connections to EN, ASME and JIS. Certified to German TA-Luft Technical Guidelines on Air Quality Control. Applications: Petroleum, gas, chemical and petrochemical industry, nuclear power stations, onshore and offshore plants. Steam, vacuum and all applications requiring offset-disc butterfly valves.
e, m, h, p + AMTROBOX/AI	MTRONIC/SMARTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000381

DANAÏS 300T

-		PN [bar]/∆P or Class DN T [°C]	max. 50/20 300 150 - 400 -50 to +150	Description: Double-offset butterfly valve with fire-safe plastomer seat ring or metal seat ring, manual gearbox or hydraulic actuator, body made of stainless steel, wafer-type body (T1). Connections to ASME. Added protection against aggressive atmospheres. Applications: Marine applications, chemical tankers, petroleum, gas, chemical and petrochemical industry. Low-pressure steam, vacuum and all applications requiring offset-disc butterfly valves.	
	e, m, h, p + AMTROBOX/A	MTRONIC/SMAR	RTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000814	

DANAÏS TBTII (Cryogenic) Side Entry

Ĩ	PN [bar] DN T [°C]	10/20 200 - 1050 -250 to +200	Description: Double-offset butterfly valve for cryogenic applications, body made of stainless steel with butt weld ends to ASME, Schedule 40S or STD to NPS, approved fire-safe design, manual gearbox, pneumatic, electric or hydraulic actuator. Applications: Natural gas liquefaction, onshore and offshore plants. All liquefied gases.	
e, m, h, p + AMTROBOX/A	MTRONIC/SMA	RTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000815	

DANAÏS TBTII (Cryogenic) Flanged

	PN [bar] or Class DN T [°C]	max. 20 150 50 - 1200 -250 to +200	Description: Double-offset butterfly valve for cryogenic applications, flanged body (T7) made of stainless steel, with flat or raised faces. ASME Class 150, JIS, approved fire-safe design, manual gearbox, pneumatic, electric or hydraulic actuator. Applications: Natural gas liquefaction, onshore and offshore plants. All liquefied gases.	
e, m, h, p + AMTROBOX/AMTRONIC/SMARTRONIC			http://shop.ksb.com/catalog/k0/en/product/ES000815	

ves

DANAÏS TBTII (Cryogenic) AL

1	PN [bar] DN T [°C]	10/16 80 - 600 -200 to +200	Description: Double-offset butterfly valve for cryogenic applications, full-lug body (T4), flanged body (T7) made of stainless steel, with flat or raised faces. ASME Class 150. Degreased for oxygen service. Approved fire-safe design. Manual gearbox or pneumatic actuator. Applications: All liquefied gases.	
m, p + AMTROBOX/AMTRO	ONIC/SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000815	

Triple-offset butterfly valves

TRIODIS 150

	PN [bar] or Class DN T [°C]	max. 20 150 80 - 1200 -196 to +260	Description: Triple-offset butterfly valve, metal-seated (fire-safe), glandless, maintenance- free, with lever or manual gearbox, pneumatic, electric or hydraulic actuator. Body made of steel or stainless steel, full-lug body (T4) or flanged body (T7) with flat or raised faces, body with butt weld ends (BWSE). Body types T4 and T7 can be used for dead-end service. Connections to EN, ASME and JIS. Connections to ASME: Schedule 105, 10, STD and X5 to NP5 for valves with butt weld ends (other connections on request). Fugitive emissions performance tested and certified to EN ISO 15848-1. Certified to German TA-Luft Technical Guidelines on Air Quality Control. Fire-safe design tested and approved to BS 6775 Part 2. ATEX-compliant in accordance with Directive 94/9/EC. In compliance with NACE MR0175 / ISO 15156 and MR 0103. Applications: Natural gas liquefaction. All liquefied gases. Heat transfer fluids, oil, gas, petrochemical industry, tank farms, refineries, onshore and offshore plants.	
e, m, h, p + AMTROBOX/A	MTRONIC/SMART	RONIC	http://shop.ksb.com/catalog/k0/en/product/ES000816	

TRIODIS 300

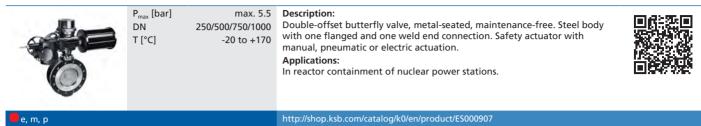
	PN [bar] or Class DN T [°C]	max. 50 300 80 - 1200 -196 to +260	Description: Triple-offset butterfly valve, metal-seated (fire-safe), glandless, maintenance- free, with lever or manual gearbox, pneumatic, electric or hydraulic actuator. Body made of steel or stainless steel, full-lug body (T4) or flanged body (T7) with flat or raised faces, body with butt weld ends (BWSE). Body types T4 and T7 can be used for dead-end service. Connections to EN, ASME and JIS. Connections to ASME: Schedule 40S and STD to NPS for valves with butt weld ends (other connections on request). Fugitive emissions performance tested and certified to EN ISO 15848-1. Certified to German TA-Luft Technical Guidelines on Air Quality Control. Fire-safe design tested and approved to ISO 10497. ATEX-compliant in accordance with Directive 94/9/EC. In compliance with NACE MR0175 / ISO 15156 and MR 0103. Applications: Natural gas liquefaction. All liquefied gases. Heat transfer fluids, aggressive fluids, oil, gas, petrochemical industry, tank farms, refineries, onshore and offshore plants.	
m, p + AMTROBOX/AMTR	ONIC/SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000817	

TRIODIS 600

Ö	PN [bar] or Class DN T [°C]	max. 100 600 150 - 1000 -196 to +260	Description: Triple-offset butterfly valve, metal-seated (fire-safe), glandless, maintenance- free, with lever or manual gearbox, pneumatic, electric or hydraulic actuator. Body made of steel or stainless steel, full-lug body (T4) or flanged body (T7) with flat or raised faces. Body types T4 and T7 can be used for dead-end service. Connections to EN, ASME and JIS (other connections on request). Fugitive emissions performance tested and certified to EN ISO 15848-1. Certified to German TA-Luft Technical Guidelines on Air Quality Control. Fire- safe design tested and approved to ISO 10497. ATEX-compliant in accordance with Directive 94/9/EC. In compliance with NACE MR0175 / ISO 15156 and MR 0103. Applications: Natural gas liquefaction. All liquefied gases. Heat transfer fluids, aggressive fluids, oil, gas, petrochemical industry, tank farms, refineries, onshore and offshore plants.	
m, p + AMTROBOX/AMTR	ONIC/SMARTRON	lic	http://shop.ksb.com/catalog/k0/en/product/ES000818	

Butterfly valves for nuclear applications

CLOSSIA



Single-piece ball valves

MP-CI/MP-II

	PN DN T [°C]	16 15 - 150 -10 to +200	Description: Ball valve to DIN/EN with wafer-type body made of Kanigen-treated carbon steel (MP/CI) or stainless steel (MP/II), stainless steel ball, PTFE/graphite seat. Applications: Irrigation and fire-fighting systems, domestic water supply, air-conditioning systems, cooling circuits, water supply systems.	
m, p + AMTROBOX/AM	TRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000625	

PROFIN-VT1

Ex	PN DN T [°C]	40 8 - 50 -10 to +150	Description: Ball valve to ANSI/ASME with threaded ends (BSP), single-piece body, reduced bore, solid ball, blowout-proof stem, body made of stainless steel. Applications: In spray irrigation systems, general irrigation systems, fire-fighting systems, air- conditioning systems, paint shops, snow-making systems, washing plants, water supply systems, mining, pressure boosting, chemical industry, process engineering, paper and pulp industry, domestic water supply, heating, ventilation and air-conditioning applications. For cleaning agents, condensate, cooling water, corrosive fluids, drinking water, fire-fighting water, lubricants, oil, river water, seawater, groundwater, service water, wash water and solvents.	
m m			http://shop.ksb.com/catalog/k0/en/product/ES000894	

Two-piece ball valves

ECOLINE BLT 150-300

	Class DN T [°C]	150 / 300 15 - 300 -10 to +200	Description: Ball valve to ANSI/ASME with flanged ends, two-piece body, full bore, floating ball, plastomer sealing (also in fire-safe design). Applications: General industry, power stations, chemical industry, petrochemical industry and all related branches of industry, paper industry, food industry and pharmaceutical industry.	
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000795	

valves

PROFIN-VT2L

	PN DN T [°C]	40 8 - 80 -10 to +150	Description: Ball valve to ANSI/ASME with threaded ends (BSP), two-piece body, full bore, solid ball, anti-static design, blowout-proof stem, body made of stainless steel. Applications: In spray irrigation systems, general irrigation systems, fire-fighting systems, air- conditioning systems, paint shops, snow-making systems, washing plants, water supply systems, mining, pressure boosting, chemical industry, process engineering, paper and pulp industry, domestic water supply, heating, ventilation and air-conditioning applications. For cleaning agents, condensate, cooling water, corrosive fluids, drinking water, fire-fighting water, lubricants, oil, river water, seawater, groundwater, service water, wash water and solvents.	
l e e m			http://shop.ksb.com/catalog/k0/en/product/ES000894	

Three-piece ball valves

ECOLINE BLC 1000

KSB	Class DN T [°C]	1000 WOG 8 - 100 -10 to +200	Description: Ball valve to ANSI/ASME with threaded ends (NPT), butt weld or socket weld ends, three-piece body, full bore, floating ball. Plastomer sealing (also in fire- safe design). Applications: General industry, power stations, chemical industry, petrochemical industry and all related branches of industry, paper industry, food industry and pharmaceutical industry.	
— m, p			http://shop.ksb.com/catalog/k0/en/product/ES000794	

PROFIN-SI3FIT/-SI3IT/-SI3LIT

	PN 16/40 DN 15 - 100 T [°C] -10 to +150	Description: Ball valve to ANSI/ASME with flanged ends, threaded ends (BSP) or long butt weld ends, three-piece body, full bore, solid ball, top flange to ISO 5211, anti- static design, blowout-proof stem, spring-loaded stem seal, body made of stainless steel. Applications: In spray irrigation systems, general irrigation systems, fire-fighting systems, air- conditioning systems, paint shops, snow-making systems, washing plants, water supply systems, mining, pressure boosting, chemical industry, process engineering, paper and pulp industry, domestic water supply, heating, ventilation and air-conditioning applications. For cleaning agents, condensate, cooling water, corrosive fluids, drinking water, fire-fighting water, lubricants, oil, river water, seawater, groundwater, service water, wash water and solvents.	
🛛 📕 m, p		http://shop.ksb.com/catalog/k0/en/product/ES000893	

PROFIN-VT3/-VT3L/-VT3F/-VT33L

	PN DN T [°C]	16/40 8 - 100 -10 to +150	 Description: Ball valve to ANSI/ASME with flanged ends, threaded ends (BSP) or long butt weld ends, three-piece body, full bore, solid ball, blowout-proof stem, body made of stainless steel. Applications: In spray irrigation systems, general irrigation systems, fire-fighting systems, airconditioning systems, paint shops, snow-making systems, washing plants, water supply systems, mining, pressure boosting, chemical industry, process engineering, paper and pulp industry, domestic water supply, heating, ventilation and air-conditioning applications. For cleaning agents, condensate, cooling water, corrosive fluids, drinking water, fire-fighting water, lubricants, oil, river water, seawater, groundwater, service water, wash water and solvents. 	
m			http://shop.ksb.com/catalog/k0/en/product/ES000894	

Soft-seated diaphragm valves to DIN/EN

SISTO-KB

	PN DN T [°C]	10 15 - 200 -20 to +140	Description: Diaphragm valve to DIN/EN with flanged ends; shut-off and sealing to atmosphere by diaphragm; straight-way pattern, body with or without lining, position indicator with integrated stem protection. DN 125 to DN 200 with threaded bush. All moving parts are separated from the fluid by the diaphragm. Maintenance-free. Applications: In building services, industrial plants, power stations; suitable for abrasive and aggressive products such as service water, waste water, acids, alkaline solutions, sludges and suspensions.	
e , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000314	

SISTO-KBS

	PN DN T [°C]	10 15 - 200 -20 to +140	Description: Diaphragm valve to DIN/EN with flanged ends, short face-to-face length; shut- off and sealing to atmosphere by diaphragm; straight-way pattern, body with or without lining, position indicator with integrated stem protection. DN 125 to DN 200 with threaded bush. All moving parts are separated from the fluid by the diaphragm. Maintenance-free. Applications: In building services, industrial plants, power stations; suitable for abrasive and aggressive products such as service water, waste water, acids, alkaline solutions, sludges and suspensions.	
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000526	

SISTO-10

	PN DN T [°C]	10 15 - 300 -20 to +160	Description: Diaphragm valve to DIN/EN with flanged ends; shut-off and sealing to atmosphere by spiral-supported diaphragm (DN 65 and above); body with or without lining, position indicator with integrated stem protection. All moving parts are separated from the fluid by the diaphragm. Maintenance-free. Applications: In industrial and chemical plants, in process engineering. Suitable for service water, air, oil, abrasive and aggressive fluids.	
📕 e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000315	

SISTO-10M

	PN DN T [°C]	10 15 - 80 -10 to +140	Description: Diaphragm valve to DIN/EN with threaded sockets; shut-off and sealing to atmosphere by spiral-supported diaphragm (DN 65 and above); position indicator with integrated stem protection. All moving parts are separated from the fluid by the diaphragm. Maintenance-free. Applications: In industrial and chemical plants, in process engineering. Suitable for service water, air, oil, abrasive and aggressive fluids.	
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000513	

SISTO-16

	PN DN T [°C]	16 15 - 200 -10 to +160	Description: Diaphragm valve to DIN/EN with flanged ends; shut-off and sealing to atmosphere by completely enclosed spiral-supported diaphragm; body with or without lining, position indicator with integrated stem protection. All moving parts are separated from the fluid by the diaphragm. Maintenance-free. Applications: In building services, industrial plants and power stations; suitable for drinking water, service water, air, oil, technical gases; from fluids handled in the food and beverages industry to abrasive and aggressive products in chemical and process engineering.	
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000316	

SISTO-16S

	PN 16 DN 15 - 200 T [°C] -20 to +160	Diaphragm valve to DIN/EN with flanged ends, short face-to-face length; shut-	
🛑 e, m, p		http://shop.ksb.com/catalog/k0/en/product/ES000514	

SISTO-16RGA

STO	PN 16 DN 15 - 80 T [°C] -10 to +90	Description: Diaphragm valve to DIN/EN with gunmetal body and threaded sockets for drinking water installations in building services to DIN 1988, DIN-DVGW- approved for water acc. to test W 270, in compliance with KTW recommendations (use of elastomers in drinking water applications); shut-off and sealing to atmosphere by completely enclosed diaphragm; position indicator with integrated stem protection. All moving parts are separated from the fluid by the diaphragm. Maintenance-free. Applications: Drinking water, particularly drinking water installations to DIN 1988, seawater, all service water qualities.	
m		http://shop.ksb.com/catalog/k0/en/product/ES000319	

SISTO-16TWA/HWA/DLU

	PN 16 DN 15 - 200 T [°C] -10 to +140	Diaphragm valve to DIN/EN with flanged ends, for drinking water installations
📕 e, m, p		http://shop.ksb.com/catalog/k0/en/product/ES000318

SISTO-20

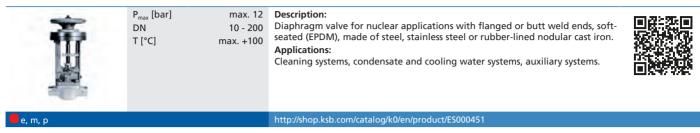
0	PN DN T [°C]	16 15 - 200 -20 to +160	Description: Diaphragm valve to DIN/EN with flanged ends; shut-off and sealing to atmosphere by completely enclosed spiral-supported diaphragm; body with or without lining, position indicator with integrated stem protection. All moving parts are separated from the fluid by the diaphragm. Maintenance-free. Applications: In building services, industrial plants and power stations; suitable for drinking water, service water, air, oil, technical gases; from fluids handled in the food and beverages industry to abrasive and aggressive products in chemical and process engineering.	
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000317	

SISTO-C

	PN DN T [°C]	16 6 - 100 -10 to +160	Description: Diaphragm valve with butt weld ends or clamps; in straight-way, Y or T pattern, or as a multi-port valve; shut-off and sealing to atmosphere by completely enclosed diaphragm. No dead volumes, suitable for sterilisation, SIP/CIP-compliant design, visual position indicator. All moving parts are separated from the fluid by the diaphragm. Maintenance-free. Applications: Biotechnology, pharmaceutical industry, sterile processes, food and beverages industry.	
<mark>, e</mark> m, p			http://shop.ksb.com/catalog/k0/en/product/ES000320	

Diaphragm valves for nuclear applications

MXN



SISTO-20NA

	PN DN T [°C]	20 8 - 150 max. +100	Description: Diaphragm valve for nuclear applications, with butt weld ends; shut-off and sealing to atmosphere by completely enclosed spiral-supported diaphragm. All moving parts are separated from the fluid by the diaphragm. Maintenance-free. Applications: Cleaning systems, condensate and cooling water systems, waste water systems, auxiliary systems.	
📕 e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000840	

SISTO-DrainNA

	PN DN T [°C]	16 15 - 25 max. +100	 Description: Diaphragm valve for nuclear applications, with butt weld ends; shut-off and sealing to atmosphere by completely enclosed spiral-supported diaphragm. All moving parts are separated from the fluid by the diaphragm. Maintenancefree. Applications: Heating systems, air-conditioning systems, auxiliary systems.
m			http://shop.ksb.com/catalog/k0/en/product/ES000841

Feed water bypass valves

ZJSVM/RJSVM

	PN DN T [°C]	Approx. 600 bar 100 - 800 -10 to +450	Description: Feed water bypass valve to DIN/EN with butt weld ends, pressure seal design, billet-forged body, Z or T pattern, seat/disc interface made of wear and corrosion resistant Stellite, controlled by process fluid. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.
e, m, p			

Line blind valves

VTS



Approx. 600 bar
200 - 500
-10 to +650

Description: Line blind valve to DIN/EN with butt weld ends, pressure seal design, billet forged body, seat/disc interface made of wear and corrosion resistant Stellite. **Applications:** In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.



Expansion and anti-vibration joints

PN

DN

T [°C]

ECOLINE GE1/GE2/GE3

PN DN T [°C]	16 15 - 300 -10 to +105	Description: Expansion joint to DIN/EN with flanged or threaded ends, made of EPDM elastomer or NBR, flanges made of nickel-coated carbon steel. Applications: Irrigation, domestic water supply, air-conditioning systems, cooling circuits, food and beverages industry, water treatment, water supply.	
		http://shop.ksb.com/catalog/k0/en/product/ES000687	

http://shop.ksb.com/catalog/k0/en/product/ES000425

ECOLINE GE4

PN DN T [°C]	16 20 - 200 -10 to +100	Description: Anti-vibration joint to DIN/EN, body made of EPDM, flanges to EN standards. Applications: Irrigation, domestic water supply, air-conditioning systems, cooling circuits, food and beverages industry, water treatment, water supply.	
		http://shop.ksb.com/catalog/k0/en/product/ES000681	

Levers

CR/CM

T [°C]	-20 to +80	Description: Lever made of ductile iron, type CR: locks in 10 positions (open, closed and 8 evenly spaced intermediate positions) and type CM: same as CR, with special coating. Applications: All applications in building services, water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000501	

S/SR/SP

T [°C] -20 to	 Bescription: Lever made of light metal alloy; type S: locks in limit positions (open and closed), type SR: locks in 9 positions (open, closed and 7 evenly spaced intermediate positions), type SP: locks in any position. Applications: All applications in water, energy and industrial engineering.
	http://shop.ksb.com/catalog/k0/en/product/ES000501

Manual gearboxes

MA



MN

Output torque [Nm] max. 800 Enclosure IP6 T [°C] -40 to +120	Manual actuators for operating quarter-turn valves. MN range
	http://shap.ksh.com/catalog/k0/en/product/ES000503

MR

Output torque [Nm] max. 16,00 Enclosure IP67/IP4 T [°C] -50 to +8	8 Heavy-duty manual actuators for operating quarter-turn valves.
	http://shop.ksb.com/catalog/k0/en/product/ES000502

Electric actuators

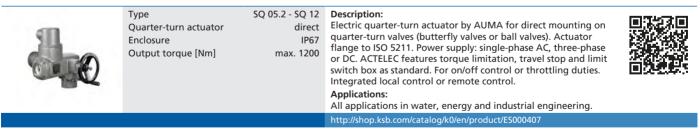
ACTELEC quarter-turn actuator (BERNARD CONTROLS, EZ and SQ type series)

Type Quarter-turn actuator Enclosure Output torque [Nm]	EZ4 - SQ120 direct IP67 max. 1000	Description: Electric quarter-turn actuator by BERNARD CONTROLS for direct mounting on quarter-turn valves (butterfly valves or ball valves). Actuator flange to ISO 5211. Power supply: single-phase AC, three-phase or DC. ACTELEC features torque limitation, travel stop and limit switch box as standard. For on/off control or throttling duties. Integrated local control or remote control. Applications: All applications in water, energy and industrial engineering.	
		http://shap.ksh.com/catalog/k0/ep/product/ES000407	

ACTELEC quarter-turn actuator (BERNARD CONTROLS, LE type series)

Type Quarter-turn actuator Enclosure Output torque [Nm]	LEA/LEB direct IP65 max. 100	Description: Electric quarter-turn LE series actuator by BERNARD CONTROLS for direct mounting on quarter-turn valves (butterfly valves or ball valves). Actuator flange to ISO 5211. Power supply: single- phase AC. ACTELEC features torque limitation, travel stop and limit switch box as standard. For on/off control. Integrated local control or remote control. Applications: All applications in water engineering, building services, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000407	

ACTELEC quarter-turn actuator (AUMA, SQ type series)



ACTELEC multi-turn actuator (BERNARD CONTROLS)

Type Multi-turn actuator Enclosure Output torque [Nm]	31 - 800 IP67 max. 8000	Description: Electric multi-turn actuator by BERNARD CONTROLS with MR manual gearbox for direct mounting on butterfly valves or ball valves. Actuator flange to ISO 5211. Power supply: single-phase AC, three-phase or DC. ACTELEC features torque limitation, travel stop and limit switch box as standard. For on/off control or throttling duties. Integrated local control or remote control. Applications: All applications in water, energy and industrial engineering.	
		http://shop.ksh.com/catalog/k0/en/product/ES000407	

ACTELEC multi-turn actuator (AUMA)

Multi-turn actuator Enclosure	31 - 1600 IP67 x. 16,000	Description: Electric multi-turn actuator by AUMA with MR manual gearbox for direct mounting on quarter-turn valves (butterfly valves or ball valves). Actuator flange to ISO 5211. Power supply: single- phase AC, three-phase or DC. ACTELEC features torque limitation, travel stop and limit switch box as standard. For on/ off control or throttling duties. Integrated local control or remote control. Applications: All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000407	

SISTO-LAE

Type Multi-turn actuator Enclosure Output torque [Nm]	AUMA IP67 max. 250	Description: Multi-turn actuators for valves with rising stem, max. closing force 60,000 N, configurable as a function of flow characteristics and valve travel; open/closed position feedback; factory- mounted. Applications: Building services, industry, power stations, food industry, chemical industry.	
		http://shop.ksb.com/catalog/k0/en/product/ES000405	

Hydraulic actuators

ΑСТО

Output torque [Nm] Enclosure T [°C]	max. 125,000 IP68 -20 to +80	Description: Double-acting hydraulic actuator for mounting on quarter-turn valves (butterfly valves or ball valves). Actuator flange to ISO 5211. Control pressure up to 120 bar. Mounts on valve stems with square end, flat end or key. Force transmission via rack-and-pinion, scotch-yoke or patented AMRI yoke kinematics provides output torques of up to 125,000 Nm which are ideal for actuating quarter-turn valves. ACTO is equipped with a visual position indicator and adjustable travel stops for open/closed position as standard. Manual override can be provided as an option. The following accessories are available for hydraulic control: shut-off valve, hydraulic locking, emergency shutdown (ESD). Can be combined with all AMTROBOX limit switch boxes. Applications: All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000414	

DYNACTO

Output torque [Nm] Enclosure T [°C]	max. 4000 IP68 -20 to +80	Description: Single-acting hydraulic actuator for mounting on quarter-turn valves (butterfly valves or ball valves). Actuator flange to ISO 5211. Control pressure up to 120 bar. Mounts on valve stems with square end, flat end or key. Force transmission via rack-and- pinion, scotch-yoke or patented AMRI yoke kinematics provides output torques of up to 4000 Nm which are ideal for actuating quarter-turn valves. Reset to fail-safe position is effected by means of spring assemblies if control fluid supply is interrupted. DYNACTO is equipped with a visual position indicator and adjustable travel stops for open/closed position as standard. Manual override can be provided up to DYNACTO 100 on request. The following accessories are available for hydraulic control: shut-off valve, hydraulic locking, emergency shutdown (ESD), hydraulic hand pump. Can be combined with all AMTROBOX limit switch boxes. Applications: All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000415	

Not available for worldwide sale EActuator type / Automation

ENNACTO

Output torque [Nm] Enclosure T [°C]	max. 16,000 IP68 -20 to +65	Description: Single-acting hydraulic actuator for mounting on quarter-turn valves (butterfly valves or ball valves). Actuator flange to ISO 5211. Control pressure up to 120 bar. Mounts on valve stems with square end, flat end or key. Force transmission via rack-and-pinion, scotch-yoke or patented AMRI yoke kinematics provides output torques of up to 16,000 Nm which are ideal for actuating quarter-turn valves. Reset to fail-safe position is effected by means of a pressurised nitrogen cartridge if control fluid supply is interrupted. ENNACTO is equipped with a visual position indicator and adjustable travel stops for open/closed position as standard. The following accessories are available for hydraulic control: hydraulic hand pump. Can be combined with all AMTROBOX limit switch boxes. All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000509	

Pneumatic actuators

ACTAIR

	Output torque [Nm] at a control pressure of 6 bar Enclosure T [°C]	max. 17,600 IP67 -20 to +80	Description: Double-acting pneumatic actuator for mounting on quarter-turn valves (butterfly valves or ball valves). Actuator flange to ISO 5211. Control pressure up to 8 bar. Mounts on valve stems with square end, flat end or key. Force transmission via rack-and- pinion, scotch-yoke or patented AMRI yoke kinematics provides output torques of up to 16,000 Nm which are ideal for actuating quarter-turn valves. ACTAIR is equipped with a visual position indicator and adjustable travel stops for open/closed position as standard. Manual override can be provided as an option. ACTAIR can be combined with control unit types AMTROBOX, AMTRONIC, SMARTRONIC or any other device with a VDI/VDE 3845 interface. Applications: All applications in water, energy and industrial engineering.	
AMTROBOX, AMTRONIC, S	SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000411	

ACTAIR-B

	Output torque [Nm] at a control pressure of 6 bar Enclosure T [°C]	max. 400 IP67 -20 to +80	Description: Double-acting pneumatic scotch-yoke actuator for mounting on BOAX-B DN 50-300. Visual position indicator and travel stop for closed position as standard. ACTAIR B can be combined with control unit types AMTROBOX, AMTRONIC, SMARTRONIC or any other device with a VDI/VDE 3845 interface. Applications: Water, general industry.	
AMTRONIC, SMARTRONIC	AMTROBOX C		http://shop.ksb.com/catalog/k0/en/product/ES000411	

DYNACTAIR

	Output torque [Nm] at a control pressure of 6 bar Enclosure T [°C]	max. 8800 IP65 -20 to +80	Description: Single-acting pneumatic actuator for mounting on quarter-turn valves (butterfly valves or ball valves). Actuator flange to ISO 5211. Control pressure up to 8 bar. Mounts on valve stems with square end, flat end or key. Force transmission via rack-and-pinion, scotch-yoke or patented AMRI yoke kinematics provides output torques of up to 8800 Nm which are ideal for actuating quarter-turn valves. Reset to fail-safe position is effected by means of spring assemblies if control air supply is interrupted. DYNACTAIR is equipped with a visual position indicator and adjustable travel stops for open/closed position as standard. Manual override can be provided up to DYNACTAIR 100 on request. DYNACTAIR can be combined with control unit types AMTROBOX, AMTRONIC, SMARTRONIC or any other device with a VDI/VDE 3845 interface.	
AMTROBOX, AMTRONIC, S	SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000412	

DYNACTAIR-B

	Output torque [Nm] at a control pressure of 6 bar Enclosure T [°C]	max. 400 IP67 -20 to +80	Description: Single-acting pneumatic scotch-yoke actuator for mounting on BOAX-B DN 40-300. Visual position indicator and travel stop for closed position as standard. DYNACTAIR can be combined with control unit types AMTROBOX, AMTRONIC, SMARTRONIC or any other device with a VDI/VDE 3845 interface. Applications: Water, general industry.	
AMTRONIC, SMARTRONIC,	, AMTROBOX C		http://shop.ksb.com/catalog/k0/en/product/ES000412	

SISTO-LAD

4	Control air pressure [bar] Closing force [N]	max. 6 max. 20,000	Description: Diaphragm actuator in compact design for mounting on valves with a linear stem movement (globe, diaphragm and gate valves). Available in single-acting spring-to-close or spring-to- open design, or double-acting air-to-open/air-to-close design; suitable for mounting limit switches or positioners to suit customer requirements, factory-mounted. Settings are adjusted during factory test run. Applications: In building services, industrial plants, power stations; suitable for abrasive and aggressive products such as service water, waste water, acids, alkaline solutions, sludges and suspensions.	
			http://shop.ksb.com/catalog/k0/en/product/ES000805	

SISTO-LAP

Control air pressure [bar] Closing force [N]	max. 10 max. 250,000	Description: Piston actuator in heavy-duty design for industrial use on valves with a linear stem movement (globe, diaphragm and gate valves). Mounting flange to DIN/ISO 5210, available in single- acting spring-to-close or spring-to-open design, or double-acting air-to-open/air-to-close design; suitable for mounting limit switches or positioners to suit customer requirements, factory- mounted. Settings are adjusted during factory test run. Applications: In building services, industrial plants, power stations, the food and beverages industries and the chemical industry. The pneumatic actuators can also be used in potentially explosive atmospheres.	
		http://shop.ksb.com/catalog/k0/en/product/ES000409	

SISTO-C LAP

Control air pressure [bar] Closing force [N]	max. 10 max. 20,000	Description: Piston actuator in high-grade stainless steel design for use on SISTO-C diaphragm valves. Available in single-acting spring-to- close or spring-to-open design, or double-acting air-to-open/air- to-close design; suitable for mounting limit switches or positioners to suit customer requirements, factory-mounted. Settings are adjusted during factory test run. Applications: Biotechnology, pharmaceutical industry, sterile processes, food and beverages industry.	
		http://shop.ksb.com/catalog/k0/en/product/ES000320	

Actuator accessories

RMD

O	Enclosure T [°C]	IP65 -20 to +80	Description: ACTAIR 3 to 1600 double-acting pneumatic actuators, DYNACTAIR 1,5 to 100 single-acting pneumatic actuators, ACTO 25 to 1600 double-acting hydraulic actuators and DYNACTO 12 to 100 single-acting hydraulic actuators can be fitted with a manual override using a declutchable gear operator with handwheel. The manual override is fitted between the valve and the actuator. The manual override has priority over the pneumatic or hydraulic actuator and is locked either in clutched or declutched position using the locking device. Applications: All applications in water, energy and industrial engineering.	
			http://shop.ksb.com/catalog/k0/en/product/ES000906	

DUALIS

DN T [°C]	500 - 1400 -10 to +65	Description: Single-acting, hydraulically controlled counterweight actuator. Controlled by integrated hydraulic power unit. For mounting on valves with DN 500 to 1400. Applications: Installation in pump discharge lines in pumping stations. Power station cooling circuits. Protects pipes and turbines.	
		http://shop.ksb.com/catalog/k0/en/product/ES000905	

Monitoring

AMTROBOX

Enclosure T [°C]	IP67 -20 to +80	Description: Multi-functional AMTROBOX limit switch box. For open/closed position signalling via mechanical limit switches or proximity sensors. AMTROBOX (R1149) mounts on MR manual gearboxes, ACTAIR pneumatic actuators and ACTO hydraulic actuators. Applications: All applications in water engineering, building services and energy engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

AMTROBOX EEx ia

Enclosure T [°C]	IP67 20 to +80	Description: Multi-functional AMTROBOX limit switch box. For open/closed position signalling via mechanical limit switches or proximity sensors. AMTROBOX EEx ia (R1172): intrinsically safe version for potentially explosive atmospheres. Applications: All applications in water engineering, building services and energy engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

AMTROBOX ATEX Zone 22

Enclosure T [°C]	IP67 -10 to +60	Description: Multi-functional AMTROBOX limit switch box. For open/closed position signalling via mechanical limit switches or proximity sensors. AMTROBOX ATEX (X1140, X1149): ATEX version for potentially explosive dust atmospheres (Zone 22). Applications: All applications in water engineering, building services and energy engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

AMTROBOX C

Enclosure T [°C]	IP65 -20 to +80	Description: Cost-effective solution for open/closed position signalling via mechanical limit switches. AMTROBOX C (RA01290) mounts on ACTAIR/ACTAIR-B pneumatic actuators, MR manual gearboxes to VDI/VDE and BOAX-B Mat P. Applications: All applications in water engineering, building services and energy engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

AMTROBOX M

Enclosure T [°C]	IP65 -20 to +80	signalling via mechanical limit switches or proximity sensors. AMTROBOX M mounts on the S series of quarter-turn levers (R1020) and manual gearbox types MA 12 and MA 25 (R1021). Applications: All applications in water engineering, building services and energy engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

AMTROBOX R

Enclosure T [°C]	IP68 -20 to +70	Description: Sturdy and multi-functional. For open/closed position signalling via mechanical limit switches or proximity sensors. AMTROBOX R (R1187) mounts on MR manual gearboxes, ACTAIR pneumatic actuators and ACTO hydraulic actuators and all actuators with a VDI/VDE interface. Applications: All applications in water engineering, energy engineering, offshore and heavy industry.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

AMTROBOX R EEx ia

Enclosure T [°C] -2	IP68 25 to +80	Description: Sturdy and multi-functional. For open/closed position signalling via mechanical limit switches or proximity sensors. AMTROBOX R EEx ia (R1188): intrinsically safe version for explosive atmospheres (Zones 0 + 20). Applications: All applications in water engineering, energy engineering, offshore and heavy industry.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

AMTROBOX R Ex d

Enclosure T [°C]	IP68 -25 to +80	Description: Sturdy and multi-functional. For open/closed position signalling via mechanical limit switches or proximity sensors. AMTROBOX R Exd (R1189): intrinsically safe version for potentially explosive atmospheres. Applications: All applications in water engineering, energy engineering, offshore and heavy industry.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

AMTROBOX S

Enclosure T [°C]	IP65/IP67 -20 to +80	Description: Robust control unit with manual override for pneumatic actuators (max. 250 Nm). For open/closed position signalling via mechanical limit switches. AMTROBOX S mounts on ACTAIR pneumatic actuators and ACTO hydraulic actuators. Applications: All applications in water engineering, building services and energy engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

ON/OFF valve controllers

AMTRONIC

http://shop.ksb.com/catalog/k0/en/product/ES000462
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AMTRONIC Ex ia

Enclosure Control air pressure [bar] T [°C]	IP67 3 to 8 -25 to +80	Description: AMTRONIC Ex ia (R1301) is an on/off valve controller suitable for mounting on ACTAIR/DYNACTAIR pneumatic actuators with direct compressed air supply, or on any type of quarter-turn actuator with a VDI/VDE 3845 interface and linear actuators with a NAMUR interface. It offers position indication and compressed air supply, providing a rugged, compact and integrated solution. Owing to its intrinsically safe design, AMTRONIC Ex ia can be operated in potentially explosive atmospheres. It complies with ATEX directive 94/9/EC and is marked to CE 0081 Ex II 1 G. The unit is certified to EEx ia IIC T6 as per the EN 50014 and EN 50020 standards. Applications: All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000462	

Positioners

SMARTRONIC MA

Enclosure Control air pressure [bar] T [°C]	IP67 2 to 7 -20 to +80	Description: SMARTRONIC MA (R1310) is a digital electro-pneumatic positioner powered via the 4-20 mA signal. It is suitable for mounting on ACTAIR/DYNACTAIR actuators with direct compressed air supply, or on any type of quarter-turn actuator with VDI/VDE 3845 interface and linear actuators with NAMUR interface. SMARTRONIC MA reduces investment, commissioning and operating costs as the unit consumes no air while idle. Applications: All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000461	

SMARTRONIC AS-i

Enclosure Control air pressure [bar] T [°C]	IP67 3 to 8 -20 to +80	Description: SMARTRONIC AS-i (R1310) is a digital electro-pneumatic positioner for connection to an AS-i field bus. It is certified by AS International and suitable for mounting on ACTAIR/DYNACTAIR actuators with direct compressed air supply, or on any type of quarter-turn actuator with VDI/VDE 3845 interface and linear actuators with NAMUR interface. Applications: All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000874	

Intelligent positioners

SMARTRONIC PC

Enclosure Control air pressure [bar] T [°C]	IP67 3 to 8 -20 to +80	Description: SMARTRONIC PC (R1312) is an intelligent, compact and innovative positioner. The integrated control offered by this multi-functional unit represents the latest in open-loop and closed-loop control technology for valves. The unit attaches directly to ACTAIR or DYNACTAIR actuators with no need for a bracket or external piping, providing a rugged, compact and integrated solution. SMARTRONIC PC offers four functions: programmable curves for valve opening and closing, intelligent positioning, process monitoring and control. SMARTRONIC PC is PC programmable and can be connected to a Profibus DP field bus. Applications: All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000873	



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