

# **Product Portfolio 2017**

# Valves I Actuators I Automation

# **Type Series Index**

ACTAIR	63	ECOLINE GTC 150-600	37	SISTO-LAE	62
ACTAIR NG	63	ECOLINE GTF 150-600	38	SISTO-LAP	64
ACTELEC (AUMA)	62	ECOLINE GTF 800-2500	38	SISTO-RSK/RSKS	45
ACTELEC (BERNARD CONTROLS)	62	ECOLINE GTV 150-300	38	SISTO-RSKNA	47
	37		42		35
AKG-A/AKGS-A		ECOLINE PTF 150-600 ECOLINE PTF 800-2500	42	SISTO-VentNA	
AKR/AKRS	44			SMARTRONIC AS-i	68
AMTROBOX	66	ECOLINE SCC 150-600	45	SMARTRONIC MA	68
AMTROBOX ATEX Zone 22	66	ECOLINE SCF 150-600	46	SMARTRONIC PC	68
AMTROBOX C	66	ECOLINE SCF 800-2500	46	STAAL 100 AKD/AKDS	37
AMTROBOX EEx ia	66	ECOLINE SCV 150-300	46	STAAL 100 AKK/AKKS	44
AMTROBOX M	66	ECOLINE SP/SO	36	STAAL 40 AKD/AKDS	36
AMTROBOX R	67	ECOLINE VA 16	28	STAAL 40 AKK/AKKS	44
AMTROBOX R EEx ia	67	ECOLINE WT/WTI	44		
AMTROBOX R Ex d	67			TRIODIS 150	53
AMTRONIC	67	HERA-BD	40	TRIODIS 300	54
APORIS-DEB02	52	HERA-BDS	40	TRIODIS 600	54
		HERA-BHT	40		
BOACHEM-FSA	48	HERA-SH	40	UGS	39
BOACHEM-RXA	42	HQ	62		
BOACHEM-ZXA	28		02	WADA GL 150	30
BOACHEM-ZXAB	26	ISORIA 10/16	51	WADA GT 150	39
BOA-Compact	24	ISORIA 20 UL	51	WADA SC 150	43
BOA-Compact EKB	24	ISORIA 20/25	51	WADA SC 150	43
BOA-Control SAR	33	130KIA 20/23	21	WADA 3C 150	47
			50	7101/04/01010	50
BOA-Control/BOA-Control IMS	33	KE ELASTOMER	52	ZJSVM/RJSVM	59
BOA-CVE C/CS/W/IMS/EKB	32	KE PLASTOMER	52	ZRN	47
BOA-CVE H	32			ZRS	45
BOA-CVP H	32	MAMMOUTH	52	ZTN	39
BOA-H	25	MN	61	ZTS	37
BOA-H Mat E	31	MP-CI/MP-II	55	ZXNB	30
BOA-H Mat P	31	MR	61	ZXNVB	30
BOA-H/HE/HV/HEV	25			ZYNB/ZYN	30
BOA-R	41	NORI 160 RXL/RXS	42		
BOA-RFV	41	NORI 160 ZXL/ZXS	27		
BOA-RPL	41	NORI 160 ZXLF/ZXSF	27		
BOA-RVK	41	NORI 320 ZXSV	27		
BOA-S	48	NORI 40 FSL/FSS	48		
BOA-SuperCompact	24	NORI 40 RXL/RXS	41		
BOA-Systronic	31	NORI 40 ZXL/ZXS	27		
BOAVENT-AVF	34	NORI 40 ZXLB/ZXSB	25		
BOAVENT-SIF	34		25		
	35	NORI 40 ZXLBV/ZXSBV			
BOAVENT-SVA	35	NORI 40 ZXLF/ZXSF	27		
BOAVENT-SVF		NORI 40 ZYLB/ZYSB	26		
BOA-W	24	NORI 500 ZXSV	28		
BOAX-B	50	NUCA/-A/-ES, Type V	43		
BOAX-B APSAD	50	NUCA/-A/-ES, Types I, II, IV	30		
BOAX-B DVGW	50				
BOAX-B FM	51	PROFIN-SI3FIT/-SI3IT/-SI3LIT	56		
BOAX-B Gaz	50	PROFIN-VT1	55		
BOAX-CBV13	49	PROFIN-VT2L	56		
BOAX-S/SF	49	PROFIN-VT3/-VT3L/-VT3F/-VT33L	56		
BOAX-S/SF Gaz	49				
		RGS	42		
CLOSSIA	54	RJN	43		
COBRA-SCBS	44	RMD	65		
COBRA-SGP/SGO/SGF	36	RYN	43		
COBRA-SMP	36				
COBRA-TDC01/03	47	S/SR/SP	61		
CONDA-VLC	33	SERIE 2000	45		
CONDA-VRC	34	SICCA 150-600 GLC	29		
CONDA-VSM	34	SICCA 150-600 GTC	38		
CR/CM	61	SICCA 150-600 SCC	46		
		SICCA 800-1500 GTF	39		
DANAÏS 150	53	SICCA 800-4500 GLF	29		
DANAIS ISU DANAIS MTII	53	SICCA 800-4500 PCF	43		
DANAÏS TBTII	53	SICCA 900-2500 GLC	29		
DUALIS	55		38		
DYNACTAIR	63	SICCA 900-3600 GTC			
		SICCA 900-3600 SCC	46		
DYNACTAIR NG	64	SISTO-10	57		
	50	SISTO-10M	57		
ECOLINE BLC 1000	56	SISTO-16	57		
ECOLINE BLT 150-300	55	SISTO-16RGA	58		
ECOLINE FYC 150-600	48	SISTO-16S	58		
ECOLINE FYF 800	49	SISTO-16TWA/HWA/DLU	58		
ECOLINE GE1/GE2/GE3	59	SISTO-20	58		
ECOLINE GE4	60	SISTO-20NA	59		
ECOLINE GLB 150-600	26	SISTO-C	58		
ECOLINE GLB 800	26	SISTO-C LAP	64		
ECOLINE GLC 150-600	28	SISTO-DrainNA	59		
ECOLINE GLF 150-600	28	SISTO-KB	57		
ECOLINE GLF 150-600 ECOLINE GLF 800-2500		SISTO-KB SISTO-KBS	57 57		
	28				
ECOLINE GLF 800-2500	28 29	SISTO-KBS	57		
ECOLINE GLF 800-2500 ECOLINE GLV 150-300	28 29 29	SISTO-KBS SISTO-KRVNA	57 35		

# 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. And a strong one:

- 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<sup>®</sup> Total Pump Management
- Efficiency analysis with SES System Efficiency Service or Pump Operation Check
- Reverse engineering
- Inventory management
- Retrofitting as an alternative to buying a new product
- 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.



Introduction

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# 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

**SIO**®

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**

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	<ul> <li>In the Products section from page 24 the symbol in conjunction with the relevant letter indicates the actuator type(s) available.</li> <li>m = manual (lever, handwheel, etc.)</li> <li>e = electric actuator</li> <li>p = pneumatic actuator</li> <li>h = hydraulic actuator</li> </ul>
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	Automation	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport	Pharmaceuticals/ Food
Design/Application	Type series			a <		шО		Ň	٥٣
	BOA-SuperCompact	24							
Soft-seated globe valves to DIN/EN	BOA-Compact	24							
5	BOA-Compact EKB	24							
	BOA-W	24							
	BOA-H	25				-			
	BOA-H/HE/HV/HEV	25				_			
Bellows-type globe valves to DIN/EN	NORI 40 ZXLBV/ZXSBV	25				-			
	NORI 40 ZXLB/ZXSB	25				_			
	NORI 40 ZYLB/ZYSB	26				_			
	BOACHEM-ZXAB	26							
Bellows-type globe valves to ANSI/ASME	ECOLINE GLB 150-600	26							
	ECOLINE GLB 800	26							
	NORI 40 ZXL/ZXS	27							
	NORI 40 ZXLF/ZXSF	27							
	NORI 160 ZXL/ZXS	27							
Globe valves to DIN/EN with gland packing	NORI 160 ZXLF/ZXSF	27							
Clobe valves to bilively with gland packing	NORI 320 ZXSV	27							
	NORI 500 ZXSV	28							
	BOACHEM-ZXA	28							
	ECOLINE VA 16	28							
	ECOLINE GLC 150-600	28							
	ECOLINE GLF 150-600	28							
	ECOLINE GLF 800-2500	29							
Clobe value to ANSI/ASME with gland packing	ECOLINE GLV 150-300	29							
Globe valve to ANSI/ASME with gland packing	SICCA 150-600 GLC	29							
	SICCA 900-2500 GLC	29							
	SICCA 800-4500 GLF	29							
	WADA GL 150	30							
	NUCA/-A/-ES, Types I, II, IV	30							
	ZXNB	30							
Globe valves for nuclear applications	ZXNVB	30							
	ZYNB/ZYN	30							
Control systems to DIN/EN	BOA-Systronic	31							
	BOA-H Mat E	31							
Automated globe valves to DIN/EN	BOA-H Mat P	31							
	BOA-CVE C/CS/W/IMS/EKB	32							
Control valves to DIN/EN	BOA-CVE H	32							
	BOA-CVP H	32							
	BOA-Control/BOA-Control IMS	33							
Balancing and shut-off valves to DIN/EN	BOA-Control SAR	33							
Level control valves to DIN/EN	CONDA-VLC	33							
Pressure reducing valves to DIN/EN	CONDA-VRC	34							
Pressure sustaining valves to DIN/EN	CONDA-VSM	34							
-	BOAVENT-AVF	34							
	BOAVENT-SIF	34							
Air valves to DIN/EN	BOAVENT-SVA	35							
	BOAVENT-SVF	35							
	SISTO-VentNA	35		-					
Vent valves for nuclear applications							_		

Design/Application	Type series	Page	Automation	Water Transport and Treatment	Industry	Energy Conversion	<b>Building Services</b>	Solids Transport	Pharmaceuticals/ Food
	COBRA-SGP/SGO/SGF	36							
	COBRA-SMP	36							
	ECOLINE SP/SO	36							
Gate valves to DIN/EN	ECOLINE GT 40	36							
Gate valves to blivien	STAAL 40 AKD/AKDS	36							
	STAAL 100 AKD/AKDS	37							
	AKG-A/AKGS-A	37							
	ZTS	37							
	ECOLINE GTB 800	37							
	ECOLINE GTC 150-600	37							
	ECOLINE GTF 150-600	38							
	ECOLINE GTF 800-2500	38							
Gate valves to ANSI/ASME	ECOLINE GTV 150-300	38							
	SICCA 150-600 GTC	38							
	SICCA 900-3600 GTC	38							
	SICCA 800-1500 GTF	39							
	WADA GT 150	39							
Gate valves for nuclear applications	ZTN	39							
Body pressure relief valve	UGS	39							
Knife gate valves to DIN/EN	HERA-BD	40							
	HERA-BDS	40							
Knife gate valves to ANSI/ASME	HERA-BHT	40							
	HERA-SH	40							
	BOA-RPL	41							
	BOA-RFV	41							
	BOA-RVK	41							
Lift check valves to DIN/EN	BOA-R	41							
LITT CHECK VAIVES to DIN/EN	NORI 40 RXL/RXS	41							
	NORI 160 RXL/RXS	42							
	RGS	42							
	BOACHEM-RXA	42							
	ECOLINE PTF 150-600	42							
	ECOLINE PTF 800-2500	42							
Lift check valves to ANSI/ASME	SICCA 800-4500 PCF	43							
	WADA SC 150	43							
	NUCA/-A/-ES, Type V	43							
Lift check valves for nuclear applications	RJN	43							
	RYN	43							
	COBRA-SCBS	44							
	ECOLINE WT/WTI	44							
	STAAL 40 AKK/AKKS	44							
Swing check volves to DIN/EN	STAAL 100 AKK/AKKS	44							
Swing check valves to DIN/EN	AKR/AKRS	44							
	ZRS	45							
	SISTO-RSK/RSKS	45							
	SERIE 2000	45							
	ECOLINE SCC 150-600	45							
	ECOLINE SCF 150-600	46							
	ECOLINE SCF 800-2500	46							
Swing check valves to ANSI/ASME	ECOLINE SCV 150-300	46							
	SICCA 150-600 SCC	46							
	SICCA 900-3600 SCC	46							
	WADA SC 150	47							
Swing sheets where for much and the state	SISTO-RSKNA	47							
Swing check valves for nuclear applications	ZRN	47							
Tilting disc check valves to DIN/EN	COBRA-TDC01/03	47							

Design/Application	Type series	Page	Automation	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport	Pharmaceuticals/ Food
Design/Appneation			٩	2 G				s	<u>.</u>
	BOA-S	48							
Strainers to DIN/EN	NORI 40 FSL/FSS	48							
	BOACHEM-FSA	48							
Strainers to ANSI/ASME	ECOLINE FYC 150-600	48			-				
	ECOLINE FYF 800	49		_					
	BOAX-CBV13 BOAX-S/SF	49 49		_			_		
	BOAX-5/SF BOAX-S/SF Gaz	49					-		
	BOAX-S/SF Gaz BOAX-B	50					-		
	BOAX-B BOAX-B Gaz	50	_		-		-		
	BOAX-B Gaz	50		-	-		-		
	BOAX-B APSAD BOAX-B DVGW	50			-		-		
Centred-disc butterfly valves	BOAX-B DVGVV BOAX-B FM	50			-		-		
	ISORIA 10/16	51			-				
	ISORIA 10/16	51			-	_			
	ISORIA 20/25	51		-	-				
	MAMMOUTH	51			-				
	KE PLASTOMER	52			-				
	KE ELASTOMER	52			-				
	APORIS-DEB02	52	_	-	-				
	DANAÏS 150	52			-	_			
Double-offset butterfly valves	DANAIS 150 DANAIS MTII	53		-	-	_	_	-	
	DANAIS MITI DANAIS TBTII	53			-				
	TRIODIS 150	53			-				
Triple-offset butterfly valves	TRIODIS 150	54			-				
inple-onset butterny valves	TRIODIS 600	54			-	_			
Butterfly valves for nuclear applications	CLOSSIA	54			_				
Combined butterfly/check valves	DUALIS	55	-			_			
combined batterny/check valves	MP-CI/MP-II	55							
Single-piece ball valves	PROFIN-VT1	55	-						
	ECOLINE BLT 150-300	55		-	-		-		
Two-piece ball valves	PROFIN-VT2L	55							
	ECOLINE BLC 1000	56			-				
Three-piece ball valves	PROFIN-SI3FIT/-SI3IT/-SI3LIT	56	-						
	PROFIN-VT3/-VT3L/-VT3F/-VT33L	56		_	-		-		
	SISTO-KB	57			_				
	SISTO-KBS	57		_	-	_			
	SISTO-10	57		_					
	SISTO-10M	57		_					
	SISTO-16	57		_					
Soft-seated diaphragm valves to DIN/EN	SISTO-16S	58							
	SISTO-16RGA	58							
	SISTO-16TWA/HWA/DLU	58		_			-		
	SISTO-20	58	-						
	SISTO-C	58	-		_	_			-
	SISTO-20NA	59	-						
Diaphragm valves for nuclear applications	SISTO-DrainNA	59				_			
Feed water bypass valves	ZJSVM/RJSVM	59							
	ECOLINE GE1/GE2/GE3	59	_		-				
Expansion and anti-vibration joints	ECOLINE GE4				-				

# Actuators

Design/Application	Type series	Page	Water Transport and Treatment	Industry	Energy Conversion	Building Services	Solids Transport	Pharmaceuticals/ Food
Levers	CR/CM	61						
Levers	S/SR/SP	61						
Manual gearboxes	MN	61						
Manual gearboxes	MR	61						
	ACTELEC (AUMA)	62						
Electric actuators	ACTELEC (BERNARD CONTROLS)	62						
	SISTO-LAE	62						
Hydraulic actuators	HQ	62						
	ACTAIR	63						
	ACTAIR NG	63						
	DYNACTAIR	63						
Pneumatic actuators	DYNACTAIR NG	64						
	SISTO-LAD	64						
	SISTO-LAP	64						
	SISTO-C LAP	64						
Control accessories	RMD	65						

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	66						
	AMTROBOX EEx ia	66						
	AMTROBOX ATEX Zone 22	66						
Monitoring	AMTROBOX C	66						
Monitoring	AMTROBOX M	66						
	AMTROBOX R	67						
	AMTROBOX R EEx ia	67						
	AMTROBOX R Ex d	67						
ON/OFF valve controllers	AMTRONIC	67						
Positioners	SMARTRONIC MA	68						
rositioners	SMARTRONIC AS-I	68						
Intelligent positioners	SMARTRONIC PC	68						

		BOA-SuperCompact	BOA-Compact	BOA-Compact EKB	POA-W	:	BOA-H BOA HAUFANATIEN		NORI 40 ZXLB/ZXSB	NORI 40 ZYLB/ZYSB BOACUEM ZYAB	BUALMEM-2AAB		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 ZXSV	NORI 500 ZXSV	<b>BOACHEM-ZXA</b>	ECOLINE VA 16		SICCA 150-600 GLC	SICCA 900-2500 GLC	SICCA 800-4500 GLF	ECOLINE GLC 150-600	ECOLINE GLF 150-600	ECOLINE GLF 800-2500	ECOLINE GLV 150-300	WADA GL 150			
Abrasive fluids	z										1	ш			σ									D											<u> </u>
Waste water with faeces	ME											SN			kin									kin					$\square$	1	$\square$	$\square$	$\square$	$\square$	$\square$
Waste water without faeces					2	5  -									pac									packing						1		T	$\square$	$\square$	$\square$
Aggressive fluids	Soft-seated globe valves to DIN/EN					2						globe valves to ANSI/ASME			with gland packing									g							1				$\square$
Inorganic fluids	Ne					Ω ≥						ģ			glaı									gland						1					$\square$
Activated sludge	va					2						'es			Ę									Ę						1	1	1	$\square$		$\square$
Brackish water	be				- 4	- De					-	/alv			Ň						İ	İ –		Globe valves to ANSI/ASME with						1	İ	1	$\square$		$\square$
Service water	Ъ				- 2	5						je j			Globe valves to DIN/EN									ME							1				$\square$
Steam	ed					P D						ğ			N									AS								1	1		$\square$
Distillate	eat				Ŧ	2-12						e c			0									<b>NSI</b>					1	1	1	1	$\square$		$\square$
Explosive fluids	ft-s											Bellows-type			es t									A						1	1	1	$\square$	$\square$	$\square$
Digested sludge	So					5						WS-			alv									s tc						1		1	$\square$		$\square$
Solids-laden fluids											-				e <									lve	_							1	1		$\square$
Solids (ore, sand, gravel, ash)	1										-	ä			lob									Va						1		1	$\vdash$	$\vdash$	$\vdash$
Flammable fluids	1														G									obe						1	1	1	$\square$		$\square$
River, lake and groundwater	1																							ษั						1		1	$\square$	$\square$	$\square$
Liquefied gas																																	$\square$		$\square$
Fluids containing gas	1																															1	$\square$		$\square$
Gases	1													Π																			$\square$	$\square$	$\square$
Harmful fluids																					İ	İ –								1	İ	1			$\square$
Toxic fluids																																			$\square$
High-temperature hot water	1																																		$\square$
Heating water	1																																		$\square$
Highly aggressive fluids	]																														1				
Condensate																																			
Corrosive fluids																																			$\square$
Valuable fluids	1																													1					
Fuels																																			
Cooling water																																			
Highly volatile fluids																																	Γ		$\square$
Fire-fighting water	1																													1	1				
Solvents	1																																		
Seawater																																			
Fluids containing mineral oils																																	Γ		$\square$
Oils																																			
Organic fluids																																			
Polymerising/crystallising fluids																																			
Radioactive fluids																																			
Cleaning agents																																			
Raw sludge																																			
Lubricants																																			
Grey water																																$\perp$			
Brine																																$\perp$			
Feed water																																$\perp$		_	_
Dipping paints																																$\perp$	_	$\vdash$	<u> </u>
Drinking water	-	L_																<u> </u>														1	-	<u> </u>	<u> </u>
Vacuum		L		_	_													<u> </u>									_					$\downarrow$	_	<u> </u>	<u> </u>
Thermal oils	-	L		_	_	-							_																-	-		$\vdash$	-	<u> </u>	-
Wash water																																			

		NUCA/-A/-ES, Types I, II, IV	ZYNB/ZYN	ZXNB	ZAIND		BOA-Systronic		BOA-H Mat E	BOA-H Mat P		BOA-CVE C/CS/W/IMS/EKB	BOA-CVE H	BOA-CVP H		<b>BOA-Control /BOA-Control IMS</b>	<b>BOA-Control SAR</b>		CONDA-VLC		CONDA-VRC		CONDA-VSM		BOAVENT-AVF	<b>BOAVENT-SVF</b>	BOAVENT-SIF	BOAVENT-SVA		SISTO-VentNA	SISTO-KRVNA					
Abrasive fluids	SC					z		z			z				z			z		z		z		SS					S							-
Waste water with faeces	cior					Ĭ		Ĭ			Ĭ				DIN/EN			DIN/EN		Ĭ		Ĭ		alve					lior					1	-	-
Waste water without faeces	icat													İ										Air valves					icat						1	-
Aggressive fluids	applications	:				systems to DIN/EN		s to			valves to DIN/EN				valves to			valves to		s to		s to		۷					applications							-
Inorganic fluids	ar a					- Em		lves			lve				lve			Ne		Ne		lve														-
Activated sludge	clea					yste		va					1							va		va							clea							-
Brackish water	nu				-	ols		be			lo		1		off			lo		ing		ing							nu							-
Service water	for					lt		glo			Control				rt.			ont		que		ain							for							-
Steam	es 1					Control		ted			0				d sh			e 0		rec		ust							es l					$\neg$		-
Distillate	Globe valves for nuclear							Automated globe valves to DIN/EN							and shut-off			Level control		Pressure reducing valves to DIN/EN		Pressure sustaining valves to DIN/EN							valves for nuclear							-
Explosive fluids	oe v					Ē		lto										-		essi		ssur							- t							-
Digested sludge	lob							Ā							nci					P		Pre							Vent							-
Solids-laden fluids	0														Balancing			1																		-
Solids (ore, sand, gravel, ash)	1												1					1													Î					-
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Liquefied gas						ſ		ſ																												-
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Toxic fluids																																				_
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Corrosive fluids																																				_
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Gate valves to DIN								۳										suc	Knife gate valves to DIN/EN	L	Knife gate valves to ANSI/ASME		_	_	ves		- U			-+		_	
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Gate val		+-	+	+	+	-		Gate valves to ANSI/ASME		$\rightarrow$	$\rightarrow$	$\rightarrow$	$\dashv$	$\rightarrow$	+	$\rightarrow$	-	Gate valves for nuclear applications	/es		0 A		-	-	Body pressure relief valves	⊢	Lift check valves to DIN/EN	$\vdash$		$\rightarrow$	+		
Gate		+	+	+	+	-		es t		$\neg$		$\rightarrow$	$\neg$	$\rightarrow$	$\rightarrow$	$\rightarrow$		leal	- val		es t				sure		val			$\rightarrow$	-		
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		RGS	<b>BOACHEM-RXA</b>		ECOLINE PTF 150-600	ECOLINE PTF 800-2500	SICCA 800-4500 PCF	WADA SC 150		NUCA/-A/-ES, Type V	RUN	RYN		COBRA-SCBS	ECOLINE WT/WTI	STAAL 40 AKK/AKKS	STAAL 100 AKK/AKKS	AKR/AKRS	ZRS	SISTO-RSK/RSKS	SERIE 2000		ECOLINE SCC 150-600	ECOLINE SCF 150-600	ECOLINE SCF 800-2500	ECOLINE SCV 150-300	SICCA 150-600 SCC	SICCA 900-3600 SCC	WADA SC 150		SISTO-RSKNA	ZRN		COBRA-TDC01/03	
Abrasive fluids	z			ЧE					ns				Z									ЧE								ns			z		
Waste water with faeces	Ž			<b>ASP</b>					tio				N									ASN ASN								tio			DIN/EN		
Waste water without faeces				SIL					lica													SIL								lica					
Aggressive fluids	Lift check valves to DIN/EN			Lift check valves to ANSI/ASME					applications				Swing check valves to DIN/EN									check valves to ANSI/ASME								Swing check valves for nuclear applications			Tilting disc check valves to		
Inorganic fluids	lve			\$					ar a				alve									5								ar a			alve		
Activated sludge	N X			ves					Lift check valves for nuclear				N V S									ves								cle			s v s		
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Service water	날			<del>У</del>					for				р С									상								for			5		
Steam	5			che					/es				ling									ц.								/es			disc		
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Explosive fluids									Ś													Swing								÷.			il fi		
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Polymerising/crystallising fluids																							L												 <u> </u>
Radioactive fluids																																			 <u> </u>
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Drinking water																																			<u> </u>
Vacuum										L				L			_																		 <u> </u>
Thermal oils										_																									 <u> </u>
Wash water																																			 L

		BOA-S	NORI 40 FSL/FSS	<b>BOACHEM-FSA</b>		ECOLINE FYC 150-600	ECOLINE FYF 800		BOAX-CBV13	BOAX-S/SF	BOAX-S/SF Gaz	BOAX-B	BOAX-B APSAD	BOAX-B DVGW	BOAX-B FM	BOAX-B Gaz	ISORIA 10/16	ISORIA 20/25	ISORIA 20 UL	MAMMOUTH	KE Plastomer	KE Elastomer		APORIS-DEBUZ	DANAÏS MTII	DANAÏS TBTII		TRIODIS 150	TRIODIS 300	TRIODIS 600		CLOSSIA		DUALIS
Abrasive fluids	z				Ę			es															es				es				ns		es	
Waste water with faeces	N				ASP V			alv														·	/alv				/alv				tio		valves	
Waste water without faeces	D				SIV			2															<u> </u>				2				lica		×.	
Aggressive fluids	Strainers to DIN/EN				Strainers to ANSI/ASME			butterfly valves															Double-offset butterfly valves				butterfly valves				applications		Combined butterfly/check	
Inorganic fluids	neı				to			out			_																out				ar a		lly/c	
Activated sludge	trai				lers			sck															- Gt				et k				Icle		terf	
Brackish water	ò				air			-di														_ :	LTS				ffs				ม		out	
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Steam								<b>Centred-disc</b>			_											_	an_				<b>Friple-offset</b>				Butterfly valves for nuclear		oine	
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		MP-CI/MP-II	PROFIN-VT1		ECOLINE BLT 150-300	PROFIN-VT2L		ECOLINE BLC 1000	PROFIN-SI3FIT	PROFIN-SIBIT	PROFIN-SI3LIT	PROFIN-VT3	PROFIN-VT3L	PROFIN-VT3F	PROFIN-VT33L		SISTO-KB	sisto-KBs	SISTO-10	SISTO-10M	SISTO-16	SISTO-16S	SISTO-16RGA	SISTO-16TWA/HWA/DLU	SISTO-20	SISTO-C		SISTO-20NA	SISTO-DrainNA		ZJSVM/RJSVM		ECOLINE GE1/GE2/GE3	ECOLINE GE4		
Abrasive fluids	es			es			es									z			I								ns			es		ts				
Waste water with faeces	valves			valves			alv									DIN/EN											tio			alv		joir				
Waste water without faeces							ball valves												U 🗖								lica	L		SS \		ы				
Aggressive fluids	Single-piece ball			wo-piece ball			e bi									s to											valves for nuclear applications	L		Feed water bypass valves		Expansion and anti-vibration joints				
Inorganic fluids	iec			iece			Three-piece									valves											ar			j.		/ibr				
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River, lake and groundwater			-					<u> </u>																		-			-	-				-		<u> </u>
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Fire-fighting water																		$\vdash$	+	+	-	-			-	-			-				$\vdash$			-
Solvents		_	-			-		-		-	F												-	-				F					$\vdash$			-
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		BOA-SuperCompact	BOA-Compact	BOA-Compact EKB	BOA-W		BOA-H	<b>BOA-H/HE/HV/HEV</b>	NORI 40 ZXLBV/ZXSBV	NORI 40 ZXLB/ZXSB	NORI 40 ZYLB/ZYSB	<b>BOACHEM-ZXAB</b>		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 ZXSV	NORI 500 ZXSV	<b>BOACHEM-ZXA</b>	ECOLINE VA 16				ECOLINE GLC 150-600	ECOLINE GIE 150-600	ECOLINE GLF 800-2500	ECOLINE GLV 150-300	WADA GL 150			
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Industrial recirculation systems																																	$\square$	$ \rightarrow $	$\rightarrow$	
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Pharmaceutical industry	_																		<u> </u>		_												$\square$	$\rightarrow$	$\rightarrow$	
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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	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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	<ul> <li>Description:</li> <li>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).</li> <li>Applications:</li> <li>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.</li> </ul>	
<mark>e</mark> , m			http://shop.ksb.com/catalog/k0/en/product/ES000311	

#### **BOA-W**

	PN DN T [°C]	6/16 15 - 200 -10 to +120	<b>Description:</b> 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. <b>Applications:</b> 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 1 DN 15 - T [°C] -10 to +	
<b>m</b>		http://shop.ksb.com/catalog/k0/en/product/ES000328

## **BOA-H/HE/HV/HEV**

ĀĀ	<ul> <li>Description:</li> <li>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.</li> <li>Applications:         <ul> <li>In industrial plants, building services, power stations and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.</li> </ul> </li> </ul>
🛑 e, m, p	http://shop.ksb.com/catalog/k0/en/product/ES000329

## NORI 40 ZXLBV/ZXSBV

ĀĮ	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

A.	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.
📕 e, m, p		http://shop.ksb.com/catalog/k0/en/product/ES000332

Valves

## NORI 40 ZYLB/ZYSB

	PN DN T [°C]	25/40 15 - 300 -10 to +450	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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]	150 - 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

	PN DN T [°C]	25/40 10 - 400 -10 to +450	<b>Description:</b> 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. <b>Applications:</b> 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/ES000339	

## NORI 40 ZXLF/ZXSF

	 25/40 0 - 200 to +450	<b>Description:</b> 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. <b>Applications:</b> 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

ĀĀ	PN 63 - 160 DN 10 - 200 T [°C] -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.
<mark>m</mark>		http://shop.ksb.com/catalog/k0/en/product/ES000343

# NORI 160 ZXLF/ZXSF

	PN 63 - 160 DN 10 - 200 T [°C] -10 to +550	<ul> <li>Description:</li> <li>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 17 % chrome steel or Stellite.</li> <li>Applications:</li> <li>In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.</li> </ul>	
e, m, p		http://shop.ksb.com/catalog/k0/en/product/ES000345	

## NORI 320 ZXSV

A CHI	PN DN T [°C]	250 - 320 10 - 50 -10 to +580	<b>Description:</b> Globe valve to DIN/EN with flanged, butt weld or socket weld ends, gland packing, throttling plug, non-rotating stem, bayonet-type body/yoke joint, integrated position indicator, seat/disc interface made of Stellite. <b>Applications:</b> 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/ES000347	

#### NORI 500 ZXSV

Valves

	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 joint, 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

## **BOACHEM-ZXA**

	PN DN T [°C]	10 - 40 15 - 300 -10 to +400	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> Globe valve to DIN/EN with flanged ends, body made of cast iron, with gland packing, rotating stem, with shut-off valve disc or throttling plug. <b>Applications:</b> 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	

# Globe valves to ANSI/ASME with gland packing

## ECOLINE GLC 150-600

	Class NPS T [°C]	150 - 600 2" - 12" 0 to +816	<b>Description:</b> 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. <b>Applications:</b> 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

	Class NPS T [°C]	150 - 600 ½" - 2" 0 to +816	<b>Description:</b> 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. <b>Applications:</b> 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	Class NPS T [°C]	800 - 2500 1⁄2" - 2" 0 to +538	<b>Description:</b> 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. <b>Applications:</b> 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

	NPS ½	50 - 300 2" - 12" 30 +816	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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 800-4500 GLF

	Class NPS T [°C]	800 - 4500 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 1500/2500/4500), outside screw and yoke, Stellite hard-faced body seat, disc seating face made of Stellite hard-faced 13 % chrome steel, 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	<b>Description:</b> 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. <b>Applications:</b> 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

	P <sub>max</sub> [bar] DN T [°C]	max. 320 10 - 50 max. +365	<b>Description:</b> 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. <b>Applications:</b> Reactor cooling, moderator, safety feed, feed water, live steam and cleaning systems.	
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000452	

## ZXNB

	P <sub>max</sub> [bar] DN T [°C]	max. 210 65 - 300 max. +365	<b>Description:</b> 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. <b>Applications:</b> 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 <sub>max</sub> [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.	
● m			http://shop.ksb.com/catalog/k0/en/product/ES000457	

## **ZYNB/ZYN**

	P <sub>max</sub> [bar] max. 6 DN 300 - 40 T [°C] max. +36	0 Globe valve for nuclear applications, with butt weld ends, designed to meet	
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	<ul> <li>Description:</li> <li>Energy-saving system for the combined operation of pump and control valve.</li> <li>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.</li> <li>Applications:</li> <li>Supply temperature control in HVAC installations with volume flow rates of 0.5 to 185 m<sup>3</sup>/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 and new systems, for connection to all types of heat generators (boiler systems or district heating), all main feed manifolds, all control systems, all supply temperatures.</li> </ul>	
		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	<b>Description:</b> 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). <b>Applications:</b> 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.
<b>p</b>			http://shop.ksb.com/catalog/k0/en/product/ES000885

# **Control valves to DIN/EN**

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

ŢŢŢŢŢ	PN 6/10/1 DN 15 - 20 T [°C] -10 to +12	Control valve to DIN/EN based on standard type series BOA-Compact, BOA-	
e		http://shop.ksb.com/catalog/k0/en/product/ES000326	

#### **BOA-CVE H**

	PN DN T [°C]	16/25/40 15 - 200 -10 to +450	<b>Description:</b> Service-friendly control valve to DIN/EN with flanged ends, either with linear or equal-percentage control characteristic at Kvs values of 0.1 to 630 m <sup>3</sup> /h and closing pressures of up to 40 bar; all internal parts are easy to replace without special tools, including the reversible seat; noise level reduced by standard two-stage pressure reduction combining a parabolic plug and multi-hole cage; with electric actuator. <b>Applications:</b> 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]	16/25/40 15 - 200 -10 to +450	<b>Description:</b> Service-friendly control valve to DIN/EN with flanged ends, either with linear or equal-percentage control characteristic at Kvs values of 0.1 to 630 m <sup>3</sup> /h and closing pressures of up to 40 bar; all internal parts are easy to replace without special tools, including the reversible seat; noise level reduced by standard two-stage pressure reduction combining a parabolic plug and multi-hole cage; with pneumatic actuator. <b>Applications:</b> General industrial facilities, process engineering, plant engineering, cooling circuits, heating systems.	
● p			http://shop.ksb.com/catalog/k0/en/product/ES000662	

# Balancing and shut-off valves to DIN/EN

# **BOA-Control/BOA-Control IMS**

	PN 16 DN 15 - 350 T [°C] -10 to +120	Palansing value to DIN/EN with flanged and a honnotlass throttling plug	
e, m		http://shop.ksb.com/catalog/k0/en/product/ES000323	

# **BOA-Control SAR**

	PN DN T [°C]	16 10 - 50 -25 to +150	<b>Description:</b> 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. <b>Applications:</b> 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 [°C]	16 25 - 300 -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.
		http://shop.ksh.com/catalog/k0/en/product/ES000835

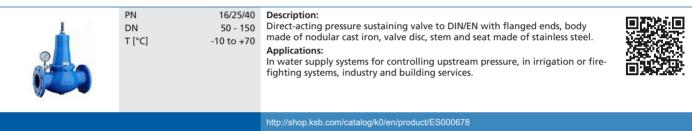
# Pressure reducing valves to DIN/EN

## **CONDA-VRC**

PN DN T [°C]	16/25/40/64 15 - 150 -10 to +70	<ul> <li>Description:</li> <li>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.</li> <li>Applications:</li> <li>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.</li> </ul>	
		http://shop.ksb.com/catalog/k0/en/product/ES000834	

# Pressure sustaining valves to DIN/EN

## **CONDA-VSM**



# Air valves to DIN/EN

## **BOAVENT-AVF**

F	PN DN T [°C]	16 50 - 300 -10 to +120	<b>Description:</b> Automatic air valve with two floats and three functions. Flanged ends, body made of nodular cast iron, double-chamber design with ABS floats. 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. <b>Applications:</b> Water supply system, clean water, irrigation.	
			http://shop.ksb.com/catalog/k0/en/product/ES000831	

### **BOAVENT-SIF**

PN DN T [°C]	16 25 - 200 -10 to +70	<b>Description:</b> 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. <b>Applications:</b> Water supply system, clean water, irrigation.	
		http://shop.ksb.com/catalog/k0/en/product/ES000832	



# **BOAVENT-SVA**

PN DN T [°C]	16 50 - 200 -10 to +70	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> Vent valve for nuclear applications, with butt weld ends, soft-seated. <b>Applications:</b> 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	<b>Description:</b> Vent valve for nuclear applications, with flanged or butt weld ends, soft- seated, with floating ball. <b>Applications:</b> Tank venting, drainage systems.	

# Gate valves to DIN/EN

# COBRA-SGP/SGO/SGF

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

## **COBRA-SMP**

J.	PN 40 - 30 DN 40 - 30 T [°C] -10 to +1		
e, m		http://shop.ksb.com/catalog/k0/en/product/ES000829	

## **ECOLINE SP/SO**

	PN DN T [°C]	10/16/25 40 - 600 -10 to +110	<b>Description:</b> 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. <b>Applications:</b> 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 10 - 40 DN 50 - 600 T [°C] -10 to +400	Description: Gate valve to DIN/EN with flanged ends or butt weld 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 and steam. Other non-aggressive fluids such as gas or oil on request.
e m		http://shop.ksb.com/catalog/k0/en/product/ES000676

## STAAL 40 AKD/AKDS

	PN DN T [°C]	10 - 40 50 - 600 -10 to +450	<b>Description:</b> 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. <b>Applications:</b> 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/ES000469	

# STAAL 100 AKD/AKDS

6	PN DN T [°C]	63 - 100 50 - 500 -10 to +530	<b>Description:</b> 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. <b>Applications:</b> 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/ES000369	

### AKG-A/AKGS-A

	PN DN T [°C]	63 - 160 80 - 300 -10 to +550	<b>Description:</b> 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. <b>Applications:</b> In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
<b>e</b> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000371	

### ZTS

Ā	PN App Class DN NPS T [°C]	prox. 600 bar 4500 50 - 800 2" - 32" -10 to +650	<b>Description:</b> 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. <b>Applications:</b> In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.	
<b>e</b> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000375	

# Gate valves to ANSI/ASME

### **ECOLINE GTB 800**

	Class NPS T [°C]	150-800 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.	
<mark>e</mark> , m			http://shop.ksb.com/catalog/k0/en/product/ES000903	

# ECOLINE GTC 150-600

T	Class NPS T [°C]	150 - 600 2" - 36" 0 to +816	<b>Description:</b> 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. <b>Applications:</b> 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	

Valves

## ECOLINE GTF 150-600

	Class NPS T [°C]	150 - 600 ½" - 2" 0 to +816	<b>Description:</b> 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. <b>Applications:</b> Industrial applications, power stations, process engineering, refineries, oil and marine applications; water, steam, gas, oil and other non-aggressive fluids.	
<b>e</b> , m			http://shop.ksb.com/catalog/k0/en/product/ES000611	

### **ECOLINE GTF 800-2500**

	Class NPS T [°C]	800 - 2500 ½" - 2" 0 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

Ĩ	Class NPS T [°C]	150 - 300 ½" - 12" 0 to +816	<b>Description:</b> 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. <b>Applications:</b> Fine chemicals, food industry, general industry; water, steam, gas and other fluids.	
<mark>e</mark> , m			http://shop.ksb.com/catalog/k0/en/product/ES000373	

### SICCA 150-600 GTC

	Class NPS T [°C]	150 - 600 2" - 24" 0 to +593	<ul> <li>Description:</li> <li>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 hardfaced; with graphite gasket and gland packing, available in carbon steel, low-alloy steel and stainless steel.</li> <li>Applications:</li> <li>Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.</li> </ul>	
e, m			http://shop.ksb.com/catalog/k0/en/product/ES000482	

## SICCA 900-3600 GTC

	Class NPS T [°C]	900 - 3600 2" - 28" 0 to +650	<b>Description:</b> 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. <b>Applications:</b> 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/ES000483	

### SICCA 800-1500 GTF

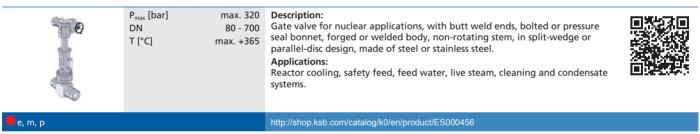
	Class NPS T [°C]	800 - 4500 ½" - 2" 0 to +593	<ul> <li>Description:</li> <li>Gate valve to ANSI/ASME with NPT (F) threaded ends or socket weld ends, bolted bonnet (Class 800) or welded bonnet (Class 1500), single-piece wedge, outside screw and yoke, seat/disc interface made of 13 % chrome steel, Stellite hard-faced, with graphite gasket and gland packing. Available in carbon steel and alloy steel.</li> <li>Applications:</li> <li>Refineries, power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.</li> </ul>	
<b>e</b> , m			http://shop.ksb.com/catalog/k0/en/product/ES000479	

## **WADA GT 150**

	Class NPS T [°C]	150 1" - 12" -196 to +100	<b>Description:</b> 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. <b>Applications:</b> Natural gas liquefaction and other liquefied gases.	
<mark>e</mark> , m, p, h			http://shop.ksb.com/catalog/k0/en/product/ES000888	

# Gate valves for nuclear applications

### ZTN



# **Body pressure relief valves**

UGS

PN DN	max. 750 bar 15	<b>Description:</b> Spring-loaded body pressure relief valve to DIN/EN, with or without bursting disc, for gate valves in pressure seal design. <b>Applications:</b> 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/ES000899	

# Knife gate valves to DIN/EN

### **HERA-BD**

	PN DN T [°C]	10 50 - 1200 -10 to +120	<b>Description:</b> 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. <b>Applications:</b> In industrial plants, waste water and process engineering, food industry. For water, waste water and solids-laden fluids. Other fluids on request.	
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000597	

# Knife gate valves to ANSI/ASME

### **HERA-BDS**

0	0	Class DN T [°C]	150 50 - 600 -10 to +120	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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.	
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000891	

### **HERA-SH**

	Class DN T [°C]	150 50 - 1000 -10 to +180	<b>Description:</b> 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. <b>Applications:</b> 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.	
<b>e</b> , 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	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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.ksh.com/catalog/k0/en/product/ES000357	

### **BOA-R**

PN DN T [°C]	6/16 15 - 350 -10 to +350	<b>Description:</b> Lift check valve to DIN/EN with flanged ends, spring-loaded valve disc, maintenance-free. <b>Applications:</b> 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	

### NORI 40 RXL/RXS

PN DN T [°C]	25/40 10 - 300 -10 to +450	<b>Description:</b> 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 chrome steel or chrome nickel steel. <b>Applications:</b> 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	

Valves

### NORI 160 RXL/RXS

(\$) \$	PN 63 - 16 DN 10 - 20 T [°C] -10 to +55	Lift check valve to DIN/EN, with flanged, butt weld or socket weld ends, check
		http://shop.ksb.com/catalog/k0/en/product/ES000360

RGS

PN DN T [°C]	250 - 500 10 - 50 -10 to +580	<b>Description:</b> 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. <b>Applications:</b> 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/ES000364	

### **BOACHEM-RXA**

PN DN T [°C]	10 - 40 15 - 300 -10 to +400	<b>Description:</b> Lift check valve to DIN/EN with flanged ends, body made of stainless steel, check disc with closing spring, lapped seat/disc interface. <b>Applications:</b> 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

NPS	150 - 600 ½" - 2" ) to +816	<b>Description:</b> 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. <b>Applications:</b> Industrial applications, power stations, process engineering, refineries, oil and marine applications; for water, steam, gas, oil and other non-aggressive fluids.	

### **ECOLINE PTF 800-2500**

Class NPS T [°C]	800 - 2500 ½" - 2" 0 to +538	<b>Description:</b> 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. <b>Applications:</b> 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 800-4500 PCF

Class NPS T [°C]	800 - 4500 1⁄2" - 2" 0 to +650	Description: Lift check valve to ANSI/ASME with NPT (F) threaded ends or socket weld ends, with spring-loaded valve disc, bolted cover (Class 800) or welded cover (Class 1500/2500/4500), Stellite hard-faced body seat, disc seating face made of Stellite hard-faced 13 % chrome steel, 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	<b>Description:</b> Swing check valve / 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. <b>Applications:</b> 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 <sub>max</sub> [bar] max. 410 DN 10 - 50 T [°C] max. +365	Lift check valve for nuclear applications, with butt weld ends, replaceable seat	
	http://shop.ksb.com/catalog/k0/en/product/ES000455	

### RJN

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

#### RYN

and the second s	P <sub>max</sub> [bar] DN T [°C]	max. 210 65 - 300 max. +365	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> Water supply, treatment and distribution systems, waste water, irrigation, drinking water, seawater, air, gas, oil.	
		http://shop.ksb.com/catalog/k0/en/product/ES000827	

### **ECOLINE WT/WTI**

PN DN T [°C]	16 50 - 300 -10 to +110	<b>Description:</b> 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. <b>Applications:</b> Irrigation systems, district heating, domestic water supply, sewage treatment plants, air-conditioning systems, cooling circuits, water supply systems.	
		http://shop.ksb.com/catalog/k0/en/product/ES000638	

#### **STAAL 40 AKK/AKKS**

<b>100</b>	PN DN T [°C]	10 - 40 80 - 400 -10 to +450	<b>Description:</b> 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. <b>Applications:</b> 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.ksh.com/catalog/k0/en/product/ES000471	

## **STAAL 100 AKK/AKKS**

n	PN 63 - 100 DN 80 - 400 T [°C] -10 to +530	<ul> <li>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.</li> <li>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.</li> </ul>
		http://shop.ksb.com/catalog/k0/en/product/ES000391

### **AKR/AKRS**

PN DN T [°C]	63 - 160 80 - 300 -10 to +550	<ul> <li>Description:</li> <li>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.</li> <li>Applications:</li> <li>In industrial plants, power stations, process engineering and shipbuilding. For water and steam. Other non-aggressive fluids such as gas or oil on request.</li> </ul>	
		http://shop.ksb.com/catalog/k0/en/product/ES000394	

## ZRS

PN DN T [°C]	Approx. 600 bar 50 - 800 -10 to +650	<b>Description:</b> 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. <b>Applications:</b> 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://shap.ksh.com/satalag/k0/ap/product/ES000206	

### SISTO-RSK/RSKS

PN DN T [°C]	16 25 - 300 -20 to +140	<ul> <li>Description:</li> <li>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, static sealing to atmosphere; with soft rubber encapsulated pre-loaded valve disc featuring short travel to closure.</li> <li>Applications:</li> <li>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.</li> </ul>	
		http://shop.ksb.com/catalog/k0/en/product/ES000397	

## **SERIE 2000**

PN Class DN T [°C]	16/25 150/300 50 - 600 -196 to +538	<ul> <li>Description:</li> <li>Dual-plate check valve with single-piece, wafer-type body made of lamellar graphite cast iron, nodular cast iron, steel, stainless steel or copper aluminium alloy, metal/elastomer-seated or metal/metal-seated, maintenance-free, connections to EN, ASME or JIS.</li> <li>Applications:</li> <li>Building services: heating, air-conditioning, water supply, irrigation, water treatment. General processes: water, air, gas. Process engineering, chemical and petrochemical industry, sugar industry, paper industry, water supply, desalination, marine applications: water, air, gas, hydrocarbons.</li> </ul>	
		http://shop.ksb.com/catalog/k0/en/product/ES000393	

# Swing check valves to ANSI/ASME

# ECOLINE SCC 150-600

Class NPS T [°C]	150 - 600 2" - 24" 0 to +816	<b>Description:</b> 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. <b>Applications:</b> Refineries, power stations, process engineering and general industry; water, steam, oil, gas. Other applications on request.	
		http://shop.ksb.com/catalog/k0/en/product/ES000776	

Valves

## ECOLINE SCF 150-600

Class NPS T [°C]	150 - 600 1⁄2" - 2" 0 to +816	<b>Description:</b> 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. <b>Applications:</b> 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**

AF-400	Class NPS T [°C]	800 - 2500 ½" - 2" 0 to +538	<b>Description:</b> 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. <b>Applications:</b> 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/ES000798	

# ECOLINE SCV 150-300

Class NPS T [°C]	150 - 300 ½" - 12" 0 to +816	<b>Description:</b> 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. <b>Applications:</b> 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	<ul> <li>Description:</li> <li>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.</li> <li>Applications:</li> <li>Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other applications on request.</li> </ul>	
		http://shop.ksb.com/catalog/k0/en/product/ES000486	

## SICCA 900-3600 SCC

Class NPS T [°C]	900 - 3600 2" - 28" 0 to +650	<b>Description:</b> 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. <b>Applications:</b> 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**

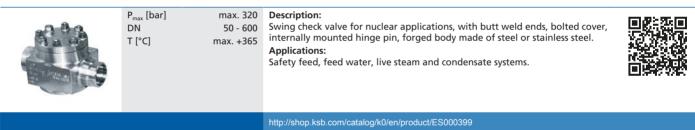
Class NPS T [°C]	150 ½" - 18" -196 to +100	<b>Description:</b> Swing check valve / lift check valve to ANSI/ASME with flanged, butt weld or socket weld ends, made of cast steel A351 CF3M/CF8/CF8M, bolted cover, dash- pot function, graphite or stainless steel/graphite gaskets. <b>Applications:</b> Natural 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	<b>Description:</b> Swing check valve with flanged ends, body with or without lining, soft-seated, no dead volumes, straight-way pattern, full bore, slanted seat, static sealing to atmosphere; with soft rubber encapsulated pre-loaded valve disc featuring short travel to closure. <b>Applications:</b> Waste water systems, pump systems.	
		http://shop.ksb.com/catalog/k0/en/product/ES000838	

#### ZRN



# 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	<b>Description:</b> Strainer to DIN/EN with flanged ends, with standard or fine screen; all nominal sizes with drain plug in the cover. <b>Applications:</b> 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 DN T [°C]	25/40 15 - 300 -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]	10 - 40 15 - 400 -10 to +400	<b>Description:</b> 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. <b>Applications:</b> Process engineering, industry, building services, food and beverages industries, for aggressive fluids. Other fluids on request.	
		http://shop.ksh.com/catalog/k0/en/product/ES000402	

# Strainers to ANSI/ASME

### ECOLINE FYC 150-600

	Class 150 - 600 NPS 2" - 12" T [°C] 0 to +816	Strainer to ANSI/ASME with flanged ends, Y-pattern, bolted cover, cast steel	
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# ECOLINE FYF 800

	800 1⁄2" - 2" to +816	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> Shut-off or control duties, drinking water, seawater, water supply, treatment and distribution systems, waste water, irrigation, ultra-pure water, air, oil.	
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000825	

## **BOAX-S/SF**

	PN [bar] DN T [°C]	6/10/16 20 - 600 -10 to +130	<b>Description:</b> Centred-disc butterfly valve for building services, with heat barrier and elastomer liner (EPDM XU or Nitrile K), with lever, manual gearbox or electric actuator; semi-lug body (T2) or full-lug body (T4) suitable for downstream dismantling and dead-end service. Valve disc made of stainless steel 1.4308, connections to EN. <b>Applications:</b> Heating, ventilation, air-conditioning systems, for drinking water.	
e, m, p + AMTROBOX/AMTRONIC/SMARTRONIC		NIC	http://shop.ksb.com/catalog/k0/en/product/ES000388	

# **BOAX-S/SF Gaz**

<b>J</b>	PN [bar] DN T [°C]	max. 10 20 - 600 -20 to +60	<b>Description:</b> Centred-disc butterfly valve for gas lines, with elastomer liner (epichlorohydrin EG), with yellow lever; semi-lug body (T2), full-lug body (T4). Valve disc made of stainless steel 1.4308, connections to EN. <b>Applications:</b> Gas lines	
<b>●●</b> m			http://shop.ksb.com/catalog/k0/en/product/ES000388	

# **BOAX-B**

	PN [bar] 10/16 DN 40 - 1000 T [°C] -10 to +130	<ul> <li>Description:</li> <li>Centred-disc butterfly valve, sealed by elastomer liner (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. Connections to EN, ASME or JIS.</li> <li>Applications:</li> <li>Engineering contractors. General water circuits, heating oil, oil. Shut-off and control duties in water management for water supply, water treatment, drainage and irrigation.</li> </ul>	
e, m, p + AMTROBOX/A	MTRONIC/SMARTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000573	

### **BOAX-B Gaz**

	 300 +90	Description: Centred-disc butterfly valve, sealed by elastomer liner (epichlorohydrin EG or Nitrile K), with lever; semi-lug body (T2) or full-lug body (T4), valve disc made of nodular cast iron. Connections to EN. Applications: Gas pipes to NF ROB.GAZ N°095.00	
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	<b>Description:</b> Centred-disc butterfly valve, sealed by elastomer liner (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. <b>Applications:</b> Fire protection	
<mark>●</mark> m			http://shop.ksb.com/catalog/k0/en/product/ES000867	

### **BOAX-B DVGW**

	PN [bar] DN T [°C]	10/16 40 - 300 -20 to +60	<b>Description:</b> Centred-disc butterfly valve, sealed by elastomer liner (epichlorohydrin), with lever; semi-lug body (T2) or full-lug body (T4), valve disc made of nodular cast iron or stainless steel. Connections to EN. <b>Applications:</b> Gas lines and biogas plants.	
m			http://shop.ksb.com/catalog/k0/en/product/ES000574	

# **BOAX-B FM**

	PN [bar] DN T [°C]	16 40 - 300 -10 to +110	<b>Description:</b> Centred-disc butterfly valve, sealed by elastomer liner (EPDM XC), with manual gearbox to FM; semi-lug body (T2) suitable for downstream dismantling, valve disc made of nodular cast iron or stainless steel. Connections to EN. <b>Applications:</b> Fire protection	
n 📒 m			http://shop.ksb.com/catalog/k0/en/product/ES000904	

### **ISORIA 10/16**

	PN [bar] DN T [°C]	10/16 10 - 1000 -10 to +200	<b>Description:</b> Centred-disc butterfly valve, sealed by elastomer liner, with lever or 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. Connections to EN, ASME, JIS. <b>Applications:</b> Shut-off and control duties in all industrial and energy sectors.	
e, m, h, p + AMTROBOX/A	MTRONIC/SMA	RTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000377	

### **ISORIA 20/25**

Ó	PN [bar] DN T [°C]	20/25 32 - 1000 -10 to +80	<b>Description:</b> Centred-disc butterfly valve, sealed by elastomer liner, with lever or manual gearbox, pneumatic, electric or hydraulic 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 with counterflange. Connections to EN, ASME, JIS. <b>Applications:</b> Shut-off and control duties in all industrial and energy sectors.	
e, m, h, p + AMTROBOX/A	MTRONIC/SMARTR	ONIC	http://shop.ksb.com/catalog/k0/en/product/ES000379	

## **ISORIA 20 UL**

<sup>0</sup>	PN [bar] DN T [°C]	max. 16 40 - 700 -10 to +80	<b>Description:</b> Centred-disc butterfly valve, sealed by elastomer liner, 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. Connections to EN, ASME, JIS. Underwriter Laboratories (UL) approved. <b>Applications:</b> Fire protection	
<mark>e</mark> m			http://shop.ksb.com/catalog/k0/en/product/ES000379	

### MAMMOUTH

ų.	PN [bar] DN T [°C]	6/10/16/20/25 1050 - 4000 0 to +65	Description: Centred-disc butterfly valve, sealed by elastomer liner, with manual gearbox, electric, hydraulic or counterweight actuator, U-section body with flat faces (T5), connections to EN, ASME or JIS. 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	TRONIC/SMARTRO	NIC	http://shop.ksb.com/catalog/k0/en/product/ES000382	

### **KE PLASTOMER**

	PN [bar] 1 DN 40 - 60 T [°C] -20 to +20	lines (NEA Tefles) with laws second sec	
e. m. h. p + AMTROBOX/A	MTRONIC/SMARTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000380	

### **KE ELASTOMER**

	PN [bar] 10 DN 40 - 300 T [°C] -20 to +150	Centred-disc butterfly valve for chemical applications, sealed by elastomer
e, m, h, p + AMTROBOX/AMTRONIC/SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000380

# **Double-offset butterfly valves**

## **APORIS-DEB02**

<b>T</b> C	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.
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000824

# DANAÏS 150

	PN [bar] max. 25 or Class 150 DN 50 - 1200 T [°C] -50 to +260	Double-offset butterfly valve, with plastomer seat (also in fire-safe design), metal seat or elastomer seat (FKM [VITON R] or NBR [Nitrile]). Lever or manual control or production of the production of the product of	
e, m, h, p + AMTROBOX/A	MTRONIC/SMARTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000427	

# DANAÏS MTII

	PN [bar] or Class DN T [°C]	25/50 150/300 50 - 600 -50 to +260	<ul> <li>Description:         Double-offset butterfly valve with plastomer seat or metal seat (fire-safe), without gland packing, 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 or JIS. Certified to German TA-Luft Technical Guidelines on Air Quality Control.     </li> <li>Applications:         Petroleum, gas, chemical and petrochemical industry, nuclear power stations, onshore and offshore plants. Steam, vacuum and all applications requiring offset-disc butterfly valves.     </li> </ul>	
e, m, h, p + AMTROBOX/A	e, m, h, p + AMTROBOX/AMTRONIC/SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000381	

# DANAÏS TBTII

Ĩ	PN [bar] or Class DN T [°C]	10/20 150 50 - 1200 -50 to +200	Description:Double-offset butterfly valve for cryogenic applications; full-lug body (T4),flanged body (T7) with flat or raised faces, or body with butt weld ends madeof stainless steel to ASME Class 150, JIS, fire-safe design. Degreased for oxygenservice. 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		RONIC	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	<b>Description:</b> Triple-offset butterfly valve, metal-seated (fire-safe), without gland packing, maintenance-free, with lever or manual gearbox, pneumatic, electric or hydraulic actuator. Body made of steel or stainless steel, full-lug body (T4), 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 or JIS. Connections to ASME: Schedule 105, 10, STD and X5 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 certified to BS 6775-2. ATEX-compliant in accordance with Directive 2014/34/ EU. In compliance with NACE MR0175 / ISO 15156 and MR 0103. <b>Applications:</b> 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/SMAR	TRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000816	

### **TRIODIS 300**

	Description: Triple-offset butterfly valve, metal-seated (fire-safe), without gland packing,
DN 80 - 1200 T [°C] -196 to +260	maintenance-free, with lever or manual gearbox, pneumatic, electric or hydraulic actuator. Body made of steel or stainless steel, full-lug body (T4), 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 or 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 certified to BS 6775-2. ATEX-compliant in accordance with Directive 2014/34/ EU. In compliance with NACE MR0175 / ISO 15156 and MR 0103. <b>Applications:</b> 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/AMTRONIC/SMARTRONIC	http://shop.ksb.com/catalog/k0/en/product/ES000817

### **TRIODIS 600**

Ö	or Class DN 15	nax. 100 600 0 - 1000 to +260	<b>Description:</b> Triple-offset butterfly valve, metal-seated (fire-safe), without gland packing, maintenance-free, with lever or manual gearbox, pneumatic, electric or hydraulic actuator. Body made of steel or stainless steel, full-lug body (T4), flanged body (T7) with flat or raised faces. Body types T4 and T7 can be used for dead-end service. Connections to EN, ASME or 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 certified to BS 6775-2. ATEX-compliant in accordance with Directive 2014/34/EU. In compliance with NACE MR0175 / ISO 15156 and MR 0103. <b>Applications:</b> 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/AMTRONIC/SMARTRONIC			http://shop.ksb.com/catalog/k0/en/product/ES000818	

# Butterfly valves for nuclear applications

### **CLOSSIA**

6	P <sub>max</sub> [bar] DN T [°C]	max. 5.5 250/500/750/1000 -20 to +170	<b>Description:</b> Double-offset butterfly valve, metal-seated, maintenance-free. Steel body with one flanged and one weld end. With safety actuator with manual, pneumatic or electric actuation. <b>Applications:</b> In reactor containment of nuclear power stations.	
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000907	



# Combined butterfly/check valve

# DUALIS

DN T [°C]	500 - 1400 -10 to +65	Description: Combined butterfly/check valve with single-acting hydraulically controlled counterweight actuator. For actuating valves of DN 500 to 1400. Applications: For installation in pump discharge lines in pumping stations. Power station cooling circuits. Protects pipelines and turbines.	
		http://shop.ksb.com/catalog/k0/en/product/ES000905	

# 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/AMTRONIC			http://shop.ksb.com/catalog/k0/en/product/ES000625

### **PROFIN-VT1**

	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			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	<b>Description:</b> Ball valve to ANSI/ASME with flanged ends, two-piece body, full bore, floating ball, plastomer sealing (also in fire-safe design). <b>Applications:</b> 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	

### **PROFIN-VT2L**

Valves

	PN 40 DN 8-80 T [°C] -10 to +150	and the line water to the structure to the structure of the second structure of the telescond structure of the second structure of	
<b>○●</b> m		http://shop.ksb.com/catalog/k0/en/product/ES000894	

# Three-piece ball valves

### ECOLINE BLC 1000

	Class DN T [°C]	1000 WOG 8 - 100 -10 to +200	<b>Description:</b> 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). <b>Applications:</b> General industry, power stations, chemical industry, petrochemical industry and all related branches of industry, paper industry, food industry and pharmaceutical industry.	
<b>m</b> , p			http://shop.ksb.com/catalog/k0/en/product/ES000794	

### PROFIN-SI3FIT/-SI3IT/-SI3LIT

	PN DN T [°C]	16/40 15 - 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, 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.	
<b>— —</b> m, p			http://shop.ksb.com/catalog/k0/en/product/ES000893	

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

	PN DN T [°C] -10	16/40 8 - 100 0 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, 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.	
─ <b>●</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> In industrial and chemical plants, in process engineering. Suitable for service water, air, oil, abrasive and aggressive fluids.	
<b>e</b> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000315	

### SISTO-10M

	PN DN T [°C]	10 15 - 80 -10 to +140	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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.	
🛑 e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000316	

## SISTO-16S

Valves

	PN DN T [°C] -2	16 15 - 200 20 to +160	<ul> <li>Description:</li> <li>Diaphragm valve to DIN/EN with flanged ends, short face-to-face length; 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.</li> <li>Applications:</li> <li>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.</li> </ul>	
e, m, p			http://shop.ksb.com/catalog/k0/en/product/ES000514	

## SISTO-16RGA

5004	PN DN T [°C]	16 15 - 80 -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.	
<b>●</b> m			http://shop.ksb.com/catalog/k0/en/product/ES000319	

## SISTO-16TWA/HWA/DLU

	PN DN 15 - : T [°C] -10 to +	to DIN 1000 DIN DVCW commenced for water and to test M/ 270 in some lines.
<b>e</b> , m, p		http://shop.ksb.com/catalog/k0/en/product/ES000318

### SISTO-20

0	PN DN T [°C]	16 15 - 200 -20 to +160	<b>Description:</b> 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. <b>Applications:</b> 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.	
<b>e</b> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000317	

### SISTO-C

	PN DN T [°C]	16 6 - 100 -20 to +160	<b>Description:</b> 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. <b>Applications:</b> Biotechnology, pharmaceutical industry, sterile processes, food and beverages industry.	
<b>m</b> , p			http://shop.ksb.com/catalog/k0/en/product/ES000320	

# Diaphragm valves for nuclear applications

# 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.	
<mark>e</mark> , m, p			http://shop.ksb.com/catalog/k0/en/product/ES000840	

## SISTO-DrainNA

	PN DN T [°C]	16 15 - 25 max. +100	<b>Description:</b> 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. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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			

# **Expansion and anti-vibration joints**

## ECOLINE GE1/GE2/GE3

PN DN T [°C]	16 15 - 300 -10 to +105	<b>Description:</b> Expansion joint to DIN/EN with flanged or threaded ends, made of EPDM elastomer or NBR, flanges made of nickel-coated carbon steel. <b>Applications:</b> 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	

# **ECOLINE GE4**

Valves

	PN DN T [°C]	16 20 - 200 -10 to +100	<b>Description:</b> Anti-vibration joint to DIN/EN, body made of EPDM, flanges to EN standards. <b>Applications:</b> 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	<b>Description:</b> Lever made of ductile cast iron. CR type series: locks in 10 positions (open, closed and 8 evenly spaced intermediate positions) and CM type series: same as CR, with special coating. <b>Applications:</b> 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 +	<ul> <li>Description:         Lever made of light metal alloy; type series S: locks in limit positions (open and closed), type series SR: locks in 9 positions (open, closed and 7 evenly spaced intermediate positions), type series SP: locks in any position.     </li> <li>Applications:         All applications in water, energy and industrial engineering.     </li> </ul>	
	http://shop.ksb.com/catalog/k0/en/product/ES000501	

# Manual gearboxes

MN



MR

Output torque [Nm] Enclosure T [°C]	max. 16,000 IP67/IP68 -50 to +80	Description: Heavy-duty manual actuator for operating quarter-turn valves. MR range manual gearbox, irreversible worm gear or scotch- yoke kinematics. Handwheel-operated as standard. Models MR 400 to 1600 can be fitted with actuators. Options include alternative operating mechanisms, limit switch boxes, low- temperature version, etc. Applications: Building services, industry and process engineering, water and waste water management, energy, petroleum and natural gas, mining, dredgers and shipbuilding.	
		http://shop.ksb.com/catalog/k0/en/product/ES000502	

# **Electric actuators**

# ACTELEC (BERNARD CONTROLS)

Quarter-turn actuator Multi-turn actuator Enclosure Output torque [Nm]	EZ4 - SQ120 31 - 800 IP67 max. 8,000	<b>Description:</b> Electric actuators by BERNARD CONTROLS for direct mounting on quarter-turn valves (actuator flange to ISO 5211) or linear valves in conjunction with a manual gearbox of the MR type series (actuator flange to ISO 5210). Power supply: single-phase AC, three-phase or direct current. Torque switch, travel stop and limit switch box as standard. For on/off or control duties. Integrated local control or remote control. <b>Applications:</b> All applications in water engineering, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000407	

# **ACTELEC (AUMA)**

Quarter-turn actuator Multi-turn actuator Enclosure Output torque [Nm]	SQ 05.2 - SQ 12 31 - 1600 IP67 max. 16,000	<b>Description:</b> Electric actuators by AUMA for direct mounting on quarter-turn valves (actuator flange to ISO 5211) or linear valves in conjunction with a manual gearbox of the MR type series (actuator flange to ISO 5210). Power supply: single-phase AC, three-phase or direct current. Torque switch, travel stop and limit switch box as standard. For on/off or control duties. Integrated local control or remote control. <b>Applications:</b> All applications in water engineering, 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	<b>Description:</b> 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. <b>Applications:</b> Building services, industry, power stations, food industry, chemical industry.	
		http://shop.ksb.com/catalog/k0/en/product/ES000405	

# Hydraulic actuators

HQ

Output torque [Nm] Enclosure T [°C]	max. 55,000 IP68 -20 to +100	<b>Description:</b> Single-acting or double-acting hydraulic actuator (gas cartridge or spring) for mounting on quarter-turn valves (butterfly valves or ball valves). Actuator flange to ISO 5211. Control pressure up to 160 bar. Mounts on valve stems with square end or flat end. Force transmission via rack-and-pinion or scotch-yoke kinematics provides output torques of up to 55,000 Nm which are ideal for actuating quarter-turn valves. Equipped with a visual position indicator and adjustable travel stops for open/closed position as standard. Optional manual override. Can be equipped with a hydraulic power unit: for shut-off, as a safety block, ESD block, as a bypass device enabling manual override. Can be combined with all limit switch boxes of the AMTROBOX/AMTROBOX R type series. <b>Applications:</b> Marine	
		http://shop.ksb.com/catalog/k0/en/product/ES000924	

# **Pneumatic actuators**

# ACTAIR

	Output torque [Nm] at a control pressure of 6 bar Enclosure T [°C]	max. 16,000 IP67 -20 to +80	<b>Description:</b> 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. Equipped with a visual position indicator and adjustable travel stops for open/closed position as standard. Optional manual override. Suitable for mounting control unit type series AMTROBOX, AMTRONIC, SMARTRONIC or any other device with an interface to VDI/VDE 3845. <b>Applications:</b> All applications in water, energy and industrial engineering.	
AMTROBOX, AMTRONIC, S	SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000411	

# ACTAIR NG

	Output torque [Nm] at a control pressure of 6 bar Enclosure T [°C]	max. 8,000 IP67 -20 to +80	<b>Description:</b> 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 or flat end. Force transmission via scotch-yoke kinematics provides output torques of up to 8000 Nm which are ideal for actuating quarter-turn valves. Equipped with a visual position indicator and adjustable travel stops for open/closed position as standard. Optional manual override. Suitable for mounting control unit type series AMTROBOX, AMTRONIC, SMARTRONIC or any other device with an interface to VDI/ VDE 3845. <b>Applications:</b> All applications in water engineering, energy and industrial engineering.	
📕 AMTROBOX, AMTRONIC, 🛛	SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000411	

### DYNACTAIR

	Output torque [Nm] at a control pressure of 6 bar Enclosure T [°C]	max. 8,000 IP65 -20 to +80	<b>Description:</b> 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 8000 Nm which are ideal for actuating quarter-turn valves. Reset to fail-safe position in case of control air failure is effected by means of spring assemblies. 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. Suitable for mounting control unit type series AMTROBOX, AMTRONIC, SMARTRONIC or any other device with an interface to VDI/ VDE 3845. <b>Applications:</b> All applications in water, energy and industrial engineering.	
AMTROBOX, AMTRONIC,	SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000412	

### **DYNACTAIR NG**

	Output torque [Nm] at a control pressure of 6 bar Enclosure T [°C]	max. 4,000 IP65 -20 to +80	<b>Description:</b> 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 or flat end. Force transmission via scotch-yoke kinematics provides output torques of up to 4000 Nm which are ideal for actuating quarter-turn valves. Reset to fail-safe position in case of control air failure is effected by means of spring assemblies. Equipped with a visual position indicator and adjustable travel stops for open/closed position as standard. Optional manual override. Suitable for mounting control unit type series AMTROBOX, AMTRONIC, SMARTRONIC or any other device with an interface to VDI/VDE 3845. <b>Applications:</b> All applications in water engineering, energy and industrial engineering.	
AMTROBOX, AMTRONIC, S	SMARTRONIC		http://shop.ksb.com/catalog/k0/en/product/ES000412	

### SISTO-LAD

4	Control air pressure [bar] Closing force [N]	max. 6 max. 20,000	<b>Description:</b> 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. <b>Applications:</b> 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

Ţ	Control air pressure [bar] Closing force [N]	max. 10 max. 250,000	<b>Description:</b> Piston actuator in heavy-duty design for mounting 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. <b>Applications:</b> 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

Enclosure T [°C] -20	<b>Description:</b> Manual override using a declutchable gear operator with handwheel for mounting on ACTAIR / ACTAIR NG double-acting pneumatic actuators, DYNACTAIR / DYNACTAIR NG single-acting pneumatic actuators, and HQ single-acting or double-acting hydraulic actuators. 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. <b>Applications:</b> All applications in water, energy and industrial engineering.	
	http://shop.ksb.com/catalog/k0/en/product/ES000906	

# Monitoring

### AMTROBOX

Enclosure T [°C]	IP67 -20 to +80	<b>Description:</b> 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 and ACTAIR NG pneumatic actuators and HQ hydraulic actuators. <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> 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] -10	IP67 to +60	<b>Description:</b> Multi-functional AMTROBOX limit switch box. For open/closed position signalling via mechanical limit switches or proximity sensors. AMTROBOX ATEX (X1140, X1149): ATEX-compliant version for potentially explosive dust atmospheres (Zone 22). <b>Applications:</b> 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	<b>Description:</b> Cost-effective solution for open/closed position signalling via mechanical limit switches. AMTROBOX C (RA01290) mounts on ACTAIR/ACTAIR NG pneumatic actuators, MR manual gearboxes to VDI/VDE and BOAX-B Mat P valves. <b>Applications:</b> 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	<b>Description:</b> Limit switch box specially designed for manual actuation. For open/closed position 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). <b>Applications:</b> 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	<b>Description:</b> 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/ACTAIR NG pneumatic actuators, HQ hydraulic actuators and any actuators with VDI/VDE interface. <b>Applications:</b> 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]	IP68 -25 to +80	<b>Description:</b> Sturdy and multi-functional. For open/closed position signalling via mechanical limit switches or proximity sensors. AMTROBOX R EEx ia (R11188): intrinsically safe version for explosive atmospheres (Zones 0 + 20). <b>Applications:</b> 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	<b>Description:</b> 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. <b>Applications:</b> All applications in water engineering, energy engineering, offshore and heavy industry.	
		http://shop.ksb.com/catalog/k0/en/product/ES000463	

# **ON/OFF** valve controllers

### AMTRONIC

# Positioners

## **SMARTRONIC MA**

Enclosure Control air pressure [bar] T [°C]	IP67 2 to 7 -20 to +80	<b>Description:</b> SMARTRONIC MA (R1310) is an electro-pneumatic digital positioner powered via the 4-20 mA signal. Mounts 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. <b>Applications:</b> All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000461	

## SMARTRONIC AS-i

A COM	Enclosure Control air pressure [bar] T [°C]	IP67 3 to 8 -20 to +80	<b>Description:</b> SMARTRONIC AS-i is an electro-pneumatic digital positioner for connection to an AS-i field bus. Certified by AS International. Mounts 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. <b>Applications:</b> 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	<b>Description:</b> SMARTRONIC PC (R1312) is an intelligent, compact and innovative positioner. The integrated control offered by this multi-functional control 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. <b>Applications:</b> All applications in water, energy and industrial engineering.	
		http://shop.ksb.com/catalog/k0/en/product/ES000873	



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