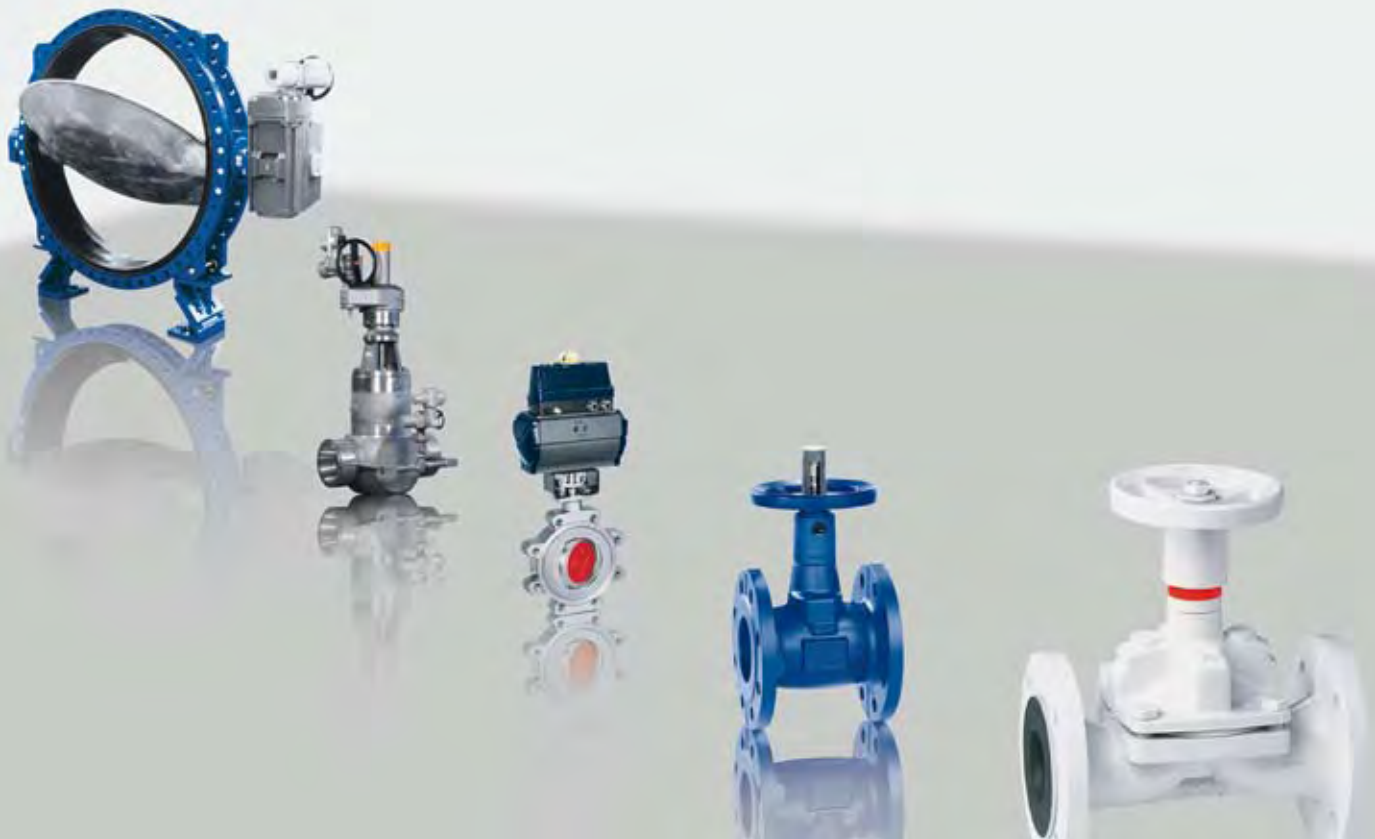
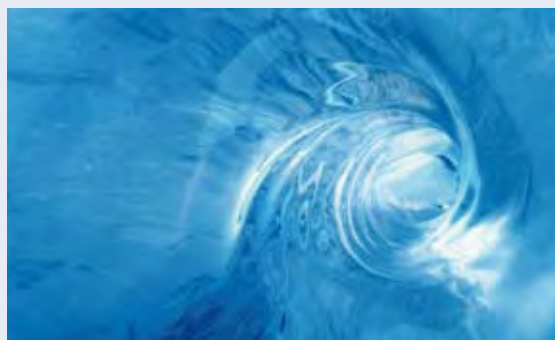




The Range of Valves 2009



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Overview of applications	p. 10-17



Our high standard: Creating intelligent solutions

We have supplied generations of customers worldwide with valves, pumps, 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 130 years' experience
- Present in more than 100 countries
- Approximately 14,000 employees
- More than 100 service centres worldwide
- Approximately 1,900 service specialists

Type series index

for valves and automation

ACTAIR	40	Eco-BLC 1000	50	SERIE 2000 Class 150	39
ACTELEC 0A3 - BS100	42	Eco-BLT 150-300	50	SERIE 2000 Class 300	39
ACTELEC 31 - 1,600	42	ECOLINE FY 150-600	32	SERIE 2000 PN 16	39
ACTELEC 31 - 800	42	ECOLINE FY 800	33	SERIE 2000 PN 25	39
ACTELEC SG05.1 - SG12.1	42	ECOLINE GL 150-600	23	SICCA 150-600 GLC	22
ACTELEC LEA LEB	42	ECOLINE GL 800	23	SICCA 150-600 GTC	26
ACTO	41	ECOLINE GT 150-600	26	SICCA 150-600 SCC	31
AKG-A/AKGS-A	25	ECOLINE GT 800	26	SICCA 800-1500 GTF	26
AKR/AKRS	30	ECOLINE SC 150-600	31	SICCA 800-2500 GLF	22
AMTROBOX C	43	ECOLINE SC 800/PT 800	31	SICCA 800-2500 PCF	29
AMTROBOX EEx-ia	44	ENNACTO	41	SICCA 900-2500 GLC	22
AMTROBOX M	43			SICCA 900-2500 GTC	26
AMTROBOX R / R EEx-ia	44	HERA BD	27	SICCA 900-2500 SCC	31
AMTROBOX S	44			SISTO-10 / SISTO-10-S	46
AMTRONIC	44	ISO F14 A/AC	51	SISTO-10-M	46
AMTRONIC Bus	45	ISO F14 D	51	SISTO-16 / SISTO-16-S	46
AMTRONIC EEx-ia	45	ISO VU	51	SISTO-16 HWA/DLU/TWA	47
		ISORIA 10	35	SISTO-16 RGA	46
BOACHEM FSA	32	ISORIA 16	35	SISTO-20	47
BOACHEM RXA	29	ISORIA 20	35	SISTO-B	47
BOACHEM ZXA/ZYA	22	ISORIA 25	35	SISTO-C	47
BOACHEM ZXAB/ZYAB	20			SISTO-KB / SISTO-KB-S	46
BOA-Compact	18	KE ELASTOMER	36	SISTOMAT-E	49
BOA-Compact EKB	18	KE PLASTOMER	36	SISTOMAT-P Type LAP	
BOA-Control IMS	23			for SISTO-B	48
BOA-Control SAR	24	MA	40	SISTOMAT-P Type LAP	
BOA-CVE C/CS/IMS/EKB	23	MAMMOUTH	36	for SISTO-C	49
BOA-H	19	Manual override	43	SISTOMAT-PC	48
BOA-H/HE/HV/HEV	19	MAT-P	48	SISTO RSK/RSK-S	48
BOA-R	28	MN	40	SMARTRONIC MA	45
BOA-RVK	27	MR	40	SMARTRONIC PC	45
BOA-S	32			STAAL 100 AKD/AKDS	25
BOA-SuperCompact	18	NORI 160 RXL/RXS	28	STAAL 100 AKK/AKKS	30
BOA-W	18	NORI 160 ZXL/ZXS	20	STAAL 40 AKD/AKDS	25
BOAX-B	35	NORI 160 ZXLf/ZXSf	21	STAAL 40 AKK/AKKS	30
BOAX-N	34	NORI 320 RXL/RXS	28		
BOAX-S / BOAX-SF	34	NORI 320 ZXLf/ZXSf	21	VTS	27
Body safety valve	25	NORI 320 ZXSv	21		
		NORI 40 FSL/FSS	32	ZJSVA/ZXSVA	24
Counterweight actuator	43	NORI 40 RXL/RXS	28	ZJSVM/RJSVM	24
		NORI 40 ZXL/ZXS	20	ZRS	30
DANAİS 150	37	NORI 40 ZXLb/ZXSb	19	ZTS	25
DANAİS 150 T (Marine)	37	NORI 40 ZXLbV/ZXSbV	19		
DANAİS MTII Class 150	37	NORI 40 ZXLf/ZXSf	20		
DANAİS MTII Class 300	37	NORI 40 ZYLB/ZYSB	19		
DANAİS TBT II (Cryogenic) AL	38	NORI 500 ZXSv	21		
DANAİS TBT II (Cryogenic)		NORI-A RXLR/RXSR	28		
Flanged	38	NORI-A ZXLr/ZXSR	21		
DANAİS TBT II (Cryogenic)					
Side Entry	38	PSA ball valve KHG	50		
DYNACTAIR	41	PSA ball valve KHG-W	50		
DYNACTO	41	PSA ball valve KHG-M	50		
		REAKTOR diaphragm valves	33		
		REAKTOR gate valve	34		
		REAKTOR globe valves	33		
		REAKTOR non-return valves	33		
		REAKTOR swing check valves	34		
		RGS	29		



Our services: Dependability at your call

We tailor our services to enable new ways of individually optimizing our products. They underscore our far-reaching sense of customer responsibility. That commitment starts before any orders – for example with sound advice on financing options. And it goes far beyond product arrival. A dependable partnership with KSB lasts for years.

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

- New installations and commissioning
- On-site service
- Repair at the service centre
- Maintenance inspection management
- Inspection service
- International service assignments
- Technical consultancy
- TPM® (Total Pump Management)
- Telesolutions

Ready where you are. KSB runs more than 100 service centres around the world. Some 1,900 highly trained KSB specialists are on call to inspect and maintain your equipment. So you can plan for a future free of unwanted surprises. And we also provide on-site training sessions. They ensure that operators can use KSB products and systems efficiently and profitably, day in, day out.

Which is how we secure the long-term value of our customers' facilities.





Our vision: Achieving more, together

Yesterday:

Innovation with a mission.

When KSB started business in 1871, our pumps and valves made us a pioneering company from the word go. Everything we did gave us a sense of contributing to a new era in modern industry.

That is all history now. But KSB still stays true to its tradition, and continues to pioneer remarkable technical skills.

Today:

Impetus from innovations.

KSB has spent its long history providing technical innovations that help customers and partners work more successfully than ever.

We gear everything we do to the real demands of everyday operations. Products, systems, life cycle costs and our steadily growing range of services all put customers and their processes first. This relies on our special concentration on activities – from development to sales and marketing.

Tomorrow:

Perspectives for partnerships.

Lively dialogue with customers has been a KSB speciality for over 130 years. Mutual respect remains its hallmark.

Our aim is to strengthen this working partnership still further. The benefits are mutual, too: we profit from practical experience that complements our years of development know-how. And so our customers profit from innovative products, systems and services that match their demands with precision and performance.

Partnership is a value whose products keep their value. So achieving more together makes doubly good sense. We look forward to teaming up.

Type / Application		Type series	Page	A	Water	Waste water	Industry	Energy	Building services	Mining	Pharmaceuticals
EN globe valves with soft seat	BOA-SuperCompact	18	■				■		■		
	BOA-Compact	18	■				■		■		
	BOA-Compact EKB	18	■				■		■		
	BOA-W	18					■		■		
EN globe valves with bellows	BOA-H	19					■	■	■		
	BOA-H / HE / HV / HEV	19	■				■	■	■		
	NORI 40 ZXLBV / ZXSbv	19	■				■	■	■		
	NORI 40 ZXLB / ZXSb	19	■				■	■	■		
	NORI 40 ZYLB / ZYSb	19					■	■	■		
	BOACHEM ZXAB / ZYAB	20	■				■		■		
EN globe valves with gland packing	NORI 40 ZXL / ZXS	20					■	■	■		
	NORI 40 ZXLF / ZXSf	20	■				■	■	■		
	NORI 160 ZXL / ZXS	20					■	■			
	NORI 160 ZXLF / ZXSf	21	■				■	■			
	NORI 320 ZXLF / ZXSf	21	■				■	■			
	NORI 320 ZXSv	21	■				■	■			
	NORI 500 ZXSv	21	■				■	■			
	NORI-A ZXLR / ZXSr	21	■				■	■			
	BOACHEM ZXA / ZYA	22					■		■		
ASME/ANSI globe valves	SICCA 150-600 GLC	22					■	■			
	SICCA 900-2500 GLC	22	■				■	■			
	SICCA 800-2500 GLF	22					■	■			
	ECOLINE GL 150-600	23					■	■			
	ECOLINE GL 800	23					■	■			
EN control and balancing valves	BOA-CVE C / CS / IMS / EKB	23	■				■		■		
	BOA-Control IMS	23	■				■		■		
	BOA-Control SAR	24					■		■		
Start and stop control valve	ZJSVA / ZXSVA	24	■				■	■			
Feedwater bypass valve	ZJSVM / RJSVM	24	■				■	■			
EN gate valves	STAAL 40 AKD / AKDS	25	■				■	■			
	STAAL 100 AKD / AKDS	25	■				■	■			
	AKG-A / AKGS-A	25	■				■	■			
	ZTS	25	■				■	■			
	Body safety valve	25					■	■			
ASME/ANSI gate valves	SICCA 150-600 GTC	26					■	■			
	SICCA 900-2500 GTC	26	■				■	■			
	SICCA 800-1500 GTF	26					■	■			
	ECOLINE GT 150-600	26					■	■			
	ECOLINE GT 800	26					■	■			
EN knife gate valve	HERA BD	27	■		■		■		■		
EN line blind valve	VTS	27					■	■			
EN non-return valves	BOA-RVK	27					■	■	■		
	BOA-R	28					■	■	■		
	NORI 40 RXL / RXS	28					■	■	■		
	NORI 160 RXL / RXS	28					■	■			
	NORI 320 RXL / RXS	28					■	■			
	NORI-A RXLR / RXSR	28					■	■			
	RGS	29					■	■			
	BOACHEM RXA	29					■		■		
ASME/ANSI non-return valve	SICCA 800-2500 PCF	29					■	■			
EN swing check valves	STAAL 40 AKK / AKKS	30					■	■			
	STAAL 100 AKK / AKKS	30					■	■			
	AKR / AKRS	30					■	■			
	ZRS	30					■	■			
ASME/ANSI swing check valves	SICCA 150-600 SCC	31					■	■			
	SICCA 900-2500 SCC	31					■	■			
	ECOLINE SC 150-600	31					■	■			
	ECOLINE SC 800 / PT 800	31					■	■			
EN strainers	BOA-S	32					■	■	■		
	NORI 40 FSL / FSS	32					■	■	■		
	BOACHEM FSA	32					■		■		

			A						
Type / Application	Type series	Page		Water	Waste water	Industry	Energy	Building services	Mineral
ASME/ANSI Y-strainers	ECOLINE FY 150-600	32							
	ECOLINE FY 800	33							
Valves for nuclear power plants	REAKTOR globe valves	33	■						
	REAKTOR non-return valves	33							
	REAKTOR diaphragm valves	33	■						
	REAKTOR gate valves	34	■						
	REAKTOR swing check valves	34							
AMRI centered-disc butterfly valves	BOAX-N	34	■						
	BOAX-S / SF	34	■						
	BOAX-B / BOAX-B Mat P	35	■	■	■	■			
	ISORIA 10	35	■	■		■	■		■
	ISORIA 16	35	■	■		■	■		■
	ISORIA 20	35	■	■		■	■		
	ISORIA 25	35	■	■		■	■	■	
	MAMMOUTH	36	■	■		■	■		
AMRI centered-disc butterfly valves for process engineering	KE PLASTOMER	36	■	■		■			
	KE ELASTOMER	36	■	■		■			
AMRI high-performance offset-disc butterfly valves	DANAIS 150	37	■	■		■	■	■	■
	DANAIS 150 T (Marine)	37	■			■			
	DANAIS MTII Class 150	37	■			■	■		■
	DANAIS MTII Class 300	37	■			■	■		■
AMRI cryogenic offset-disc butterfly valves	DANAIS TBT II (Cryogenic) Side Entry	38	■			■			
	DANAIS TBT II (Cryogenic) Flanged	38	■			■			
	DANAIS TBT II (Cryogenic) AL	38	■			■			
AMRI swing check valves	SERIE 2000 PN 16/25	39				■		■	
	SERIE 2000 Class 150/300	39		■		■			
SISTO diaphragm valves	SISTO-KB / SISTO-KB S	46	■	■	■	■	■	■	
	SISTO-10 / SISTO-10 S / SISTO-10 M	46	■	■	■	■	■	■	■
	SISTO-16 / SISTO-16 S	46	■	■	■	■	■	■	
	SISTO-16 RGA	46	■	■		■	■	■	
	SISTO-16 HWA / DLU / TWA	47	■	■	■	■	■	■	
	SISTO-20	47	■			■	■	■	
	SISTO-B	47	■	■		■			■
	SISTO-C	47	■	■		■			■
SISTO swing check valve	SISTO RSK/RSK-S	48		■	■	■	■	■	■
Ball valves	PSA ball valve KHG	50		■	■	■	■		■
	PSA ball valve KHG-W	50		■	■	■	■		■
	PSA ball valve KHG-M	50		■	■	■	■		■
	Eco-BLC 1000	50				■	■		■
	Eco-BLT 150-300	50				■	■		■
	ISO F14 A/AC	51	■			■	■		■
	ISO F14 D	51	■			■	■		■
	ISO VU	51	■			■	■		■

KSB's complete range of valves on CD-ROM, including manuals and technical documents as PDF-files in three languages. You can order the CD-ROM "Valve Catalogue" free of charge under www.ksb.com.

The same website also offers an online catalogue with the complete technical documents as well as KSB's Web Shop, where you can order products online.



			Water	Waste water	Industry	Energy	Building services	Mining	Pharmaceuticals
Type / Application	Type series	Page	Segment						
AMRI gear boxes for butterfly valves	MA	40			■		■		
	MN	40	■	■	■		■		
	MR	40	■	■	■	■	■	■	
AMRI pneumatic actuators for butterfly valves	ACTAIR	40	■	■	■	■			
	DYNACTAIR	41	■	■	■	■			
AMRI hydraulic actuators for butterfly valves	ACTO	41	■	■	■	■			
	DYNACTO	41	■	■	■	■			
	ENNACTO	41	■	■	■	■			
AMRI electric actuators for butterfly valves	ACTELEC 0A3 - BS100	42	■		■	■			
	ACTELEC LEA LEB	42					■		
	ACTELEC SG05.1 - SG12.1	42	■		■	■			
	ACTELEC 31 - 800	42	■		■	■			
	ACTELEC 31 - 1,600	42	■		■	■			
AMRI control accessories for butterfly valves	Manual override	43	■	■	■	■	■		
	Counterweight actuator	43	■			■			
Pneumatic actuators for SISTO diaphragm valves	SISTOMAT-PC	48	■	■	■	■	■	■	
	MAT-P	48	■	■	■	■	■	■	
	SISTOMAT-P Typ LAP für SISTO-B	48	■		■				■
	SISTOMAT-P Typ LAP für SISTO-C	49	■		■				■
Electric actuators for SISTO diaphragm valves	SISTOMAT-E	49	■	■	■	■	■	■	

Type / Application	Type series	Page	Segment						
AMRI automation for butterfly valve actuators / On/off detection	AMTROBOX M	43	■	■	■	■	■		
	AMTROBOX C	43	■	■	■	■	■		
	AMTROBOX R / AMTROBOX R EEx ia	44	■	■	■	■			
	AMTROBOX S	44	■	■	■	■			
	AMTROBOX / AMTROBOX EEx-ia	44	■	■	■	■			
AMRI automation for butterfly valve actuators / On/off detection and pneumatic distribution	AMTRONIC	44	■	■	■	■			
	AMTRONIC Bus	45	■	■	■	■			
	AMTRONIC EEx-ia	45	■	■	■	■			
AMRI automation for butterfly valve actuators / Intelligent positioner	SMARTRONIC MA	45	■	■	■	■			
	SMARTRONIC PC	45	■	■	■	■			

KSB offers a wide range of valve actuators. Please contact us with your exact requirements.

Key to actuator codes (see product descriptions on page 18 ff.):

m = manual
e = electric
p = pneumatic
h = hydraulic

STANDARDS OVERVIEW

DIN standards have been successively revised within the framework of European harmonization. The main changes are listed in the tables below.

MATING DIMENSIONS		
	Today	Previously
Flanges	EN 1092-1 EN 1092-2	DIN 2500 ff
Butt weld ends	EN 12627	DIN 3239 Part 1
Socket weld ends	EN 12760	DIN 3239 Part 2

FACE-TO-FACE LENGTHS								
	Flange		Previously		Butt weld end		Previously	
	Today				Today			
	Standard	Series	Standard	Series	Standard	Series	Standard	Series
Globe valves	EN 558-1	1 2 14 8	DIN 3202 Part 1	F1 F2 F4 F32	EN 12982	64 65	DIN 3202 Part 2	S2 S3
Gate valves	EN 558-1	15 26	DIN 3202 Part 1	F5 F7	EN 12982	15 26	DIN 3202 Part 2	S8 S9
Butterfly valves	EN 558-1	20	DIN 3202 Part 3	K1	—	—	—	—

MATERIALS						
Today			Previously			ASTM equivalent
Code	Designation	Standard	Code	Designation	Standard	Standard / Code
EN-GJL-250	EN-JL1040	EN 1561	GG-25	0.6025	DIN 1691	A 48-40B
EN-GJS-400-15	EN-JS1030	EN 1563	GGG-40	0.7040	DIN 1693-1	A 536-60-40-18
EN-GJS-400-18-LT ¹⁾	EN-JS1025	EN 1563	GGG-40.3	0.7043	DIN 1693-1	—
P235GH	1.0345	EN 10216-2	ST 35.8	1.0305	DIN 17175	A 106 A
P250GH	1.0460	EN 10273 EN 10222-2	C 22.8	1.0460	DIN 17243	A 105
P265GH	1.0425	EN 10028-2	H II	1.0425	DIN 17155	A 286 C
16Mo3+NT	1.5415	EN 10273 EN 10222-2	15Mo3	1.5415	DIN 17243	A 182 F1
13CrMo4-5	1.7335	EN 10273 EN 10222-2	13CrMo44	1.7335	DIN 17243	A 182 F11
10CrMo9-10 11CrMo9-10	1.7380 1.7383	EN 10273 EN 10222-2	10CrMo 9 10	1.7380	DIN 17243	A 182 F22
X10CrMoVNb9-1	1.4903	EN 10222-2	X10CrMoVNb9-1	1.4903	Vd TÜV 511/3	A 182 F91
X10CrWMoVNb9-2	1.4901	—	—	—	—	A 182 F92
X6CrNiMoTi17-12-2	1.4571	EN 10272 EN 10222-5	X6CrNiMoTi17-12-2	1.4571	DIN 17440	A 182 F316
15NiCuMoNb 5	1.6368	VDTÜV 377/3	15NiCuMoNb5	1.6368	VDTÜV 377/3	A 508 Class 2+3
GP240GH+N	1.0619+N	EN 10213-2	GS-C25N	1.0619.01	DIN 17245	A 216 WCB
G17CrMo5-5	1.7357	EN 10213-2	GS-17CrMo55	1.7357	DIN 17245	A 217 WC6
G17CrMo9-10	1.7379	EN 10213-2	GS-18CrMo9 10	1.7379	DIN 17245	A 217 WC9
GX5CrNi19-10	1.4308	EN 10213-4	G-X6CrNi189	1.4308	DIN 17445	A 351 CF8
GX5CrNiMo19-11-2	1.4408	EN 10213-4	G-X6CrNiMo1810	1.4408	DIN 17445	A 351 CF8M

* Notched bar impact testing at low temperature (LT)

Fluids

Valves

	BOA-SuperCompact	BOA-Compact	BOA-Compact EKB	BOA-W	BOA-H	BOA-H/HE/HV/HEV	NORI 40 ZXLBV/ZXSbv	NORI 40 ZXLB/ZXSB	NORI 40 ZYLB/ZYSB	BOACHEM ZXAB/ZYAB	NORI 40 ZXU/ZXS	NORI 40 ZXLF/ZXSf	NORI 160 ZXU/ZXS	NORI 160 ZXLF/ZXSf	NORI 320 ZXLF/ZXSf	NORI 320 ZXSv	NORI 500 ZXSv	NORI-A ZXLR/ZXSR	BOACHEM ZXA/ZYA	SICCA 150-600 GLC	SICCA 900-2500 GLC	SICCA 800-2500 GLF	ECOLINE GL 150-600	ECOLINE GL 800	BOA-CVE C/CS/IMS/EKB	BOA-Control IMS	BOA-Control SAR
Abrasive fluids																											
Activated sludge																											
Aggressive fluids																											
Brackish water																											
Brine																											
Cleaning agents																											
Condensate																											
Cooling water																											
Corrosive fluids																											
Destillate																											
Digested sludge																											
Dipping paints																											
Drinking water																											
Explosive fluids																											
Feed water																											
Fire-fighting water																											
Fluids containing gas																											
Fluids containing mineral oil																											
Fluids containing solids																											
Fuels																											
Gas																											
Harmful fluids																											
Heating water																											
Highly aggressive fluids																											
Hot water																											
Inflammable fluids																											
Inorganic fluids																											
Liquefied gas																											
Lubricants																											
Oils																											
Organic fluids																											
Polymerizing / Crystallizing fluids																											
Radioactive fluids																											
Raw sludge																											
River, lake and ground water																											
Sea water																											
Service water																											
Sewage with faeces																											
Sewage without faeces																											
Slurries (ore, sand, gravel, ash)																											
Solvents																											
Steam																											
Thermal oil																											
Toxic fluids																											
Vacuum																											
Valuable fluids																											
Volatile fluids																											
Wash water																											
Waste water																											

Fluids

Valves

	SICCA 150-600 SCC	SICCA 900-2500 SCC	ECOLINE SC 150-600	ECOLINE SC 800/PT 800	BOA-S	NORI 40 FSL/FSS	BOACHEM FSA	ECOLINE FY 150-600	ECOLINE FY 800	REAKTOR globe valves	REAKTOR non-return valves	REAKTOR diaphragm valves	REAKTOR gate valves	REAKTOR swing check valves	BOAX-N	BOAX-S / BOAX SF	BOAX-B / BOAX B Mat P	ISORIA 10	ISORIA 16	ISORIA 20	ISORIA 25	MAMMOUTH	KE PLASTOMER	KE ELASTOMER
Abrasive fluids																								
Activated sludge																								
Aggressive fluids																								
Brackish water																								
Brine																								
Cleaning agents																								
Condensate																								
Cooling water																								
Corrosive fluids																								
Destillate																								
Digested sludge																								
Dipping paints																								
Drinking water																								
Explosive fluids																								
Feed water																								
Fire-fighting water																								
Fluids containing gas																								
Fluids containing mineral oil																								
Fluids containing solids																								
Fuels																								
Gas																								
Harmful fluids																								
Heating water																								
Highly aggressive fluids																								
Hot water																								
Inflammable fluids																								
Inorganic fluids																								
Liquefied gas																								
Lubricants																								
Oils																								
Organic fluids																								
Polymerizing / Crystallizing fluids																								
Radioactive fluids																								
Raw sludge																								
River, lake and ground water																								
Sea water																								
Service water																								
Sewage with faeces																								
Sewage without faeces																								
Slurries (ore, sand, gravel, ash)																								
Solvents																								
Steam																								
Thermal oil																								
Toxic fluids																								
Vacuum																								
Valuable fluids																								
Volatile fluids																								
Wash water																								
Waste water																								

Fluids

Applications

Valves

	BOA-SuperCompact	BOA-Compact	BOA-Compact EKB	BOA-W	BOA-H	BOA-H/HE/HV/HEV	NORI 40 ZXLBV/ZXSBU	NORI 40 ZXLB/ZXSBU	NORI 40 ZYLB/ZYSB	BOACHEM ZKAB/ZYAB	NORI 40 ZXL/ZXS	NORI 40 ZXL/ZXS	NORI 160 ZXL/ZXS	NORI 160 ZXL/ZXS	NORI 320 ZXL/ZXS	NORI 320 ZXS	NORI 500 ZXS	NORI-A ZXL/ZXS	BOACHEM ZKA/ZYA	SICCA 150-600 GLC	SICCA 900-2500 GLC	SICCA 800-2500 GLF	ECOLINE GL 150-600	ECOLINE GL 800	BOA-CVE C/CS/IMS/EKB	BOA-Control IMS	BOA-Control SAR
Air-conditioning systems	■	■	■		■						■	■	■	■	■	■	■	■	■						■	■	■
Boiler circulation					■						■	■	■	■	■	■	■	■	■								
Boiler feed applications					■						■	■	■	■	■	■	■	■	■								
Chemical industry					■						■	■	■	■	■	■	■	■	■								
Condensate transport											■	■	■	■	■	■	■	■	■								
Conventional power stations											■	■	■	■	■	■	■	■	■								
Cooling circuits			■								■	■	■	■	■	■	■	■	■								
Descaling units											■	■	■	■	■	■	■	■	■								
Dewatering											■	■	■	■	■	■	■	■	■								
Disposal											■	■	■	■	■	■	■	■	■								
District heating											■	■	■	■	■	■	■	■	■								
Domestic water supply			■								■	■	■	■	■	■	■	■	■								
Fire-fighting systems											■	■	■	■	■	■	■	■	■								
Flue gas desulphurization											■	■	■	■	■	■	■	■	■								
Food and beverages industry										■									■								
Gas pipelines											■	■	■	■	■	■	■	■	■								
Gas storage facilities											■	■	■	■	■	■	■	■	■								
Heat recovery systems	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								
Homogenization											■	■	■	■	■	■	■	■	■								
Hot water heating systems	■	■	■		■						■	■	■	■	■	■	■	■	■								
Hydraulic solids transport											■	■	■	■	■	■	■	■	■								
Industrial recirculation systems											■	■	■	■	■	■	■	■	■								
Irrigation											■	■	■	■	■	■	■	■	■								
Keeping in suspension											■	■	■	■	■	■	■	■	■								
Maintaining ground water levels											■	■	■	■	■	■	■	■	■								
Mining											■	■	■	■	■	■	■	■	■								
Mixing											■	■	■	■	■	■	■	■	■								
Nuclear power stations						■	■	■	■	■	■	■	■	■	■	■	■	■	■								
Paint shops											■	■	■	■	■	■	■	■	■								
Paper and cellulose industry											■	■	■	■	■	■	■	■	■								
Petrochemical industry						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Pharmaceutical industry											■	■	■	■	■	■	■	■	■								
Pipelines and tank farms											■	■	■	■	■	■	■	■	■								
Pressure boosting						■	■	■	■	■	■	■	■	■	■	■	■	■	■								
Process engineering					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								
Rainwater harvesting											■	■	■	■	■	■	■	■	■								
Recirculation											■	■	■	■	■	■	■	■	■								
Refineries											■	■	■	■	■	■	■	■	■								
Seawater desalination / Reverse osmosis											■	■	■	■	■	■	■	■	■								
Sewage treatment plants											■	■	■	■	■	■	■	■	■								
Shipbuilding											■	■	■	■	■	■	■	■	■								
Sludge disposal											■	■	■	■	■	■	■	■	■								
Sludge processing											■	■	■	■	■	■	■	■	■								
Snow guns											■	■	■	■	■	■	■	■	■								
Spray irrigation											■	■	■	■	■	■	■	■	■								
Sugar industry					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								
Swimming pools											■	■	■	■	■	■	■	■	■								
Washing plants											■	■	■	■	■	■	■	■	■								
Water extraction											■	■	■	■	■	■	■	■	■								
Water supply			■								■	■	■	■	■	■	■	■	■							■	
Water treatment systems											■	■	■	■	■	■	■	■	■								

Applications

Applications

Valves

	SICCA 150-600 SCC	SICCA 900-2500 SCC	ECOLINE SC 150-600	ECOLINE SC 800/PT 800	BOA-S	NORI 40 FSL/FSS	BOACHEM FSA	ECOLINE FY 150-600	ECOLINE FY 800	REAKTOR globe valves	REAKTOR non-return valves	REAKTOR diaphragm valves	REAKTOR gate valves	REAKTOR swing check valves	BOAX-N	BOAX-S / BOAX SF	BOAX-B / BOAX B Mat P	ISORIA 10	ISORIA 16	ISORIA 20	ISORIA 25	MAMMOUTH	KE PLASTOMER	KE ELASTOMER
Air-conditioning systems																								
Boiler circulation																								
Boiler feed applications	■	■																						
Chemical industry																								
Condensate transport																								
Conventional power stations	■	■						■	■															
Cooling circuits																								
Descaling units																								
Dewatering																								
Disposal																								
District heating																								
Domestic water supply																								
Fire-fighting systems																								
Flue gas desulphurization																								
Food and beverages industry																								
Gas pipelines																								
Gas storage facilities																								
Heat recovery systems																								
Homogenization																								
Hot water heating systems																								
Hydraulic solids transport																								
Industrial recirculation systems																								
Irrigation																								
Keeping in suspension																								
Maintaining ground water levels																								
Mining																								
Mixing																								
Nuclear power stations																								
Paint shops																								
Paper and cellulose industry																								
Petrochemical industry	■	■																						
Pharmaceutical industry																								
Pipelines and tank farms	■	■																						
Pressure boosting																								
Process engineering	■	■						■	■															
Rainwater harvesting																								
Recirculation																								
Refineries	■	■						■	■															
Seawater desalination / Reverse osmosis																								
Sewage treatment plants																								
Shipbuilding																								
Sludge disposal																								
Sludge processing																								
Snow guns																								
Spray irrigation																								
Sugar industry																								
Swimming pools																								
Washing plants																								
Water extraction																								
Water supply																								
Water treatment systems																								

Applications

EN globe valves with soft seat

BOA-SuperCompact



PN _____ 6 / 10 / 16
DN _____ 20 - 200
T [°C] _____ -10 to +120

Design: Wafer-type globe valve in super compact DN face-to-face length, slanted seat, bonnetless, with flange alignment holes for centering, dead-end service and downstream dismantling, insulating cap with anti-condensation feature as standard, position indicator, soft main and back seat; maintenance-free, asbestos-free, full insulation possible.

Applications: Hot water heating systems up to 120 °C to DIN 4751. Air-conditioning systems. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and cast iron. Other fluids on request.

A m, e

Type series booklet 7113.1-10

BOA-Compact



PN _____ 6 / 16
DN _____ 15 - 200
T [°C] _____ -10 to +120

Design: Flanged end globe valve with short face-to-face length to EN 558-1/14, slanted seat, bonnetless, EPDM coated throttling valve plug, soft main and back seat, position indicator, locking device, travel stop, insulating cap with anti-condensation feature; maintenance-free, asbestos-free, full insulation possible.

Applications: Hot water heating systems up to 120 °C to DIN 4751. Air-conditioning systems. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and cast iron. Other fluids on request.

A m, e

Type series booklet 7112.1-10

BOA-Compact EKB



PN _____ 16
DN _____ 15 - 200
T [°C] _____ -10 to +80

Design: Flanged end globe valve with compact face-to-face length for drinking water supply systems; electrostatic plastic coating inside and outside, slanted seat, bonnetless, EPDM coated throttling valve plug, position indicator, locking device, travel stop, soft main and back seat; maintenance-free, asbestos-free (DVGW-approved PN 10).

Applications: Water supply systems, drinking water. Air-conditioning systems. Cooling circuits. For installation in copperpipelines the installation instructions must be complied with. Not suitable for steam, mineral oil or fluids liable to attack EPDM and the electrostatic plastic coating. Other fluids on request.

A m, e

Type series booklet 7112.11-10

BOA-W



PN _____ 6 / 16
DN _____ 15 - 200
T [°C] _____ -10 to +120

Design: Flanged end globe valve in horizontal seat design with standard face-to-face length, EPDM coated compact valve plug, soft main and back seat; maintenance-free, asbestos-free, full insulation possible.

Applications: Hot water heating systems up to 120 °C to DIN 4751. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and grey cast iron. Other fluids on request.

A m

Type series booklet 7111.1-10

EN globe valves with bellows

BOA-H



PN _____ 16 / 25
DN _____ 15 - 350
T [°C] _____ -10 to +350

Design: Flanged end bellows-type globe valve with shut-off or throttling valve plug, standard position indicator with colour coding for identification of valve design, replaceable valve plug; bellows protected when valve is in fully open position; seats made of wear and corrosion resistant Cr steel or CrNi steel.

Applications: Hot water heating systems DIN 4751. High-temperature hot water heating systems DIN 4752. Heat transfer systems DIN 4754. General steam applications in building services and industry. Other fluids on request.

A m

Type series booklet 7150.1-10

BOA-H/HE/HV/HEV



PN _____ 25 / 40
DN _____ 10 - 350
T [°C] _____ -10 to +450

Design: Flanged or weld end bellows-type globe valve with shut-off or throttling valve plug; seats made of wear and corrosion resistant Cr steel or CrNi steel.

Applications: In industrial plants, building services, power stations and shipbuilding. For water, steam, gas and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7161.1-10

NORI 40 ZXLBV/ZXSBB



PN _____ 25 / 40
DN _____ 10 - 200
T [°C] _____ -10 to +450

Design: Flanged or weld end bellows-type globe valve with shut-off or throttling valve plug, 2-piece stem; seats made of wear and corrosion resistant Cr steel or CrNi steel.

Applications: In industrial plants, building services, power stations and shipbuilding. For water, steam, gas and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7168.1-10

NORI 40 ZXLB/ZXSBB



PN _____ 25 / 40
DN _____ 10 - 200
T [°C] _____ -10 to +450

Design: Flanged or weld end bellows-type globe valve with replaceable shut-off or throttling valve plug, 2-piece stem; seats made of wear and corrosion resistant Cr steel or CrNi steel.

Applications: In industrial plants, building services, power stations and shipbuilding. For water, steam, gas and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7165.1-10

NORI 40 ZYLB/ZYSB



PN _____ 25 / 40
DN _____ 15 - 300
T [°C] _____ -10 to +450

Design: Flanged or weld end bellows-type globe valve, Y-valve, with replaceable throttling valve plug (up to DN 100) or shut-off plug (DN 125 and above), single-piece non-rotating stem; with position indicator, travel stop, locking device; seats made of wear and corrosion resistant Cr or CrNi steel.

Applications: In heat transfer systems, industrial plants, building services and shipbuilding. For thermal oils, water, steam, gas and other non-aggressive fluids. Other fluids on request.

A m

Type series booklet 7160.1-10

EN globe valves with bellows

BOACHEM ZXAB/ZYAB



PN _____ 10 - 14
DN _____ 15 - 200
T [°C] _____ -10 to +400

Design: Flanged bellows-type globe valve in stainless steel, in conventional or Y-valve design, with replaceable shut-off or throttling valve plug.

Applications: Process engineering, industry, building services, food and beverages industry, for aggressive fluids. Other fluids on request.

A m, e, p

Type series booklets V-623080-10, V-623081-10

EN globe valves with gland packing

NORI 40 ZXL/ZXS



PN _____ 25 / 40
DN _____ 10 - 400
T [°C] _____ -10 to +450

Design: Flanged or weld end globe valve with gland packing, shut-off or throttling valve plug, non-rotating stem, integrated position indicator; seats made of wear and corrosion resistant Cr steel or CrNi steel.

Applications: In industrial plants, building services, power stations and shipbuilding. For water, steam, gas and other non-aggressive fluids. Other fluids on request.

A m

Type series booklet 7621.1-10

NORI 40 ZXLF/ZXSF



PN _____ 25 / 40
DN _____ 10 - 200
T [°C] _____ -10 to +450

Design: Flanged or weld end globe valve with gland packing, shut-off or throttling valve plug, non-rotating stem, integrated position indicator; seats made of wear and corrosion resistant Cr steel or CrNi steel.

Applications: In industrial plants, building services, power stations and shipbuilding. For water, steam, gas and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7622.1-10

NORI 160 ZXL/ZXS



PN _____ 63 - 160
DN _____ 10 - 200
T [°C] _____ -10 to +550

Design: Flanged or weld end globe valve with gland packing, shut-off or throttling valve plug, non-rotating stem, integrated position indicator; seats made of wear and corrosion resistant 17 % Cr steel or stellite.

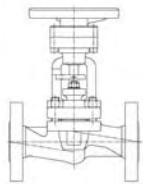
Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m

Type series booklet 7631.1-10

EN globe valves with gland packing

NORI 160 ZXLF/ZXSf



PN _____ 63 - 160
DN _____ 10 - 200
T [°C] _____ -10 to +550

Design: Flanged or weld end globe valve with gland packing, shut-off or throttling valve plug, non-rotating stem, integrated position indicator; seats made of wear and corrosion resistant 17 % Cr steel or stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7633.1-10

NORI 320 ZXLF/ZXSf



PN _____ 250 - 320
DN _____ 65 - 200
T [°C] _____ -10 to +550

Design: Flanged or weld end globe valve with gland packing, shut-off or throttling valve plug, non-rotating stem, integrated position indicator; seats made of wear and corrosion resistant 17 % Cr steel or stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7653.1-10

NORI 320 ZXSV



PN _____ 250 - 320
DN _____ 10 - 50
T [°C] _____ -10 to +580

Design: Weld end globe valve with gland packing, throttling valve plug, non-rotating stem, bayonet-type body / yoke connection, integrated position indicator, stellited seats.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7640.1-10

NORI 500 ZXSV



PN _____ 250 - 500
DN _____ 10 - 65
T [°C] _____ -10 to +650

Design: Weld end globe valve with gland packing, throttling valve plug, non-rotating stem, bayonet-type body / yoke connection, integrated position indicator, stellited seats.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7641.1-10

NORI-A ZXLR/ZXSr



PN _____ 250 - 500
DN _____ 10 - 50
T [°C] _____ -10 to +550

Design: Flanged or weld end globe valve with gland packing, shut-off or throttling valve plug, non-rotating stem, integrated position indicator, back seat, stellited seats.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7655.1-10

EN globe valves with gland packing

BOACHEM ZXA/ZYA



PN _____ 10 - 40
DN _____ 15 - 300
T [°C] _____ -10 to +400

Design: Flanged globe valve with gland packing, in stainless steel, conventional or Y-valve design, rotating stem, with shut-off or throttling valve plug.

Applications: Process engineering, industry, building services, food and beverages industry, for aggressive fluids. Other fluids on request.

A m

Type series booklets V-623082-10, V-623083-10

ASME/ANSI globe valves

SICCA 150-600 GLC



Class _____ 150 - 600
DN _____ 50 - 250
T [°C] _____ 0 to +593

Design: Cast steel globe valve to BS 1873 and ASME B16.34. Available in carbon, low alloy and stainless steel. Flanged or butt weld ends, external thread rotating stem, bolted bonnet. Wear and corrosion resistant seats. Class 150-600. Nom. size 2"-10".

Applications: In refineries, power stations, general industry and process engineering. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m

Type series booklet 7245.1-10

SICCA 900-2500 GLC



Class _____ 900 - 2500
DN _____ 50 - 200
T [°C] _____ 0 to +593

Design: Cast steel Y-pattern globe valve to ASME B16.34. Pressure seal bonnet, butt weld ends, external thread non-rotating stem, tapered seat. Wear and corrosion resistant seats. Class 900-2500. Nom. size 2"-8".

Applications: In power stations, general industry and process engineering. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e

Type series booklet 7242.1-10

SICCA 800-2500 GLF



Class _____ 800 - 2500
DN _____ 15 - 50
T [°C] _____ 0 to +593

Design: Forged steel globe valve to ISO 15761 (BS 5352). Socked weld or threaded ends, external thread rotating stem. Bolted bonnet (Class 800) or welded bonnet (Class 1500 and 2500). Hard-faced seats. Class 800, 1500 and 2500. Nom size ½"-2".

Applications: In power stations, general industry and process engineering. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m

Type series booklet 7240.1-10

ASME/ANSI globe valves

ECOLINE GL 150-600



Class _____ 150 / 300 / 600
DN _____ 2" - 12"
T [°C] _____ max. +427

Design: Globe valve designed to BS 1873. Cast steel A216 WCB, trim 8 (stellite/13%Cr) for class 150/300, trim 5 (stellite/stellite) for class 600. Pressure/temperature rating to ASME B16.34. Face-to-face length to ASME B16.10. Flange dimensions to ASME B16.5. Testing to API 598. Bolted bonnet. Outside screw and yoke. Graphite packing. Stainless steel / graphite gaskets. The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED), Annex I, for fluids in Groups 1 and 2.

Applications: Refineries, power stations, process engineering and general industry; water, steam, oil, gas. Other applications on request.

Type series booklet 7247.12-10

ECOLINE GL 800



Class _____ 800
DN _____ 1/2" - 2"
T [°C] _____ max. +425

Design: Globe valve designed to BS 5352. Forged steel A105 trim 8 (stellite/13%Cr). Pressure/temperature rating to ASME B16.34. Threaded ends (NTP) to ANSI B1.20.1. Socket weld ends (SW) to ASME B 16.11. Testing to API 598. Bolted bonnet. Outside screw and yoke. Graphite packing. Stainless steel/graphite gaskets. Reduced bore. The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED), Annex I, for fluids in Groups 1 and 2.

Applications: Industrial plants, power stations, process engineering, refineries, oil and marine engineering; for water, steam, gas, oil and other non-aggressive fluids.

Type series booklet V-020916

EN control and balancing valves

BOA-CVE C/CS/IMS/EKB



PN _____ 6 / 10 / 16
DN _____ 15 - 200
T [°C] _____ -10 to +120

Design: Control valve on base of standard range BOA-C, BOA-CS, BOA-C EKB, BOA-Control IMS, single-piece pressure-retaining body with soft seat. Leakage rate selectable from 0.05% to drop-tight at kvs values between 6.3 and 700 m³/h and closing pressures up to 16 bar. With intelligent microprocessor controlled electric actuators with actuating forces from 1200 N up to 12000 N, electronic configuration of valve characteristics, kvs value, control signal and time through PC tool or manual device. Customized configurations can be implemented by qualified KSB personnel at the factory.

Applications: Hot water heating systems up to 120 °C to DIN 4751. Venting and air-conditioning systems. Water supply systems, drinking water. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and uncoated cast iron. IMS not suitable for open loops. Other fluids on request.

A e

Type series booklet 7520.1-10

BOA-Control IMS



PN _____ 16
DN _____ 15 - 350
T [°C] _____ -10 to +120

Design: Balancing valve with electronic sensor for flow and fluid temperature measurement with BOATRONIC M-2 measuring computer for hydraulic balancing with short-term measurement, with BOATRONIC M-420 for analog signal transfer, e.g. to a control room. Independent of minimum differential pressures; constant accuracy across the entire range of valve travel. Standard: locking device and travel stop. Maintenance-free, asbestos-free, full insulation possible.

Applications: Hot water heating systems up to 120 °C to DIN 4751. Cold water for air-conditioning systems. Not suitable for fluids containing mineral oils, steam or fluids liable to attack EPDM and uncoated cast iron, for example in open cooling circuits.

A m, e

Type series booklet 7128.1-10

EN control and balancing valves

BOA-Control SAR



PN _____ 16
DN _____ 10 - 50
T [°C] _____ -25 to +150

Design: Balancing valve ; differential pressure measurement for flow measurement with PFM 2000 measuring computer; digital travel position indicator with 40 settings, locking device and travel stop. Maintenance-free, asbestos-free.

Applications: Hot water heating systems up to 150 °C to DIN 4751. Air-conditioning systems. Other fluids on request.

A m

Type series booklet 7129.1-10

Start and stop control valves

ZJSVA/ZXSVA



PN _____ max. 600 bar
DN _____ 65 - 250
T [°C] _____ -10 to +650

Design: Start and stop control valve with pressure seal bonnet, billet forged body, seats made of wear and corrosion resistant stellite, rigid throttling plug / stem connection for high differential pressures.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7253.1-10

Feedwater bypass valve

ZJSVM/RJSVM



PN _____ max. 600 bar
DN _____ 100 - 800
T [°C] _____ -10 to +450

Design: 2-port globe valve with pressure seal bonnet, billet forged body, in Z or T pattern, seats made of wear and corrosion resistant stellite, process fluid controlled.

Applications: In industrial plants, power stations, process engineering. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

EN gate valves

STAAL 40 AKD/AKDS



PN _____ 10 - 40
DN _____ 50 - 800
T [°C] _____ -10 to +400

Design: Flanged or weld end gate valve with bolted bonnet, body of forged or welded steel construction, non-rotating stem, flexible wedges for exact adaptation to seats. Seats made of wear and corrosion resistant 17 % Cr steel.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7364.1-10

STAAL 100 AKD/AKDS



PN _____ 63 - 100
DN _____ 50 - 500
T [°C] _____ -10 to +550

Design: Flanged or weld end gate valve with bolted bonnet, body of forged or welded steel construction, non-rotating stem, flexible wedges for exact adaptation to seats. Seats made of wear and corrosion resistant 17 % Cr steel or stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7331.1-10

AKG-A/AKGS-A



PN _____ 63 - 160
DN _____ 80 - 300
T [°C] _____ -10 to +550

Design: Flanged or weld end gate valve with pressure seal bonnet, forged or welded body, non-rotating stem, flexible wedges for exact adaptation to seats. Seats made of wear and corrosion resistant 17 % Cr steel or stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7338.1-10

ZTS



PN _____ max. 600 bar
DN _____ 50 - 800
T [°C] _____ -10 to +650

Design: Butt weld end gate valve with pressure seal bonnet, billet forged body, seats made of wear and corrosion resistant stellite, flexible wedges for exact adaptation to valve seats.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e, p

Type series booklet 7451.1-10

Body safety valve



PN _____ ≥ 63
DN _____ 15

Design: Spring-loaded pressure relief valve with or without bursting disc, for gate valves in pressure seal design

Type series booklet 7300.1-10

ASME/ANSI gate valves

SICCA 150-600 GTC



Class _____ 150 - 600
DN _____ 50 - 600
T [°C] _____ 0 to +593

Design: Cast steel gate valve to API 600 and ASME B16.34. Available in carbon, low alloy and stainless steel. Flanged or butt weld ends, external thread non-rotating stem, bolted bonnet, flexible wedge. Wear and corrosion resistant seats. Class 150-600. Nom. size 2"-24".

Applications: In refineries, power stations, general industry and process engineering. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m

Type series booklet 7244.1-10

SICCA 900-2500 GTC



Class _____ 900 - 2500
DN _____ 50 - 400
T [°C] _____ 0 to +593

Design: Cast steel gate valve to ASME B16.34. Pressure seal bonnet, butt weld ends, external thread non-rotating stem. Double disc wedge design for tight shut-off and easy maintenance. Wear and corrosion resistant seats. Class 900-2500. Nom. size 2"-16".

Applications: In power stations, general industry, process engineering. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m, e

Type series booklet 7241.1-10

SICCA 800-1500 GTF



Class _____ 800 - 1500
DN _____ 15 - 50
T [°C] _____ 0 to +593

Design: Forged steel gate valve to API 602 and ASME B16.34. Socket weld or threaded ends, external thread non-rotating stem. Bolted bonnet (Class 800) or welded bonnet (Class 1500). Solid wedge and hard-faced seats. Class 800-1500. Nom. size 1/2" - 2".

Applications: In power stations, general industry, process engineering. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

A m

Type series booklet 7240.1-10

ECOLINE GT 150-600



Class _____ 150 / 300 / 600
DN _____ 2" - 16"
T [°C] _____ max. +427

Design: Gate valve designed to ANSI/ASME. Cast steel A 216 WCB, trim 8 (stellite/13 % Cr) for class 150 / 300; trim 5 (stellite/stellite) for class 600. Pressure/temperature rating to ASME B16.34. Flange dimensions to ASME B 16.5. Face-to-face length to ASME B 16.10. Testing to API 598. Bolted bonnet. Outside screw and yoke. Non-rotating stem. Flexible wedge. Graphite packing. Stainless steel/graphite gaskets. The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED), Annex I, for fluids in Groups 1 + 2.

Applications: Industrial applications, power stations, process engineering, refineries, oil and marine engineering; for water, steam, gas, oil and other non-aggressive fluids.

Type series booklet 7247.11-10

ECOLINE GT 800




Class _____ 800
DN _____ 1/2" - 2"
T [°C] _____ max. +425

Design: Gate valve designed to ANSI/ASME. Forged steel A105 trim 8 (stellite/13% Cr). Pressure/temperature rating to ASME B16.34. Threaded ends (NTP) to ANSI B1.20.1. Socket weld ends (SW) to ASME B 16.11. Testing to API 598. Bolted bonnet. Outside screw and yoke. Non-rotating stem. Flexible wedge. Graphite packing. Stainless steel / graphite gaskets. Reduced bore. The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED), Annex I, for fluids in Groups 1 + 2.


Applications: Industrial plants, power stations, process engineering, refineries, oil and marine engineering; for water, steam, gas, oil and other non-aggressive fluids.

Type series booklet V-020917


EN-Plattenschieber

HERA BD		
	PN _____	max. 10 bar
	DN _____	50 - 1200
	T [°C] _____	-10 to +120
	Design: Wafer-type knife gate valve made of grey cast iron, single or two-piece body, bi-directional, with gland packing, non-rising stem, corrosion protected by epoxy coating. Applications: In industrial plants, waste water and process engineering, food industry. For water, waste water and solids-laded fluids. Other fluids on request.	
A m, e, p		Type series booklet 7328.1-10

EN line blind valve

VTS		
	PN _____	max. 600 bar
	DN _____	200 - 800
	T [°C] _____	-10 to +650
	Design: Butt weld end line blind valve in pressure seal design, billet-forged body, seats made of wear and corrosion resistant stellite. Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.	
		Type series booklet 7510.1-10

EN non-return valves

BOA-RVK		
	PN _____	6 / 10 / 16
	DN _____	15 - 200
	T [°C] _____	-30 to +250
	Design: Wafer-type non-return valve; centering aided by the body shape, shut-off by spring loaded check disc or plug guided by three stainless steel guiding pins. Low-noise variants with plastic check disc (DN 15-100) or plug with O-ring (DN 125-200), maintenance-free. Applications: Industrial and heating systems. Liquids, gases and steams. Hot water heating systems to DIN 4751. High-temperature hot water heating systems to DIN 4752. Heat transfer systems DIN 4754. Any limits given in the technical codes shall be complied with. Not suitable for fluids liable to attack the valve materials. Other fluids on request.	
		Type series booklet 7119.1-10

EN non-return valves

BOA-R



PN _____ 6 / 16
DN _____ 10 - 300
T [°C] _____ -10 to +350

Design: Flanged end non-return valve with spring-loaded check disc, maintenance-free, asbestos-free.

Applications: Hot water heating systems DIN 4751. High-temperature hot water heating systems DIN 4752. Heat transfer systems DIN 4754. General steam applications in building services and industry. Other fluids on request.

Type series booklet 7117.1-10

NORI 40 RXL/RXS



PN _____ 25 / 40
DN _____ 10 - 300
T [°C] _____ -10 to +450

Design: Flanged or weld end non-return valve, check disc with closing spring; seats made of wear and corrosion resistant Cr steel or CrNi steel.

Applications: In industrial plants, building services, power stations and shipbuilding. For water, steam, gas and other non-aggressive fluids. Other fluids on request.

Type series booklet 7673.1-10

NORI 160 RXL/RXS



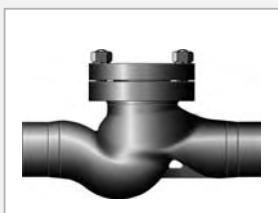
PN _____ 63 - 160
DN _____ 10 - 200
T [°C] _____ -10 to +550

Design: Flanged or weld end non-return valve, check disc with closing spring; seats made of wear and corrosion resistant 17 % Cr steel or stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7681.1-10

NORI 320 RXL/RXS



PN _____ 250 - 320
DN _____ 65 - 200
T [°C] _____ -10 to +550

Design: Flanged or weld end non-return valve, check disc with closing spring; seats made of wear and corrosion resistant 17 % Cr steel or stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7657.1-10

NORI-A RXLR/RXSR



PN _____ 250 - 500
DN _____ 10 - 50
T [°C] _____ -10 to +550

Design: Flanged or weld end non-return valve, check disc with closing spring; seats made of wear and corrosion resistant stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7693.1-10

EN non-return valves

RGS



PN _____ 250 - 500
DN _____ 10 - 50
T [°C] _____ -10 to +580

Design: Weld end non-return valve, Y-pattern, check disc with closing spring, pressure seal design, Hastelloy-faced body seats.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7692.1-10

BOACHEM RXA



PN _____ 10 - 40
DN _____ 15 - 300
T [°C] _____ -10 to +400

Design: Flanged non-return valve made of stainless steel, check disc with closing spring, lapped seats.

Applications: Process engineering, industry, building services, food and beverages industry, for aggressive fluids. Other fluids on request.

Type series booklet V-623084-10

ASME/ANSI non-return valves

SICCA 800-2500 PCF



Class _____ 800 - 2500
DN _____ 15 - 50
T [°C] _____ 0 to +593

Design: Forged steel non-return valves with spring-loaded disc to ISO 15761 (BS 5352) and ASME B16.34. Socket weld ends or threaded ends. Bolted cover (Class 800) or welded cover (Class 1500 and 2500). Hard-faced seats. Class 800, 1500 and 2500. Nom. size ½"-2".

Applications: In power stations, general industry, process engineering. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7240.1-10

EN swing check valves

STAAL 40 AKK/AKKS



PN _____ 10 - 40
DN _____ 80 - 400
T [°C] _____ -10 to +400

Design: Flanged or weld end swing check valve, with bolted cover, internal hinge pin body of forged or welded steel construction; seats made of wear and corrosion resistant 17 % Cr steel.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7365.1-10

STAAL 100 AKK/AKKS



PN _____ 63 - 100
DN _____ 80 - 400
T [°C] _____ -10 to +550

Design: Flanged or weld end swing check valve, with bolted cover, internal hinge pin body of forged or welded steel construction; seats made of wear and corrosion resistant 17 % Cr steel or stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7371.1-10

AKR/AKRS



PN _____ 63 - 160
DN _____ 80 - 300
T [°C] _____ -10 to +550

Design: Flanged or weld end swing check valve in pressure seal design, with internal hinge pin forged / welded body; seats made of wear and corrosion resistant 17 % Cr steel or stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7373.1-10

ZRS



PN _____ max. 600 bar
DN _____ 50 - 800
T [°C] _____ -10 to +650

Design: Weld end swing check valve in pressure seal design, with internal hinge pin, billet forged body; seats made of wear and corrosion resistant stellite.

Applications: In industrial plants, power stations, process engineering and shipbuilding. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7278.1-10

ASME/ANSI swing check valves

SICCA 150-600 SCC



Class _____ 150 - 600
DN _____ 50 - 600
T [°C] _____ 0 to +593

Design: Cast steel swing check valve to BS 1868 and ASME B16.34. Available in carbon, low alloy and stainless steel. Flanged or with butt weld ends. Internal hinge pin, check disc with anti-rotation device, bolted cover. Wear and corrosion resistant seats. Class 150-600. Nom. size 2"-24".

Applications: In refineries, power stations, process engineering and general industry. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7246.1-10

SICCA 900-2500 SCC



Class _____ 900 - 2500
DN _____ 50 - 400
T [°C] _____ 0 to +593

Design: Cast steel swing check valve to ASME B16.34. Pressure seal design, weld ends, internal hinge pin check disc with anti-rotation device. Wear and corrosion resistant seats. Class 900-2500. Nom. size 2"-16".

Applications: In power stations, process engineering and general industry. For water, steam, gas, oil and other non-aggressive fluids. Other fluids on request.

Type series booklet 7243.1-10

ECOLINE SC 150-600



Class _____ 150 / 300 / 600
DN _____ 2" - 12"
T [°C] _____ max. +427

Design: Swing check valve designed to BS 1868. Cast steel A216 WCB, trim 8 (stellite/13 %Cr) for class 150/300, trim 5 (stellite/stellite) for class 600. Pressure/temperature rating to ASME B16.34. Face-to-face length to ASME B16.10. Flange dimensions to ASME B16.5. Testing to API 598. Bolted cover. Internally mounted hinge (2"-12"). Stainless steel/graphite gaskets. The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED), Annex I, for fluids in Groups 1 + 2.

Applications: Refineries, power stations, process engineering and general industry; water, steam, oil, gas. Other applications on request.

Type series booklet 7247.13-10

ECOLINE SC 800 / PT 800



Class _____ 800
DN _____ ½" - 2"
T [°C] _____ max. +425

Design: Swing check valve (SC) or piston check valve (PT) designed to ANSI/ASME. Forged steel A105 trim 8 (stellite/13% Cr). Pressure/temperature rating to ASME B16.34. Threaded ends (NTP) to ANSI B1.20.1. Socket weld ends (SW) to ASME B 16.11. Testing to API 598. Reduced bore. Bolted cover. Internally mounted hinge or spring-loaded piston. The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED), Annex I, for fluids in Groups 1 + 2.

Applications: Industrial plants, power stations, process engineering, refineries, oil and marine engineering; for water, steam, gas, oil and other non-aggressive fluids.

Type series booklet V-020919 (SC800), V-020918 (PT800)

EN strainers

BOA-S



PN _____ 6 / 16 / 25
DN _____ 15 - 300
T [°C] _____ -10 to +350

Design: Flanged end strainer with standard or fine mesh; all nominal sizes with drain plug in the cover.

Applications: Hot water heating systems DIN 4751. High-temperature hot water heating systems DIN 4752. Heat transfer systems DIN 4754. General steam applications in building services and industry. Other fluids on request.

Type series booklet 7125.1-10

NORI 40 FSL/FSS



PN _____ 25 / 40
DN _____ 15 - 300
T [°C] _____ -10 to +450

Design: Flanged or weld end strainer with standard or fine mesh; all nominal diameters 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.

Type series booklet 7127.1-10

BOACHEM FSA



PN _____ 10 - 40
DN _____ 15 - 400
T [°C] _____ -10 to +400

Design: Flanged stainless steel strainer, with standard or fine mesh.

Applications: Process engineering, industry, building services, food and beverages industry, for aggressive fluids. Other fluids on request.

Type series booklet V-623085-10

ASME/ANSI Y- strainers

ECOLINE FY 150-600



Class _____ 150 / 300 / 600
DN _____ 2" - 12"
T [°C] _____ max. +427

Design: Y-pattern strainer designed to ANSI/ASME. Cast steel A216 WCB. Pressure/temperature rating to ASME B16.34. Face-to-face length to ASME B16.10. Flange dimensions to ASME B16.5. Testing to API 598. Screen in stainless steel 304. Mesh width 1.5 mm. Bolted cover. The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED), Annex I, for fluids in Groups 1 + 2.

Applications: Refineries, power plant, process engineering and general industry; water, steam, oil, gas. Other applications on request.

Type series booklet 7247.1420-831

ASME/ANSI Y- strainers

ECOLINE FY 800



Class _____ 800
 DN _____ ½" - 2"
 T [°C] _____ max. +425

Design: Y-pattern strainer designed to ANSI/ASME. Forged steel A105. Pressure/temperature rating to ASME B16.34. Threaded ends (NTP) to ANSI B1.20.1. Socket weld ends (SW) to ASME B 16.11. Testing to API 598. Screen made of stainless steel 304. Mesh width 0.8-0.9 mm. Bolted cover. The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED), Annex I, for fluids in Groups 1 + 2.

Applications: Industrial plants, power stations, process engineering, refineries, oil and marine; water, steam, gas, oil and other non-aggressive fluids.

Type series booklet V-020920

Valves for nuclear power plants

REAKTOR globe valves



PN _____ max. 320 bar
 DN _____ 6 - 600
 T [°C] _____ max. +400

Design: Weld end globe valve with gland packing or bellows, in conventional or Y-valve design, angle or „Z“ pattern, made of steel or stainless steel.

Applications: Nuclear power plants.

A m, e, p

REAKTOR non-return valves



PN _____ max. 320 bar
 DN _____ 10 - 600
 T [°C] _____ max. +400

Design: Weld end non-return valve in conventional or Y-valve design, angle or „Z“ pattern, with or without damping, made of steel or stainless steel.

Applications: Nuclear power plants.

REAKTOR diaphragm valves



PN _____ 12
 DN _____ 15 - 200
 T [°C] _____ max. +100

Design: Soft-seated flanged or weld end diaphragm valve in straight-way pattern, made of nodular cast iron or stainless steel.

Applications: Nuclear power plants.

A m, e, p

Valves for nuclear power plants

REAKTOR gate valves



PN _____ max. 320 bar
DN _____ 50 - 600
T [°C] _____ max. +400

Design: Weld end gate valve, with bolted or pressure seal bonnet, forged / welded body, non-rotating stem; flexible wedges for exact adaptation to valve seats; made of steel or stainless steel.

Applications: Nuclear power plants.

A m, e, p

REAKTOR swing check valves



PN _____ max. 320 bar
DN _____ 50 - 600
T [°C] _____ max. +400

Design: Weld end swing check valve with bolted or pressure seal cover, internal hinge pin, forged / welded body, made of steel or stainless steel.

Applications: Nuclear power plants.

AMRI centered-disc butterfly valves

BOAX-N



PN _____ 10 / 16
DN _____ 20 - 600
T [°C] _____ -10 to +130

Design: Butterfly valve for building services, with anti-condensation feature, elastomer liner (EPDM XU or Nitrile K). With lever, manual gearbox or electric actuator. Semi-lug type body (type T2), suitable for downstream dismantling and dead-end service. Valve disc made of nickel-coated nodular cast iron. Connections to EN possible.

Applications: Heating, ventilation, air-conditioning.

A m, e, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklet 8413.1-10

BOAX-S / BOAX-SF



PN _____ 10 / 16
DN _____ 20 - 600
T [°C] _____ -10 to +130

Design: Butterfly valve for building services, with anti-condensation feature, elastomer liner (EPDM XU or Nitrile K). With lever, manual gearbox, electric or pneumatic actuator. BOAX-S: semi-lug type body (T2), BOAX-SF: full-lug type body (T4), suitable for downstream dismantling and dead-end service. Valve disc made of stainless steel 1.4308. Connections to EN possible.

Applications: Heating, ventilation, air-conditioning, for drinking water.

A m, e, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklet 8417.1-10

AMRI centered-disc butterfly valves

BOAX-B / BOAX-B Mat P



PN _____ 10 / 16
DN _____ 40 - 1000
T [°C] _____ -10 to +110

Design: Applications: Engineering contractors, for water, crude oil and oils. Shut-off and control duties in water management, water supply, water treatment, drainage and irrigation.

A m, e, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 8409.11-10 / 8412.11-90

ISORIA 10



PN _____ max. 10 bar
DN _____ 40 - 1000
T [°C] _____ -10 to +200

Design: Centered disc butterfly valve with elastomer liner. With lever, manual gearbox, pneumatic, electric or hydraulic actuator. Wafer type body (T1), semi-lug type body (T2), full-lug type body (T4), U-section body with flat faces (T5). Body types T2, T4 and T5 are suitable for downstream dismantling and dead-end service with counterflange. EN, ANSI, JIS connections possible.

Applications: Shut-off and control duties in all industrial and energy applications.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 8444.1-01 / 8444.11-90

ISORIA 16



PN _____ max. 16 bar
DN _____ 40 - 1000
T [°C] _____ -10 to +200

Design: Centered disc butterfly valve with elastomer liner. With lever, manual gearbox, pneumatic, electric or hydraulic actuator. Wafer type body (T1), semi-lug type body (T2), full-lug type body (T4), U-section body with flat faces (T5). Body types T2, T4 and T5 are suitable for downstream dismantling and dead-end service with counterflange. EN, ANSI, JIS connections possible.

Applications: Shut-off and control duties in all industrial and energy applications.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 8445.1-10 / 8445.11-90

ISORIA 20



PN _____ max. 20 bar
DN _____ 32 - 600
T [°C] _____ -10 to +80

Design: Centered disc butterfly valve with elastomer liner. With lever, manual gearbox, pneumatic, electric or hydraulic actuator. Semi-lug type body (T2) or full-lug type body (T4). Body types T2 and T4 are suitable for downstream dismantling and dead-end service with counterflange. EN, ANSI, JIS connections possible.

Applications: Shut-off and control functions in all industrial and energy applications.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 8446.1-01 / 8446.11-90

ISORIA 25



PN _____ max. 25 bar
DN _____ 32 - 1000
T [°C] _____ -10 to +60

Design: Centered disc butterfly valve with elastomer liner. With lever, manual gearbox, pneumatic, electric or hydraulic actuator. Semi-lug type body (T2) or U-section body with flat faces (T5). Body types T2 and T5 are suitable for downstream dismantling and dead-end service with counterflange. EN, ANSI, JIS connections possible.

Applications: Shut-off service for liquids only.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklet 8447.1-10 / 8447.11-90

AMRI centered-disc butterfly valves

MAMMOUTH



PN _____ 6 / 10 / 16 / 20 / 25
 DN _____ 1050 - 4000
 T [°C] _____ 0 to +65

Design: Centered disc butterfly valve with elastomer liner. U-section / double flanged body with flat faces (T5). EN, ANSI, JIS connections possible.

Applications: Water supply, water treatment, irrigation, disposal, desalination (reverse osmosis MSF), industry. Cooling circuits, fire fighting systems, ship-building, steel industry, power stations (water, thermal, nuclear). Shut-off and control duties in all industrial applications.

A m, e, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 8612.12-10 / 8612.178-90

AMRI centered-disc butterfly valves for process

KE PLASTOMER



PN _____ 10
 DN _____ 40 - 600
 T [°C] _____ -20 to +200

Design: Centered disc butterfly valve with PFA liner. With lever, manual gearbox, pneumatic, electric actuator. Wafer type body (T1), full-lug type body (T4) or U-section body with raised faces (T6). EN, ANSI, JIS connections possible.

Applications: Highly corrosive fluids: toxic and highly corrosive fluids which cannot be handled by metals or elastomers, thus requiring the sole use of PFA. Moderately corrosive and aggressive fluids allowing the use of a PFA liner with a stainless steel valve disc. Fluids requiring absolutely safe handling.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 0166.1-10 / 0166.11-90

KE ELASTOMER



PN _____ 10
 DN _____ 40 - 300
 T [°C] _____ -20 to +150

Design: Centered disc butterfly valve with elastomer liner. With lever, manual gearbox, pneumatic, electric or hydraulic actuator. Wafer type body (T1), full-lug type body (T4) or U-section body with raised faces (T6). EN, ANSI, JIS connections possible.

Applications: Moderately corrosive and / or abrasive industrial fluids; production of powder products.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 0167.1-10 / 0167.11-90

AMRI high-performance offset-disc butterfly valves

DANAİS 150



PN _____ 10 / 16 / 25
DN _____ 50 - 600
T [°C] _____ -50 to +260

Design: Double-offset butterfly valve with plastomer seat ring (also in fire-safe design) or metal seat ring. With lever or gearbox, pneumatic or electric or hydraulic actuator. Body made of cast steel or stainless steel. Wafer type body (T1) or full-lug type body (T4). Body type T4 is suitable for dead-end service and downstream dismantling. ASME Class 150, JIS.

Applications: Petroleum, gas, chemical and petrochemical industry, nuclear power stations, sugar industry, paper industry, geothermal energy, shipbuilding, low-pressure steam, vacuum service. All applications requiring offset disc butterfly valves.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 8460.11-10 / 8460.15-90

DANAİS 150 T (Marine)



PN _____ 10 / 16 / 25
DN _____ 50 - 450
T [°C] _____ -50 to +150

Design: Double-offset butterfly valve with plastomer seat ring (also in fire-safe design). With gearbox or hydraulic actuator. Body made of stainless steel. Wafer type body (T1) or full-lug type body (T4). Body type T4 is suitable for dead-end service and downstream dismantling. ASME Class 150, JIS. Added protection against aggressive environments.

Applications: Shipbuilding, chemical tankers, petroleum, gas, chemical and petrochemical industry. Low-pressure steam, vacuum service. All applications requiring offset disc butterfly valves.

A m, h + AMTROBOX

Type series booklets 8460.12-10 / 8460.353-90

DANAİS MTII Class 150



PN _____ 10 / 16 / 25
DN _____ 50 - 600
T [°C] _____ -50 to +260
_____ (+380 in HT version)

Design: Double-offset butterfly valve with plastomer or metal seat ring (fire-safe design); without gland packing, maintenance-free. With lever or gearbox, pneumatic, electric or hydraulic actuator. Body made of cast steel or stainless steel. With wafer type body (T1), full-lug type body (T4) or single-piece double-flanged body (T7) with flat or raised faces. Body types T4 and T7 can be used for dead-end service. ASME Class 150, JIS. Certification to TA-Luft.

Applications: Petroleum, gas, chemical and petrochemical industry, nuclear power stations, steam, vacuum service. All applications requiring offset disc butterfly valves.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 8460.152-10 / 8460.352-90

DANAİS MTII Class 300



PN _____ 10 / 16 / 25 / 40 / 50
DN _____ 50 - 600
T [°C] _____ -50 to +260
_____ (+380 in HT version)

Design: Double-offset butterfly valve with plastomer or metal seat ring (fire-safe design); without gland packing, maintenance-free. With lever or gearbox, pneumatic, electric or hydraulic actuator. Body made of cast steel or stainless steel. With wafer type body (T1), full-lug type body (T4) or single-piece double-flanged body (T7) with flat or raised faces. Body types T4 and T7 can be used for dead-end service. ASME Class 150 / Class 300, JIS. Certification to TA-Luft.

Applications: Petroleum, gas, chemical and petrochemical industry, nuclear power stations, steam, vacuum service. All applications requiring offset disc butterfly valves.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklets 8460.132-10 / 8460.332-90

AMRI cryogenic offset-disc butterfly valves

DANAİS TBT II (Cryogenic) Side Entry



PN _____ 10 / 20
DN _____ 200 - 1050
T [°C] _____ -250 to +200

Design: Double-offset butterfly valve for cryogenic applications. Stainless steel body with weld ends to ASME. Schedule 40S or STD to NPS. Fire-safe design. Gearbox, pneumatic, electric or hydraulic actuator.

Applications: Liquefied natural gas process chain, all liquefied gases.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklet 8460.1221-10

DANAİS TBT II (Cryogenic) Flanged



PN _____ 10 / 20
DN _____ 50 - 1200
T [°C] _____ -250 to +200

Design: Double-offset butterfly valve for cryogenic applications. Flanged body (T7) made of stainless steel, with raised or flat faces. ASME Class 150, JIS. Fire-safe design. Gearbox, pneumatic, electric or hydraulic actuator.

Applications: Liquefied natural gas process chain, all liquefied gases.

A m, e, h, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklet 8460.1211-10

DANAİS TBT II (Cryogenic) AL



PN _____ 10 / 16
DN _____ 80 - 600
T [°C] _____ -200 to +200

Design: Double-offset disc butterfly valve for cryogenic applications. Full-Lug (T4) or Flanged (T7) body made of stainless steel, with raised or flat faces. ASME Class 150. Oxygen degreasing. Fire-safe design. Gearbox or pneumatic actuator.

Applications: All liquefied gases

A m, p + AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklet 8460.1231-10

AMRI swing check valves

SERIE 2000 - PN 16



PN _____ 10 / 16
DN _____ 50 - 600
T [°C] _____ -5 to +200

Design: Twin plate check valve, Pressure class PN 16. One-piece body made of grey cast iron. Metal/elastomer seated. Maintenance-free. EN, ANSI, JIS connections possible.

Applications: Heating, air-conditioning, water supply, irrigation, water treatment, etc. Industry: water, air, gas, etc.

Type series booklet 8480.16-10

SERIE 2000 - PN 25



PN _____ 10 / 16 / 25
DN _____ 50 - 600
T [°C] _____ -18 to +343

Design: Twin plate check valve, Pressure class PN 25. One-piece body made of ductile iron. Metal/elastomer or metal/metal seated. Maintenance-free. EN, ANSI, JIS connections possible.

Applications: Heating, air-conditioning, water supply, irrigation, water treatment, etc. Industry: water, air, gas, etc.

Type series booklet 8480.12-10

SERIE 2000 - Class 150



PN _____ 10 / 16 / 20
DN _____ 50 - 600
T [°C] _____ -196 to +538

Design: Twin plate check valve, Pressure class Class 150. One-piece body made of carbon steel, stainless steel or aluminium-bronze. Metal/elastomer or metal/metal seated. Maintenance-free. EN, ANSI, JIS connections possible.

Applications: In process engineering, chemical and petrochemical industry, sugar industry, paper industry, water supply, seawater desalination. Shipbuilding and marine applications: water, air, gas, hydrocarbons, etc. General industrial circuits: water, compressed air, gas, etc.

Type series booklet 8485.15-10

SERIE 2000 - Class 300



PN _____ 10 / 16 / 20 / 50
DN _____ 50 - 300
T [°C] _____ -196 to +538

Design: Twin plate check valve, Pressure class Class 300. One-piece body made of carbon steel, stainless steel or aluminium-bronze. Metal/elastomer or metal/metal seated. Maintenance-free. EN, ANSI, JIS connections possible.


Applications: In process engineering, chemical and petrochemical industry, sugar industry, paper industry, water supply, seawater desalination. Shipbuilding and marine applications: water, air, gas, hydrocarbons, etc. General industrial circuits: water, compressed air, gas, etc.

Type series booklet 8485.13-10

AMRI gearboxes for butterfly valves

<p>MA</p>  <p>Output torques _____ max. 250 Nm Enclosure _____ IP65</p>	<p>Design: Manual actuators for the operation of quarter-turn valves. MA range manual gearbox, irreversible planetary gear kinematics, operation by handwheel.</p> <p>Applications: Building services, industrial processes.</p>
A	Type series booklet 8505.13-10
<p>MN</p>  <p>Output torques _____ max. 800 Nm Enclosure _____ IP65</p>	<p>Design: Manual actuators for the operation of quarter-turn valves. MN range manual gearbox, worm gear kinematics, operation by handwheel.</p> <p>Applications: Building services, industrial processes, water and industrial applications in non-corrosive and non-saline environments.</p>
A	Type series booklet 7290.1-10
<p>MR</p>  <p>Output torques _____ max. 16000 Nm Enclosure _____ IP67 + IP68</p>	<p>Design: Manual actuators for the operation of quarter-turn valves. MR range manual gearbox, irreversible worm gear or scotch-yoke kinematics. Standard operation by handwheel. Models MR 400 to 1600 can be retrofitted with electric actuators. Options include alternative operating mechanisms, limit switches, etc.</p> <p>Applications: Building services, industry and process engineering, water, waste water, energy, oil and gas, mining and dredging, shipbuilding.</p>
A AMTROBOX	Type series booklet 8505.12-10

AMRI pneumatic actuators for butterfly valves

<p>ACTAIR</p>  <p>Output torques _____ max. 16000 Nm at a control pressure of 5 bar Enclosure _____ IP67</p>	<p>Design: Double-acting pneumatic actuator, for direct mounting or mounting via an adapter on quarter-turn valves such as butterfly or ball valves, with EN ISO 5211 compliant top flange. Can be mounted on various types of valve shaft ends (square end, flat end or key). Patented special KSB AMRI kinematics. Optional: declutchable manual override. Position indicator, adjustable mechanical travel stops for open/closed positions as standard. Can be used with control unit types AMTROBOX, AMTRONIC, SMARTRONIC.</p> <p>Applications: All applications in water, energy and industrial engineering</p>
A AMTROBOX / AMTRONIC / SMARTRONIC	Type series booklet 8515.1-10

AMRI pneumatic actuators for butterfly valves

DYNACTAIR



Output torques — max. 8000 Nm
at a control pressure of 5 bar
Enclosure — IP65

Design: Single-acting pneumatic actuator, for direct mounting or mounting via an adapter to any quarter-turn valve (centered or offset disc butterfly valves, ball valves) with top flange to EN ISO 5211. Patented special KSB AMRI kinematics with optional manual override. Position indicator, adjustable mechanical travel stops for open / closed positions as standard; can be used with control unit types AMTROBOX, AMTRONIC, SMARTRONIC.

Applications: All applications in water, energy and industrial engineering.

A AMTROBOX / AMTRONIC / SMARTRONIC

Type series booklet 8511.1-10

AMRI hydraulic actuators for butterfly valves

ACTO



Output torques — max. 16000 Nm
Enclosure — IP68

Design: Double-acting hydraulic actuator, for direct mounting or mounting via an adapter to any quarter-turn valve (centered or offset disc butterfly valves, ball valves) with top flange to EN ISO 5211. Can be mounted on various types of valve shaft ends (square end, flat end or key). Submersible up to 30 m, with special marine coating. With hand pump connection for emergency operation. Position indicator and adjustable mechanical travel stops for open / closed positions as standard. Hydraulic distribution plate available in four different versions:

- with isolating valves (RI)
- with piloted check valves (BSP)
- with isolating valves and piloted check valves (RI + BSP)
- with emergency shutdown (ESD)

Applications: All applications in water, energy and industrial engineering and shipbuilding.

A AMTROBOX / AMTRONIC

Type series booklet 8506.1-10

DYNACTO



Output torques — max. 4000 Nm
Enclosure — IP68

Design: Single-acting hydraulic actuator, for direct mounting or mounting via an adapter to any 1/4-turn valve (centered or offset disc butterfly valves, ball valves) with top flange to EN ISO 5211. Can be mounted on various types of valve shaft ends (square end, flat end or key). Submersible up to 30 m, with special marine coating. With hand pump connection for emergency operation. Position indicator and adjustable mechanical travel stops for open / closed positions as standard.

Applications: All applications in water, energy and industrial engineering and shipbuilding.

A AMTROBOX / AMTRONIC

Type series booklet 8556.11-10

ENNACTO



Output torques — max. 125000 Nm

Design: Single-acting hydraulic actuator with nitrogen cartridge, 200 to 12500 range, max. output torque 125000 Nm. Specially designed for „ESDV“ (emergency shutdown valves).

Applications: All applications in water, energy and industrial engineering and shipbuilding.

A AMTROBOX / AMTRONIC

Type series booklet 8560.11-10

AMRI electric actuators for butterfly valves

ACTELEC (Bernard / Deufra)



Type _____ OA3 - BS100
direct 1/4 turn
Output torques _____ max. 1000 Nm
Enclosure _____ IP67

Design: Electric actuator by DEUFRA for quarter-turn valves with top flange to EN ISO 5211. With torque limitation, travel stop and open / closed detection. For On / Off control and throttling duties. Remote or local / remote control. Power supply: single-phase a.c., three-phase or d.c.

Applications: All applications in water, energy and industrial engineering.

A

Type series booklet 8521.12-10

ACTELEC (Bernard / Deufra)



Type _____ LEA LEB
direct 1/4 turn
Output torques _____ max. 100 Nm
Enclosure _____ IP65

Design: Electric actuator by DEUFRA for quarter-turn valves with top flange to EN ISO 5211. With torque limitation, travel stop and open / closed detection. For On / Off control. Remote or local / remote control. Power supply: single-phase a.c.

Applications: All applications in Building services.

A

Type series booklet 8521.16-10

ACTELEC (AUMA)



Type _____ SG05.1 - SG12.1
direct 1/4 turn
Output torques _____ max. 1200 Nm
Enclosure _____ IP67

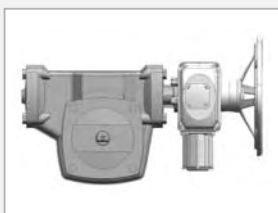
Design: Electric actuator by AUMA for quarter-turn valves with top flange to EN ISO 5211. With torque limitation, travel stop and open / closed detection. For On / Off control and throttling duties. Remote or local / remote control. Power supply: single-phase a.c., three-phase or d.c.

Applications: All applications in water, energy and industrial engineering.

A

Type series booklet 8521.14-10

ACTELEC (Bernard / Deufra)



Type _____ 31 - 800
multiturn
Output torques _____ max. 16000 Nm
Enclosure _____ IP67

Design: Electric actuator by DEUFRA for quarter-turn valves with top flange to EN ISO 5211. With torque limitation, travel stop and open / closed detection. For On / Off control and throttling duties. Remote or local / remote control. Power supply: single-phase a.c., three-phase or d.c.

Applications: All applications in water, energy and industrial engineering.

A

Type series booklet 8521.15-10

ACTELEC (AUMA)



Type _____ 31-1600
multiturn
Output torques _____ max. 16000 Nm
Enclosure _____ IP67

Design: Electric actuator by AUMA for quarter-turn valves with top flange to EN ISO 5211. With torque limitation, travel stop and open / closed detection. For On / Off control and throttling duties. Remote or local / remote control. Power supply: single-phase a.c., three-phase or d.c.

Applications: All applications in water, energy and industrial engineering.

A

Type series booklet 8521.13-10

AMRI control accessories for butterfly valves

Manual override



Enclosure _____ IP65
T [°C] _____ -20 to +80

Design: ACTAIR 3 to 1600 double-acting pneumatic actuators and DYNACTAIR 1.5 to 100 spring-return pneumatic actuators, as well as ACTO 25 to 1600 double-acting and DYNACTO 12 to 100 spring-return hydraulic actuators can be fitted with a manual override using a declutchable gear operator with handwheel. The manual override is mounted between the valve and the actuator. It has priority over the pneumatic or hydraulic actuator and is locked either in clutched or declutched position using the locking device.

A

Type series booklet 5350.1-10

Counter weight actuator



DN _____ 600 - 3000

Design: Single-acting, hydraulically operated counter weight actuator. Remote control via hydraulic system and electric control cabinet. For actuating valves from DN 600 to DN 3000.

Applications: Pumping stations, power station cooling circuits, protection of pipelines and turbines.

A

Type series booklet 8901.1-10

AMRI automation for butterfly valve actuators / On/off detection

AMTROBOX M



Enclosure _____ IP65
T [°C] _____ -20 to +80

Design: Specially designed for manual actuation. For open/closed position signalling on on/off valves via mechanical limit switches or proximity sensors.

AMTROBOX M is mounted directly on the S series of quarter-turn levers (R1020) and manual reducer types MA 12 and MA 25 (R1021).

Applications: All applications in water, building services and energy engineering.

A

Type series booklet 8523.1-10

AMTROBOX C



Enclosure _____ IP65
T [°C] _____ -20 to +80

Design: Cost-effective solution for open/closed position signalling on on/off valves via mechanical limit switches or proximity sensors.

AMTROBOX C (RA01290) is mounted directly on the pneumatic actuators of the ACTAIR / ACTAIR-B series, on reducer type MR VDI/VDE and BOAX-B Mat P.

Applications: All applications in water, building services and energy engineering.

A

Type series booklet 8525.178/2-10

AMRI automation for butterfly valve actuators / On/off detection

AMTROBOX R / AMTROBOX R EEx-ia



Enclosure _____ IP68
T [°C] _____ -20 to +80

Design: Robust and multi-functional control unit for open/closed position signalling on on/off valves via mechanical limit switches or proximity sensors.

AMTROBOX R (R1187) is mounted directly on reducer type MR, the pneumatic actuators of the ACTAIR series and the hydraulic actuators of the ACTO series.

AMTROBOX R EEx ia (R1188): intrinsically safe version to ATEX, for potentially explosive atmospheres.

Applications: Water and energy engineering, offshore applications and heavy industries.

A

Type series booklet 8525.11-10

AMTROBOX S



Enclosure _____ IP67 / IP65
T [°C] _____ -20 to +80

Design: Robust control unit with manual override for pneumatic actuators (max. 250 Nm). Open/closed position signalling on on/off valves via mechanical limit switches.

AMTROBOX S is mounted directly on the pneumatic actuators of the ACTAIR series and the hydraulic actuators of the ACTO series.

Applications: All applications in water, building services and energy engineering.

A

Type series booklet 8525.13-10

AMTROBOX / AMTROBOX EEx-ia



Enclosure _____ IP67
T [°C] _____ -10 to +50

Design: Multi-functional control unit for open/closed position signalling on on/off valves via mechanical limit switches or proximity sensors.

AMTROBOX (R1149) is mounted directly on reducer type MR, the pneumatic actuators of the ACTAIR series and the hydraulic actuators of the ACTO series.

AMTROBOX EEx ia (R1172): intrinsically safe version for potentially explosive atmospheres.

AMTROBOX ATEX (X1140, X1149): ATEX version for potentially explosive dust atmospheres (Zone 22).

Applications: All applications in water, building services and energy engineering.

A

Type series booklet 8526.12-10

AMRI automation for butterfly valve actuators / On/off detection and pneumatic distribution

AMTRONIC



Enclosure _____ IP67
T [°C] _____ -20 to +70

Design: AMTRONIC provides On / Off control of pneumatic quarter-turn actuators as well as open / closed position detection. It is mounted directly on ACTAIR or DYNACTAIR actuators without a bracket, resulting in a compact and robust integrated solution. Its integrated pneumatic valve eliminates the need for any pneumatic piping between AMTRONIC and the actuator. Actuating time can be set at the AMTRONIC by adjusting the outlet flow. AMTRONIC can be connected to field bus systems Profibus DP and AS-i.

Applications: All applications in water, energy and industrial engineering.

A

Type series booklet 8512.1-10

AMRI automation for butterfly valve actuators / On/off detection and pneumatic distribution

AMTRONIC Bus



Enclosure _____ IP65 + IP67
T [°C] _____ -20 to +70

Design: AMTRONIC BUS is a control unit for On / Off control and open / closed detection with field bus connection for quarter-turn valves which is specially designed for pneumatic actuator types ACTAIR (double-acting) and DYNACTAIR (single-acting). It is mounted directly on the actuator without a bracket. AMTRONIC BUS is designed to simplify wiring of the control units. Connection via field bus cable provides power supply and exchange of control data with the process control system. AMTRONIC BUS is compatible with field bus networks, particularly Profibus DP and AS-i.

Applications: All applications in water, energy and industrial engineering.

A

Type series booklet 8514.11-10

AMTRONIC EEx-ia



Enclosure _____ IP67
T [°C] _____ -10 to +50

Design: AMTROBOX EEx ia and AMTRONIC EEx-ia (R 1172) are intrinsically safe control units particularly suitable for operation in potentially explosive atmospheres. They comply with ATEX directive 94/9/EC and CE 0081 Ex II 1 G. They are certified to EEx-ia IIC T6 as per EN 50014 and EN 50020 standards. EC type test certificate: LCIE 03 ATEX 6435X. The max. surface temperature of the housing must not exceed 85 °C.

Applications: All applications in water, energy and industrial engineering.

A

Type series booklet 8526.12-10

AMRI automation for butterfly valve actuators / Intelligent positioner

SMARTRONIC MA



Enclosure _____ IP65 + IP67
T [°C] _____ -20 to +70

Design: SMARTRONIC provides position control for pneumatic quarter-turn actuators as well as open / closed detection and actual-position feedback. The unit attaches directly to an ACTAIR or DYNACTAIR actuator with no need for a bracket or external piping, providing a rugged, compact and integrated solution. SMARTRONIC MA (Milli Amp): positioner for 4-20 mA signals. Two push-buttons for self-calibration. SMARTRONIC MA simplifies commissioning and reduces operating costs because the unit consumes no air while idle.

Applications: All applications in water, energy and industrial engineering.

A

Type series booklet 8527.1-10

SMARTRONIC PC



Enclosure _____ IP65 + IP67
T [°C] _____ -20 to +70

Design: SMARTRONIC provides position control for pneumatic quarter-turn actuators as well as open / closed detection and actual-position feedback. The unit attaches directly to an ACTAIR or DYNACTAIR actuator with no need for a bracket or external piping, providing a rugged, compact and integrated solution. SMARTRONIC PC (Process Control): SMARTRONIC PC monitors process variables using an integrated programmable microprocessor and provides accurate actuation time monitoring (surge pressure control). SMARTRONIC PC is PC programmable and compatible with Profibus DP systems.

Applications: All applications in water, energy and industrial engineering.

A

Type series booklet 8520.11-10

SISTO diaphragm valves

SISTO-KB / SISTO-KB-S



PN _____ 10
 DN _____ 15 - 200
 T [°C] _____ -10 to +140
 S = short face-to-face length

Design: Flanged end diaphragm valve; shut-off and sealing to atmosphere by diaphragm; straight-way pattern, position indicator with integrated stem protection. DN125-200 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.

A m, e, p

Type series booklets 8651.1-10 / 8651.101-10

SISTO-10 / SISTO-10-S



PN _____ 10
 DN _____ 15 - 300
 T [°C] _____ -10 to +160
 S = short face-to-face length
 (DN 15 / 200)

Design: Diaphragm valve with flanged ends or threaded sockets; shut-off and sealing to atmosphere by spiral-supported diaphragm (DN 65 and above); position indicator with integrated stem protection. All moving parts are separated from the fluid by the diaphragm. Maintenance-free.

Applications: In industrial and chemical plants, in process engineering. Suitable for service water, air, oil as well as abrasive and aggressive fluids.

A m, e, p

Type series booklets 8641.1-10 / 8641.101-10

SISTO-10-M



PN _____ 10
 DN _____ 15 - 80
 T [°C] _____ -10 to +140
 M = threaded sockets

Design: Diaphragm valve with threaded sockets; shut-off and sealing to atmosphere by spiral-supported diaphragm (DN 65 and above); position indicator with integrated stem protection. All moving parts are separated from the fluid by the diaphragm. Maintenance-free.

Applications: In industrial and chemical plants, in process engineering. Suitable for service water, air, oil as well as abrasive and aggressive fluids.

A m, e, p

Type series booklet 8641.102-10

SISTO-16 / SISTO-16-S



PN _____ 16
 DN _____ 15 - 200
 T [°C] _____ -10 to +160
 S = short face-to-face length

Design: Flanged end diaphragm valve; shut-off and sealing to atmosphere by completely enclosed spring-supported diaphragm; position indicator with integrated stem protection. All moving parts are separated from the fluid by the diaphragm. Maintenance-free.

Applications: In building services, industrial plants and power stations; suitable for drinking water, service water, air, oil, technical gases, from fluids handled in the food and beverages industry to abrasive and aggressive products in chemical and process engineering.

A m, e, p

Type series booklets 8635.1-10 / 8635.101-10

SISTO-16 RGA



PN _____ 16
 DN _____ 15 - 80
 T [°C] _____ -10 to +90

Design: Diaphragm valve with gunmetal body and threaded sockets for drinking water installations in building services to DIN 1988, DIN-DVGW water approved 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, sea water, service water of any quality.

A m

Type series booklet 8638.1-10

SISTO diaphragm valves

SISTO-16 HWA / DLU / TWA



PN _____ 16
DN _____ 15 - 200
T [°C] _____ -10 to +90

Design: Flanged end diaphragm valve for drinking water installations to DIN 1988, DIN-DVGW water approved 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: SISTO-16 TWA (drinking water up to 90 °C): drinking water, particularly drinking water installations to DIN 1988, water containing chlorine, sea water, etc. SISTO-16 HWA (hot water up to 140 °C): service water of any quality. SISTO-16 DLU (compressed air up to 90 °C): compressed air with oil content, oils and technical gases.

A m, e, p

Type series booklet 8635.33-10

SISTO-20



PN _____ 16
DN _____ 15 - 200
T [°C] _____ -10 to +160

Design: Flanged end diaphragm valve; shut-off and sealing to atmosphere by completely enclosed spiral-supported diaphragm; position indicator with integrated stem protection. All moving parts are separated from the fluid by the diaphragm. Maintenance-free.

Applications: In building services, industrial plants and power stations; suitable for drinking water, service water, air, oil, technical gases, from fluids handled in the food and beverages industry to abrasive and aggressive products in chemical and process engineering.

A m, e, p

Type series booklet 8643.1-10

SISTO-B



PN _____ 10
DN _____ 6 - 100
T [°C] _____ -10 to +160

Design: Diaphragm valve with weld ends or clamps; straight-way or T-pattern, manually or pneumatically operated; shut-off and sealing to atmosphere by diaphragm. No dead volumes, suitable for sterilization, SIP and CIP compliant design, visual position indicator. All moving parts are separated from the fluid by the diaphragm. Maintenance-free.

Applications: Biotechnology, sterile processes, food and pharmaceutical industry.

A m, p

Type series booklet 8646.1-10

SISTO-C



PN _____ 16
DN _____ 6 - 100
T [°C] _____ -10 to +160

Design: Diaphragm valve with weld ends; straight-way, Y- or T-pattern, manually or pneumatically operated; shut-off and sealing to atmosphere by completely enclosed diaphragm. No dead volumes, suitable for sterilization, SIP and CIP compliant design, visual position indicator. All moving parts are separated from the fluid by the diaphragm. Maintenance-free.

Applications: Biotechnology, sterile process engineering, food and pharmaceutical industry.

A m, p

Type series booklet 8644.1-10

SISTO check valves

SISTO RSK / RSK-S



PN _____ 16
DN _____ 25 - 150
T [°C] _____ -10 to +120

Design: Flanged end swing check valve with or without liner, soft-seated, no dead volumes; in straight-way pattern with slanted seat; with internal hinge pin and soft rubber coated disc.

Applications: In building services, industrial plants and power stations; suitable for drinking water, service water, from fluids handled in the food and beverages industry to abrasive and aggressive products in chemical and process engineering.

Type series booklet 8675.1-10

Pneumatic actuators for SISTO diaphragm valves

SISTOMAT-PC



Service air pressure _____ max. 6 bar
Closing force _____ max. 20000 N

Design: MAT-PC type LAD

Pneumatic diaphragm actuator, compact design, for direct installation on valves. Available in single-acting design with opening / closing spring or in double-acting design; suitable for mounting limit switches or positioners to suit customer requirements, factory-mounted. Settings are adjusted during factory test run.

Applications: In building services, industrial plants, power stations; suitable for abrasive and aggressive products such as service water, waste water, acids, alkaline solutions, sludges and suspensions.

A

Type series booklets 8651.1 PC / 8641.1 PC / 8635.1 PC -10

MAT-P



Service air pressure _____ max. 10 bar
Closing force _____ max. 100000 N

Design: MAT-P type LAP

Pneumatic piston actuator in heavy duty design for industrial use on globe and gate valves, DIN/ISO 5210 mounting flange. Available in single-acting design with opening / closing spring or in double-acting design; suitable for mounting limit switches or positioners to suit customer requirements, factory-mounted. Settings are adjusted during factory test run.

Applications: Pneumatic piston actuators are designed for valves with a linear stem movement (globe, diaphragm and gate valves). They are suitable for building services, industrial plants, power stations, the food and beverages industries and the chemical industry. Pneumatic actuators can also be used in potentially explosive atmospheres.

A

Type series booklet 9210.1-10

SISTOMAT-P type LAP for SISTO-B



Service air pressure _____ max. 7 bar
Closing force _____ max. 12000 N

Design: MAT-P type LAP


Pneumatic piston actuator, in plastic design (PA6GF30) for use on globe valves, with closing spring; suitable for mounting limit switches or positioners to suit customer requirements, factory-mounted. Settings adjusted during factory test run.

Applications: Biotechnology, sterile process engineering, food and pharmaceutical industry.


A

Type series booklet 8646.1-10

Pneumatic actuators for SISTO diaphragm valves

SISTOMAT-P Typ LAP for SISTO-C		
	<p>Service air pressure max. 10 bar</p> <p>Closing force max. 20000 N</p>	<p>Design: MAT-P type LAP</p> <p>Pneumatic piston actuator, in high-grade stainless steel design (PA6GF30) for use on globe valves, available in single-acting design with opening / closing spring or in double-acting design; suitable for mounting limit switches or positioners to suit customer requirements, factory-mounted. Settings adjusted during factory test run.</p> <p>Applications: Biotechnology, sterile process engineering, food and pharmaceutical industry.</p>
A	Type series booklet 8644.1-10	

Electric actuators for SISTO diaphragm valves

SISTOMAT-E		
	Type _____ AUMA	Design: Multi-turn actuators for diaphragm valves with rising stem, max. closing force 60,000 N, configurable as a function of flow characteristics and valve travel; open / closed position detection; factory-mounted. Applications: Building services, industry, power stations, food industry, chemical industry.
	Output torques _____ max. 250 Nm	
	Enclosure _____ IP67	
A		Type series booklet 8644.1-10

Ball valves

PSA ball valve KHG



PN 16/25/40/63/100/160/250
DN 15 - 1200
T [°C] -60 to +250

Design: Flanges (DIN/ASME), butt weld ends, socket weld or threaded ends, metal-seated primary seal, soft secondary seal, double block and bleed, fully welded design, with lever or gearbox.

Optional: Polyurethane coating, emergency seal, pneumatic or electric actuators, split body (bolted).

Applications: Gases to DVGW Worksheet G260/I and II and combustible liquids, general industry, petrochemical industry and all related industries, power stations, gas lines and gas plants, refineries, pipelines, gas storage facilities, tank farms.

Type series booklets 8301.11 - 8301.15

PSA ball valve KHG-W



PN 16 / 25 / 40
DN 15 - 500
T [°C] -60 to +250

Design: Flanges (DIN/ASME), butt weld ends, socket weld or threaded ends, seat rings made of PTFE, sealing on the downstream side, fully welded design, with lever or gearbox.

Optional: Polyurethane coating, pneumatic or electric actuators.

Applications: Gases to DVGW Worksheet G260/I and II and combustible liquids, general industry, power stations, gas lines and gas plants, gas storage facilities.

Type series booklet 8301.16

PSA ball valve KHG-M



PN 250
DN 15 - 500
T [°C] -60 to +250

Design: Flanges (DIN/ASME), all-metal seated, sealing on the upstream and downstream side, with lever or gearbox.

Optional: Polyurethane coating, pneumatic or electric actuators.

Applications: Gases to DVGW Worksheet G260/I and II and combustible liquids, general industry, petrochemical industry and all related industries, power stations, gas lines and gas plants, refineries, pipelines, gas storage facilities, tank farms.

Type series booklet 8301.17

Eco-BLC 1000



PN 1000 WOG
DN 1/4" - 4"
15 - 100
T [°C] -10 to +200

Design: 3-piece body, full bore, floating ball concept, threaded ends (NPT), butt or socket weld ends, elastomer sealing (also in fire-safe variant). Design as per ASME B 16.34 / ISO 17292.

Applications: General industry, power stations, chemical and petrochemical industry and all associated branches of industry. Paper industry, food industry, pharmaceutical industry.

Eco-BLT 150-300



PN 150 / 300
DN 1/4" - 4"
15 - 100
T [°C] -10 to +200

Design: 2-piece body, full bore, floating ball concept, flanged (RF), elastomer sealing (also in fire-safe variant). With lever or gearbox, pneumatic or electric actuator. Design as per ASME B 16.34.

Applications: General industry, power stations, chemical and petrochemical industry and all associated branches of industry. Paper industry, food industry, pharmaceutical industry.

Ball valves

ISO F14 A/AC (available in selected countries only)



PN _____ 20/50/100
 DN _____ ½"-12"
 T [°C] _____ -29 to +250

Design: Two-piece ANSI ball valve with full bore. Flanged end long or short body, plastomer sealing (also in fire-safe variant). With lever or gearbox, pneumatic or electric actuator. ASME Class 150, Class 300, Class 600 connections possible.

Applications: General industry, power stations, chemical and petrochemical industry and all associated branches of industry. Paper industry, food industry, pharmaceutical industry.

A m, p + AMTROBOX / AMTRONIC

Type series booklets 8227.1-10 / 8226.21-10

ISO F14 D (available in selected countries only)



PN _____ 10 / 16 / 25 / 40 / 63 / 100
 DN _____ 15 - 300
 T [°C] _____ -10 to +250

Design: Two-piece DIN ball valve with full bore. Flanged end long or short body, plastomer sealing (also in fire-safe variant). With lever or gearbox, pneumatic or electric actuator.

Applications: General industry, power stations, chemical and petrochemical industry and all associated branches of industry. Paper industry, food industry, pharmaceutical industry.

A m, p + AMTROBOX / AMTRONIC

Type series booklets 8226.1-10 / 8226.21-10

ISO VU (available in selected countries only)



PN _____ 16 / 70
 DN _____ ¼"-4"
 T [°C] _____ -10 to +250

Design: Three-piece ball valve with full or reduced bore, plastomer sealing. With lever or gearbox, pneumatic or electric actuator. Connection options: BSP or NPT thread, socket or butt weld ends.

Applications: General industry, power stations, chemical, paper, food, pharmaceutical industries.

A m, p + AMTROBOX / AMTRONIC

Type series booklets 8224.1-10 / 8226.21-10



SÜDZUCKER

Alternative Fuel Production



Südzucker Bioethanol GmbH Zeitz/Germany

Scope of supply and technical data:

130 pumps, some 600 butterfly valves with manual actuators and some 400 with pneumatic actuators, 150 globe and gate valves.

Pumps:

KWP O 250-560

Fluid pumped: fermented mash

$Q = 906 \text{ m}^3/\text{h}$ $H = 53.3 \text{ m}$
 $d = 1.045 \text{ kg/dm}^3$ $t = 34 \text{ }^\circ\text{C}$

CPKN/C1 250-400

decanted vinasse

$Q = 600 \text{ m}^3/\text{h}$ $H = 17.5 \text{ m}$
 $d = 1.087 \text{ kg/dm}^3$ $t = 52 \text{ }^\circ\text{C}$

Valves:

ISORIA 10

DN 50 – 900, PN 10, body in JS 1030,
disc in stainless steel, EPDM liner

KE

DN 50 – 600, PN 10, body in JS 1025,
disc in stainless steel, PFA liner

DANAIS MT II

DN 50 – 1000, PN 16+25, stainless steel, metal-seated, leakage rate 1

All butterfly valves as per ATEX directive

Datum der Inbetriebnahme:

Beginning of 2005

Having built the biggest bioethanol facility in Europe, Südzucker Bioethanol GmbH is set to become a major player in the production of alternative fuels. This impressive plant located in Zeitz, Germany, has been equipped with pumps and valves produced by KSB. The customer's very positive experience with KSB products as well as KSB's renown as a well-established full-range supplier of pumps and valves tipped the balance in favour of KSB. Not shying away from a project of this size and complexity, our experts were once again able to demonstrate their excellent problem solving skills. As a result, roughly 130 pumps of our KWP, CPKN, Magnochem, Secochem-Ex, Etanorm and Tyamagno series as well as some 1,200 valves have been installed to smoothly handle fermented mash and decanted vinasse in the bioethanol process. Highly efficient products carefully tuned to the customer's requirements on site are our strength – a fact borne out by the intensive customer dialogue during the project phase, which rounded off our quotation. Unnecessary and cost-intensive delays could be prevented already in the project phase. A good example of KSB's excellent all-in solutions.

Should you need more information, please do not hesitate to contact me:

Reinhold Höller, +49 9241 71-5200, reinhold.hoeller@ksb.com or www.ksb.com.



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We will be pleased to send you the relevant technical literature of our products. Just copy this blank form, fill in your address and order details and send it to **fax no. +49 9241 71-1531**.

You can also simply download the complete literature via the Internet under **www.ksb.com/productcatalogue**.

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☐ Yes, I am also interested in the KSB pumps and automation. Please send me the relevant literature. (You can also download this literature via the Internet.)

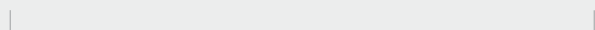
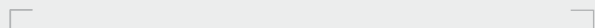


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☐ I have some specific questions and would therefore appreciate if a member of your field staff contacted me by phone.

Date	Signature
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Your local KSB representative:



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