



Let's move the medium!

**check valves / gate valves /
strainers**



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standard codes

APPLICABLE STANDARDS (NON LIMITATIVE)

ANSI - American National Standards Institute		
ANSI	B16.10	Face-to-face and end-to-end dimensions of valves
ANSI	B16.34	Valves - flanged, threaded and welded ends
API - American Petroleum Institute		
API	598	Valve Inspection and Test
API	6D	Specification for pipeline valves
BS - British Standard		
BS	5146	Specification for pressure testing requirements for general purpose valves
BS	6755	Specification for production pressure testing requirements
DIN - Deutsches Institut für Normung		
DIN	1690	Technical delivery conditions for castings made from metallic materials
DIN	1691	Cast iron
DIN	1693	Nodular iron
DIN	2501	Flanges - connecting dimensions
DIN	3202	Face-to-face and centre-to-face dimensions - Flanged valves
DIN	3840	Valve bodies, strength calculation in respect of internal pressure
ISO - International Organisation for Standardisation		
ISO	2081	Metallic coatings, electroplated coatings of zinc on iron or steel
ISO	5208	Industrial valves - pressure testing for valves
ISO	5752	Metal valves for use in flanged pipe systems. Face-to-face and centre-to-face dimensions
ISO	7005	Metallic flanges
ISO	7268	Pipe components, definition of nominal pressure
EN - European Norm		
EN	19	Industrial valves - Marking of metallic valves
EN	558	Industrial valves - Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems
EN	1092	PN designation, flanges and their joint. Circular flanges for pipes, valves, fittings and accessories
EN	1503	Materials for bodies, bonnets and covers
EN	1561	Founding. Grey cast irons
EN	1759	Class designation, flanges and their joint. Circular flanges for pipes, valves, fittings and accessories
EN	6708	Pipework components - definition and selection of DN (nominal size)
EN	10204	Metallic products - Types of inspection documents

CHECK VALVES, GATE VALVES & STRAINERS CERTIFIED



ISO 9001:2000 certified (SGS)
Quality Management System
Certified since 1996



PED 97/23/EC (TÜV Süddeutschland - CE0036)
Pressure Equipment Directive
According to Module H (full quality assurance)



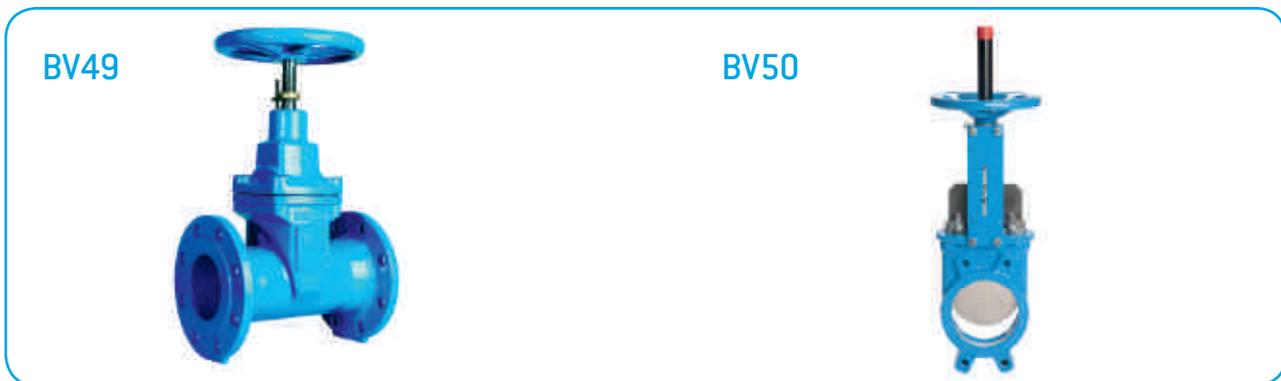
Conform specification AQUAFIN
BV41 - BV49 - BV50 - BV51

overview products

CHECK VALVES



(KNIFE) GATE VALVES



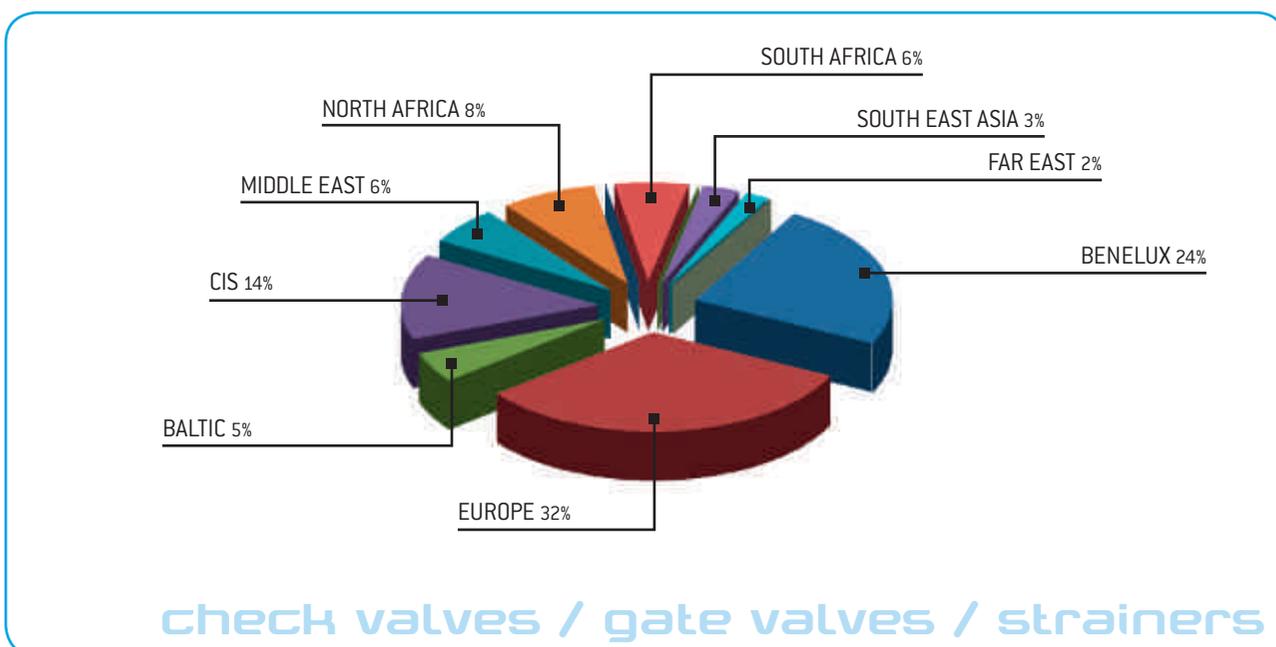
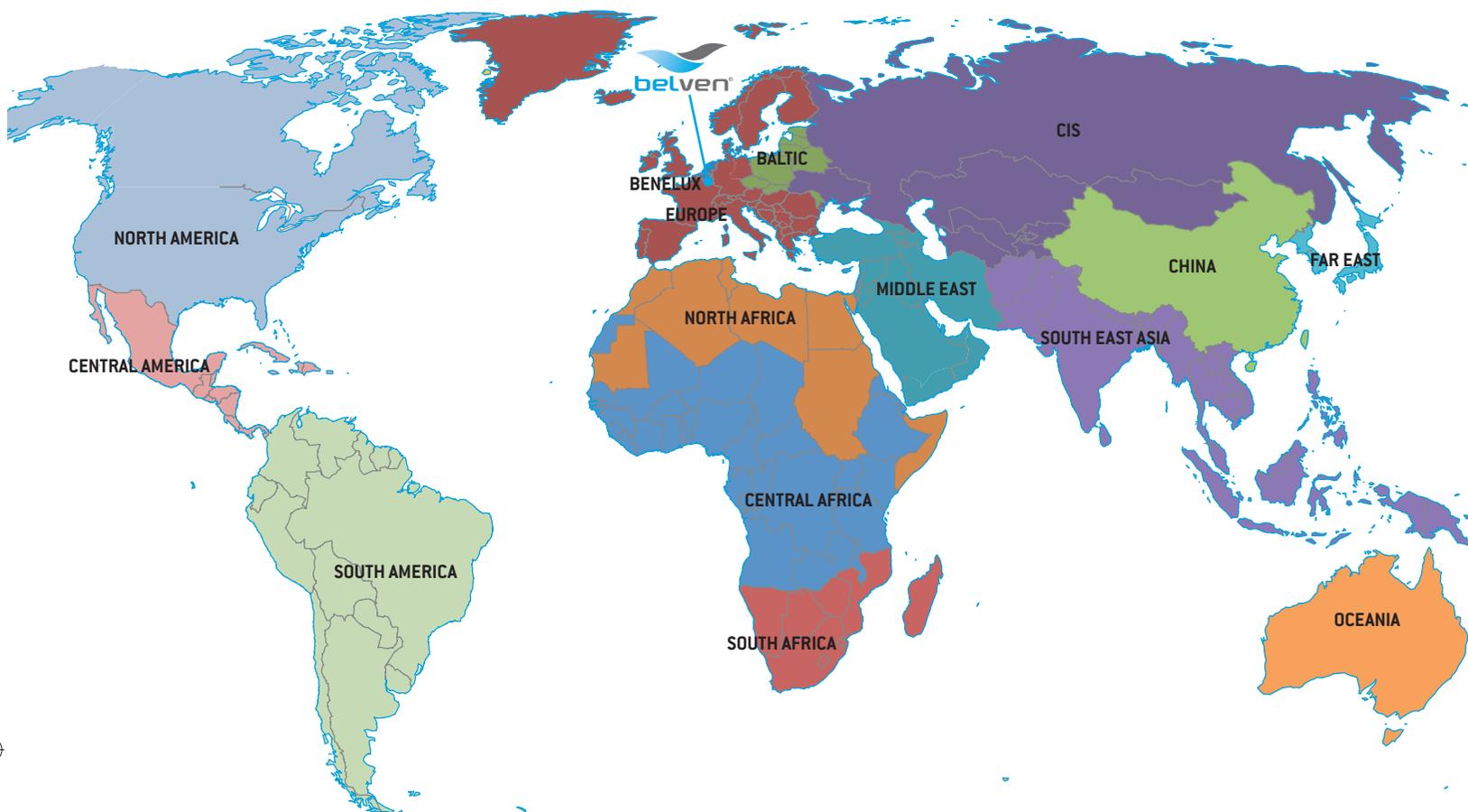
DISMANTLING JOINTS



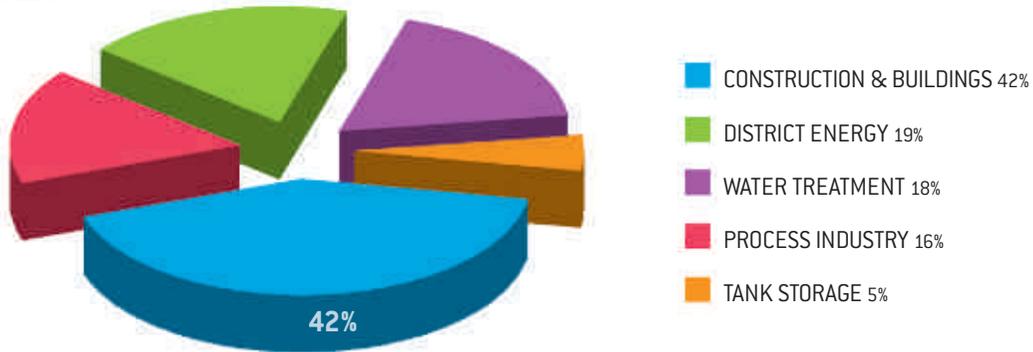
STRAINERS



region

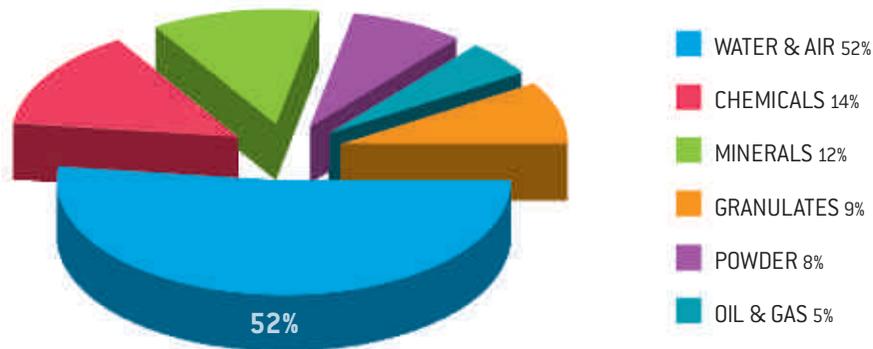


MARKETS



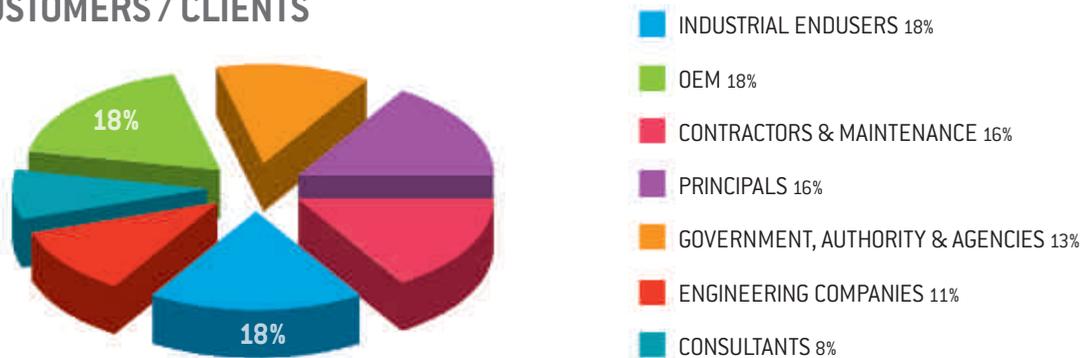
check valves / gate valves / strainers

PRODUCTS / MEDIUM



check valves / gate valves / strainers

OUR CUSTOMERS / CLIENTS



check valves / gate valves / strainers

BV 36



MATERIAL

BV36

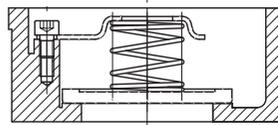
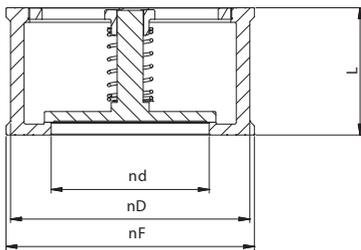
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Body		
Cast steel	45	A216 WCB, Zn plated
Stainless steel	66	CF8M

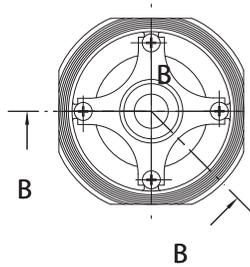
Disc		
Cast steel	45	A216 WCB, Zn plated
Stainless steel	66	CF8M

Seat	
EPDM	E
NBR	B
FKM/FPM	V
PTFE	T
METAL	M

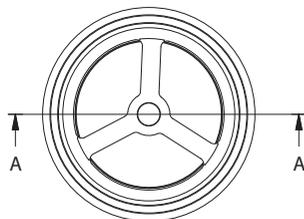
DIMENSIONS



DN 15 - DN 100



DN 125 - DN 300



DN	NPS	PN40			
		D	d	F	L
15	1/2	43	15	53	16
20	3/4	53	20	63	19
25	1	63	25	73	22
32	1 1/4	75	30	84	28
40	1 1/2	86	38	94	32
50	2	95	47	107	40
65	2 1/2	115	62	126	46
80	3	131	77	145	50
100	4	150	96	164	60
125	5	180	119	190	90
150	6	209	141	219	106
200	8	272	190	282	140
250	10	317	225	317	145
300	12	369	280	380	160
		mm	inches	Dimensions in mm	

all dimensions are subject to revision without prior notice

BV 38



DESIGN

Belven has developed 2 designs : one in cast iron with 4 centre holes and one in cast steel or stainless steel with a center eye, equal to design of BV39 (= springloaded)

MATERIAL

BV38

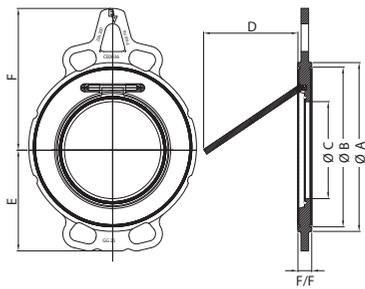
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Body		
Alu-Bronze	13	ASTM B148 C95400
Bronze	14	CuSn12
Cast iron	23	GG25 Epoxy coated
Cast steel	45	A216 WCB Zn plated
Stainless steel	66	CF8M

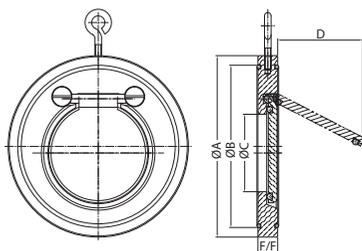
Disc		
Alu-Bronze	13	ASTM B148 C95400
Bronze	14	CuSn12
Cast steel	45	A216 WCB Zn plated
Stainless steel	66	CF8M

Seat	
EPDM	E
NBR	B
FKM/FPM	V
PTFE	T
METAL	M

DIMENSIONS



		Cast Iron						
DN	NPS	A	B	C	D	E	F	F/F
50	2	99	87	32	44	65	130	18
65	2 1/2	118	107	40	52	72	140	20
80	3	132	119	54	62	94	150	20
100	4	158	147	70	78	108	162	20
125	5	184	173	92	95	120	175	22
150	6	215	198	112	114	135	188	22
200	8	265	254	154	153	165	220	22
250	10	319	308	200	195	202	250	29
300	12	370	350	240	229	235	288	38
mm	inches	Dimensions in mm						



		Cast Steel or Stainless Steel					
		PN 10		PN 16			
DN	NPS	A	A	B	C	D	F/F
32	1 1/4	85		59	18	22	15
40	1 1/2	95		72	22	25	16
50	2	109		86	32	37	14
65	2 1/2	129		109	40	50	14
80	3	144		119	54	61	14
100	4	164		146	70	77	18
125	5	195		173	92	98	18
150	6	220		197	112	120	20
200	8	275		255	154	160	22
250	10	330	331	312	192	190	26
300	12	380	386	363	227	220	32
350	14	440	446	416	266	250	38
400	16	491	499	467	310	290	44
450	18	541	558	520	350	340	52
500	20	596	621	550	400	390	58
600	24	698	738	660	486	470	62
mm	inches	Dimensions in mm					

all dimensions are subject to revision without prior notice

BV 39 springloaded



MATERIAL

BV39

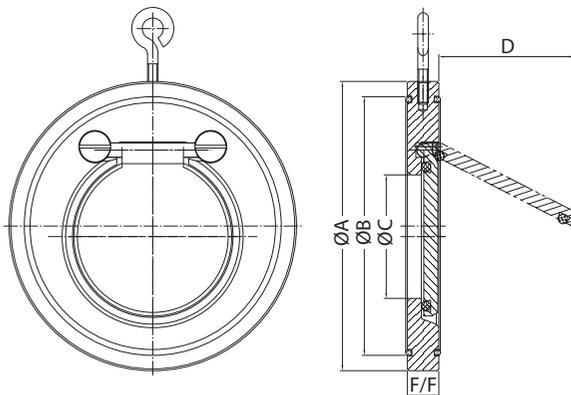
- XX XX X

Body		
Alu-Bronze	13	ASTM B148 C95400
Bronze	14	CuSn12
Cast steel	45	A216 WCB Zn plated
Stainless steel	66	CF8M

Disc		
Alu-Bronze	13	ASTM B148 C95400
Bronze	14	CuSn12
Cast steel	45	A216 WCB Zn plated
Stainless steel	66	CF8M

Seat	
EPDM	E
NBR	B
FKM/FPM	V
PTFE	T
METAL	M

DIMENSIONS



DN	NPS	PN 10		PN 16		D	F/F
		A	A	B	C		
32	1 1/4	85	59	18	22	15	
40	1 1/2	95	72	22	25	16	
50	2	109	86	32	37	14	
65	2 1/2	129	109	40	50	14	
80	3	144	119	54	61	14	
100	4	164	146	70	77	18	
125	5	195	173	92	98	18	
150	6	220	197	112	120	20	
200	8	275	255	154	160	22	
250	10	330	331	312	192	190	36
300	12	380	386	363	227	220	32
350	14	440	446	416	266	250	U/R
400	16	491	499	467	310	290	U/R
450	18	541	558	520	350	340	U/R
500	20	596	621	550	400	390	U/R
600	24	698	738	660	486	470	U/R
mm	inches	Dimensions in mm ; U/R = Upon Request					

all dimensions are subject to revision without prior notice

BV 40



MATERIAL

BV40

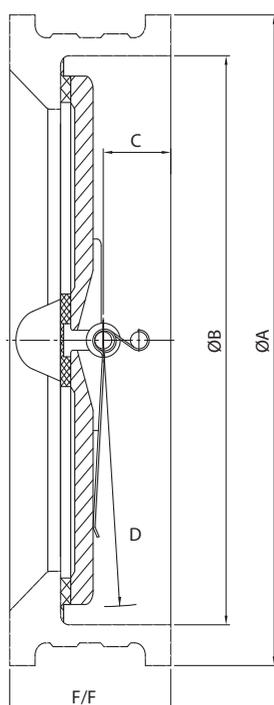
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Body		
Alu-Bronze	13	ASTM B148 C95400
Ductile iron	24	GGG40 Epoxy coated
Stainless steel	66	CF8M

Plate		
Alu-Bronze	13	ASTM B148 C95400
Ductile iron	25	GGG40 Nickel plated
Stainless steel	66	CF8M

Seat	
EPDM	E
NBR	B
FKM/FPM	V
METAL	M

DIMENSIONS



DN	NPS	PN 10		PN 16		D	F/F	
		A	A	B	C			
50	2	107		65	19	29	43	
65	2 1/2	127		80	20	36	46	
80	3	142		94	28	43	64	
100	4	162		117	27	53	64	
125	5	192		145	30	66	70	
150	6	218		170	31	79	76	
200	8	273		224	33	104	89	
250	10	328		265	50	127	114	
300	12	378	383	310	43	148	114	
350	14	438	444	360	45	172	127	
400	16	489	495	410	52	197	140	
450	18	539	555	450	58	218	152	
500	20	594	617	505	58	241	152	
600	24	695	734	624	73	295	178	
mm								inches

Dimensions in mm

all dimensions are subject to revision without prior notice

BV 41



MATERIAL

BV41

- XX XX X

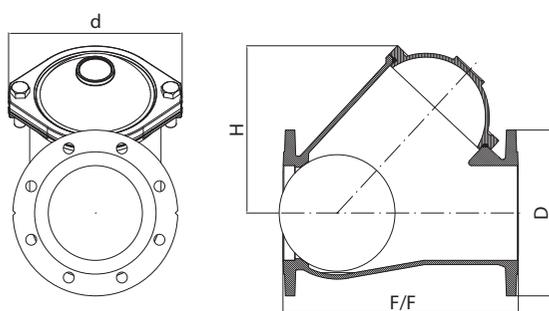
Body (*)		
Cast iron	28	GG25 Epoxy coated
Ductile iron	28	GGG40 Epoxy coated

Ball (*)		
Phenolic resin	10	Phenolic resin
Aluminium / nitrile	10	ALU + NBR coated
Ductile iron / nitrile	10	GGG40 + NBR coated
Polyurethane	10	PU

Seat	
NBR	B

(*) different materials depending size

DIMENSIONS



DN	NPS	PN 10 PN 16 A 150					d	F/F
		H	D	D	D	D		
40	1 1/2	90		150		120	180	
50	2	115		165		140	200	
65	2 1/2	135		185		155	240	
80	3	160		200		185	260	
100	4	190		226		220	300	
125	5	222		253		255	350	
150	6	268		285		290	400	
200	8	335		342		370	500	
250	10	420		403		380	600	
300	12	495	445	455	483	445	700	
350	14	580	505	520	533	520	800	
400	16	730	565	580	620	712	900	
500	20	900	670	715	699	772	1100	
mm	inches							

Dimensions in mm

all dimensions are subject to revision without prior notice

BV 49



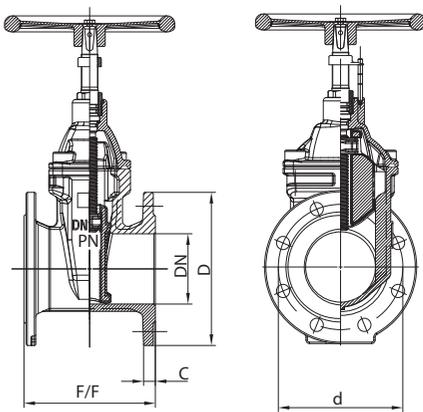
MATERIAL

BV49

- XX XX X

Body		
Ductile iron	34	GGG50 Epoxy coated
Gate		
Ductile iron	34	GGG50 Epoxy coated
Gate bonded with		
EPDM	E	
NBR	B	

DIMENSIONS



DN	NPS	PN10	PN16	PN10	PN16	PN10	PN16	F4	F5
		D	D	d	d	C	C	F/F	F/F
40	1 1/2	150	110			19		140	240
50	2	165	125			19		150	250
65	2 1/2	185	145			19		170	270
80	3	200	160			19		180	280
100	4	220	180			19		190	300
125	5	250	210			19		200	325
150	6	285	240			19		210	350
200	8	340	295			20		230	400
250	10	395	405	350	355	22		250	450
300	12	445	460	400	410	24		270	500
350	14	505	520	460	470	24	26	290	550
400	16	565	580	515	525	24	28	310	600
450	18	615	640	565	585	25	30	330	650
500	20	670	715	620	650	26	31	350	700
600	24	780	840	725	770	30	36	390	800
mm	inches	Dimensions in mm							

all dimensions are subject to revision without prior notice

BV 50



MATERIAL

BV50

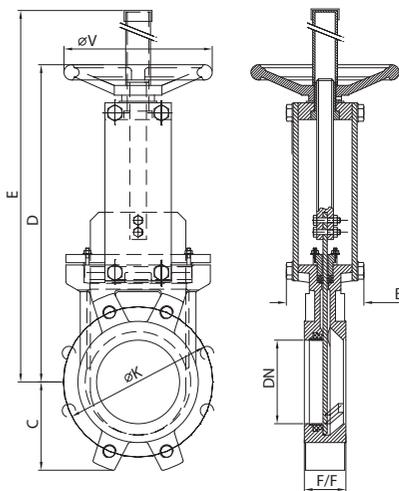
- XX XX X

Body		
Cast iron	23	GG25 Epoxy coated
Stainless steel	66	CF8M

Knife		
Stainless steel	63	CF8
Stainless steel	66	CF8M

Seat	
EPDM	E
NBR	B
FKM/FPM	V
PTFE	T
VMQ	S
METAL	M

DIMENSIONS



with rising stem

DN	NPS	PN10		A150		B	C	D	V	E	F/F
		K	K	K	K						
50	2	125	121	92	63	295	200	417	40		
65	2 1/2	145	140	92	70	320	200	442	40		
80	3	160	152	92	92	346	200	469	50		
100	4	180	191	92	105	386	200	509	50		
125	5	210	216	102	120	420	250	593	50		
150	6	240	241	102	130	471	250	644	60		
200	8	295	298	119	160	582	300	825	60		
250	10	350	362	119	198	683	300	1026	70		
300	12	400	432	119	234	790	300	1126	70		
350	14	460	476	194	256	907	400	1357	96		
400	16	515	540	194	292	1014	400	1463	100		
450	18	565	577	290	308	1106	500	1651	106		
500	20	620	635	290	340	1211	500	1756	110		
600	24	725	749	290	400	1417	500	2062	110		
700	28	840	U/R	300	452	1675	600	2440	110		
800	32	950	U/R	300	505	1887	600	2665	110		
900	36	1050	U/R	350	555				110		
1000	40	1160	U/R	350	610			other operating options available	110		
1200	48	1380	U/R	400	725				150		

Dimensions in mm ; U/R = Upon Request

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BV 51



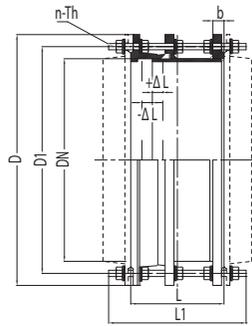
MATERIAL

BV51

- XX XX X

Body		
Ductile iron	24	GGG40 Epoxy coated
Stud bolts		
Stainless steel	63	AISI 304
Sealing ring		
EPDM	E	
NBR	B	

DIMENSIONS



DN	NPS	PN10/16		PN10					PN16					
		L1	L	± ΔL	D	D1	b	n-th	L	± ΔL	D	D1	b	n-th
50	2	390	200	20	165	125	20	4-M16	200	20	165	125	20	4-M16
65	2 1/2	430	200	20	185	145	20	4-M16	200	20	185	145	20	4-M16
80	3	430	200	20	200	160	20	8-M16	200	20	200	160	20	8-M16
100	4	430	200	20	220	180	22	8-M16	200	20	220	180	22	8-M16
125	5	430	200	20	250	210	22	8-M16	200	20	250	210	22	8-M16
150	6	430	200	20	285	240	24	8-M20	200	20	285	240	24	8-M20
200	8	430	200	20	340	295	24	8-M20	200	20	340	295	24	8-M20
250	10	430	200	20	400	350	26	12-M20	200	20	400	355	26	12-M24
300	12	470	220	25	445	400	26	12-M20	220	15	455	410	28	12-M24
350	14	470	220	25	505	460	26	16-M20	220	15	520	470	30	16-M24
400	16	470	220	25	565	515	26	16-M24	245	15	580	525	38	16-M27
450	18	470	220	25	615	565	28	20-M24	260	15	640	585	42	20-M27
500	20	470	220	25	670	620	28	20-M24	275	15	715	650	45	20-M30
600	24	500	240	25	780	725	30	20-M27	275	15	840	770	50	20-M33
700	28	500	240	25	895	840	30	24-M27	275	15	910	840	50	24-M33
800	32	640	350	30	1015	950	32	24-M30	350	30	1025	950	52	24-M36
900	36	640	350	30	1115	1050	34	28-M30	350	30	1125	1050	54	28-M36
1000	40	640	350	30	1230	1160	34	28-M33	350	30	1255	1170	56	28-M39
1200	48	680	370	30	1455	1380	38	32-M36	370	30	1485	1390	58	32-M45
1400	56	680	370	30	1675	1590	42	36-M39	370	30	1685	1590	60	36-M45
1500	60	680	370	30	1785	1700	42	36-M39	370	30	1820	1710	60	36-M52
1600	64	700	380	30	1915	1820	46	40-M45	380	30	1930	1820	60	40-M52
1800	72	700	380	30	2115	2020	50	44-M45	380	30	2130	2020	62	44-M52

Dimensions in mm

all dimensions are subject to revision without prior notice

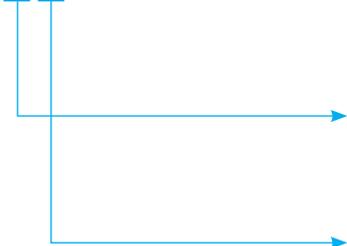
BV 56



MATERIAL

BV50

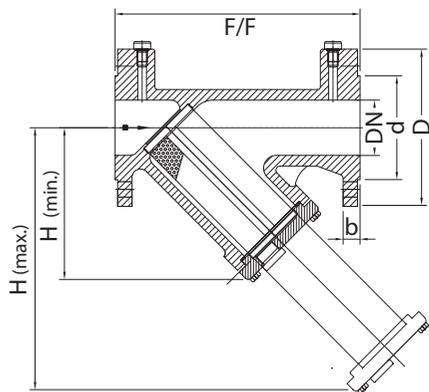
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Body		
Cast iron	24	GG25 Epoxy coated
Stainless steel	63	CF8
Stainless steel	66	CF8M

Screen		
Stainless steel	63	AISI 304
Stainless steel	60/66	AISI 316

DIMENSIONS



DN	NPS	PN10		PN16		b	H min	H max	F/F
		D	D	d	d				
15	1/2	95		45		14	57	105	130
20	3/4	105		58		16	76	135	150
25	1	115		68		16	80	150	160
32	1 1/4	140		78		18	96	177	180
40	1 1/2	150		88		18	116	215	200
50	2	165		102		20	130	220	230
65	2 1/2	185		122		20	177	310	290
80	3	200		138		22	197	345	310
100	4	220		158		24	228	395	350
125	5	250		188		26	271	450	400
150	6	285		212		26	327	580	480
200	8	340		268		30	390	650	600
250	10	395	405	320		32	541	910	730
300	12	445	460	378		32	641	1040	850
350	14	505	520	430	438	36	740	1210	980
400	16	565	580	482	490	38	845	1380	1100
450	18	615	640	532	550	45	840	1330	1200
500	20	670	715	585	610	46	908	1440	1250
600	24	780	840	685	725	48	1078	1742	1450
mm	inches	Dimensions in mm							

all dimensions are subject to revision without prior notice

minimum opening pressure for check valves

		opening pressure mbar													
		BV36			BV38 CAST IRON		BV38/39 CAST STEEL - STAINLESS STEEL				BV40			BV41	
		BV38		BV39		BV38		BV39							
DN	NPS	↔	↓	↑	↔	↑	↔	↔	↑	↑	↔	↓	↑	↔	↑
15	1/2	25	20	30											
20	3/4	25	20	30											
25	1	25	20	30											
32	1 1/4	25	20	30			2	15	10	25					
40	1 1/2	25	20	30			2	15	10	25				*	1,56
50	2	25	20	30	2	10	2	15	10	25	15	10	20	*	2,05
65	2 1/2	25	20	30	2	10	2	15	10	25	15	10	20	*	2,18
80	3	25	20	30	2	10	2	15	10	25	15	10	20	*	6,57
100	4	25	20	30	2	10	2	15	10	25	15	10	20	*	8,53
125	5	22	10	30	2	10	2	15	10	25	15	10	20	*	9,11
150	6	22	10	30	2	10	2	15	10	25	15	10	20	*	12,1
200	8	22	10	30	4	14	4	17	14	27	15	10	20	*	14,4
250	10	22	10	30	4	14	4	17	14	27	15	10	20	*	11,6
300	12	22	10	30	4	14	4	17	14	27	15	10	20	*	15,2
350	14						6	U/R	18	U/R	15	10	20	*	16,5
400	16						6	U/R	18	U/R	15	10	30	*	18,2
450	18						6	U/R	18	U/R	15	10	30	U/R	U/R
500	20						6	U/R	24	U/R	15	10	30	*	4,84
600	24						6	U/R	26	U/R	15	10	30		

Dimensions in mm ; U/R = Upon Request
* opening pressure horizontal position 0 mbar

BV36 no backpressure required to keep checkvalve tight due to spring
BV38/39 minimum backpressure required to keep check valve tight = 0,3 bar

operating options

Belven can supply a wide range of valves for various applications . As multiturn valves are found in all kind of fields, the material varies from cast iron with special coatings for usage with water to stainless steel for usage with corrosive media. These valves are mainly equipped with a standard handwheel, but are extremely suitably to serve as control valves in an installation. Upon customer's request the valves can be supplied with actuated OPEN/CLOSE or full position control, both supplied with the necessary accessories. Herewith we give you a brief overview of the possibilities

MANUAL



- Standard equipped with HANDWHEEL available in all kind of materials.
- QUICK ACTION LEVER for immediate opening or closure of the valve
- GEARBOX in different materials such as cast iron or aluminium, standard/lockable/with chainwheel, with visual open/close indication

PNEUMATIC

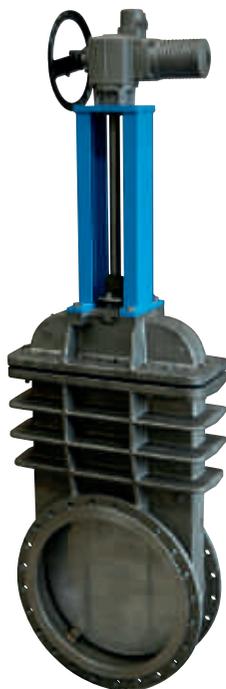
Double acting pneumatic/cylinder - DA
Single acting pneumatic/cylinder - SA

- Suitable for high duty cycles
- Fast opening and closing times
- Few moving parts : increases operational safety
- Namur design possible for easy mounting of accessories, as limit switches, (NAMUR) solenoid valves and bus communication systems



operating options

ELECTRIC



When it comes to the automation of valves for water applications or other processes in the industrial and construction sector, Belven uses the newest electronic components combined with precise mechanics. This enables high performance and long-term reliability of the product.

- Wide range of voltage options
- Self-locking reduction gear
- The electronic circuit adjusts automatically the motor speed depending on the mechanical charge variations in order to drive the cycle always in the same time.
- All actuators are provided with torque limiter.
- Thermal protection
- Usual required options, like extra limit switches, visual open/close indication, heater and even an emergency handwheel operator are (often) standard integrated in the actuator
- open / close and modulating duty
- Different protection classes

For more information related to our standardisation on electric actuators and brands, kindly contact our sales department.

ELECTRIC HYDRAULIC

- High operational safety
- Modular design for easy mounting of accessories, like limit switches or visual open/close indication
- Suitable for submerged purposes (IP68) as option
- Different oil pressures possible



ACCESSORIES

- Stem extension in steel or stainless steel
- Visual indicators
- Solenoid valves, available in different voltages /currents and available in different ATEX protection classes
- Limit switches [mechanical, inductive, capacitive, ...]



belven. your partner for valves

DESIGN

Check valves, gate valves and strainers can be found in many different designs. Every Belven valve offers a specific solution for a customer's demand. When defining your requested valve, next to body construction, the material is also an important issue to tackle. The Belven valve range offers you different materials such as brass, bronze, cast iron, ductile iron, metal alloys, steels and stainless steel. Within these different materials and body constructions, Belven has optimised its range by offering standard product codes.



RESEARCH & DEVELOPMENT

All valves are produced with preliminary thorough research and testing. Traceability of the product is a key factor for Belven, it can furnish you with the necessary certificates on pressure and materials. Belven continuously strives for innovation through product development and expanding its experience by daily testing its own quality system. Belven is ISO 9001 certified and has all relevant product certificates.

SALES SUPPORT

Belven's partners are located worldwide and they can offer you the necessary support in your local market. Besides these local service points, the head offices has plenty of experienced people on each market to support you in finding the correct valve you require for.



FOLLOW UP

At order placement, the Belven sales and logistic team follow your order carefully to ensure your goods are handled as quickly as possible. This way, you will be notified in due course when your goods can be expected your way.

belven. your partner for valves

DELIVERY

The central warehouse in Belgium carries a large stock of standard product types. Deliveries ex works, transport by road, cargo or air, express deliveries; all is possible through Belven's well organised logistic department. Belven supervises the transport through its contacts and will gladly organise all relevant export documentation you might require.



REFERENCES

Belven is well organized in daily sales but has even more experience in handling large projects. If you have any questions related towards its experience in this field you are kindly requested to contact the sales departments.



Reference List

CHECK VALVES

- Industrial projects
- Water treatment projects
- HVAC projects
- Export Projects



Reference List

(KNIFE) GATE VALVES

- Industrial projects
- Water treatment projects
- Export Projects



Reference List

STRAINERS

- Industrial projects
- Water treatment projects
- HVAC projects
- Export Projects

For updated information related towards projects, contact our sales departments and request our reference lists.

For updated references in interviews and publications, check the Belven website : www.belven.com.

OUR FIELD APPLICATIONS



**WATER
TREATMENT**



**DISTRICT
ENERGY**



**TANK
STORAGE**



**CONSTRUCTION
& BUILDINGS**



**PROCESS
INDUSTRY**

WE APPROACH YOU THROUGH

DISTRIBUTION

CONTRACTING & MAINTENANCE

ENGINEERING

PROJECT DEVELOPMENT