

**BELLOW VALVE zBEL**



Body material	Nominal pressure	Nominal diameter	Max. temperature
<b>A</b> Grey cast iron	<b>C</b> 16 bar	DN <b>15-250</b>	300°C
<b>C</b> Nodular cast iron	<b>C</b> 16 bar <b>D</b> 25 bar	DN <b>15-200</b>	350°C
<b>F</b> Cast steel	<b>E</b> 40 bar	DN <b>15-300</b>	450°C
<b>I</b> Cast stainless steel	<b>E</b> 40 bar	DN <b>15-300</b>	400°C



correspond to the pressure equipment directive 2014/68/UE marking CE for DN≥32

**FEATURES**

- high tightness (leakproofness class - A acc. EN -12266 - 1)
- compact settlement
- environment-friendly
- tests acc. EN - 12266 - 1
- flanges drilled according to EN 1092-2 for body material A, C, E
- flanges drilled according to EN 1092-1 for body material F, I
- face-to-face dimension according to EN 558 series 1

**APPLICATION \***

\* not all of the applications are suitable for all of the executions  
 On the website [www.zetkama.com.pl](http://www.zetkama.com.pl) is a Chemical Resistance List, which specifies the parameters of work for a given medium.

industries



INDUSTRY



SHIPBUILDING  
INDUSTRY



HEATING



REFRIGERATION  
AND AIR  
CONDITIONING



CHEMICAL  
INDUSTRY

media



GLYCOL



INDUSTRIAL  
WATER



DIATHERMIC OIL



STEAM



COMPRESSED  
AIR



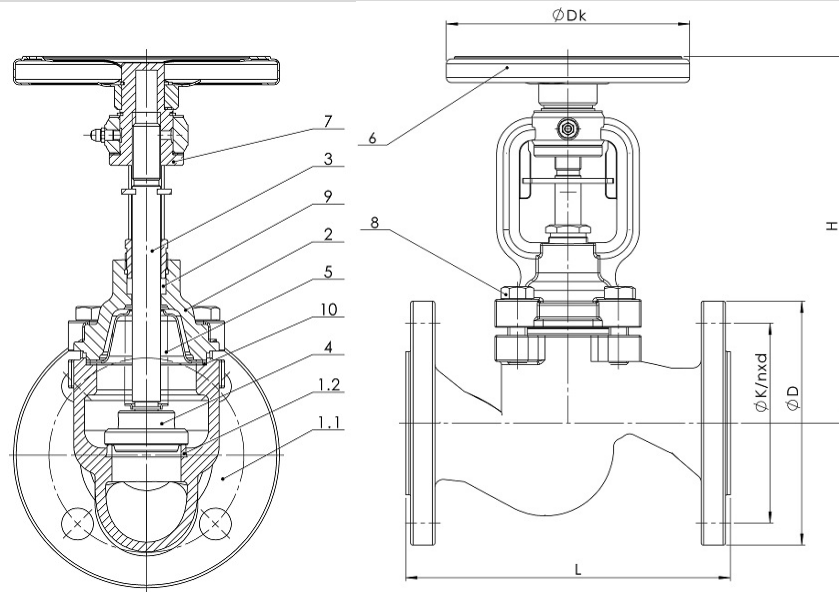
NEUTRAL  
FLUIDS

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FIG.234

**MATERIALS, DIMENSIONS**



	Body material	A	C
	Type	01; 04; 71	01; 04; 71
1.1	Body	EN – GJL-250 5.1301 (ex. JL1040)	EN – GJS-400 – 18-LT 5.3103 (ex.JS1025)
1.2	Seat ring	X12Cr13 1.4021	
2	Bonnet	EN – GJS-400 – 18-LT 5.3103 (ex.JS1025)	
3	Stem	X20Cr13 1.4021	
4	Disc	X20Cr13+QT 1.4021	
5	Bellow	X6CrNiMoTi-17-12-2	
6	Hand-wheel	Steel	
7	Sleeve	11SMnPb30	
8	Hexagon bolt	5.6	A2-70
9	Gland packing	Graphite	
10	Bonnet gasket	Graphite + CrNiSt	
	Max. temperature	300°C	350°C

DN	15	20	25	32	40	50	65	80	100	125	150	200	250
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
Dk (mm)	125	125	125	125	150	150	175	200	250	300	400	500	600
H	178	178	193	201	224	228	270	295	325	380	427	569	645
K <sub>vs</sub> (m <sup>3</sup> /h)	01;04	5,9	7,4	13	18	30	41	79	115	181	225	364	725
	71	3,4	6,3	9,4	16	26	40	70	106	170	245	360	-----
Weight (kg)	01;04	3,2	3,9	4,85	6,5	9,0	11	15,8	24,3	35	49	76	130,5
	71	3,2	3,9	5,0	6,7	9,3	11,5	16,3	21,4	36	51,5	78	130,5

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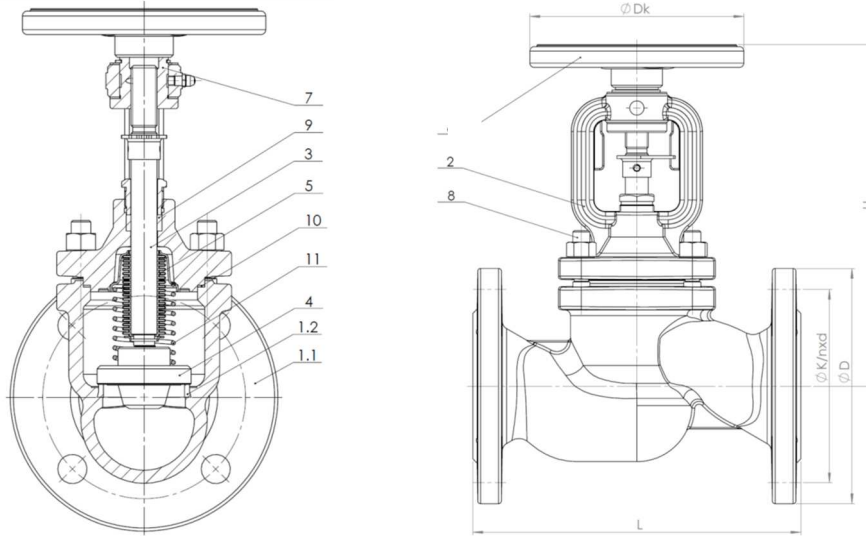
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FIG.234

**MATERIALS, DIMENSIONS**



	Body material	F			
		01	04	31	71
1.1	Body	GP240GH			
1.2	Seat	G 19 9 L Si			
2	Bonnet	GP240GH			
3	Stem	X20Cr13 1.4021			
4	Disc	Stop disc X20Cr13 +QT 1.4021	balancing disc X20Cr13 +QT 1.4021	SDNR X20Cr13 +QT 1.4021	throttling disc X20Cr13 +QT 1.4021
5	Bellow	X6CrNiMoTi17-12-2			
6	Hand-wheel	Steel			
7	Sleeve	11SMnPb30			
8	Stud bolt, nut	25CrMo4			
9	Gland packing	Graphite			
10	Bonnet gasket	Graphite			
11	Spring	----	----	X17CrNi16-2 1.4057	----
<b>Max. temperature</b>		<b>450°C</b>			

DN	15	20	25	32	40	50	65	80	100	125	150	200
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600
Dk (mm)	125	125	125	125	200	200	250	250	300	300	400	400
H (mm)	190	190	190	195	240	240	270	300	450	520	570	627
Kvs (m³/h)	6,0	8,7	15,5	25,3	28,8	46,5	76,4	113,2	180,2	238,7	358,2	552
Weight (kg)	4,3	5,1	6,0	7,6	11,5	13,7	20,1	27,5	44,0	65,5	110,0	172,5

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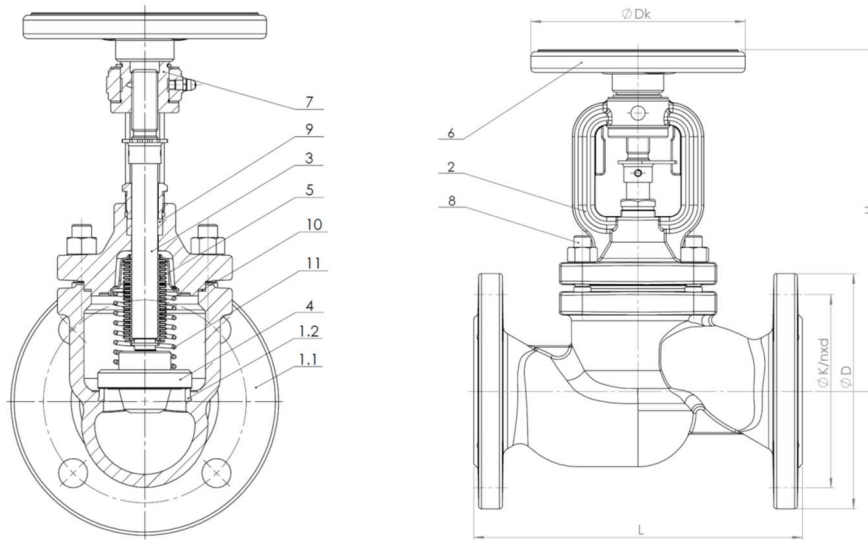
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FIG.234

MATERIALS, DIMENSIONS



Body material		I			
Type	01	04	31	71	
1.1 Body	G-X5CrNiMo19-11-2 1.4408				
1.2 Seat	G 19 9 L Si				
2 Bonnet	G-X5CrNiMo19-11-2 1.4408				
3 Stem	X6CrNiMoTi17-12-2 1.4571				
4 Disc	Stop disc X6CrNiMoTi17-12-2 1.4571	Balancing disc X6CrNiMoTi17-12-2 1.4571	SDNR X6CrNiMoTi17-12-2 1.4571	Throttling disc X20Cr13 +QT 1.4021	
5 Bellow	X6CrNiMoTi17-12-2 1.4571				
6 Hand-wheel	Steel				
7 sleeve	11SMnPb30				
8 Bolt, nut	A4-70				
9 Gland packing	Graphite				
10 Bonnet gasket	Graphite				
11 Spring	----		X17CrNi16-2 1.4057	---	
Max. temperature	400°C				

DN	15	20	25	32	40	50	65	80	100	125	150	200
L (mm)	130	150	160	180	200	230	290	310	350	400	480	600
Dk (mm)	125	125	125	125	200	200	250	250	300	300	400	400
H (mm)	190	190	190	195	240	240	270	300	450	520	570	627
Weight (kg)	3,8	4,9	5,7	7,4	10,7	13,1	19,5	25,7	43,9	64,8	95,0	152,0

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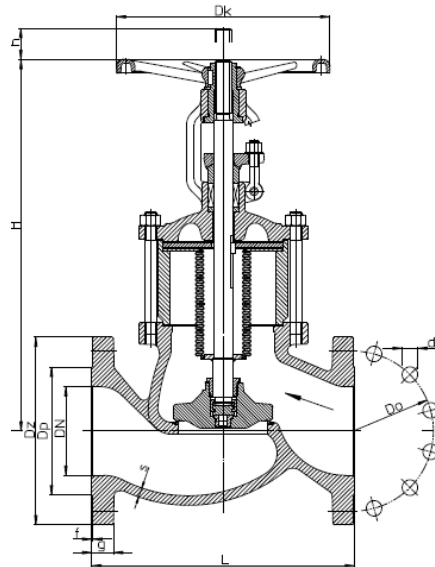
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**MATERIALS, DIMENSIONS**

DN 250-300



	Body material	F	I
	Type	04	04
1	Body	GP240GH	G-X5CrNiMo19-11-2
2	Seat	Cr-Ni	G-X5CrNiMo19-11-2
3	Bonnet	GP240GH	G-X5CrNiMo19-11-2
4	Stem	X20Cr13	X6CrNiTi18-10
5	Disc	GX12Cr12	18-8 Cr-Ni
	Bellow	18-8 Cr-Ni	18-8 Cr-Ni
6	Gasket	Graphite	Graphite
<b>Max. temperature</b>		<b>450°C</b>	<b>400°C</b>

DN	250	300
L	730	850
f	3	4
g	38	42
H	780	1205
h	75	88
Dk	500	640
Weight (kg)	350	540

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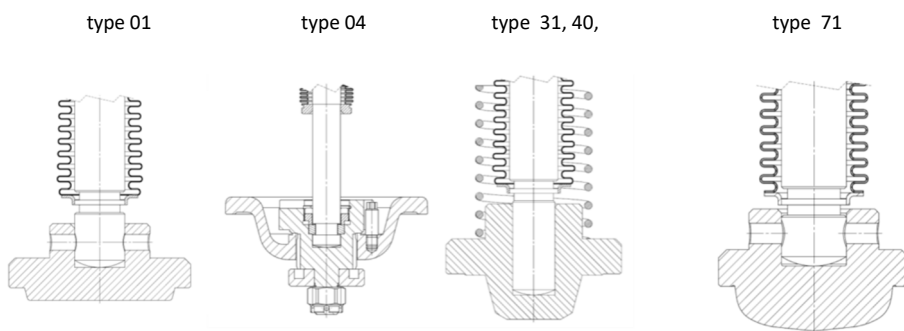
**PRESSURE-TEMPERATURE RATINGS**

	PN		---	-10°±120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C	
EN-GJL-250	16	bar	---	16	14,4	12,8	11,2	9,6	---	---	---	
EN-GJS-400-18 LT	16		---	16	15,5	14,7	13,9	12,8	11,2	---	---	
	25		---	25	24,3	23	21,8	20	17,5	---	---	
<b>Acc. EN 1092-1</b>			<b>-20°÷&lt;-10°C</b>	<b>-10°±50°C</b>	<b>100°C</b>	<b>150°C</b>	<b>200°C</b>	<b>250°C</b>	<b>300°C</b>	<b>350°C</b>	<b>400°C</b>	<b>450°C</b>
GP240GH	40	bar	30	40	37,1	35,2	33,3	30,4	27,6	25,7	23,8	13,1
<b>Acc. EN 1092-1</b>			---	<b>-60°÷&lt;-10°C</b>	<b>-10°C±100°C</b>	<b>150°C</b>	<b>200°C</b>	<b>250°C</b>	<b>300°C</b>	<b>350°C</b>	<b>400°C</b>	<b>450°C</b>
G-X5CrNiMo19-11-2	40		---	40	40	36,3	33,7	31,8	29,7	28,5	27,4	---

**FLANGE DIMENSIONS ACC. PN-EN 1092-1/-2**

DN		15	20	25	32	40	50	65	80	100	125	150	200	250	300
PN16	D (mm)	95	105	115	140	150	165	185	200	220	250	285	340	405	-----
	K (mm)	65	75	85	100	110	125	145	160	180	210	240	295	355	-----
	nxd (mm)	4x14	4x14	4x14	4x19	4x19	4x19	4x19	8x19	8x19	8x19	8x23	12x23	12x28	-----
PN25	D (mm)	95	105	115	140	150	165	185	200	235	270	300	360	-----	-----
	K (mm)	65	75	85	100	110	125	145	160	190	220	250	310	-----	-----
	nxd (mm)	4x14	4x14	4x14	4x19	4x19	4x19	8x19	8x19	8x23	8x28	8x28	12x28	-----	-----
PN40	D (mm)	95	105	115	140	150	165	185	200	235	270	300	375	450	515
	K (mm)	65	75	85	100	110	125	145	160	190	220	250	320	385	450
	nxd (mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12X30	12x33	16x33

**DISC**



Other type of valves on request:

- stellited seat
- hardened disc
- other

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TYPE

Figure	Body material	Nominal diameter	Nominal pressure	Type
234	A Grey cast iron EN-GJL-250	15-150 mm	C 16 bar	01 stem connected with bellow; stem, disc, bellow and seat ring - stainless steel
		200-250 mm	C 16 bar	04 stem connected with bellow; stem, balancing disc; bellow and seat ring - stainless steel
		15-200 mm	C 16 bar	71 stem connected with bellow; stem, throttling disc; bellow and seat ring - stainless steel
234	C Nodular cast iron EN-GJS-400-18-LT	15-150 mm	C 16 bar	01 stem connected with bellow; stem, disc, bellow and seat ring - stainless steel
		200 mm	C 16 bar	04 stem connected with bellow; stem, balancing disc; bellow and seat ring - stainless steel
		15-200 mm	C 16 bar	71 stem connected with bellow; stem, throttling disc; bellow and seat ring - stainless steel
		15-150 mm	D 25 bar	01 stem connected with bellow; stem, disc, bellow and seat ring - stainless steel
		200 mm	D 25 bar	04 stem connected with bellow; stem, balancing disc; bellow and seat ring - stainless steel
234	F cast steel GP240GH 1.0619	15-100 mm	E 40 bar	01 stem connected with bellow; stem, disc, bellow and seat ring - stainless steel
		125-200 mm	E 40 bar	04 stem connected with bellow; stem, balancing disc; bellow and seat ring - stainless steel
		15-200 mm	E 40 bar	31 stem connected with bellow, SDNR with spring; stem, SDNR, spring, bellow – stainless steel
		15-200 mm	E 40 bar	71 stem connected with bellow; stem, throttling disc; bellow and seat ring - stainless steel
		250-300 mm	E 40 bar	04 stem connected with bellow; stem, balancing disc; bellow and seat ring - stainless steel
234	I cast stainless steel G-X5CrNiMo19-11-2	15-100 mm	E 40 bar	01 stem connected with bellow; stem, disc, bellow and seat ring - stainless steel
		125-200 mm	E 40 bar	04 stem connected with bellow; stem, balancing disc; bellow and seat ring - stainless steel
		15-200 mm	E 40 bar	31 stem connected with bellow, SDNR with spring; stem, SDNR, spring, bellow – stainless steel
		15-200 mm	E 40 bar	71 stem connected with bellow; stem, throttling disc; bellow and seat ring - stainless steel
		250-300 mm	E 40 bar	04 stem connected with bellow; stem, balancing disc; bellow and seat ring - stainless steel

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ORDERING

Figure	Body material	Nominal diameter	Nominal pressure	Type
234	A Grey cast iron EN-GJL-250	15-150 mm	C 16 bar	01 stem connected with bellow; stem, disc, bellow and seat ring - stainless steel

Order example acc. index

234 A 050 C 01

Bellow sealed stop valves, ends flanged, form straight  
 Grey cast iron EN-GJL-250  
 Nominal diameter (mm)  
 Nominal pressure PN 16  
 Stem connected with bellow; stem, disc and seat ring stainless steel

234 A 050 C 01