

Bellows seal globe valve BW

PN16 PN40 DN15-DN400, Fig.112c-g-BW

Body : 1.0619N /1.4408

Maintenance-free

Design acc. :AD 2000 A4, ATEX 2014/34/EU, EN 13709

End to end : EN 12982 Ser.1

BW end : EN 12627 Fig1, Fig2

Test acc. : EN12266-1

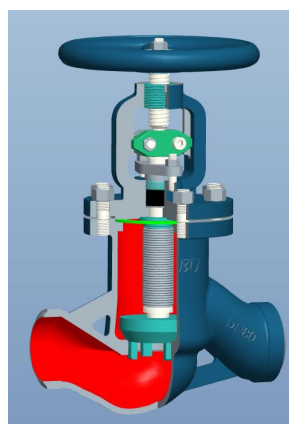
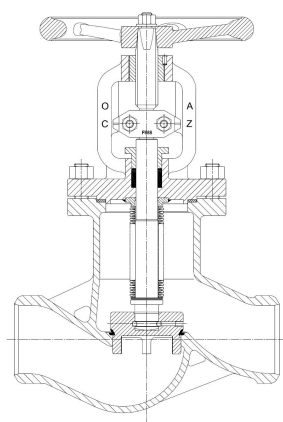
Temperature range :

-29℃~+450℃(1.0619N)

-196℃~+400℃(1.4408)

Witzenmann Bellows

circle 10 000



Key features

Bellows seal globe valves designed for various applications with inflammable, explosive, volatile, toxic or aggressive characteristics to provide the highest fugitive emission protection.

Full safety sealing system with multiple-walled bellows, gland packing, metal back seat, and position indicator.

Two-part rising stem design separates the upper and lower stem from each other which prevents bellows from torsion.

Typical applications

Bellows seal globe valves provide the highest fugitive emission protection for use in chemical processing, including Phosgene and Fertilizer applications.

For various media with inflammable, explosive, volatile, toxic or aggressive characteristics, whose emission into the atmosphere must be prevented.

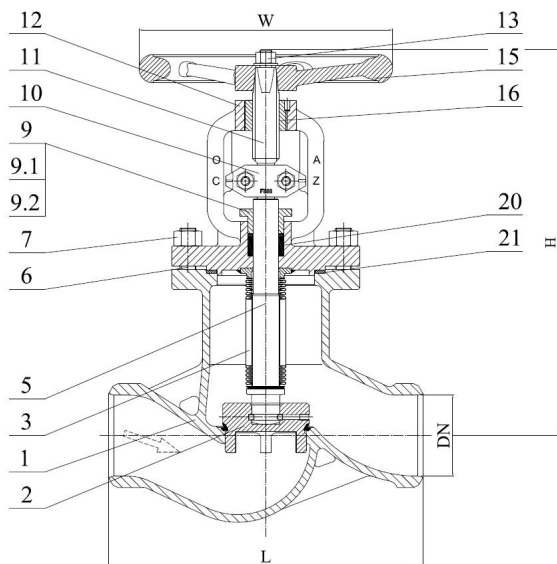
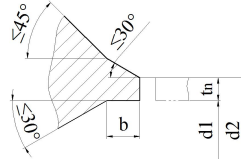
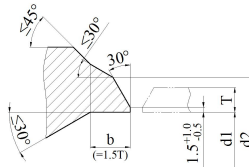


FIG.	Pressure	Material	Range
133.112c-g-BW	PN16	1.0619N	DN15-DN125
135.112c-g-BW	PN40	1.0619N	DN15-DN125
153.112c-g-BW	PN16	1.4408	DN15-DN125
155.112c-g-BW	PN40	1.4408	DN15-DN125
533.112c-g-BW	PN16	Hastelloy (2.4610) CW2M Ni-Cr(N26455)	DN15-DN125
535.112c-g-BW	PN40	Hastelloy (2.4610) CW2M Ni-Cr(N26455)	DN15-DN125



EN 12627 Fig1

tn≤4mm DN15-DN80



EN 12627 Fig2

4mm<T≤22mm DN100-DN125

**Design acc. : AD 2000 A4,
ATEX 2014/34/EU, EN 13709
End to end : EN 12982 Ser.1
BW end : EN 12627 Fig1, Fig2
Test acc. : EN12266-1/ ISO 5208
Temperature range :
-29℃~ +450℃(1.0619N)
-196℃~ +400℃(1.4408)**

Material List

NO.	Part	Material		
		FIG.153.112c-g-BW/ 155.112c-g-BW	FIG.133.112c-g-BW/ 135.112c-g-BW	FIG.533.112c-g-BW/ 535.112c-g-BW
1	Body	1.4408/1.4409	1.0619N	Hastelloy (2.4610) CW2M Ni-Cr(N26455)
1.1	Body seal	1.4408/stellite 21	1.4009	Hastelloy (2.4610) CW2M Ni-Cr(N26455)
2	Disk	1.4401	1.4021 QT	2.4610
2.1	Disk seal	Stellite 21 /stellite 6	1.4021 QT	2.4610 / Stellite 21
3	Bellows	1.4571	1.4571	2.4610
5	Low stem	1.4401	1.4401	2.4610
6	Bolts	A4-70 / A2-70	1.7225(GC)	A4-70 / A2-70
7	Nuts	A4-70 / A2-70 / A4-80	1.1181(YK)	A4-70 / A2-70 / A4-80
9	Packing gland	1.4408	1.0619N	1.4408
9.1	Gland bolt	A4-70 / A2-70	1.7225(GC)	A4-70 / A2-70
9.2	Gland nut	A4-70 / A2-70 / A4-80	1.1181(YK)	A4-70 / A2-70 / A4-80
10	Connecting block	1.4308	1.4308	1.4308
11	Up stem	1.4057	1.4057	1.4057
12	Bonnet	1.4408/1.4409	1.0619N	Hastelloy (2.4610) CW2M Ni-Cr(N26455)
13	Nut	A2-70	YK (1.1181)	A2-70
15	Handwheel	GGG40.3	GGG40.3	GGG40.3
16	Stem nut	1.4021 / D2 / Copper alloy	GGG40.3 / Copper alloy	1.4021 / D2 / Copper alloy
20	Packing	Graphite / PTFE	Graphite	Graphite
21	Body seal	Graphite +1.4401 / PTFE	Graphite +1.4301	Graphite +Hastelloy

Dimension List

PN	DN	L	H	W	d1	d2	b	For pipe	W.T.(kg)
16/40	15	130	228	120	17.3	22	3	Ø21.3×2.0	5.4
	20	150	233	120	22.3	28	4	Ø26.9×2.3	6.1
	25	160	238	140	28.5	35	4	Ø33.7×2.6	7.8
	32	180	246	140	37.2	44	4	Ø42.4×2.6	10.0
	40	200	290	180	43.1	50	4	Ø48.3×2.6	13.0
	50	230	313	180	53.9	62	5	Ø60.3×3.2	17.4
	65	290	313	220	68.9	77	6	Ø76.1×3.6	28.0
	80	310	404	250	80.9	91	6	Ø88.9×4.0	38.5
	100	350	385	300	104.3	117	8	Ø114.3×5.0	56.3
	125	400	435	350	130.7	144	7	Ø139.7×4.5	75.0

Note: pipe acc. to DIN2448/ ISO4200 outside diameter×wall thickness.

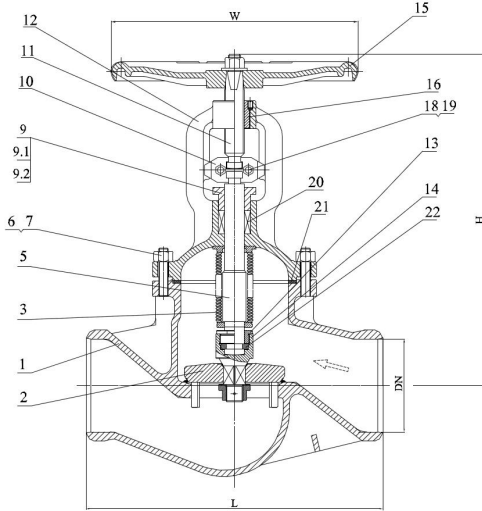
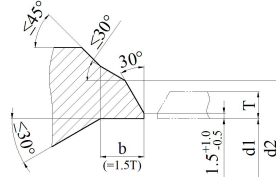


FIG.	Pressure	Material	Range
133.112c-g-BW	PN16	1.0619N	DN150-DN400
135.112c-g-BW	PN40	1.0619N	DN150-DN400
153.112c-g-BW	PN16	1.4408	DN150-DN400
155.112c-g-BW	PN40	1.4408	DN150-DN400
533.112c-g-BW	PN16	Hastelloy (2.4610) CW2M Ni-Cr(N26455)	DN150-DN400
535.112c-g-BW	PN40	Hastelloy (2.4610) CW2M Ni-Cr(N26455)	DN150-DN400



EN 12627 Fig2

4mm<T≤22mm DN150-DN400

**Design acc. :AD 2000 A4,
ATEX 2014/34/EU, EN 13709
End to end : EN12982 Ser.1
BW end : EN 12627, Fig2
Test acc. : EN 12266-1/ ISO 5208
Temperature range :
-29℃~ +450℃(1.0619N)
-196℃~ +400℃(1.4408)**

Material List

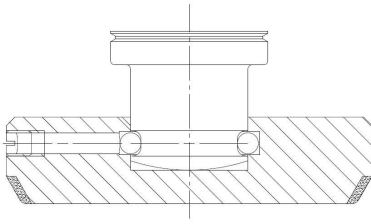
NO.	Part	Material		
		FIG.153.112c-g-BW/ 155.112c-g-BW	FIG.133.112c-g-BW/ 135.112c-g-BW	FIG.533.112c-g-BW/ 535.112c-g-BW
1	Body	1.4408/1.4409	1.0619N	Hastelloy (2.4610) CW2M Ni-Cr(N26455)
1.1	Body seal	1.4408/stellite 21	1.4009	Hastelloy (2.4610) CW2M Ni-Cr(N26455)
2	Disk	1.4401	1.0460	2.4610
2.1	Disk seal	Stellite 21/stellite 6	1.4009	2.4610 / Stellite 21
3	Bellows	1.4571	1.4571	2.4610
5	Low stem	1.4401	1.4401	2.4610
6	Bolts	A4-70 / A2-70	1.7225(GC)	A4-70 / A2-70
7	Nuts	A4-70 / A2-70 / A4-80	1.1181(YK)	A4-70 / A2-70 / A4-80
9	Packing gland	1.4408	1.0619N	1.4408
9.1	Gland bolt	A4-70 / A2-70	1.7225(GC)	A4-70 / A2-70
9.2	Gland nut	A4-70 / A2-70 / A4-80	1.1181(YK)	A4-70 / A2-70 / A4-80
10	Connecting block	1.4308	1.4308	1.4308
11	Up stem	1.4057	1.4057	1.4057
12	Bonnet	1.4408/1.4409	1.0619N	Hastelloy (2.4610) CW2M Ni-Cr(N26455)
13	Disc screw	1.4401	1.4006	2.4610
14	Secondary disc	1.4401	1.4021	2.4610
15	Handwheel	GGG40.3	GGG40.3	GGG40.3
16	Stem nut	1.4021 / D2 / Copper alloy	GGG40.3 / Copper alloy	1.4021 / D2 / Copper alloy
18	Nut	A2-70	C35	A2-70
19	Bolts	A2-70	C35	A2-70
20	Packing	Graphite / PTFE	Graphite	Graphite
21	Body seal	Graphite +1.4401 / PTFE	Graphite +1.4301	Graphite +Hastelloy
22	Folio ring	1.4401	1.4006	2.4610

Dimension List

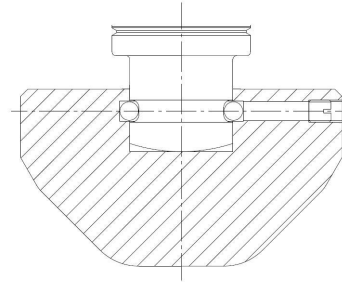
PN	DN	L	H	W	d1	d2	b	For pipe	W.T.(kg)
16/40	150	480	540	400	157.1	172	9	Ø168.3×5.6	106.0
	200	600	650	500	204.9	223	11	Ø219.1×7.1	232.0
	250	730	765	590	257.0	278	12	Ø273.0×8.0	294.0
	300	850	925	700	307.9	329	12	Ø323.9×8.0	580.0
	350	980	-	-	338.0	362	14	Ø355.6×8.8	-
	400	1100	-	-	384.4	413	17	Ø406.4×11.0	-

Note: pipe acc. to DIN2448/ ISO4200 outside diameter×wall thickness.

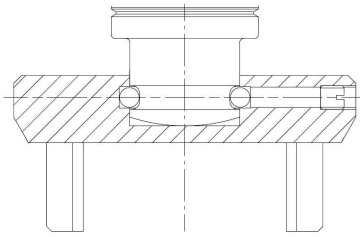
Available



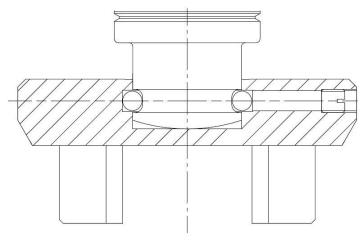
Isolation plug with marginal seat



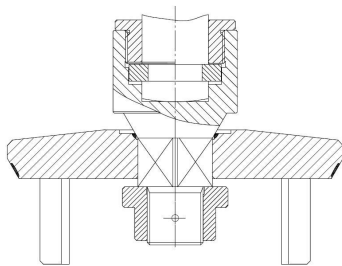
Regulating plug with marginal seat



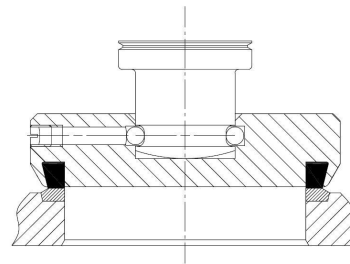
V-port plug with marginal seat



V-port regulating plug with marginal seat

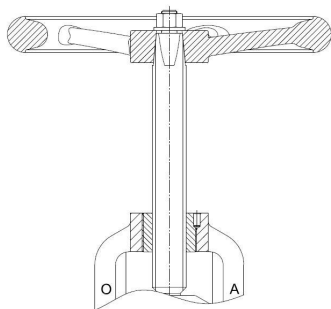


Balancing plug

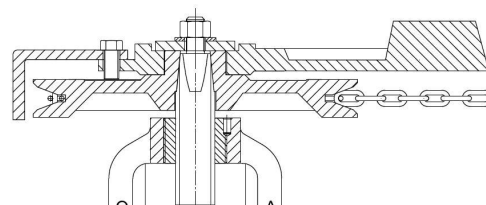


Plug with soft seat

Max. Operating temperature 200℃ at PTFE



Extended stem



Chain wheel

Pressure-temperature limit rating table

Body Material	Nominal Pressure(PN)	Temperature(℃)	Pressure(barg)
1.0619N	16	-10	16
		100	14.8
		150	14
		200	13.3
		250	12.1
		300	11
		350	10.2
		400	9.5
1.0619N	40	-10	40
		100	37.1
		150	35.2
		200	33.3
		250	30.4
		300	27.6
		350	25.7
		400	23.8
1.4408	16	-10	16
		100	16
		150	14.5
		200	13.4
		250	12.7
		300	11.8
		350	11.4
		400	10.9
1.4408	40	-10	40
		100	40
		150	36.3
		200	33.7
		250	31.8
		300	29.7
		350	28.5
		400	27.4
2.4610	16	-10	16
		100	16
		150	14
		200	12
		250	9.6
		300	8.2
		350	6.7
		400	5.2
2.4610	40	-10	40
		100	40
		150	34
		200	30
		250	28
		300	26
		350	25
		400	22