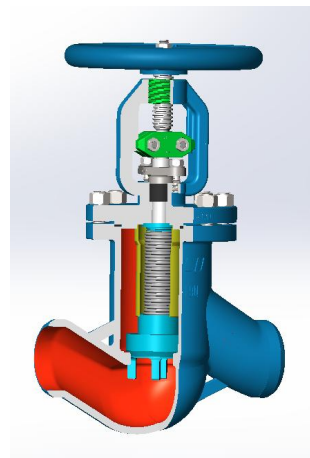
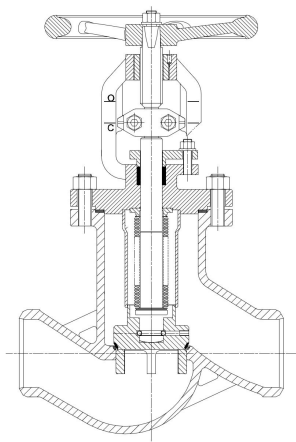


Bellows seal globe valve BW**PN16 PN40 DN15-DN400, Fig.112i-BW****Body : 1.0619N /1.4408/2.4610****Maintenance-free****Design acc. :AD 2000 A4, ATEX 2014/34/EU, EN 13709****End to end : EN 12982 Ser.1, Ser.64****BW end : EN 12627 Fig1, Fig2****Test acc. : EN12266-1****Temperature range :****-29℃~+450℃(1.0619N)****-196℃~+400℃(1.4408)****Witzenmann 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.

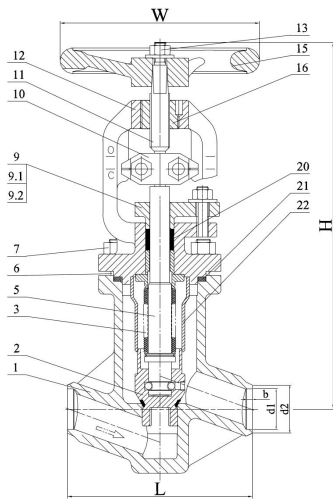
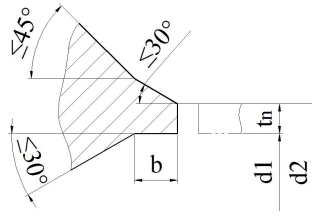


FIG.	Pressur	Material	Range
133.112i-BW	PN16	1.0460	DN15-DN25
135.112i-BW	PN40	1.0460	DN15-DN25
153.112i-BW	PN16	1.4401	DN15-DN25
155.112i-BW	PN40	1.4401	DN15-DN25



EN 12627 Fig1

$t_n \leq 4\text{mm}$ DN15-DN25

Design acc. :AD 2000 A4,
ATEX 2014/34/EU, EN 13709
End to end : EN 12982 Ser.64
BW end : EN 12627 Fig1
Test acc. : EN 12266-1/ ISO 5208
Temperature range :
-29℃~ +450℃(1.0460)
-196℃~ +400℃(1.4401)

Material List

NO.	Part	Material	
		FIG.153.112i-BW/ 155.112i-BW	FIG.133.112i-BW / 135.112i-BW
1	Body	1.4401	1.0460
1.1	Body seal	1.4401/stellite 21	1.4009
2	Disk	1.4401	1.4021 QT
2.1	Disk seal	Stellite 21 /stellite 6	1.4021 QT
3	Bellows	1.4571	1.4571
5	Low stem	1.4401	1.4401
6	Bolts	A4-70 / A2-70	1.7225(GC)
7	Nuts	A4-70 / A2-70 / A4-80	1.1181(YK)
9	Packing gland	1.4408	1.0619N
9.1	Gland bolt	A4-70 / A2-70	1.7225(GC)
9.2	Gland nut	A4-70 / A2-70 / A4-80	1.1181(YK)
10	Connecting block	1.4308	1.4308
11	Up stem	1.4057	1.4057
12	Bonnet	1.4401	1.0460
13	Nut	A2-70	YK (1.1181)
15	Handwheel	GGG40.3	GGG40.3
16	Stem nut	1.4021 / D2 / Copper alloy	GGG40.3 / Copper alloy
20	Packing	Graphite / PTFE	Graphite
21	Body seal	Graphite +1.4401 / PTFE	Graphite +1.4301
22	Protecting cover	1.4401	1.4021

Dimension List

PN	DN	L	H	W	d1	d2	b	For pipe	W.T.(kg)
16/40	15	130	237	120	17	22	3	Ø21.3×2	3.1
	20	130	237	120	22	28	4	Ø26.9×2.3	3.5
	25	130	265	140	28.5	35	4	Ø33.7×2.6	5.6

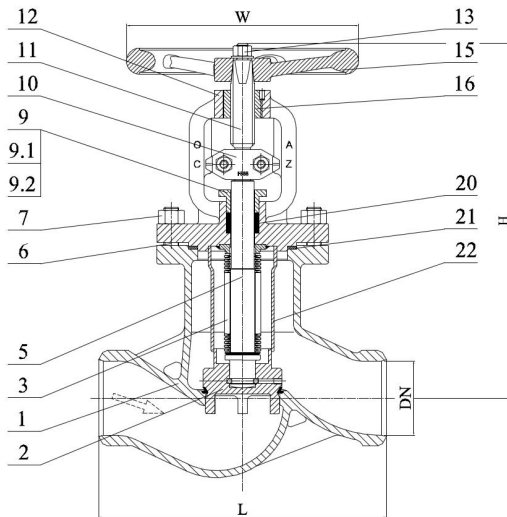
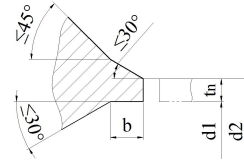
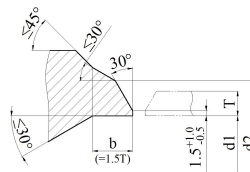


FIG.	Pressur	Material	Range
133.112i-BW	PN16	1.0619N	DN32-DN125
135.112i-BW	PN40	1.0619N	DN32-DN125
153.112i-BW	PN16	1.4408	DN32-DN125
155.112i-BW	PN40	1.4408	DN32-DN125
533.112i-BW	PN16	2.4610	DN32-DN125
535.112i-BW	PN40	2.4610	DN32-DN125



EN 12627 Fig1

tn≤4mm DN32-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.153.112i-BW/ 155.112i-BW	FIG.133.112i-BW / 135.112i-BW	FIG.533.112i-BW / 535.112i-BW
1	Body	1.4408/1.4409	1.0619N	2.4610
1.1	Body seal	1.4408/stellite 21	1.4009	2.4610
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	2.4610
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 +2.4610
22	Protecting cover	1.4401	1.4021	2.4610

Dimension List

PN	DN	L	H	W	d1	d2	b	For pipe	W.T.(kg)
16/40	32	180	246	140	37.2	44	4	Ø42.4×2.6	10.0
	40	200	290	180	43	50	4	Ø48.3×2.6	13.0
	50	230	313	180	53.5	62	5	Ø60.3×3.2	17.4
	65	290	313	220	68.5	77	6	Ø76.1×3.6	28.0
	80	310	404	250	80.5	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	130.5	144	7	Ø139.7×4.5	75.0

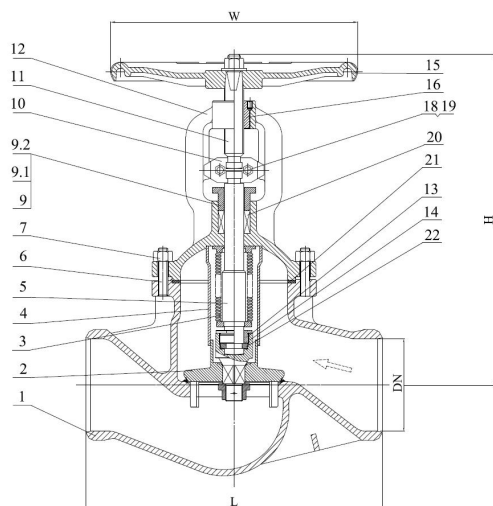
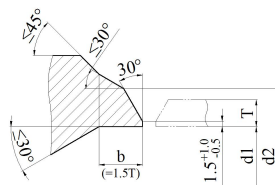


FIG.	Pressure	Material	Range
133.112i-BW	PN16	1.0619N	DN150-DN400
135.112i-BW	PN40	1.0619N	DN150-DN400
153.112i-BW	PN16	1.4408	DN150-DN400
155.112i-BW	PN40	1.4408	DN150-DN400
533.112i-BW	PN16	2.4610	DN150-DN400
535.112i-BW	PN40	2.4610	DN150-DN400



EN 12627 Fig2

4mm<T≤22mm DN150-DN400

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

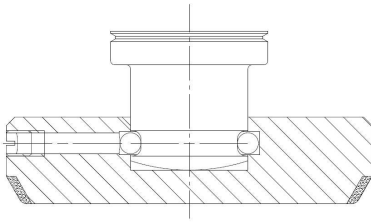
Material List

NO.	Part	Material		
		FIG.153.112i-BW / 155.112i-BW	FIG.133.112i-BW/ 135.112i-BW	FIG.533.112i-BW/ 535.112i-BW
1	Body	1.4408/1.4409	1.0619N	2.4610
1.1	Body seal	1.4408/stellite 21	1.4009	2.4610
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
4	Protecting cover	1.4401	1.4021	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	2.4610
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 +2.4610
22	Folio ring	1.4401	1.4006	2.4610

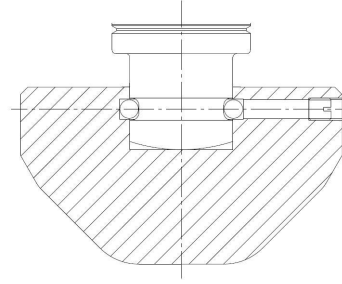
Dimension List

PN	DN	L	H	W	d1	d2	b	For pipe	W.T.(kg)
16/40	150	480	540	400	157	172	9	Ø168.3×5.6	106.0
	200	600	650	500	204.5	223	11	Ø219.1×7.1	232.0
	250	730	765	590	257	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	362	14	Ø355.6×8.8	-
	400	1100	-	-	384.4	413	17	Ø406.4×11	-

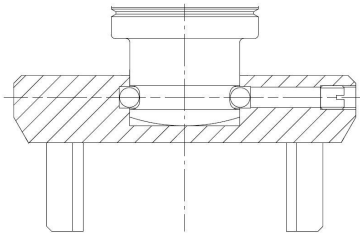
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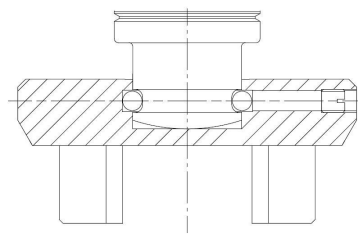
Isolation plug with marginal seat



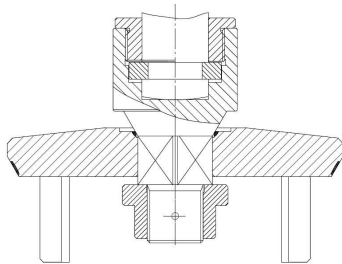
Regulating plug with marginal seat



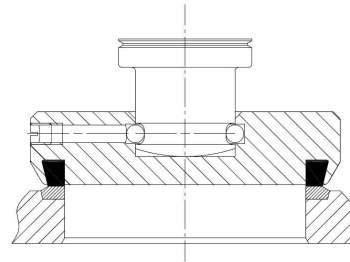
V-port plug with marginal seat



V-port regulating plug with marginal seat

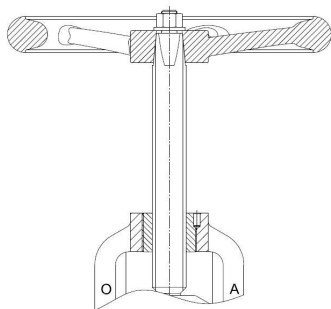


Balancing plug

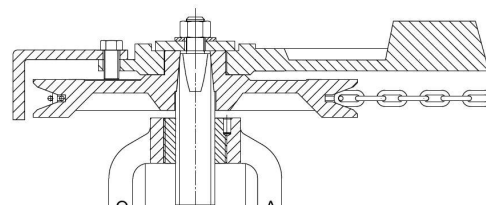


Plug with soft seat

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