

ASME Bellows seal globe valve for the containment and isolation of hazardous liquids and gases

Fig.149

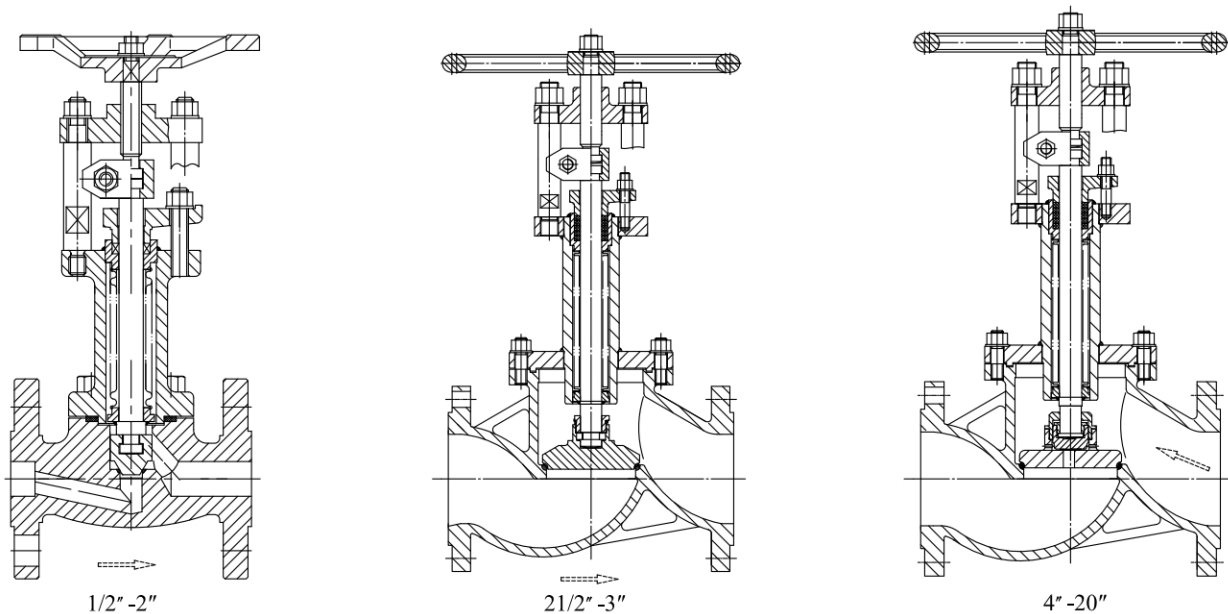
1/2" -20"

Class 150-1500 LBS

Body A105/A182 F304 (L) /A182 F316 (L) for 1/2" -2"

Body A216 WCB/A351 CF8(M) /A351 CF3(M) for DN2 1/2" -20"

10 000 cycles 316Ti/F321/304(L)/F316/316L Witzenmann bellows



Design features

- Straight type, seat hardfaced, conical plug
- Bellows protected in extended bonnet or by protecting plate against direct impingement from product flow
- Multiple walls and hydroformed Witzmann bellows, and 10 000 cycles operations guaranteed
- two-piece stem protects the bellows against torque stress
- design eliminates stem bearings along with their maintenance needs
- Fire safe per EN ISO 10497 applicable
- Fugitive emissions test per EN ISO 15848 applicable

Applications

Fig.149 is design guarantees reliable and excellent protections against leaks and fugitive emissions. The stem seal requires virtually no maintenance due to leak free weld connections of the bellows with bonnet and stem. The valve is designed for critical service applications involving lethal, toxic, corrosive, inflammable, volatile, radiating, or expensive fluids.

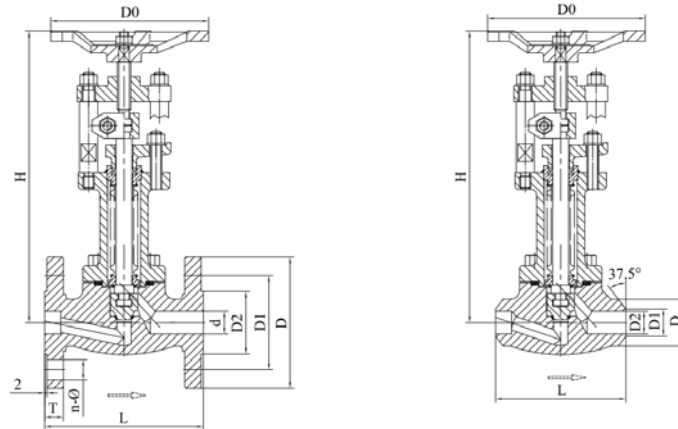
Bellows seal globe valve Class 150-600

Design acc. to BS 5352、MSS-SP-117、ASME B16.34

Flange ends acc. to ASME B16.5 ; BW ends acc. to ASME B16.25

Standard test acc. to API 598 / ISO 5208

FTT (ETE) dimension acc. to ANSI B16.10



Material List

Component	C.S.	S.S.
Body / Bonnet	A105	F316(L)
Disc	420	F316(L)
seat	420	316(L)
Lower stem/Upper stem	420	316(L)
Bellows	316Ti	316Ti
Bolts / Nuts	A193 B7 /A197 2H	A193 B8 / A194 8

Dimension List

FIG.	Material	Class	NPS	L	D FL/BW	D1 FL / BW	D2 FL / BW	d	T	n-Ø	H	D0
141.149 141.149-BW	A105	150Lb	1/2	108	89 / 32	60.5 / 22	35 / 17	15	12	4-15	306	148
			3/4	117	98 / 32	70 / 28	43 / 22	20	12	4-15	306	148
			1	127	108 / 38	79.5 / 34	51 / 28	25	12	4-15	310	148
231.149 231.149-BW	F316		1 1/4	140	117 / 60	89 / 43	64 / 37	32	13	4-15	420	196
			1 1/2	165	127 / 60	98.5 / 49	73 / 43	40	15	4-15	420	196
			2	203	152 / 70	120.5 / 61	92 / 54	50	16	4-19	432	196
142.149 142.149-BW	A105	300Lb	1/2	152	95 / 32	66.7 / 22	35 / 17	15	15	4-16	306	148
			3/4	178	120 / 32	82.5 / 28	43 / 22	20	16	4-19	306	148
			1	203	125 / 38	88.9 / 34	51 / 28	25	18	4-19	310	148
232.149 232.149-BW	F316		1 1/4	216	135 / 60	98.4 / 43	64 / 37	32	19	4-19	420	196
			1 1/2	229	155 / 60	114.3 / 49	73 / 43	40	21	4-22	420	196
			2	267	165 / 70	127 / 61	92 / 54	50	23	8-19	432	196
144.149 144.149-BW	A105	600Lb	1/2	165	95 / 32	66.7 / 22	35 / 17	15	15	4-16	306	148
			3/4	190	120 / 32	82.5 / 28	43 / 22	20	16	4-19	306	148
			1	216	125 / 38	88.9 / 34	51 / 28	25	18	4-19	310	148
234.149 234.149-BW	F316		1 1/4	229	135 / 60	98.4 / 43	64 / 37	32	21	4-19	420	196
			1 1/2	241	155 / 60	114.3 / 49	73 / 43	40	23	4-22	432	196
			2	292	165 / 70	127 / 61	92 / 51	50	26	8-19	432	196

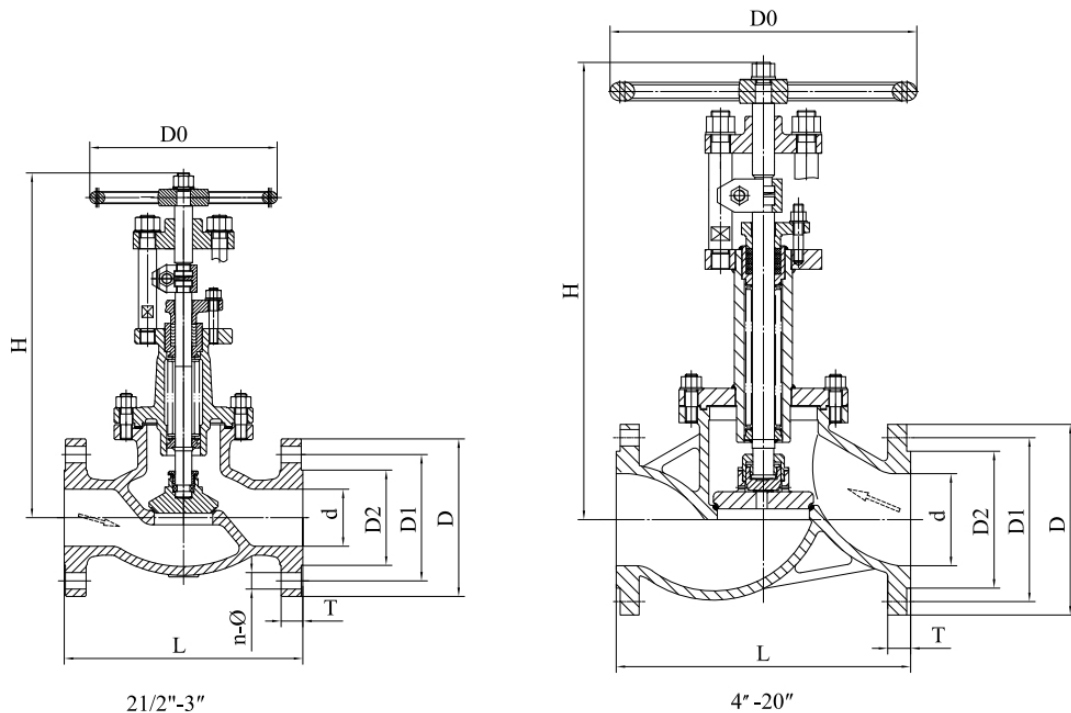
Bellows seal globe valve Class 150-600

Design acc. to BS 5352、MSS-SP-117、ASME B16.34

Flange ends acc. to ASME B16.5

Standard test acc. to API 598 / ISO 5208

FTT (ETE) dimension acc. to ANSI B16.10



Material List

Component	C.S.	S.S.
Body / Bonnet	WCB	CF8M
Disc	420	F316(L)
seat	420	316(L)
Lower stem/Upper stem	420	316(L)
Bellows	316Ti	316Ti
Bolts / Nuts	A193 B7 / A197 2H	A193 B8 / A194 8

Dimension List

FIG.	Material	Class	NPS	L	D	D1	D2	T	N-Ø	H	D0			
131.149	WCB	150Lb	2 1/2	216	178	139.5	105	18	4-19	387	200			
			3	241	190	152.5	127	19	4-19	411	250			
			4	292	229	190.5	157	24	8-19	454	250			
			5	356	254	216	186	26	8-22	455	355			
			6	406	279	241.5	216	26	8-22	541	355			
151.149	CF8M		8	495	343	298.5	270	29	12-25	651	450			
			10	622	406	362	324	31	12-25	800	450			
			12	698	483	432	384	32	12-25	1230	500			
			14	787	533	476.5	413	35	12-29	1450	600			
			16	914	597	534.5	470	37	16-29	1645	1645			
				18	978	635	578	544	40	16-32	1748	850		
		132.149		WCB	300Lb	2 1/2	292	190	149	105	26	8-22	387	200
						3	318	210	168.5	127	29	8-22	411	250
						4	356	255	200	157	32	8-22	454	250
						5	400	280	235	186	35	8-22	455	355
6	444		320			270	216	37	12-22	541	355			
152.149	CF8M	8	559	380		330	270	42	12-26	651	450			
		10	620	445		387.5	324	48	16-29	800	450			
		12	711	520		451	381	51	16-32	1231	500			
		14	838	585		514.5	413	54	20-32	1450	600			
		16	864	650		571.5	470	58	20-35	1645	600			
			18	978		710	628.5	533	61	24-35	1784	850		
			134.149	WCB	600Lb	2 1/2	330	190	149.2	105	29	8-22	387	200
						3	356	210	168.3	127	32	8-22	411	250
						4	432	275	215.9	157	38	8-26	454	250
						5	508	330	266.7	186	45	8-29	455	355
6	559	355				292.1	216	48	12-29	541	355			
154.149	CF8M	8	660	420		349.2	270	56	12-32	651	450			
		10	787	510		431.8	324	64	16-35	800	450			
		12	838	560		489	381	67	20-35	1231	500			
		14	889	605		527	413	70	20-39	1450	600			
		16	991	685		603.2	470	77	20-42	1645	600			
			18	1020		745	654	533	83	20-45	1748	850		

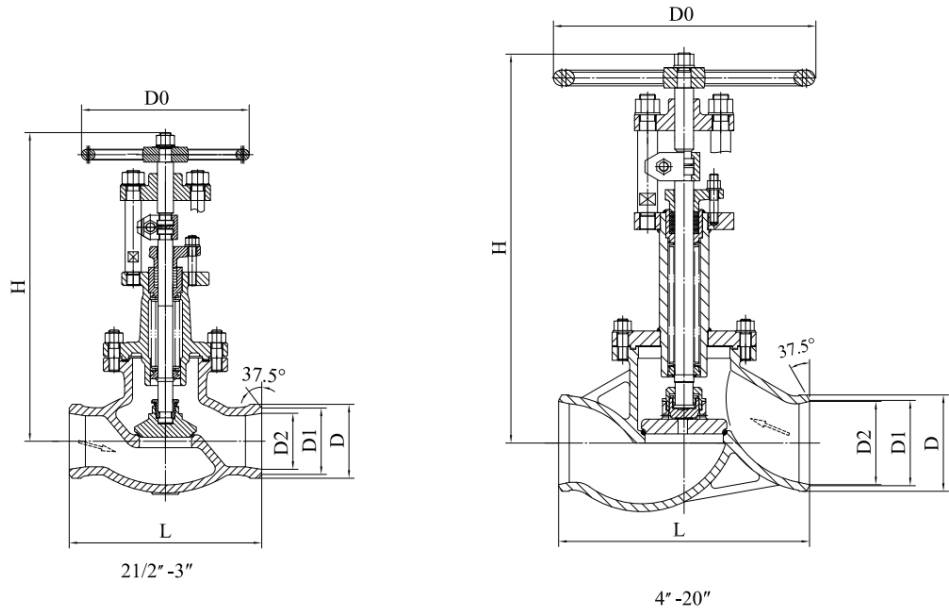
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BW ends acc. to ASME B16.25

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FTT (ETE) dimension acc. to ANSI B16.10



Material List

Component	C.S.	S.S.
Body / Bonnet	WCB	CF8M
Disc	420	F316(L)
seat	420	316(L)
Lower stem/Upper stem	420	316(L)
Bellows	316Ti	316Ti
Bolts / Nuts	A193 B7 /A197 2H	A193 B8 / A194 8

Dimension List

FIG.	Material	Class	NPS	L	D	D1	D2	H	D0
131.149-BW	WCB	150Lb	2 1/2	216	92	72	67	495	220
			3	241	106	84	80	548	250
			4	292	122	107	104	626	320
			5	356	157	135	130	710	320
			6	406	184	163	157	855	400
			8	495	238	211	206	1016	500
151.149-BW	CF8M		10	622	296	262	260	1240	600
			12	698	345	310	306	1287	600
			14	787	378	344	340	1416	600
			16	914	434	391	384	1548	850
			18	978	491	436	432	1748	850
			20	978	542	488	484	1790	850
132.149-BW	WCB	300Lb	2 1/2	292	92	72	67	495	220
			3	318	106	84	80	548	250
			4	356	122	107	104	626	320
			5	400	157	135	130	710	320
			6	444	184	163	157	855	400
			8	559	238	211	206	1016	500
152.149-BW	CF8M		10	620	296	262	260	1240	600
			12	711	345	310	306	1287	600
			14	838	378	344	340	1416	600
			16	864	434	391	384	1548	850
			18	978	491	436	432	1748	850
			20	1016	542	488	484	1790	850
134.149-BW	WCB	600Lb	2 1/2	330	92	72	67	495	220
			3	356	106	84	80	548	250
			4	432	122	107	104	626	320
			5	508	157	135	130	710	320
			6	559	184	163	157	855	400
			8	660	238	211	206	1016	500
154.149-BW	CF8M		10	787	296	262	260	1240	600
			12	838	345	310	306	1287	600
			14	889	378	344	340	1416	600
			16	991	434	391	384	1548	850
			18	1020	491	433	429	1859	850

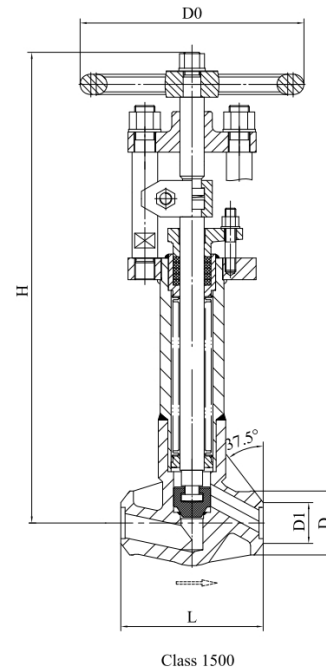
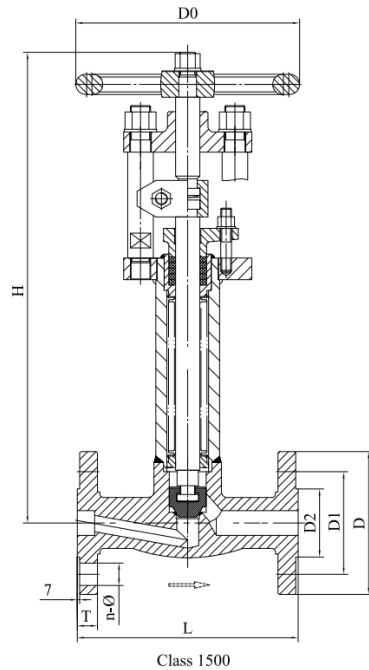
Bellows seal globe valve Class 1500

Design acc. to BS 5352、MSS-SP-117、ASME B16.34

Flange ends acc. to ASME B16.5 ; BW ends acc. to ASME B16.25

Standard test acc. to API 598 / ISO 5208

FTT (ETE) dimension acc. to ANSI B16.10



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Component	C.S.	S.S.
Body / Bonnet	A105	F316(L)
Disc	420	F316(L)
seat	420	316(L)
Lower stem/Upper stem	420	316(L)
Bellows	316Ti	316Ti
Bolts / Nuts	A193 B7 /A197 2H	A193 B8 / A194 8

Dimension List

FIG.	Material	Class	NPS	L	D FL / BW	D1 FL / BW	D2	H	D0
147.149 147.149-BW	A105	1500Lb	1/2	216	120 / 40	82.6 / 15	35	442	220
			3/4	229	130 / 44	88.9 / 19	43	442	220
			1	254	150 / 50	101.6 / 24	51	448	220
237.149 237.149-BW	F316		1 1/4	279	160 / 60	111 / 32	64	680	320
			1 1/2	305	180 / 60	123.8 / 37	73	680	320
			2	368	215 / 70	165 / 46	92	688	320

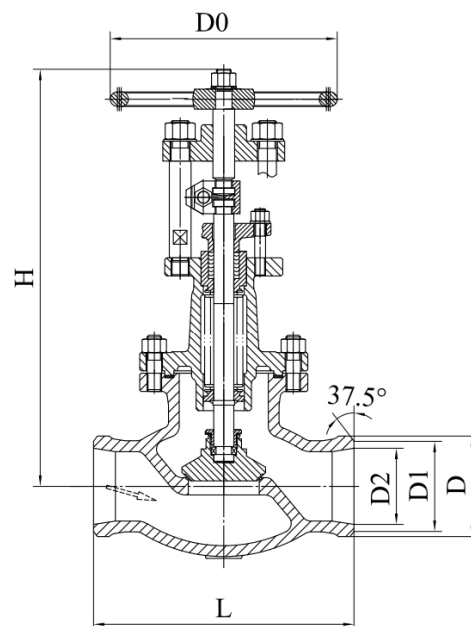
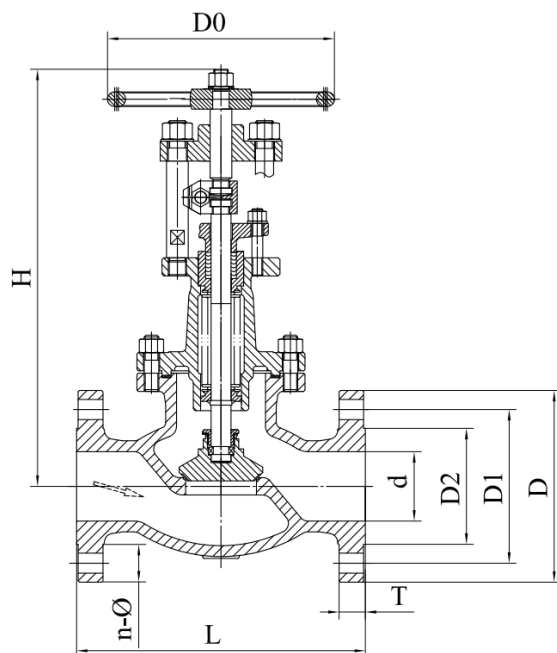
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Dimension List

FIG.	Material	Class	NPS	L	D FL / BW	D1 FL / BW	D2 FL / BW	d	T	n-Ø	H	D0
137.149 137.149-BW	WCB	1500Lb	2 1/2	419	245 / 100	190.5 / 58	105 / 54	52	48	8-30	820	400
157.149 157.149-BW	CF8M		3	470	265 / 120	203 / 72	127 / 67	65	54	8-33	1092	500
			4	546	310 / 140	241.5 / 92	157 / 87	85	61	8-36	1305	500