

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

Fig.149

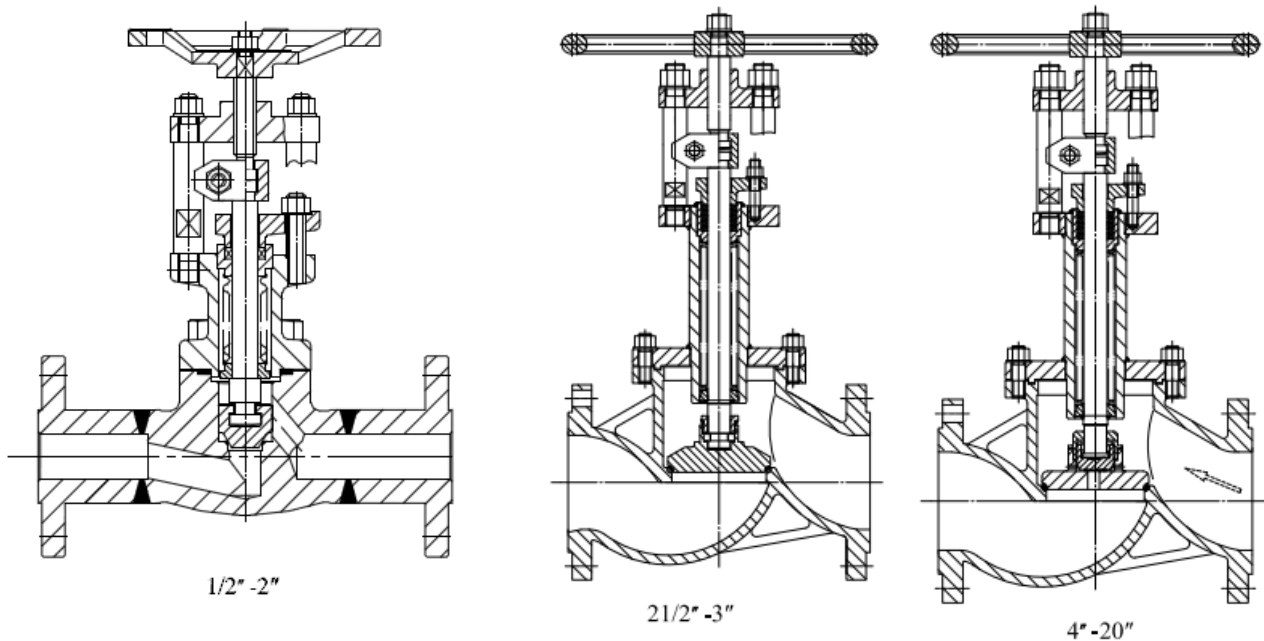
1/2" -20"

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 Witzenmann 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

HP – CHEM

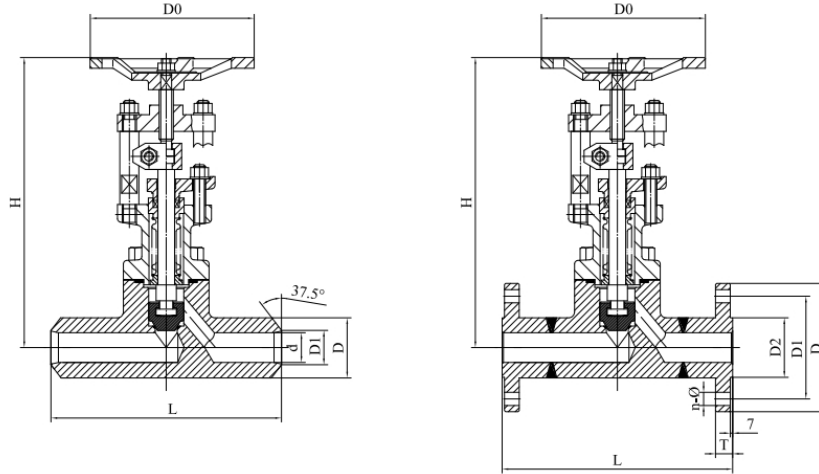
Bellows seal globe valve Class 150-600

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	D1	D2	d	H	D0
141.149-BW	A105	150Lb	1/2	108	32	22	17	15	306	148
			3/4	117	32	28	22	20	306	148
			1	127	38	34	28	25	310	148
231.149-BW	F316		1 1/4	140	60	43	37	32	420	196
			1 1/2	165	60	49	43	40	420	196
			2	203	70	61	54	50	432	196
142.149-BW	A105	300Lb	1/2	152	32	22	17	15	306	148
			3/4	178	32	28	22	20	306	148
			1	203	38	34	28	25	310	148
232.149-BW	F316		1 1/4	216	60	43	37	32	420	196
			1 1/2	229	60	49	43	40	420	196
			2	267	70	61	54	50	432	196
144.149-BW	A105	600Lb	1/2	165	32	22	17	15	306	148
			3/4	190	32	28	22	20	306	148
			1	216	38	34	28	25	310	148
234.149-BW	F316		1 1/4	229	60	43	37	32	420	196
			1 1/2	241	60	49	43	40	432	196
			2	292	70	61	51	50	432	196

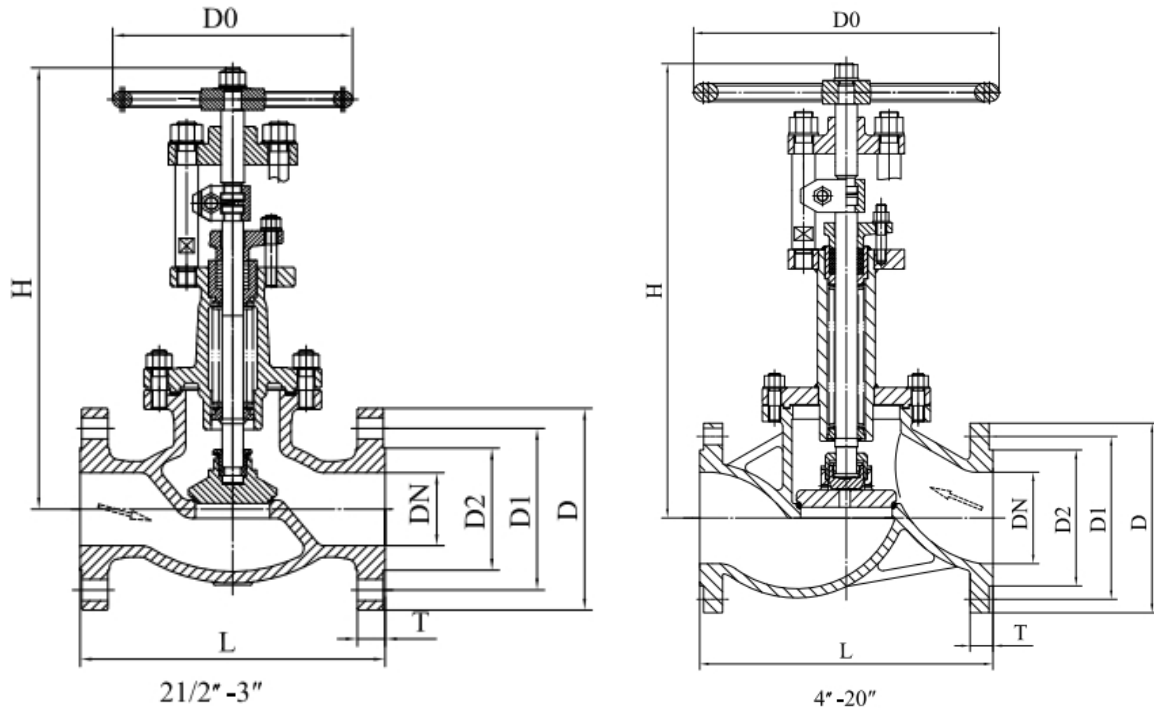
Bellows seal globe valve Class 150-600

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
132.149	WCB	300Lb	18	978	635	578	544	40	16-32	1748	850
			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
152.149	CF8M		6	444	320	270	216	37	12-22	541	355
			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
134.149	WCB	600Lb	16	864	650	571.5	470	58	20-35	1645	600
			18	978	710	628.5	533	61	24-35	1784	850
			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
154.149	CF8M		5	508	330	266.7	186	45	8-29	455	355
			6	559	355	292.1	216	48	12-29	541	355
			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	

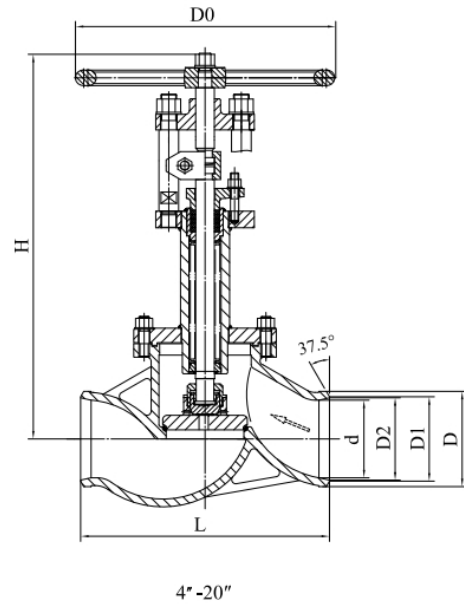
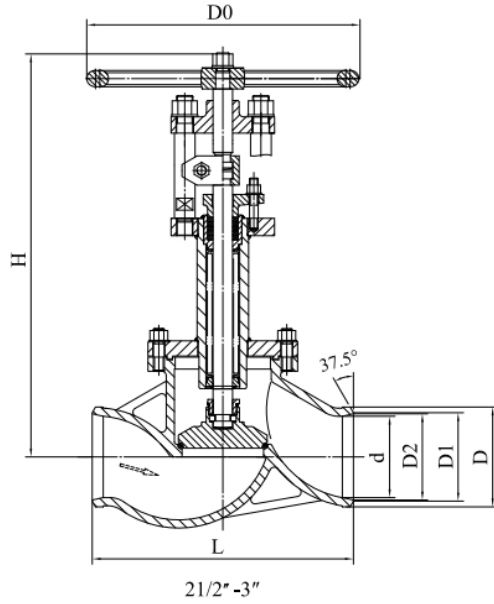
Bellows seal globe valve Class 150-600

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

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	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	d	H	D0
131.149-BW	WCB	150Lb	2 1/2	216	92	72	67	65	495	220
			3	241	106	84	80	78	548	250
			4	292	122	107	104	100	626	320
			5	356	157	135	130	125	710	320
			6	406	184	163	157	150	855	400
			8	495	238	211	206	200	1016	500
151.149-BW	CF8M		10	622	296	262	260	300	1240	600
			12	698	345	310	306	330	1287	600
			14	787	378	344	340	332	1416	600
			16	914	434	391	384	408	1548	850
			18	978	491	436	432	425	1748	850
			20	978	542	488	484	478	1790	850
132.149-BW	WCB	300Lb	2 1/2	292	92	72	67	65	495	220
			3	318	106	84	80	78	548	250
			4	356	122	107	104	100	626	320
			5	400	157	135	130	125	710	320
			6	444	184	163	157	150	855	400
			8	559	238	211	206	200	1016	500
152.149-BW	CF8M		10	620	296	262	260	300	1240	600
			12	711	345	310	306	330	1287	600
			14	838	378	344	340	332	1416	600
			16	864	434	391	384	408	1548	850
			18	978	491	436	432	425	1748	850
			20	1016	542	488	484	478	1790	850
134.149-BW	WCB	600Lb	2 1/2	330	92	72	67	65	495	220
			3	356	106	84	80	78	548	250
			4	432	122	107	104	100	626	320
			5	508	157	135	130	125	710	320
			6	559	184	163	157	150	855	400
			8	660	238	211	206	200	1016	500
154.149-BW	CF8M		10	787	296	262	260	300	1240	600
			12	838	345	310	306	330	1287	600
			14	889	378	344	340	332	1416	600
			16	991	434	391	384	408	1548	850
			18	1020	491	433	429	425	1859	850

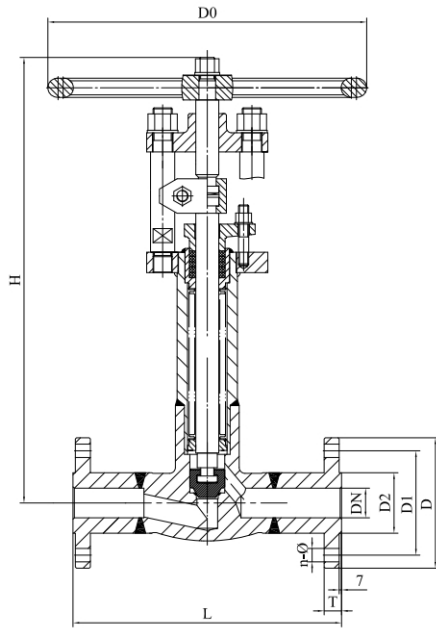
Bellows seal globe valve Class 1500

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

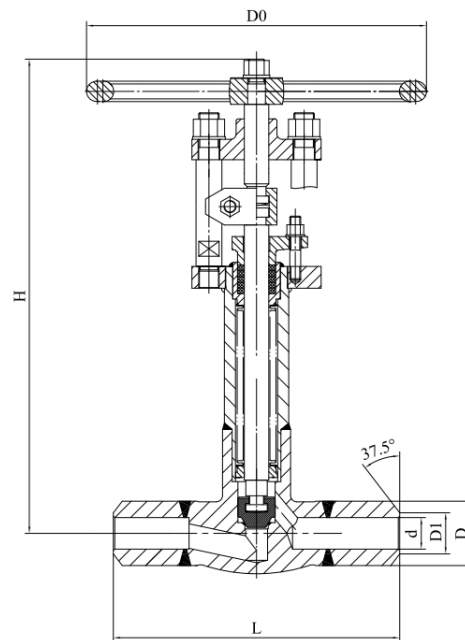
Flange ends acc. to ASME B16.5 ; BW ends acc. to ASME B16.25

Standard test acc. to API 598 / ISO 5208

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



Class 1500



Class 1500

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	D1	D2	d	H	D0
147.149-BW	A105	1500Lb	1/2	216	40	15		12	442	220
			3/4	229	44	19		16	442	220
			1	254	50	24		29	448	220
237.149-BW	F316		1 1/4	279	60	32		29	680	320
			1 1/2	305	60	37		34	680	320
			2	368	70	46		43	688	320

FIG.	Material	Class	NPS	L	D	D1	D2	T	N-Ø	H	D0
147.149 237.149	A105 F316	1500Lb	2 1/2	419	245	190.5	105	48	8-30	820	400
			3	470	265	203	127	54	8-33	1092	500
			4	546	310	241.5	157	61	8-36	1305	500

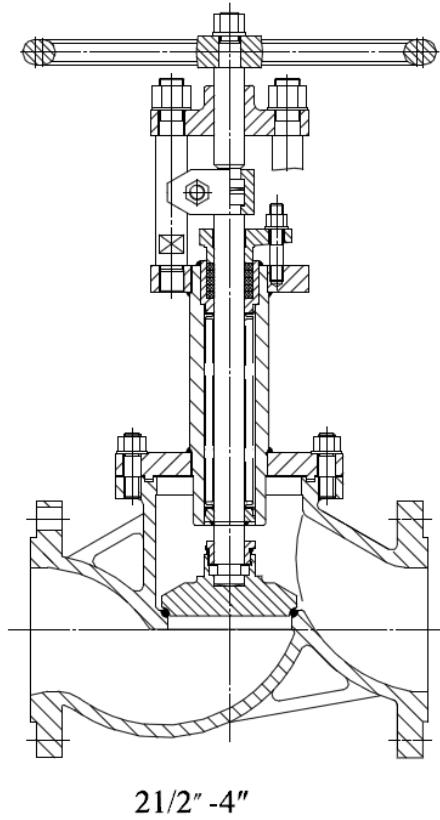
Bellows seal globe valve Class 1500

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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	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	d	H	D0
137.149-BW	WCB	1500Lb	2 1/2	419	100	58	54	52	820	400
			3	470	120	72	67	65	1092	500
157.149-BW	CF8M		4	546	140	92	87	85	1305	500