



Forged steel bellow sealed valves

Hawks Bellow Sealed valves are available in two bonnet designs. The first design is the Bolted Bonnet, with male–female joint, spiral wound gasket, made in F304L/graphite. Ring joint gasket are also available on request. The second design is the welded bonnet. with a threaded and seal welded joint. On request a full penetration strength welded joint is available.



Construction is as follows

- ※ Full port or conventional port;
- ※ Outsied screw and yoke (OS&Y);
- ※ Self–centering gland and plate;
- ※ Bolted bonnet with spiral–wound gasket or threaded and seal welded bonnet;
- ※ Integral backseat;
- ※ Socket welded end to ASME B16.11;
- ※ Screwed ends(NPT) to ANSI/ASME B1.20.1.

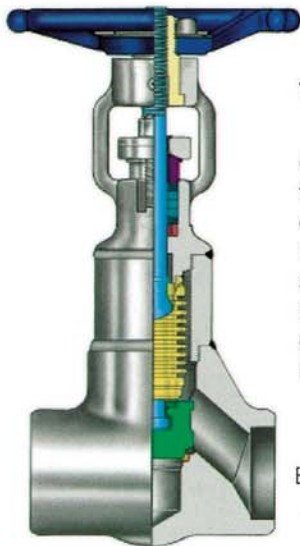
Bellow sealed valves



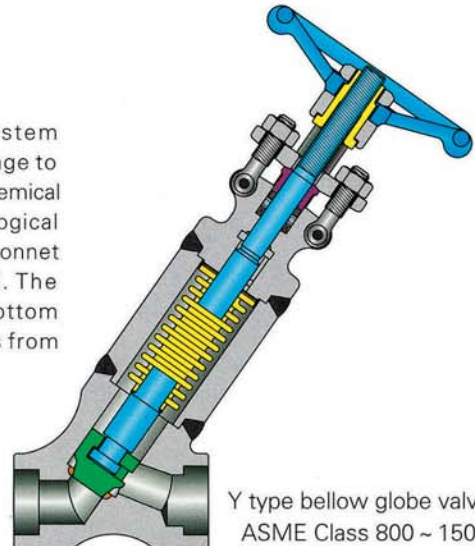
Zero leakages

Valves design parameters

A valve with a bellows to seal off the stem enclosure is an ideal choice whenever leakage to the atmosphere is intolerable due to toxicity, chemical corrosion, radioactivity, other health or ecological reasons. In addition, seal welding the body-bonnet seal makes the valve hermetically sealed. The bellows is welded to the stem and to the bottom of the bonnet. This kind of design originates from Hawks more than 20-year experiences.



Bellow seal globe valves
ASME Class 150 ~ 800



Y type bellow globe valves
ASME Class 800 ~ 1500

Cycle life

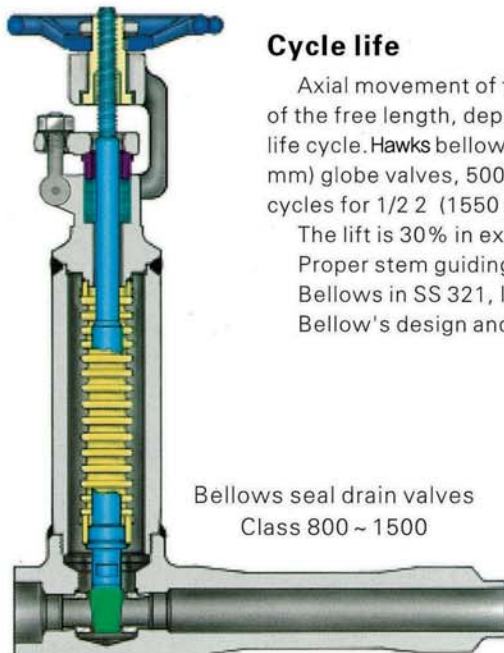
Axial movement of the bellows is limited to a maximum of 2025% of the free length, depending on pressure-temperature and desired life cycle. Hawks bellows are designed for 10,000 cycles for 1/2" (1550 mm) globe valves, 5000 cycles for bonnetless globe valves and 3000 cycles for 1/2" (1550 mm) gate valves.

The lift is 30% in extension and 70% in compression.

Proper stem guiding eliminates torsion of bellows.

Bellows in SS 321, Inconel or Hastelloy.

Bellow's design and manufacture as per MSS SP-117



Bellows seal drain valves
Class 800 ~ 1500

Bellows seal gate
Class 800 ~ 1500
Flange ASME Class 150 ~ 1500



The stem of Hawks bellow seal valves has 3-level seals

- SS Bellow sealing;
- Packing emergency sealing;
- Backseat sealing.



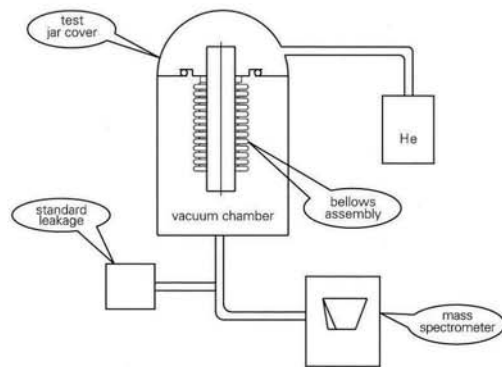
Bellow sealed valves

Quality insurance.

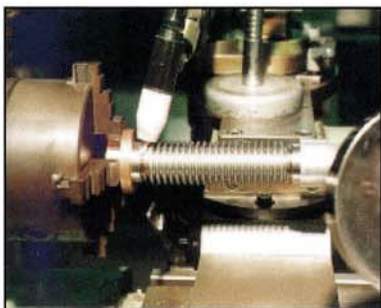
Hawks has a set of procedures to severely inspect and test every released bellow seal valve acc. to requirements of ISO 9001 and AZ state safety register quality system in which include 100% air seal test, no bubble test and PT exam to every bellow, available to do vacuum air seal test with Helium mass spectrograph if a vacuum degree is required.



The bellow inspection device R&D by Hawks ,



Vacuum seal test with Helium mass spectrograph

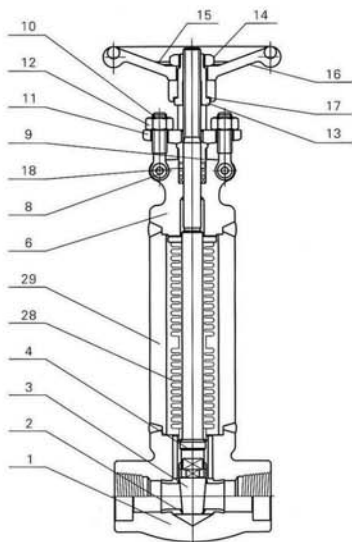


Micro bundle plasma bellow welding



Circle life test under a pressure.

Bellow sealed gate valves



Application specifications

- 1、Design and manufacture conform to API 602; MSS-SP-117
- 2、Connection ends conform to:
 - 1)Socket welded ends conform to ANSI B16.11
 - 2)Screw ends conform to ANSI B1.20.1
 - 3)Butt-welded ends conform to ANSI B16.25
 - 4)Flanged ends conform to ANSI B16.5
- 3、Test and inspection conform to: API 598
- 4、Structure features:
 - Bolted bonnet, outside screw and yoke
 - Welded bonnet, outside screw and yoke
- 5、Materials conform to ANSI/ASTM.
- 6、Main materials: A105; 304(L); 316(L); F347; F321.
- 7、Bellow materials: 304、321、316、Inconel 625、Hastelloy C 276、Monel.

Carbon steel temperature–pressure rate

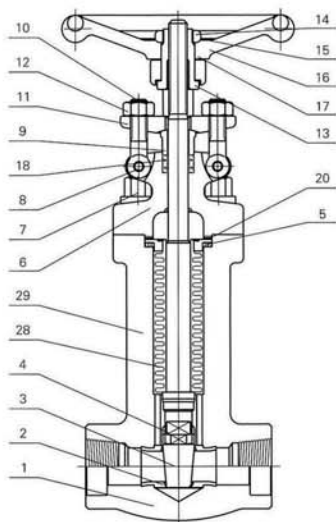
CL150–285 P.S.I @ 100° F
 CL300–740 P.S.I @ 100° F
 CL600–1480 P.S.I @ 100° F
 CL800–1975 P.S.I @ 100° F
 CL1500–3705 P.S.I @ 100° F

Main part materials list

NO.	Part name	A105/F6a	A105/F6aHFS	A105/F6aHF	F304(L)/304(L)	F316(L)/316(L)
1	Body	A105	A105	A105	F304(L)	F316(L)
2	Seat ring	410	410HF	410HF	304(L)	316(L)
3	Wedge disc	F6a	F6a	F6aHF	F304(L)	F316(L)
4	Stem	410	410	410	304(L)	316(L)
6	Bonnet	A105	A105	A105	F304(L)	F316(L)
8	Pin	410	410	410	304	304
9	Gland	410	410	410	304	316
10	Gland eyebolt	B7	B7	B7	B8(M)	B8(M)
11	Gland flange	A105	A105	A105	F304	F304
12	Hex nut	2H	2H	2H	8(M)	8(M)
13	Stem nut	410	410	410	410	410
14	Locking nut	35	35	35	35	35
15	Nameplate	AL	AL	AL	AL	AL
16	Handwheel	A197	A197	A197	A197	A197
17	Lubricating gasket	410	410	410	410	410
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
28	Bellow	F321	F321	F321	F316	F321
29	Coupling pipe	A105	A105	A105	F304(L)	F316(L)



Bellow sealed gate valves



Application specifications

- 1、Design and manufacture conform to API 602; MSS-SP-117
- 2、Connection ends conform to:
 - 1)Socket welded ends conform to ANSI B16.11
 - 2)Screw ends conform to ANSI B1.20.1
 - 3)Butt-welded ends conform to ANSI B16.25
 - 4)Flanged ends conform to ANSI B16.5
- 3、Test and inspection conform to:
 API 598
- 4、Structure features:
 - Bolted bonnet, outside screw and yoke
 - Welded bonnet, outside screw and yoke
- 5、Materials conform to ANSI/ASTM.
- 6、Main materials:
 A105; 304(L); 316(L); F347; F321.
- 7、Bellow materials: 304、321、316、Inconel 625、Hastelloy C 276、Monel.

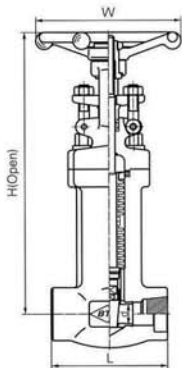
Carbon steel temperature–pressure rate

CL150–285 P.S.I @ 100° F
 CL300–740 P.S.I @ 100° F
 CL600–1480 P.S.I @ 100° F
 CL800–1975 P.S.I @ 100° F
 CL1500–3705 P.S.I @ 100° F

Main part materials list

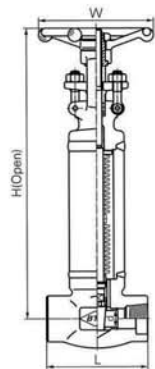
NO.	Part name	A105/F6a	A105/Fa6HFS	A105/F6aHF	F304(L)/304(L)	F316(L)/316(L)
1	Body	A105	A105	A105	F304(L)	F316(L)
2	Seat	410	410HF	410HF	304(L)	316(L)
3	Wedge disc	F6a	F6a	F6aHF	F304(L)	F316(L)
4	Stem	410	410	410	304(L)	316(L)
5	Gasket	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite
6	Bonnet	A105	A105	A105	F304(L)	F316(L)
7	Bolt	B7	B7	B7	B8	B8
8	Pin	410	410	410	304	304
9	Gland	410	410	410	304	316
10	Gland eyebolt	B7	B7	B7	B8(M)	B8(M)
11	Gland flange	A105	A105	A105	F304	F304
12	Hex nut	2H	2H	2H	8(M)	8(M)
13	Stem nut	410	410	410	410	410
14	Locking nut	35	35	35	35	35
15	Nameplate	AL	AL	AL	AL	AL
16	Handwheel	A197	A197	A197	A197	A197
17	Lubricating gasket	410	410	410	410	410
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
20	Gasket	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite
28	Bellow	F321	F321	F321	F316L	F316L

Bellow sealed gate valves



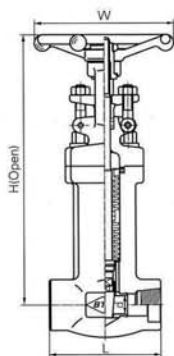
CL800 Bolted bonnet, full port & reducing port outside screw and yoke(OS & Y).
Threaded, butt-welded or socket welded ends; design to API602\MSS-SP-117

Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
Face to face	L	79	79	92	111	120	120	140
Handwheel diameter	W	100	100	100	125	160	160	180
Height	H	255	255	285	345	445	545	594
Height(angle dimension)	d	7.5	10.5	13.5	18	24	29	36.5
Weight(Kg)		3.0	3.0	3.3	5.9	8.7	10.2	16.2



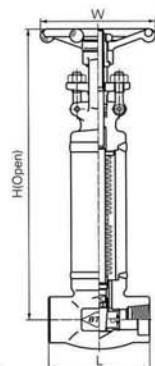
CL800 Welded bonnet, full port & reducing port outside screw and yoke(OS & Y).
Threaded, butt-welded or socket welded ends; design to API 602\MSS-SP-117

Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
Face to face	L	79	79	92	111	120	120	140
Handwheel diameter	W	100	100	100	125	160	160	180
Height	H	248	548	777	335	437	537	585
Height(angle dimension)	d	7.5	10.5	13.5	18	24	29	36.5
Weight(Kg)		2.9	2.9	3.2	4.6	7.2	8.9	15.5



CL1500 Bolted bonnet, full port & reducing port outside screw and yoke(OS & Y).
Threaded, butt-welded or socket welded ends; design to API602\MSS-SP-117

Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
Face to face	L	79	111	111	120	120	140	178
Handwheel diameter	W	100	125	125	160	160	180	180
Height	H	294	264	320	379	478	607	636
Height(angle dimension)	d	7.5	10.5	13.5	18	24	29	36.5
Weight(Kg)		3.1	5.1	5.1	9.0	10.5	16.7	21



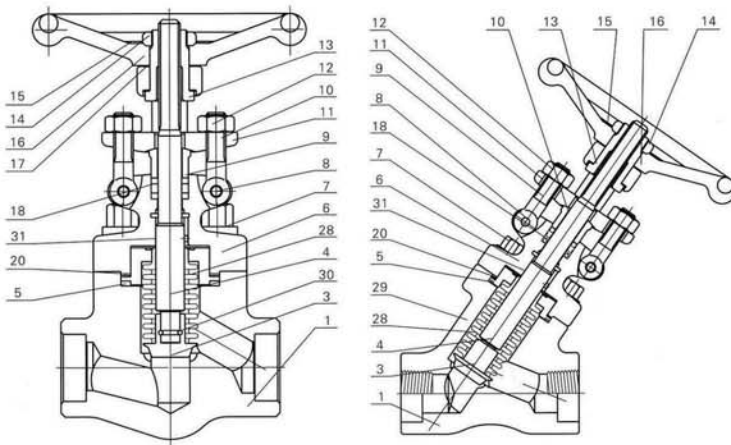
CL1500 Welded bonnet, full port & reducing port outside screw and yoke(OS & Y).
Threaded, butt-welded or socket welded ends; design to API602\MSS-SP-117

Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
Face to face	L	79	111	111	120	120	140	178
Handwheel diameter	W	100	125	125	160	160	180	180
Height	H	287	287	312	368	465	595	627
Height(angle dimension)	d	7.5	10.5	13.5	18	24	29	36.5
Weight(Kg)		2.9	4.7	4.7	7.4	5.7	16	19



Short pattern bellow seal globe valves

The short pattern bellow seal globe valve, agglomerating many years experiences of Hawks researcher studying bellows, has been developed out through a series of complicated tests. Not only do this kind of valves own the normal bellow seal valve's functions, also have the features of a compact structure and replaceable bellow. This kind of valve will out of question display its advantages if the pipe system and/or equipment have a severe requirement to the valve's installing height.



Application specifications

- Design and manufacture conform to BS5352; MSS-SP-117
- Connection ends conform to:
 - Socket welded ends conform to ANSI B16.11
 - Screw ends conform to ANSI B1.20.1
 - Butt-welded ends conform to ANSI B16.25
 - Flanged ends conform to ANSI B16.5
- Test and inspection conform to: API 598
- Structure features:
 - Bolted bonnet, outside screw and yoke
 - Welded bonnet, outside screw and yoke
- Materials conform to ANSI/ASTM.
- Main materials:
 - A105; LF2; F5; F11; F22; 304(L); 316(L); F347; F321; F51; Monel; 20 Alloy.
- Bellow materials: 304; 321; 316; Inconel 625; Hastelloy C 276; Monel.

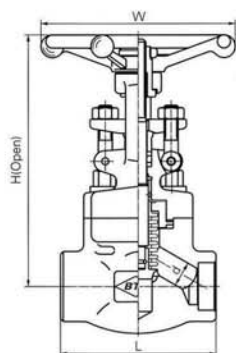
Carbon steel temperature-pressure rate

CL150-285 P.S.I @ 100° F
 CL300-740 P.S.I @ 100° F
 CL600-1480 P.S.I @ 100° F
 CL800-1975 P.S.I @ 100° F
 CL1500-3705 P.S.I @ 100° F

Main part materials list

NO.	Part name	A105/F6a	A105/F6aHFS	A105/F6aHF	F304(L)/304(L)	F316(L)/316(L)
1	Body	A105	A105+HF	A105+HF	F304(L)	F316(L)
3	Disc	F6a	F6a	F6aHF	F304(L)	F316(L)
4	Stem	410	410	410	304(L)	316(L)
5	Gasket	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	316+ Flexible graphite
6	Bonnet	A105	A105	A105	F304(L)	F316(L)
7	Bolt	B7	B7	B7	B8(M)	B8(M)
8	Pin	410	410	410	304	304
9	Packing bushing	410	410	410	304	316
10	Eyelet bolt	B7	B7	B7	B8(M)	B8(M)
11	Packing gland	A105	A105	A105	F304	F304
12	Hex nut	2H	2H	2H	8(M)	8(M)
13	Stem nut	410	410	410	410	410
14	Locking nut	35	35	35	35	35
15	Nameplate	AL	AL	AL	AL	AL
16	Handwheel	A197	A197	A197	A197	A197
17	Lubricating gasket	410	410	410	410	410
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
20	Gasket	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite
28	Bellow	F321	F321	F321	F321/304L	F316/316L
30	Steel wire	304	304	304	304	316
31	Pin	304	304	304	304	316

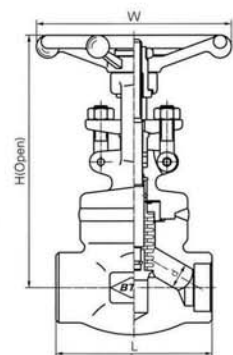
Short pattern bellow seal globe valves



CL800

Bolted bonnet, full port & reducing port outside screw and yoke (OS & Y).
Threaded, butt-welded or socket welded ends; design to BS5352/MSS-SP-117

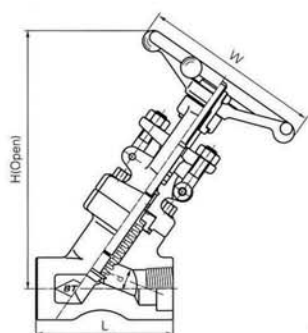
Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	79	79	92	111	120	152	172	200	
Handwheel diameter	W	100	100	100	125	160	160	180	200	
Height	H	162	162	164	200	220	257	295	350	
Height (angle dimension)	d	7.0	9.0	13	17.5	23	30	35	46	
Weight(Kg)		2.5	2.3	2.4	4.35	5.75	7.8	12.5	17.5	



CL800

Welded bonnet, full port & reducing port outside screw and yoke (OS & Y).
Threaded, butt-welded or socket welded ends; design to BS5352, MSS-SP-117

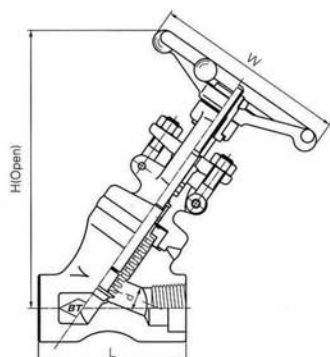
Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	79	79	92	111	120	152	172	200	
Handwheel diameter	W	100	100	100	125	160	160	180	200	
Height	H	162	162	164	200	220	257	295	350	
Height (angle dimension)	d	7.0	9.0	13	17.5	23	30	35	46	
Weight(Kg)		1.8	1.7	1.9	3.3	5.2	6.8	10.6	13.8	



CL800

Bolted bonnet, full port & reducing port outside screw and yoke (OS & Y).
Threaded, butt-welded or socket welded ends; design to BS5352, MSS-SP-117

Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	98	98	98	111	140	140	155	170	
Handwheel diameter	W	100	100	100	125	160	160	180	200	
Height	H	180	180	180	188	280	280	295	350	
Height (angle dimension)	d	7	9	13	17.5	23	30	35	46	
Weight(Kg)		2.6	2.6	3.8	4.6	9.3	9.3	14	19.6	



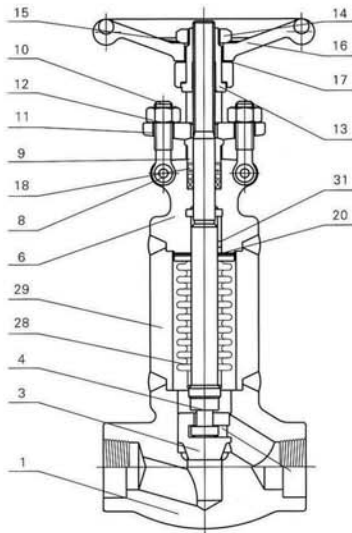
CL800

Welded bonnet, full port & reducing port outside screw and yoke (OS & Y).
Threaded, butt-welded or socket welded ends; design to BS5352, MSS-SP-117

Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	79	79	92	100	140	140	155	170	
Handwheel diameter	W	100	100	100	125	160	160	180	200	
Height	H	198	198	198	207	280	280	295	350	
Height (angle dimension)	d	7	9	13	17.5	23	30	35	46	
Weight(Kg)		1.8	1.8	2.0	3.5	8.0	8.0	12	16	



Bellow sealed globe valves



Application specifications

- 1、Design and manufacture conform to BS5352; MSS-SP-117
- 2、Connection ends conform to:
 - 1)Socket welded ends conform to ANSI B16.11
 - 2)Screw ends conform to ANSI B1.20.1
 - 3)Butt-welded ends conform to ANSI B16.25
 - 4)Flanged ends conform to ANSI B16.5
- 3、Test and inspection conform to:
 - API 598
- 4、Structure features:
 - Bolted bonnet, outside screw and yoke
 - Welded bonnet, outside screw and yoke
- 5、Materials conform to ANSI/ASTM.
- 6、Main materials:
 - A105; 304(L); 316(L); F347; F321.
- 7、Bellow materials: 304、321、316、Inconel 625、Hastelloy C 276、Monel.

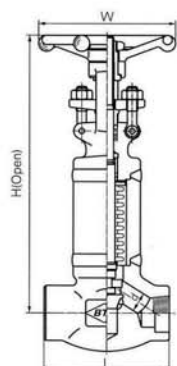
Carbon steel temperature–pressure rate

CL150–285 P.S.I @ 100° F
 CL300–740 P.S.I @ 100° F
 CL600–1480 P.S.I @ 100° F
 CL800–1975 P.S.I @ 100° F
 CL1500–3705 P.S.I @ 100° F

Main part materials list

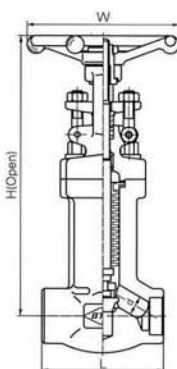
NO.	Part name	A105/F6a	A105/F6aHFS	A105/F6aHF	F304(L)/304(L)	F316(L)/316(L)
1	Body	A105	A105+HF	A105+HF	F304(L)	F316(L)
3	Disc	F6a	F6a	F6aHF	F304(L)	F316(L)
4	Stem	410	410	410	304(L)	316(L)
6	Bonnet	A105	A105	A105	F304(L)	F316(L)
8	Pin	410	410	410	304	304
9	Gland	410	410	410	304	316
10	Gland eyebolt	B7	B7	B7	B8(M)	B8(M)
11	Gland flange	A105	A105	A105	F304	F304
12	Hex nut	2H	2H	2H	8(M)	8(M)
13	Stem nut	410	410	410	410	410
14	Locking nut	35	35	35	35	35
15	Nameplate	AL	AL	AL	AL	AL
16	Handwheel	A197	A197	A197	A197	A197
17	Lubricating gasket	410	410	410	410	410
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
28	Bellow	F321	F321	F321	F316	F316L
29	Coupling pipe	A105	A105	A105	A304(L)	A316 (L)
31	Pin	304	304	304	304	316

Bellow sealed globe valves



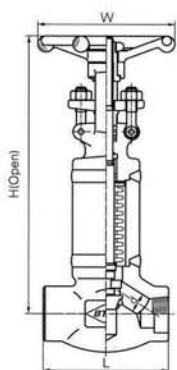
CL800 Welded bonnet, full port & reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to BS5352 MSS-SP-117

Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	79	79	92	111	120	152	172	200	
Handwheel diameter	W	100	100	100	125	160	160	180	200	
Height	H	237	237	239	270	298	340	395	470	
Height(angle dimension)	d	7.0	9.0	13	17.5	23	30	35	46	
Weight(Kg)		2.6	2.5	2.7	4.4	6.7	8.8	15	18.8	



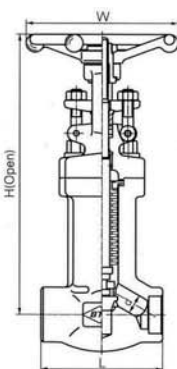
CL800 Bolted bonnet, full port & reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to BS5352 MSS-SP-117

Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	79	79	92	111	120	152	172	200	
Handwheel diameter	W	100	100	100	125	160	160	180	200	
Height	H	237	237	239	270	298	340	395	470	
Height(angle dimension)	d	7.0	9.0	13	17.5	23	30	35	46	
Weight(Kg)		3.3	3.1	4.2	5.5	7.25	9.8	16	21	



CL1500 Welded bonnet, full port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to BS5352 MSS-SP-117

Specification(NPS)	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L	92	92	111	111	120	152	172	200
Handwheel diameter	W	100	100	125	125	160	160	180	200
Height	H	290	330	380	380	400	450	520	650
Height(angle dimension)	d	7	9	12	15	20	28	32	40
Weight(Kg)		3.3	3.5	5	7.5	10	16	27	30

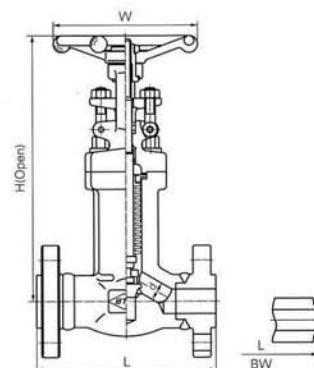
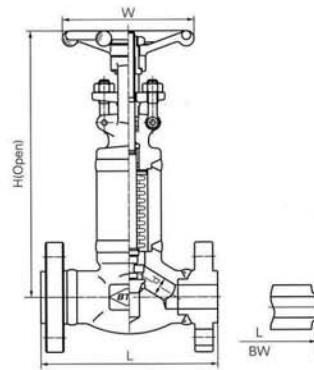
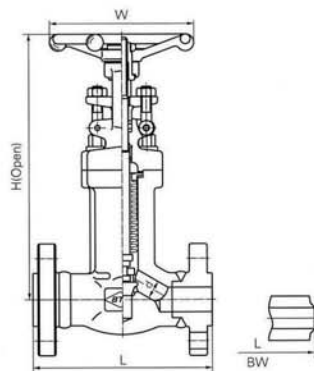
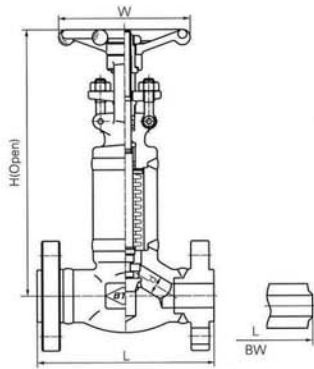


CL1500 Bolted bonnet, full port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to BS5352 MSS-SP-117

Specification(NPS)	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L	92	92	111	111	120	152	172	200
Handwheel diameter	W	100	100	125	125	160	160	180	200
Height	H	290	330	380	380	400	450	520	650
Height(angle dimension)	d	7	9	12	15	20	28	32	40
Weight(Kg)		3.3	3.5	5	7.5	10	16	27	30



Bellow sealed globe valves



CL150-300-600

Welded bonnet, reducing port outside screw and yoke(OS & Y)
Flange-welded or butt-welded ends; design to BS5352\MSS-SP-117

Specification(NPS)	R.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face	CL150 L(RF) CL300 L1(BW) CL600	–	–	108	117	127	140	165	203
Handwheel diameter	W	–	–	100	100	125	160	160	180
Height	CL150/CL300 H CL600	–	–	340/350	340/350	360/375	380/400	450/470	540/570
Height(angle dimension)	d	–	–	9	13	17.5	23	30	35
Weight (Kg)	CL150 RF/BW CL300 RF/BW CL600 RF/BW	–	–	3.67/3	4.3/3.6	6.3/5.7	10.5/9.5	11.5/9.8	19.5/16
		–	–	4/3.2	4.8/4	7.3/6.7	13/11	14.5/12	22/18
		–	–	5.8/4.7	8.1/6	12.5/9	18/14	24.5/18	42/36

If you want to order one piece body, please contract with sale department

CL150-300-600

Bolted bonnet, reducing port outside screw and yoke(OS & Y)
Flange-welded or butt-welded ends; design to BS5352\MSS-SP-117

Specification(NPS)	R.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face	CL150 L(RF) CL300 L1(BW) CL600	–	–	108	117	127	140	165	203
Handwheel diameter	W	–	–	100	100	125	160	160	180
Height	CL150/CL300 H CL600	–	–	340/350	340/350	360/375	380/400	450/470	540/570
Height(angle dimension)	d	–	–	9	13	17.5	23	30	35
Weight (Kg)	CL150 RF/BW CL300 RF/BW CL600 RF/BW	–	–	4.17/3.5	4.8/4.1	7.7/6.7	12.5/11.5	14/11.5	21.5/18
		–	–	4.5/3.7	5.2/4.5	8.3/7.7	14.5/12.5	16/13.5	24/20
		–	–	6.3/5.2	8.6/6.5	13.5/10	19.5/15.5	26/19.5	44/38

If you want to order one piece body, please contract with sale department

CL1500

Welded bonnet, full port outside screw and yoke(OS & Y)
Flange-welded or butt-welded ends; design to BS5352\MSS-SP-117

Specification(NPS)	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L(RF), L1(BW) L(RTJ)	–	–	216	229	254	280	305	368
Handwheel diameter	W	–	–	125	125	160	160	180	200
Height	H	–	–	380	380	400	450	520	650
Height(angle dimension)	d	–	–	12	15	20	28	32	40
Weight(Kg)		–	–	11.1	11.8	14.1	16.5	23.8	37.5

If you want to order one piece body, please contract with sale department

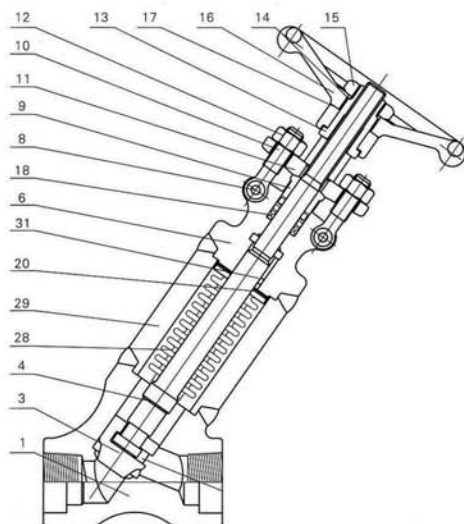
CL1500

Bolted bonnet, full port outside screw and yoke(OS & Y)
Flange-welded or butt-welded ends; design to BS5352\MSS-SP-117

Specification(NPS)	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L(RF), L1(BW) L(RTJ)	–	–	216	229	254	280	305	368
Handwheel diameter	W	–	–	125	125	160	160	180	200
Height	H	–	–	380	380	400	450	520	650
Height(angle dimension)	d	–	–	12	15	20	28	32	40
Weight(Kg)		–	–	11.6	12.3	15	17.5	25	38.3

If you want to order one piece body, please contract with sale department

Y type bellow globe valves



Application specifications

- Design and manufacture conform to BS5352; MSS-SP-117
- Connection ends conform to:
 - Socket welded ends conform to ANSI B16.11
 - Screw ends conform to ANSI B1.20.1
 - Butt-welded ends conform to ANSI B16.25
 - Flanged ends conform to ANSI B16.5
- Test and inspection conform to: API 598
- Structure features:
 - Bolted bonnet, outside screw and yoke
 - Welded bonnet, outside screw and yoke
- Materials conform to ANSI/ASTM.
- Main materials: A105; 304(L); 316(L); F347; F321.
- Bellow materials: 304, 321, 316, Inconel 625, Hastelloy C 276, Monel.

Carbon steel temperature-pressure rate

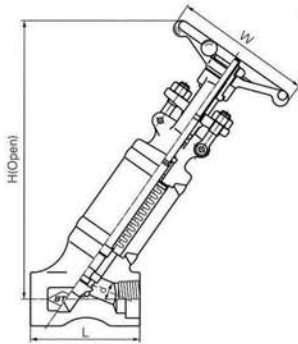
CL150-285 P.S.I @ 100° F
CL300-740 P.S.I @ 100° F
CL600-1480 P.S.I @ 100° F
CL800-1975 P.S.I @ 100° F
CL1500-3705 P.S.I @ 100° F

Main part materials list

NO.	Part name	A105/F6a	A105/F6aHFS	A105/F6aHF	F304(L)/304(L)	F316(L)/316(L)
1	Body	A105	A105+HF	A105+HF	F304(L)	F316(L)
3	Disc	F6a	F6a	F6aHF	F304(L)	F316(L)
4	Stem	410	410	410	304(L)	316(L)
6	Bonnet	A105	A105	A105	F304(L)	F316(L)
8	Pin	410	410	410	304	304
9	Gland	410	410	410	304	316
10	Gland eyebolt	B7	B7	B7	B8(M)	B8(M)
11	Gland flange	A105	A105	A105	F304	F304
12	Hex nut	2H	2H	2H	8(M)	8(M)
13	Stem nut	410	410	410	410	410
14	Locking nut	35	35	35	35	35
15	Nameplate	AL	AL	AL	AL	AL
16	Handwheel	A197	A197	A197	A197	A197
17	Lubricating gasket	410	410	410	410	410
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
20	Gasket	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	316+ Flexible graphite	316+ Flexible graphite
28	Bellow	F321	F321	F321	F316	F316L
29	Coupling pipe	A105	A105	A105	F304(L)	F316(L)
31	Pin	304	304	304	304	316



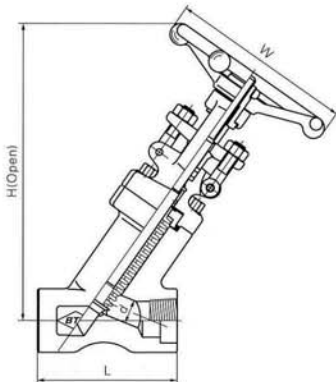
Y type bellow globe valves



CL800

Welded bonnet, full port & reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to BS5352\MSS-SP-117

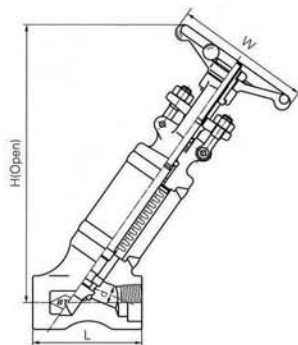
Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	79	79	92	100	140	140	155	170	
Handwheel diameter	W	100	100	100	125	160	160	180	200	
Height	H	237	237	239	270	298	340	395	470	
Height(angle dimension)	d	7	9	13	17.5	23	30	35	46	
Weight(Kg)		2.6	2.6	2.8	4.6	9.5	10.0	15.5	21	



CL800

Bolted bonnet, full port & reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to BS5352\MSS-SP-117

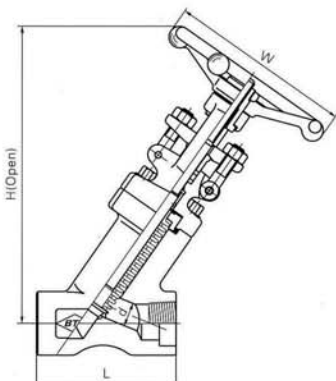
Specification (NPS)	R.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	98	98	98	111	140	140	155	170	
Handwheel diameter	W	100	100	100	125	160	160	180	200	
Height	H	240	240	240	260	350	350	380	450	
Height(angle dimension)	d	7	9	13	17.5	23	30	35	46	
Weight(Kg)		3.1	3.1	4.3	5.6	10.8	10.8	16	22	



CL1500

Welded bonnet, full port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to BS5352\MSS-SP-117

Specification(NPS)	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	92	92	100	100	140	140	155	170	
Handwheel diameter	W	100	100	125	125	160	160	180	200	
Height	H	300	300	300	380	390	470	550	700	
Height(angle dimension)	d	7	9	12	15	20	28	32	40	
Weight(Kg)		3.3	3.5	5	7.5	10	16	27	30	



CL1500

Bolted bonnet, full port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to BS5352\MSS-SP-117

Specification(NPS)	F.P	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	98	111	111	140	140	155	170	
Handwheel diameter	W	100	125	125	160	160	180	200	
Height	H	300	300	380	390	470	550	700	
Height(angle dimension)	d	9	12	15	20	28	32	40	
Weight(Kg)		3.1	5.1	5.1	10.3	10.8	16	22	