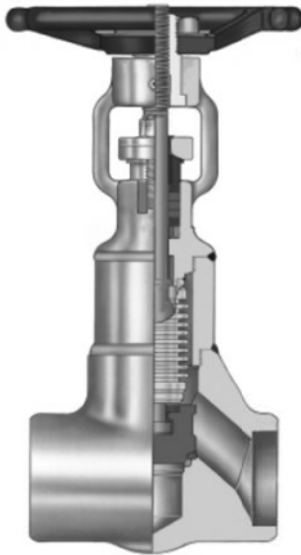


## Bellow sealed valves

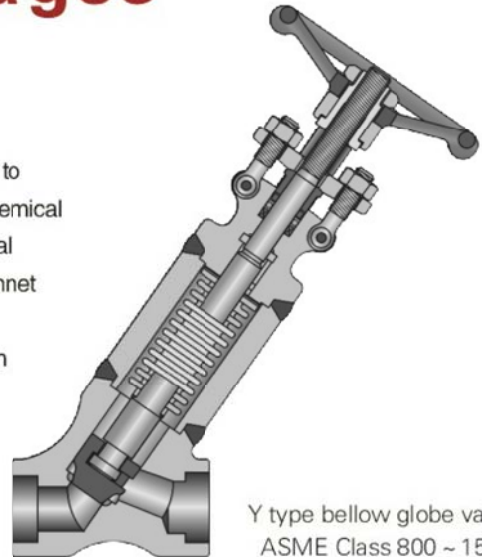
# Zero leakages



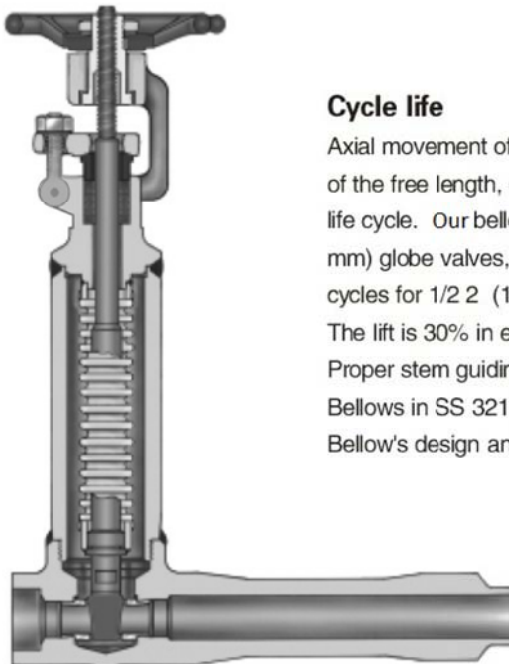
### Valves design parameters

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.

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. Our bellows are designed for 10,000 cycles for 1/2 2 (1550 mm) globe valves, 5000 cycles for bonnetless globe valves and 3000 cycles for 1/2 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 seal gate  
Class 800 ~ 1500  
Flange ASME Class 150 ~ 1500

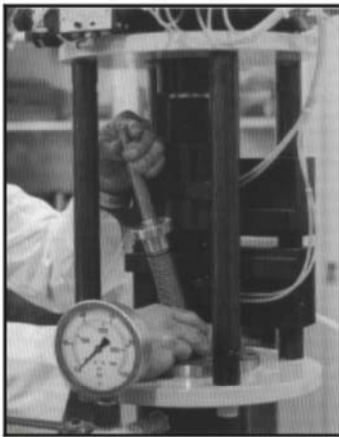
### bellow seal valves has 3–level seals

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

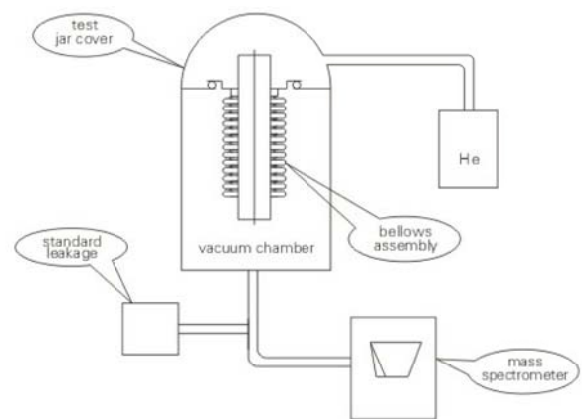
## Bellow sealed valves

### Quality insurance.

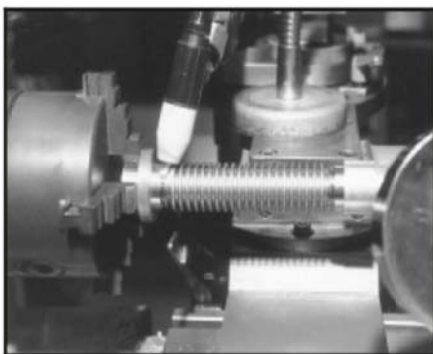
We has a set of procedures to severely inspect and test every released bellow seal valve acc. to requirements of ISO 9001 and AZ state safety register quality system in which include 100% air seal test, no bubble test and PT exam to every bellow, available to do vacuum air seal test with Helium mass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



The bellow inspection device R&D



Vacuum seal test with Helium mass spectrograph

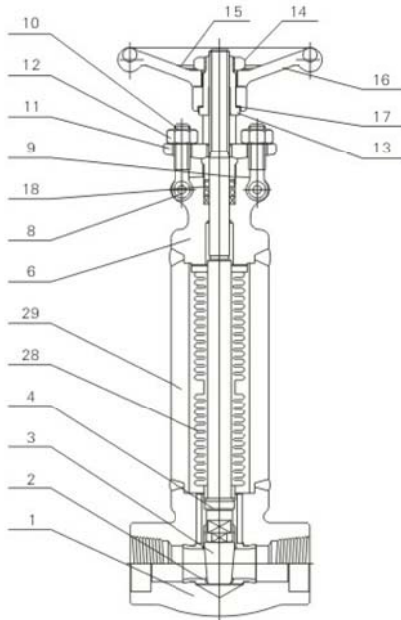


Micro bundle plasma bellow welding



Circle life test under a pressure.

## Bellow sealed gate valves



### Application standards

- 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;JB/T1751
  - 2)Screw ends conform to ANSI B1.20.1;JB/T7306
  - 3)Butt-welded ends conform to ANSI B16.25;JB/T12224
  - 4)Flanged ends conform to ANSI B16.5;JB79
- 3、 Test and inspection conform to:
  - API 598; GB/T13927; JB/T9092
- 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.

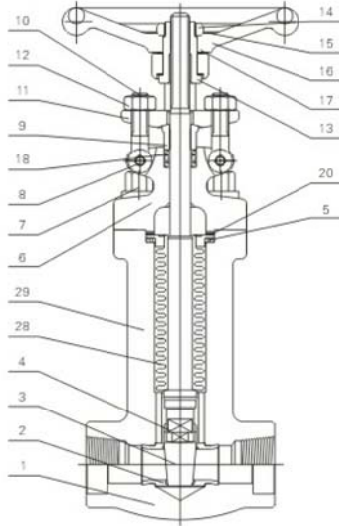
### Carbon steel temperature–pressure rate

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 standards

- 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;JB/T1751
  - 2)Screw ends conform to ANSI B1.20.1;JB/T7306
  - 3)Butt-welded ends conform to ANSI B16.25;JB/T12224
  - 4)Flanged ends conform to ANSI B16.5;JB79
- 3、 Test and inspection conform to: API 598; GB/T13927; JB/T9092
- 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.

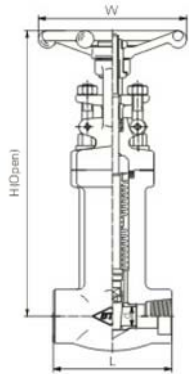
### Carbon steel temperature-pressure rate

- 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

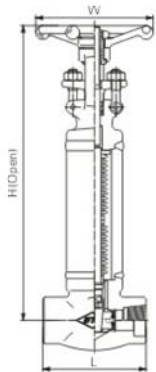
NO.	Part name	A105/F6a	A105/Fa6HFS	A105/F6aHF	F304(L)/304(L)	F316(L)/316(L)
1	Body	A105	A105	A105	F304(L)	F316(L)
2	Seat	410	410HF	410HF	304(L)	316(L)
3	Wedge disc	F6a	F6a	F6aHF	F304(L)	F316(L)
4	Stem	410	410	410	304(L)	316(L)
5	Gasket	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	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



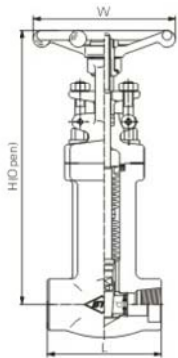
### CL800 Bolted bonnet, full port & reducing port outside screw and yoke(OS & Y). Threaded,butt-welded or socket welded ends;design to API602\MSS-SP-117

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	
Face to face	L	73	73	80	100	114	120	130
Handwheel diameter	W	100	100	100	125	160	160	180
Height	H	247	247	285	344	432	477	551
Height(angle dinmension)	d	9.5	9.5	13	17.5	24	29	36.5
Weight(Kg)		3.0	3.0	3.3	6.3	8.7	10.2	16.2



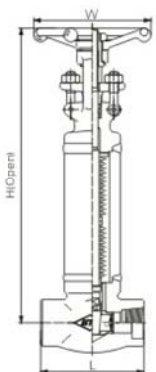
### CL800 Welded bonnet, full port & reducing port outside screw and yoke(OS & Y). Threaded,butt-welded or socket welded ends;design to API 602\MSS-SP-117

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	
Face to face	L	73	73	80	100	114	120	130
Handwheel diameter	W	100	100	100	125	160	160	180
Height	H	247	247	285	344	432	477	551
Height(angle dinmension)	d	9.5	9.5	13	17.5	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

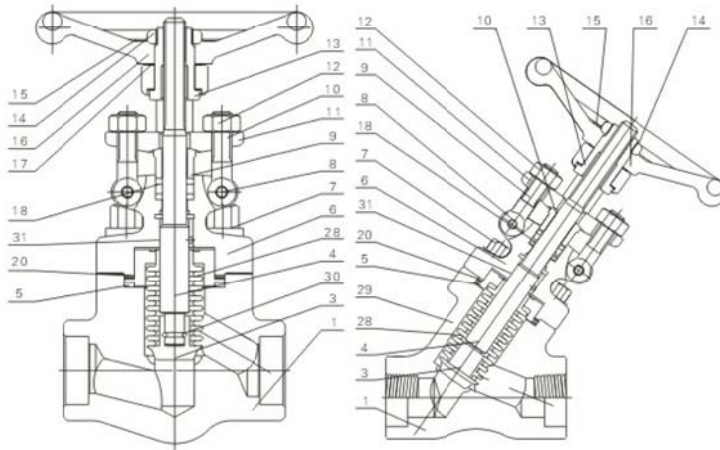
Specification (NPS)	R.P	1/2	3/4	1	1 1/4	1 1/2	2	
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	
Face to face	L	80	100	100	114	120	130	140
Handwheel diameter	W	100	125	125	160	160	180	180
Height	H	287	287	312	368	465	595	627
Height(angle dinmension)	d	8	13	13	17.5	24	29	36.5
Weight(Kg)		3.1	5.1	5.1	9.0	10.5	16.7	21



### 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	
Face to face	L	80	100	100	114	120	130	140
Handwheel diameter	W	100	125	125	160	160	180	180
Height	H	287	287	312	368	465	595	627
Height(angle dinmension)	d	8	13	13	17.5	24	29	36.5
Weight(Kg)		2.9	4.7	4.7	7.4	5.7	16	19

## Short pattern bellow seal 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;JB/T1751
  - 2)Screw ends conform to ANSI B1.20.1;JB/T7306
  - 3)Butt-welded ends conform to ANSI B16.25;JB/T12224
  - 4)Flanged ends conform to ANSI B16.5;JB79
- 3、Test and inspection conform to:
  - API 598 ; GB/T13927 ; JB/T9092
- 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; LF2; F5; F11; F22; 304(L); 316(L); F347; F321; F51; Monel; 20 Alloy.
- 7、Bellow materials: 304, 321, 316, Inconel 625, Hastelloy C 276, Monel.

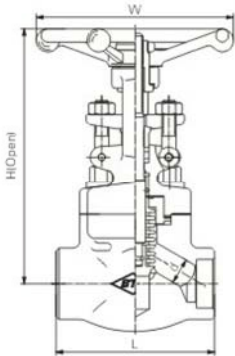
### Carbon steel temperature–pressure rate

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

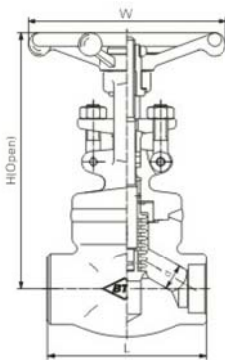
NO.	Part name	A105/F6a	A105/F6aHFS	A105/F6aHF	F304(L)/304(L)	F316(L)/316(L)
1	Body	A105	A105+HF	A105+HF	F304(L)	F316(L)
3	Disc	F6a	F6a	F6aHF	F304(L)	F316(L)
4	Stem	410	410	410	304(L)	316(L)
5	Gasket	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	316+ Flexible 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



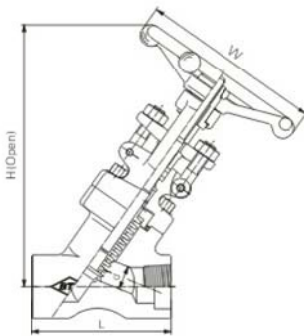
**CL800** Bolted bonnet, full port & reducing port outside screw and yoke(OS & Y).  
Threaded, butt-welded or socket welded ends; design to BS5352/MSS-SP-117

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
Face to face	L	73	73	80	100	114	145	160	220	-
Handwheel diameter	W	100	100	100	125	160	160	180	200	-
Height	H	155	155	160	198	217	235	273	303	-
Height (angle dimension)	d	7.0	9.0	12	17.5	22.5	29	35	44	-
Weight(Kg)		2.5	2.3	2.4	4.35	5.75	7.8	12.5	17.5	-



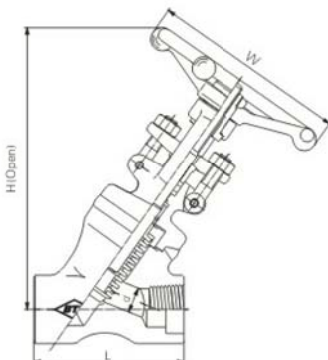
**CL800** Welded bonnet, full port & reducing port outside screw and yoke(OS & Y).  
Threaded, butt-welded or socket welded ends; design to BS5352, MSS-SP-117

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
Face to face	L	73	73	80	100	114	145	160	220	-
Handwheel diameter	W	100	100	100	125	160	160	180	200	-
Height	H	160	160	160	188	215	218	253	280	-
Height (angle dimension)	d	7.0	9.0	12	17.5	22.5	29	36	44	-
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

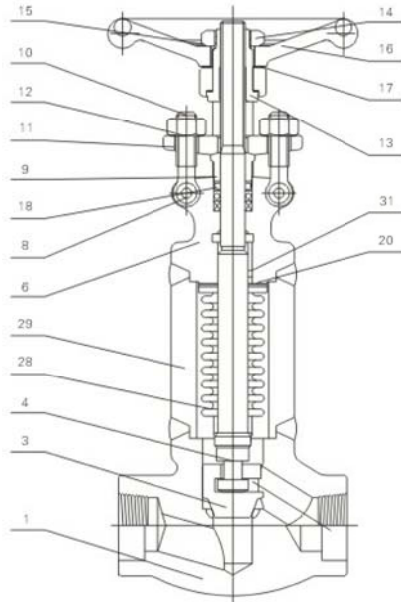
Specification (NPS)	R.P	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
		F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
Face to face	L	98	98	98	111	140	140	155	170
Handwheel diameter	W	100	100	100	125	160	160	180	200
Height	H	180	180	180	188	280	280	295	350
Height (angle dimension)	d	7	9	13	17.5	23	30	35	46
Weight(Kg)		2.6	2.6	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
Face to face	L	79	79	79	90	118	155	155	175
Handwheel diameter	W	100	100	100	125	160	160	180	200
Height	H	172	172	172	196	235	280	260	345
Height (angle dimension)	d	7	9	13	17.5	22.5	29.5	35	44
Weight(Kg)		1.8	1.8	2.0	3.5	8.0	8.0	12	16

## Bellow sealed globe valves



### Application standards

- 1、 Design and manufacture conform to BS5352; MSS-SP-117
- 2、 Connection ends conform to:
  - 1)Socket welded ends conform to ANSI B16.11;JB/T1751
  - 2)Screw ends conform to ANSI B1.20.1;JB/T7306
  - 3)Butt-welded ends conform to ANSI B16.25;JB/T12224
  - 4)Flanged ends conform to ANSI B16.5; JB79
- 3、 Test and inspection conform to:
  - API 598; GB/T13927; JB/T9092
- 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

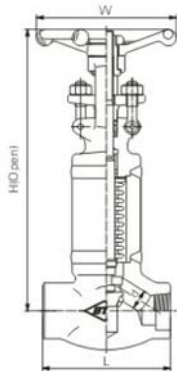
- CL150-285 P.S.I @ 100° F
- CL300-740 P.S.I @ 100° F
- CL600-1480 P.S.I @ 100° F
- CL800-1975 P.S.I @ 100° F
- CL1500-3705 P.S.I @ 100° F

### 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



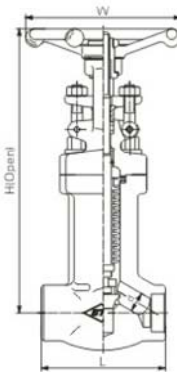
## Bellow sealed globe valves



### 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

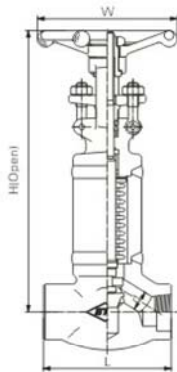
Specification (NPS)	R.P	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	73	73	80	100	114	145	160	-	-
Handwheel diameter	W	100	100	100	125	160	160	180	-	-
Height	H	218	218	218	246	295	300	329	-	-
Height(angle dimension)	d	7.0	9.0	12	17.5	22.5	29	35	-	-
Weight(Kg)		2.6	2.5	2.7	4.4	6.7	8.8	15	-	-



### 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

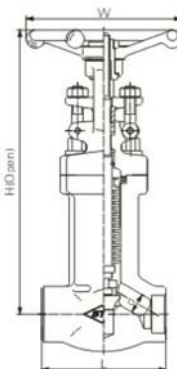
Specification (NPS)	R.P	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	73	73	80	100	114	145	160	-	-
Handwheel diameter	W	100	100	100	125	160	160	180	-	-
Height	H	218	218	218	246	295	300	329	-	-
Height(angle dimension)	d	7.0	9.0	12	17.5	22.5	29	35	-	-
Weight(Kg)		3.3	3.1	4.2	5.5	7.25	9.8	16	-	-



### 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	80	100	100	114	145	160	172	-
Handwheel diameter	W	100	125	125	160	160	180	200	-
Height	H	237	237	239	270	298	340	395	-
Height(angle dimension)	d	7	11	14.5	19	26	29	33	-
Weight(Kg)		3.3	3.5	5	7.5	10	16	27	-

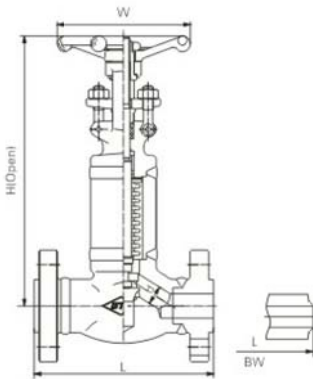


### CL1500

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	80	100	100	114	145	160	172	-
Handwheel diameter	W	100	125	125	160	160	180	200	-
Height	H	237	237	239	270	298	340	395	-
Height(angle dimension)	d	7	11	14.5	19	26	29	33	-
Weight(Kg)		3.3	3.5	5	7.5	10	16	27	-

## Bellow sealed globe valves

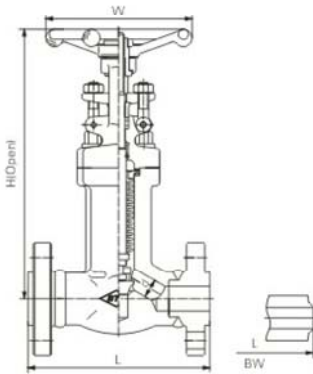


### CL150-300-600

Welded bonnet, reducing port outside screw and yoke(OS & Y)  
Flange-welded or butt-welded ends; design to BS5352MSS-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	L(RF) L1(BW)	CL150	-	-	108	117	127	140	165	203
		CL300	-	-	152	178	203	216	229	267
		CL600	-	-	165	190	216	229	241	292
Handwheel diameter	W	-	-	100	100	125	160	160	180	
Height	H	-	-	218	218	246	295	300	329	
Height(angle dimension)	d	-	-	9	13	17.5	23	30	35	
Weight (Kg)	CL150 RF/BW	-	-	3.67/3	4.3/3.6	6.3/5.7	10.5/9.5	11.5/9.8	19.5/16	
	CL300 RF/BW	-	-	4/3.2	4.8/4	7.3/6.7	13/11	14.5/12	22/18	
	CL600 RF/BW	-	-	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

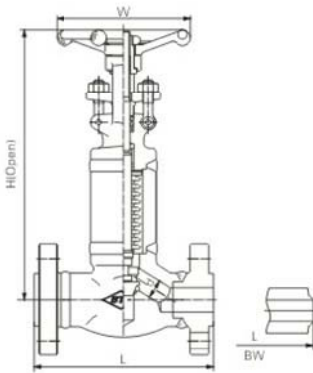


### CL150-300-600

Bolted bonnet, reducing port outside screw and yoke(OS & Y)  
Flange-welded or butt-welded ends; design to BS5352MSS-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	L(RF) L1(BW)	CL150	-	-	108	117	127	140	165	203
		CL300	-	-	152	178	203	216	229	267
		CL600	-	-	165	190	216	229	241	292
Handwheel diameter	W	-	-	100	100	125	160	160	180	
Height	H	-	-	218	218	246	295	300	329	
Height(angle dimension)	d	-	-	9	12	17.5	22.5	29	35	
Weight (Kg)	CL150 RF/BW	-	-	4.17/3.5	4.8/4.1	7.7/6.7	12.5/11.5	14/11.5	21.5/18	
	CL300 RF/BW	-	-	4.5/3.7	5.2/4.5	8.3/7.7	14.5/12.5	16/13.5	24/20	
	CL600 RF/BW	-	-	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

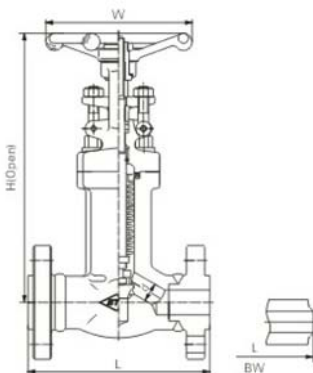


### CL1500

Welded bonnet, full port outside screw and yoke(OS & Y)  
Flange-welded or butt-welded ends; design to BS5352MSS-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)	-	-	216	229	254	279	305	368
	L(RTJ)	-	-	216	229	254	279	305	371
Handwheel diameter	W	-	-	125	160	160	180	200	-
Height	H	-	-	239	270	298	340	395	-
Height(angle dimension)	d	-	-	14.5	19	26	29	33	-
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 BS5352MSS-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)	-	-	216	229	254	280	305	368
	L(RTJ)	-	-	216	229	254	280	305	371
Handwheel diameter	W	-	-	125	160	160	180	200	-
Height	H	-	-	239	270	298	340	395	-
Height(angle dimension)	d	-	-	14.5	19	26	29	33	-
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

