

A Long Experience in Energy Equipment and one Goal:

The Customer's satisfaction.



FORGED

Gate, Globe & Check Valves.



VALVITALIA VITAS DIVISION PLANT



**Some
production example
of Forged Steel Valves**



Valves under testing at Vitas, Brendola, plant



FORGED STEEL GATE VALVES

VITAS Forged steel Gate Valves available in three bonnet designs. The first design is the Bolted Bonnet, with male-female joint, spiral wound gasket, made in SS/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. The third design is the pressure seal bonnet, with a threaded and pressure seal bonnet joint.



Bolted Bonnet



Welded Bonnet



Pressure Seal Bonnet

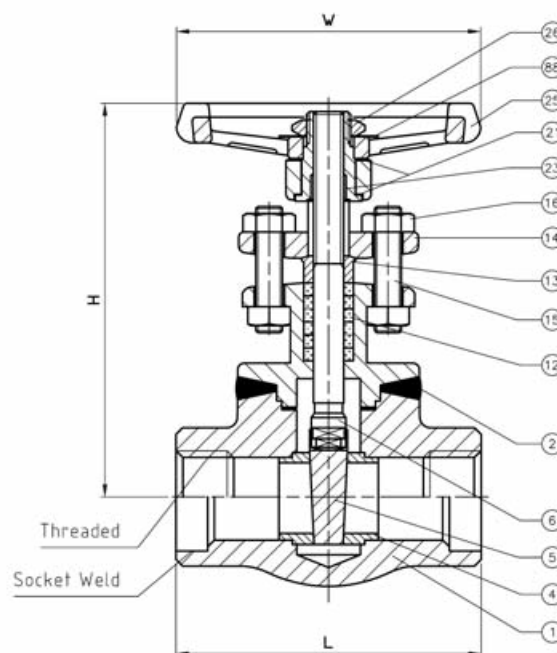
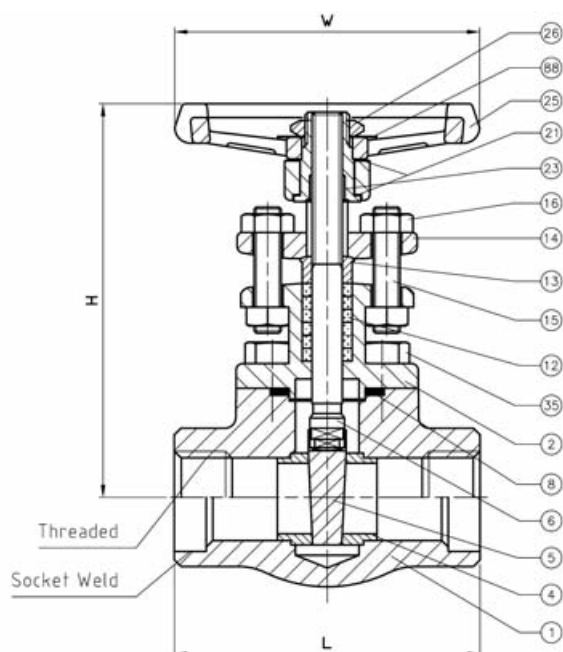
Gate Valves Design Construction and Specifications

VITAS forged gate valves conform to API 602, BS 5352, and ANSI B16.34. Each are tested according to API 598 and marking is per MSS SP-25.

Construction is as follows:

- Full Port or Conventional Port
- Outside Screw and Yoke (OS & Y)
- Two piece self aligning packing gland
- Bolted Bonnet with spiral-wound gasket, threaded and seal welded bonnet or threaded and pressure seal bonnet
- Integral backseat
- Socket weld Ends to ANSI/ASME B16.11
- Screwed Ends (NPT) to ANSI/ASME B1.20.1

150Lb~1500Lb (Gate Valve)



Standard Material Specifications

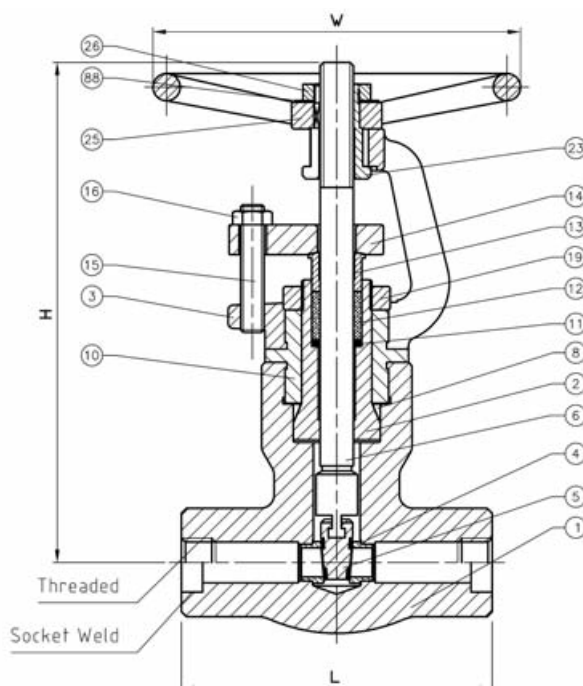
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
4	Seat	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
5	Wedge	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	AISI 410	AISI 410	ASTM A 193 B8	ASTM A 193 B8M
16	Gland Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
21	Bearing Gasket	S.S.	S.S.	S.S.	S.S.
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		Reduced Bore	3/8"	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"	-
		Full Bore	-	3/8"	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L		150 + 800 Lb	79	79	92	111	120	120	140	178
		900 Lb	79	92	111	120	120	140	178	210
		1500 Lb	111	111	111	114	120	140	162	210
H (Open)		150 + 800 Lb	158	158	169	197	236	246	283	330
		900 + 1500 Lb	169	197	197	236	246	283	330	354
W		150 + 800 Lb	100	100	100	125	160	160	180	200
		900 + 1500 Lb	100	125	125	160	160	180	200	240
Weight	Bolted	150 + 800 Lb	2,1	2,0	2,3	4,3	5,9	6,9	11,1	15,2
		900 + 1500 Lb	2,5	4,3	4,2	6,6	8,8	12,5	17,2	23,5
	Welded	150 + 800 Lb	1,8	1,7	2,0	3,8	5,1	6,1	10,2	14,2
		900 + 1500 Lb	2,4	4,2	4,0	6,3	8,7	12,1	17,2	22,0

900Lb~2500Lb (Pressure-seal Gate Valve)



Standard Material Specifications

NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
3	Yoke	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
4	Seat	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
5	Wedge	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
10	Gasket Retainer	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
11	Bottom Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	AISI 410	AISI 410	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
16	Gland Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
19	Retainer Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

	NPS	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L	900 + 1500 Lb	140	140	140	178	178	216
	2500 Lb	186	186	186	232	232	279
H (Open)	900 + 2500 Lb	321	321	321	380	414	502
W	900 + 2500 Lb	160	160	180	200	250	280
Weight	900 + 1500 Lb	11,5	10,8	10,5	19,6	21,0	55,4
	2500 Lb	12,3	11,6	10,8	26,0	28,4	60,0

FORGED STEEL GLOBE VALVES

VITAS Forged steel Globe Valves available in three bonnet designs. The first design is the Bolted Bonnet, with male-female joint, spiral wound gasket, made in SS/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. The third design is the pressure seal bonnet, with a threaded and pressure seal bonnet joint.



Bolted Bonnet



Welded Bonnet



Pressure Seal Bonnet

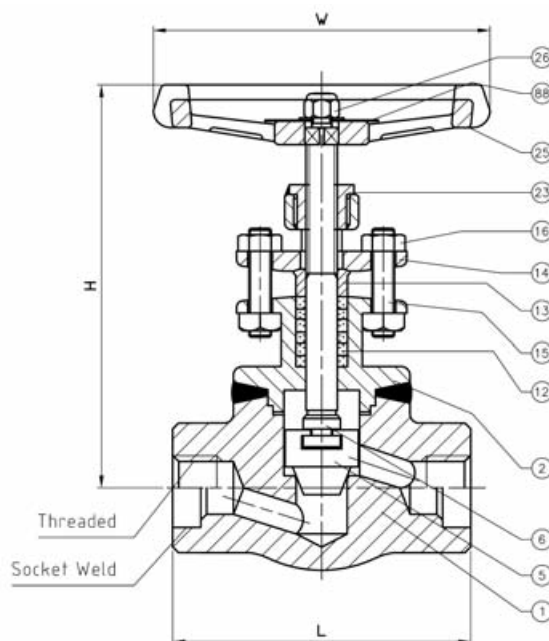
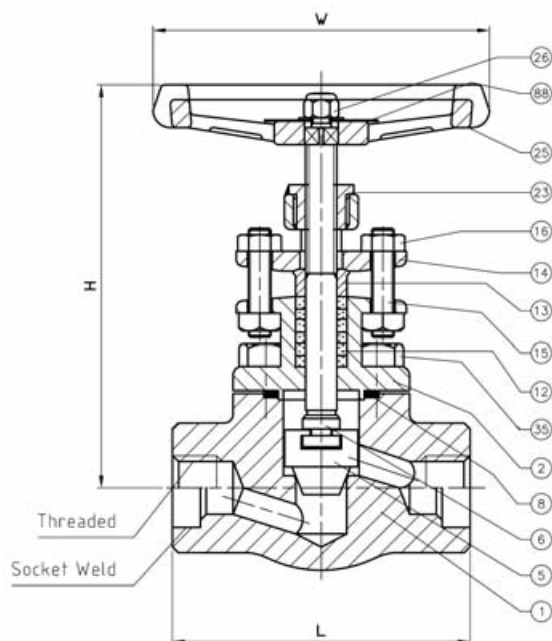
Globe Valves Design Construction and Specifications

VITAS forged steel globe valves conform to API 602, BS 5352, and ANSI B16.34. Each are tested according to API 598 and marking is per MSS SP-25.

Construction is as follows:

- Full Port or Conventional Port
- Outside Screw and Yoke (OS & Y)
- Two piece self aligning packing gland
- Bolted Bonnet with spiral-wound gasket, threaded and seal welded bonnet or threaded and pressure seal bonnet
- Integral backseat
- Socket weld Ends to ANSI/ASME B16.11
- Screwed Ends (NPT) to ANSI/ASME B1.20.1

150~1500Lb (Globe Valve)



Standard Material Specifications

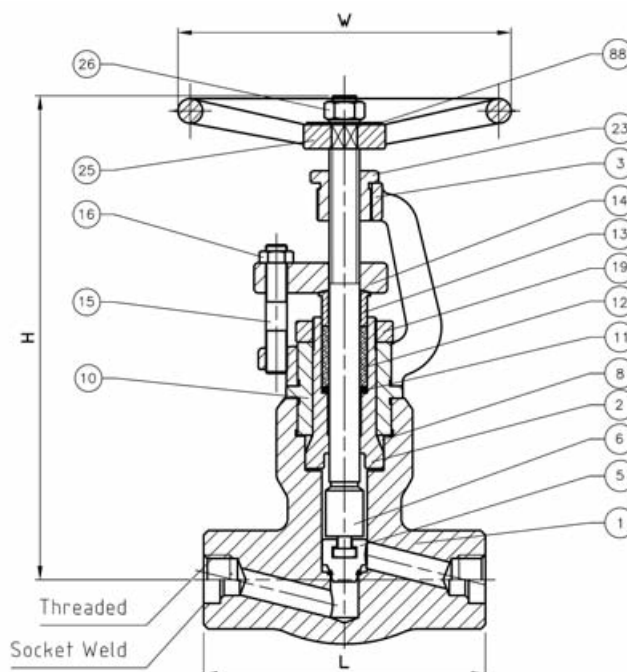
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
16	Gland Nut	AISI 316	AISI 316	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		Reduced Bore	3/8"	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"	-
		Full Bore	-	3/8"	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L		150 + 800 Lb	79	79	92	111	120	152	172	200
		900 + 1500 Lb	111	111	111	130	152	172	220	235
H (Open)		150 + 800 Lb	166	166	171	207	240	258	330	355
		900 + 1500 Lb	171	207	207	240	258	330	355	370
W		150 + 800 Lb	100	100	100	125	160	160	180	200
		900 + 1500 Lb	100	125	125	160	160	180	200	240
Weight	Bolted	150 + 800 Lb	1,9	1,9	2,1	3,5	6,0	7,5	11,4	14,6
		900 + 1500 Lb	2,2	3,7	3,6	6,8	7,6	11,6	15,0	21,9
	Welded	150 + 800 Lb	1,7	1,7	1,9	3,3	5,2	6,8	10,6	13,8
		900 + 1500 Lb	2,0	3,4	3,3	6,0	5,6	10,3	14,2	18,0

900~2500Lb (Pressure-Seal Globe Valve)



Standard Material Specifications

NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
3	Yoke	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
10	Gasket Retainer	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
11	Bottom Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	AISI 410	AISI 410	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
16	Gland Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
19	Retainer Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L	900 + 1500 Lb	140	140	140	178	178	216
	2500 Lb	186	186	186	232	232	279
H (Open)	900 + 2500 Lb	333	333	333	408	408	524
W	900 + 2500 Lb	160	160	180	200	250	280
Weight	900 + 1500 Lb	11,2	10,5	10,1	21,0	19,6	40,4
	2500 Lb	12,3	11,6	10,8	28,0	26,4	43,8

FORGED STEEL CHECK VALVES

VITAS Forged steel Check Valves available in three bonnet designs. The first design is the Bolted Bonnet, with male-female joint, spiral wound gasket, made in SS/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. The third design is the pressure seal bonnet, with a threaded and pressure seal bonnet joint. The check valve are also available in three different design configurations. These are piston check, ball check, or swing check designs.



Bolted Bonnet



Welded Bonnet



Pressure Seal Bonnet

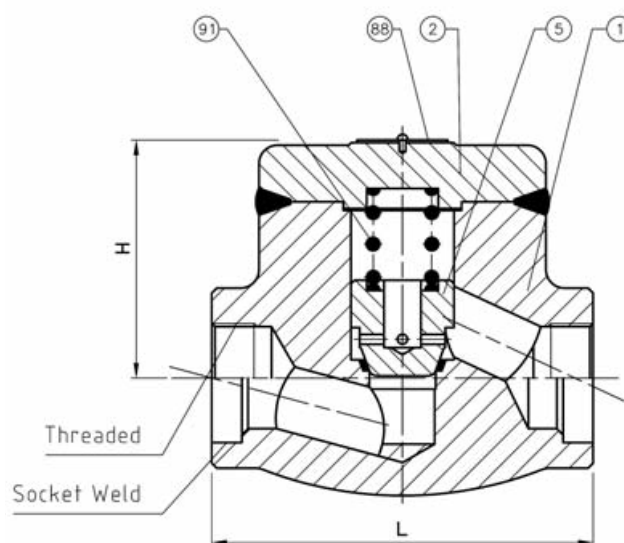
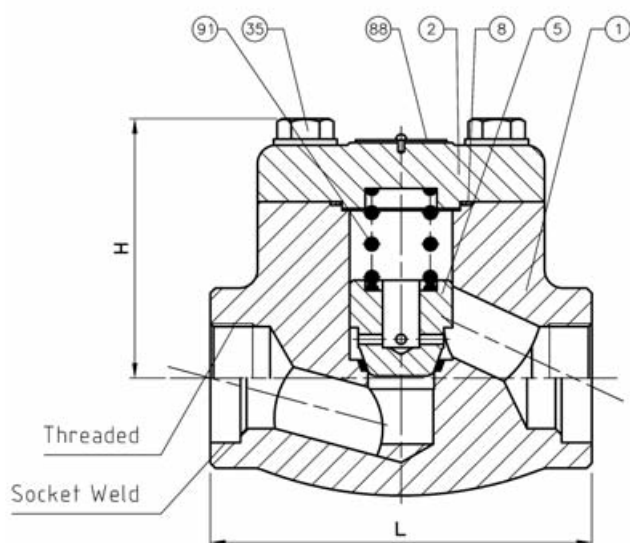
Check Valves Design Construction and Specifications

VITAS forged steel Check Valves conform to MSS SP-118 and BS5352 ANSI/ASME B16.34. Each are tested according to API 598 and marking is per MSS SP-25.

Construction is as follows:

- Full Port or Conventional Port
- Piston check
- Ball check
- Swing check
- Spring available on request
- Bolted bonnet with spiral-wound gasket, threaded and seal welded bonnet or threaded and pressure seal bonnet
- Socket weld Ends to ANSI/ASME B16.11
- Screwed Ends (NPT) to ANSI/ASME B1.20.1

150Lb~1500Lb (Piston Check Valve)



Standard Material Specifications

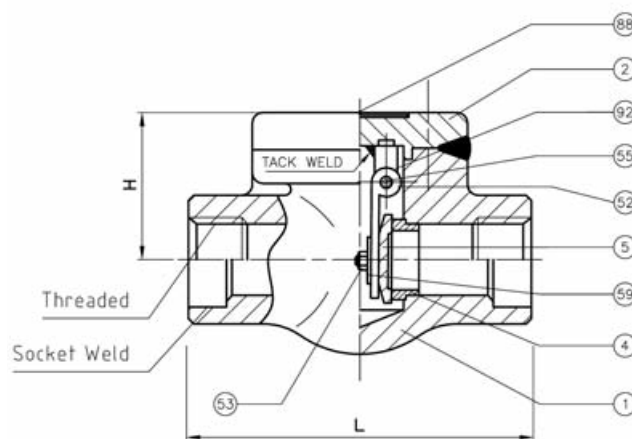
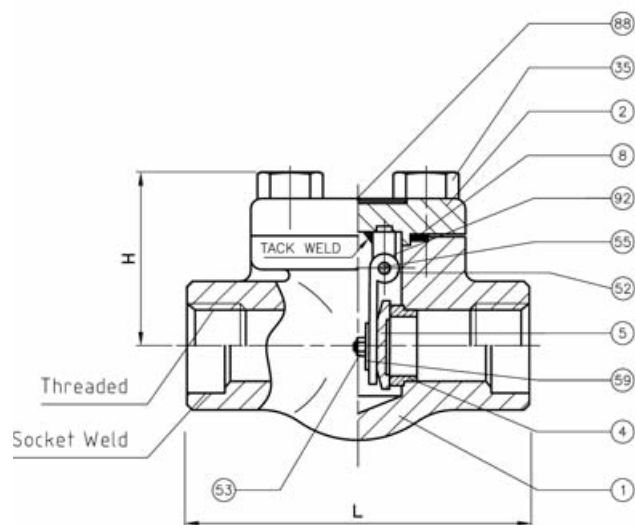
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
91	Spring	ASTM A 182 F304	ASTM A 182 F304	ASTM A 182 F304 (L)	ASTM A 276 F316 (L)
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C		-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		Reduced Bore	3/8"	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"	-
		Full Bore	-	3/8"	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L		150 + 800 Lb	79	79	92	111	120	152	172	200
		900 + 1500 Lb	111	111	111	130	152	172	220	220
H		150 + 800 Lb	61	61	65	79	95	103	118	132
		900 + 1500 Lb	65	79	79	97	104	120	139	215
Weight	Bolted	150 + 800 Lb	1,4	1,2	1,5	3,1	3,9	5,6	8,9	12,5
		900 + 1500 Lb	1,6	3,4	3,3	5,5	6,0	9,2	12,9	16,2
	Welded	150 + 800 Lb	1,1	1,0	1,2	2,9	3,3	4,9	8,1	10,9
		900 + 1500 Lb	1,3	3,2	3,1	4,8	5,4	8,5	11,2	14,3

150~1500Lb (Swing Check Valve)



Standard Material Specifications

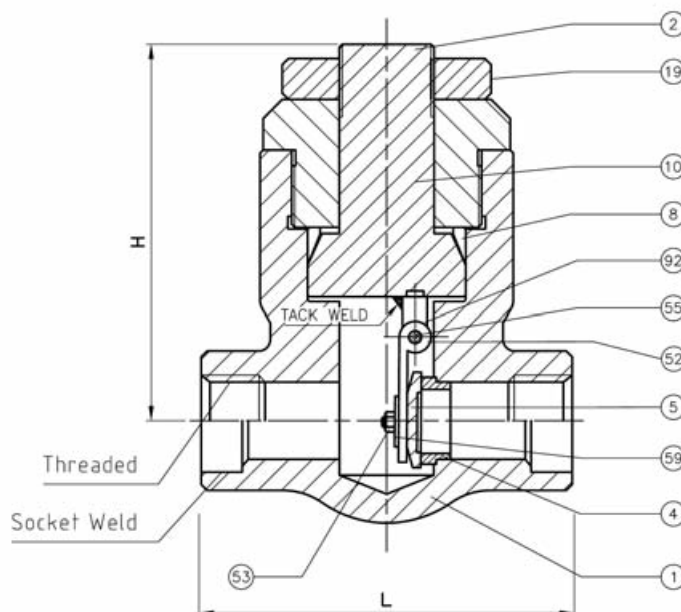
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
4	Seat	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
52	Hinge	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
53	Nut for Disc	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
55	Hinge Pin	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
59	Washer	S.S.	S.S.	S.S.	S.S.
88	Nameplate	S.S.	S.S.	S.S.	S.S.
92	Stirrup	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		3/8"	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L	800 Lb	79	79	92	111	120	120	140
	900 + 1500 Lb	92	111	111	120	140	140	162
H	800 Lb	61	61	78	84	101	120	133
	900 + 1500 Lb	79	79	79	97	105	120	140
Weight	800 Lb	1,1	1,0	1,9	3,9	4,5	7,3	10,0
	900 + 1500 Lb	3,1	3,0	3,6	4,3	6,1	8,8	12,6

900~2500Lb (Pressure-Seal Swing Check Valve)



Standard Material Specifications

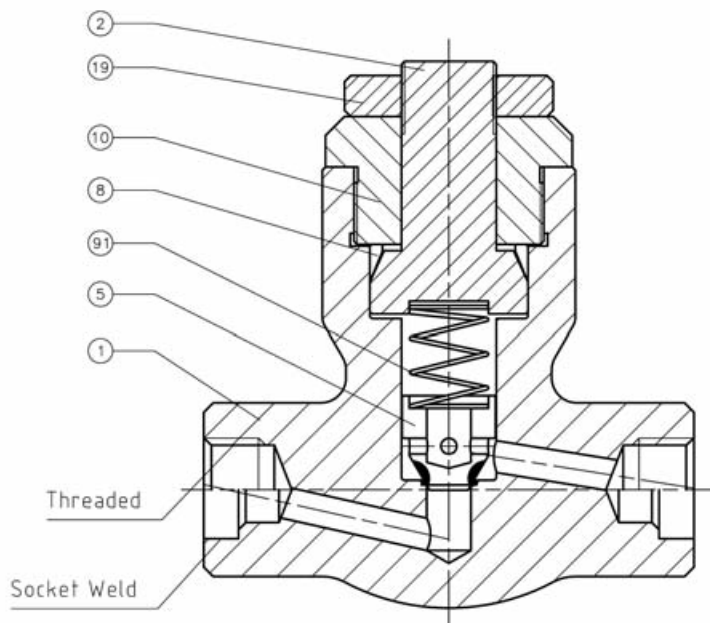
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
4	Seat	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
10	Gasket Retainer	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
19	Retainer Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
52	Hinge	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
53	Nut for Disc	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
55	Hinge Pin	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
59	Washer	S.S.	S.S.	S.S.	S.S.
88	Nameplate	S.S.	S.S.	S.S.	S.S.
92	Stirrup	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L	900 + 1500 Lb	140	140	140	178	178	216
	2500 Lb	186	186	186	232	232	279
H	900 + 2500 Lb	117	117	117	152	152	195
Weight	900 + 1500 Lb	8,2	7,8	7,7	19,8	19,2	21,3
	2500 Lb	10,0	9,6	9,0	21,5	21,1	22,8

900~2500Lb (Pressure-Seal Piston Check Valve)



Standard Material Specifications

NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
8	Gasket	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
10	Gasket Retainer	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
19	Retainer Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
88	Nameplate	S.S.	S.S.	S.S.	S.S.
91	Spring	ASTM A 182 F304	ASTM A 182 F304	ASTM A 182 F304 (L)	ASTM A 276 F316 (L)
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L	900 + 1500 Lb	140	140	140	178	178	216
	2500 Lb	186	186	186	232	232	279
H	900 + 2500 Lb	117	117	117	152	152	195
Weight	900 + 1500 Lb	7,5	7,0	6,8	18,5	18,1	20,3
	2500 Lb	9,0	7,6	8,4	19,5	20,1	21,8

FORGED STEEL INTEGRAL FLANGED VALVES

VITAS Forged steel Flanged End Valves are available in three bonnet designs. The first design is the Bolted Bonnet, with male-female joint, spiral wound gasket, made in SS/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. The third design is the pressure seal bonnet, with a threaded and pressure seal bonnet joint. Integral Flanged End Valves are available in gate, globe, piston, check, and swing check design configurations.



Flanged End Gate Valve



Flanged End Globe Valve



Flanged End Check Valve

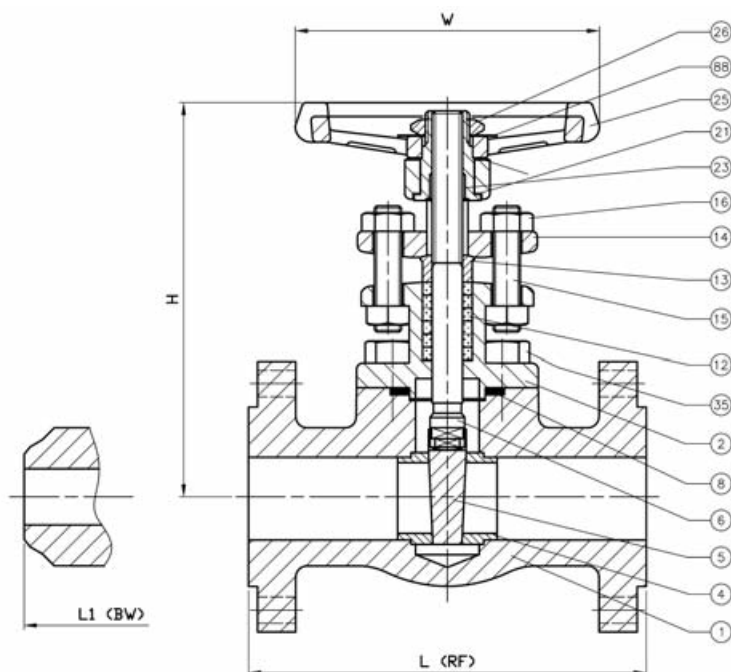
Integral Flanged End Valves Design Construction and Specifications

VITAS Integral Flanged End Valves conform to API 602, MSS-SP-118 (as applicable), and ANSI B16.34. Each are tested according to API 598 and marking is per MSS SP-25.

Construction is as follows:

- Full Port or Conventional Port
- Face to face according to ANSI/ASME B16.10
- Flanges according to ANSI/ASME B16.5
- Pressure seal bonnet
- Outside Screw and Yoke (OS & Y)
- Two piece self-aligning packing gland
- Integral backseat
- Integral body flanges
- Butt Welded Ends to ANSI/ASME B16.25
- RTJ body bonnet gasket ring joint type
- Bolted bonnet with spiral-wound gasket, threaded and seal welded bonnet or threaded and pressure seal bonnet

150Lb~600Lb (Flanged End Globe Valve)



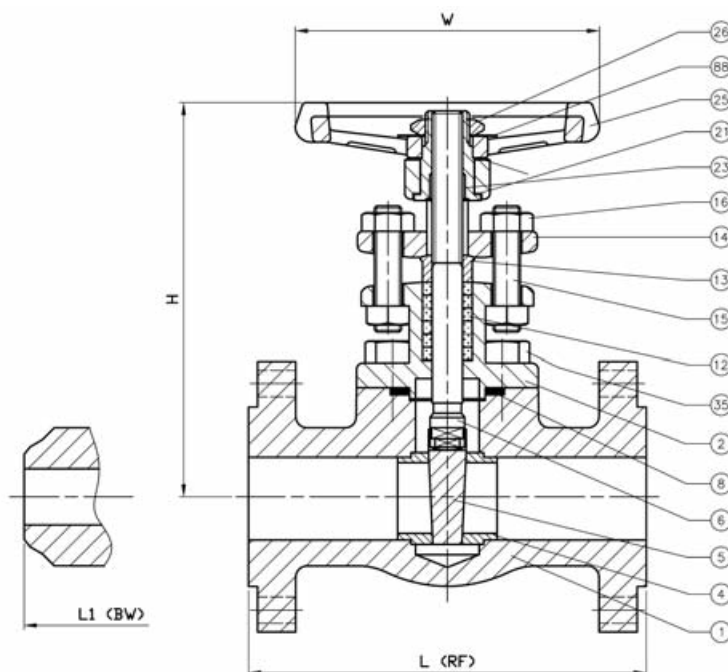
Standard Material Specifications

NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
4	Seat	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
5	Wedge	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	AISI 410	AISI 410	ASTM A 193 B8	ASTM A 193 B8M
16	Gland Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
21	Bearing Gasket	S.S.	S.S.	S.S.	S.S.
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M

Dimensions (mm) and Weights (Kg)

NPS			1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L (RF) L1 (BW)	150 Lb		108	117	127	140	165	178
	300 Lb		140	152	165	178	190	216
	600 Lb		165	190	216	229	241	292
H (Open)	150 - 300 Lb		158	169	197	236	246	283
	600 Lb		169	197	236	246	283	320
W	150 - 600 Lb		100	100	125	160	160	180
Weight	150	RF	4,5	5,2	8,2	11,5	12,5	20,3
		BW	2,8	3,3	5,4	7,1	8,2	12,5
	300	RF	4,8	6,2	9,3	14,0	15,5	23,4
		BW	3,5	4,4	6,8	8,1	9,2	15,4
	600	RF	5,9	7,4	10,4	16,2	17,5	28,3
		BW	4,5	5,1	8,2	10,5	12,4	20,1

900~1500Lb (Flanged End Gate Valve)



Standard Material Specifications

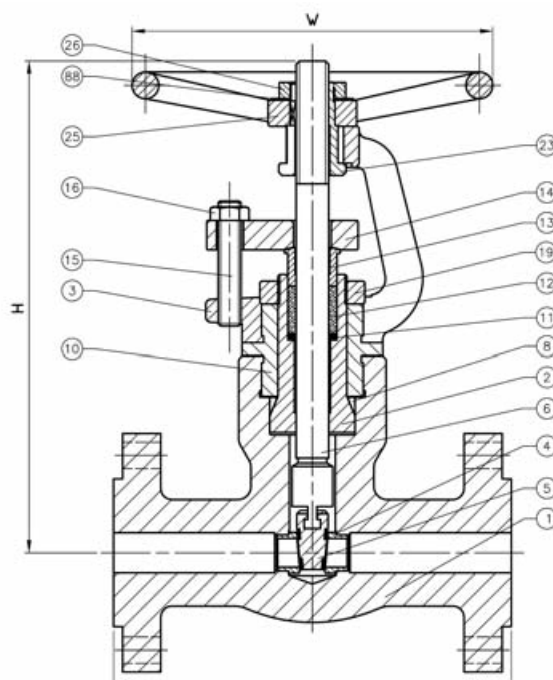
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
4	Seat	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
5	Wedge	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	AISI 410	AISI 410	ASTM A 193 B8	ASTM A 193 B8M
16	Gland Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
21	Bearing Gasket	S.S.	S.S.	S.S.	S.S.
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L (RF)	900 + 1500 Lb	216	229	254	279	305	368
L1 (BW)	900 + 1500 Lb	216	229	254	279	305	368
H (Open)	900 + 1500 Lb	197	197	238	246	286	330
W	900 + 1500 Lb	125	125	160	160	180	200
Weight	RF	7,2	11,5	15,6	16,2	22,6	32,8
	BW	5,2	9,3	12,4	13,8	18,9	27,5

900-2500Lb (Flanged End Pressure Seal Gate Valve)



Standard Material Specifications

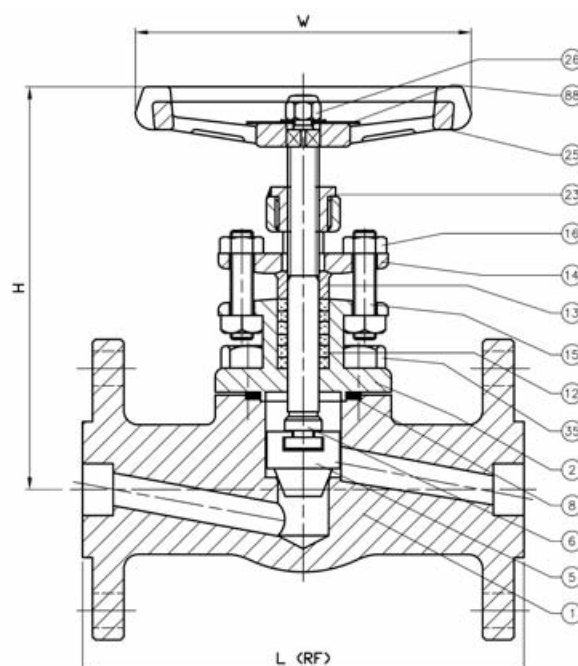
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
3	Yoke	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
4	Seat	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
5	Wedge	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
10	Gasket Retainer	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
11	Bottom Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	AISI 410	AISI 410	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
16	Gland Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
19	Retainer Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L (RF)	900 + 1500 Lb	216	229	254	279	305	368
	2500 Lb	264	273	308	348	384	451
H (Open)	900 + 1500 Lb	216	250	270	320	350	445
	2500 Lb	321	321	321	373	406	495
W	900 + 2500 Lb	160	160	180	200	250	280
Weight	900 + 1500 Lb	19,6	21,5	25,7	37,8	48,5	99,8
	2500 Lb	21,5	24,7	30,4	46,1	58,1	130,0

150~600Lb (Flanged End Globe Valve)



Standard Material Specifications

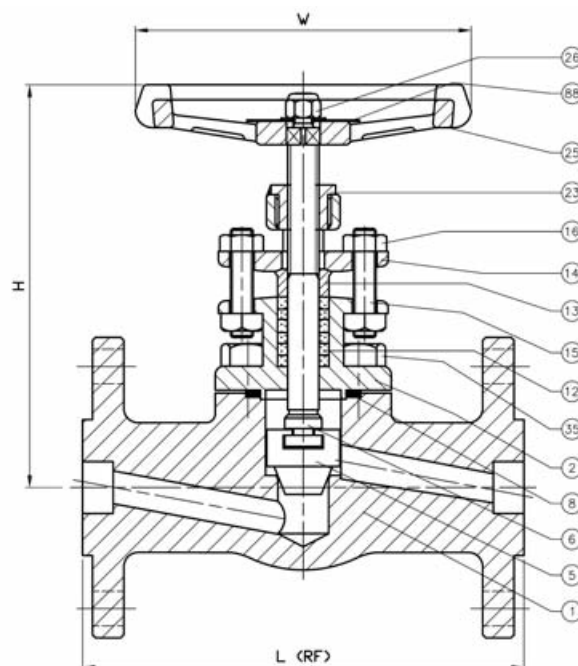
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
16	Gland Nut	AISI 316	AISI 316	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS			1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L (RF) L1 (BW)	150 Lb		108	117	127	140	165	178
	300 Lb		152	178	203	216	229	267
	600 Lb		165	190	216	229	241	292
H (Open)	150 - 300 Lb		166	171	207	240	258	330
	600 Lb		171	207	240	258	330	380
W	150 - 600 Lb		100	100	125	160	160	180
Weight	150	RF	4,5	6,9	9,8	13,5	19,5	28,0
		BW	2,3	3,6	7,8	8,2	12,0	15,0
	300	RF	4,8	7,7	11,0	16,8	21,2	32,6
		BW	2,8	4,0	8,5	9,2	12,6	16,8
	600	RF	5,6	7,8	12,5	17,0	23,5	38,8
		BW	3,4	4,7	9,2	10,5	13,3	18,9

900~1500Lb (Flanged End Globe Valve)



Standard Material Specifications

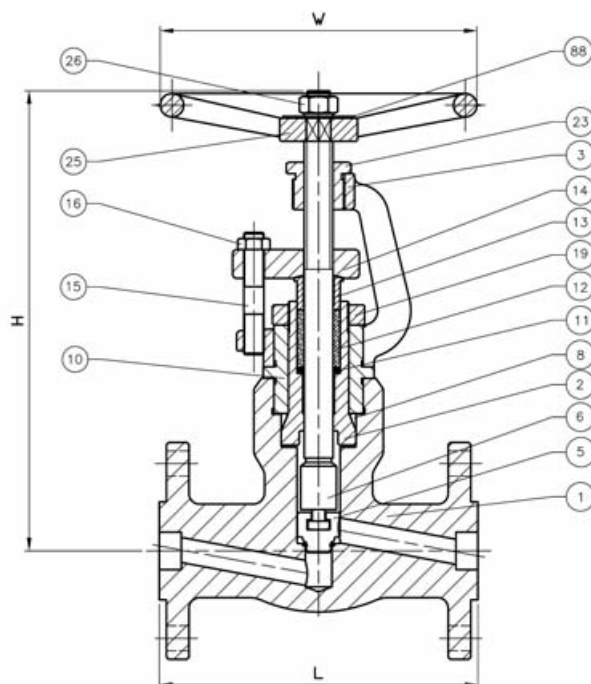
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
16	Gland Nut	AISI 316	AISI 316	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C		-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L (RF)	900 + 1500 Lb	216	229	254	279	305	368
L1 (BW)	900 + 1500 Lb	216	229	254	279	305	368
H (Open)	900 + 1500 Lb	207	207	240	258	330	355
W	900 + 1500 Lb	125	125	160	160	180	200
Weight	RF	8,0	13,2	17,4	19,0	24,5	31,0
	BW	5,2	10,0	14,6	15,8	20,5	27,8

900~2500Lb (Flanged End Pressure-Seal Globe Valve)



Standard Material Specifications

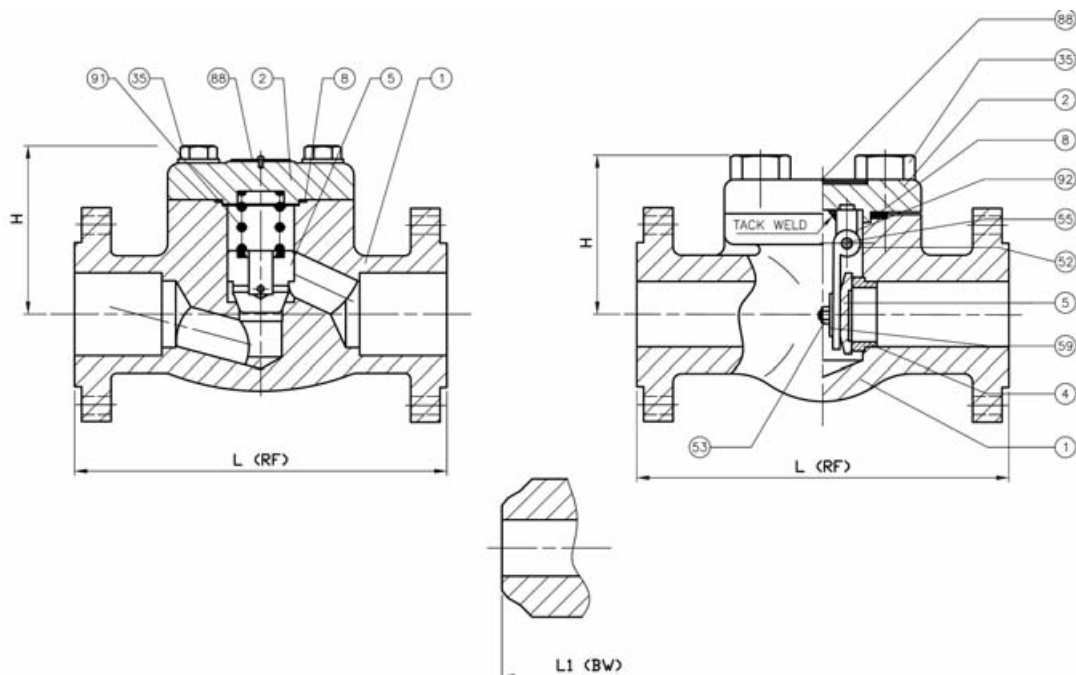
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
3	Yoke	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
6	Stem	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
10	Gasket Retainer	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
11	Bottom Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
12	Packing	Flexible Graphite	Flexible Graphite	Flexible Graphite	Flexible Graphite
13	Gland Packing	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
14	Gland Flange	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
15	Gland Bolt	AISI 410	AISI 410	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
16	Gland Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
19	Retainer Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
23	Yoke Bushing	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy	ASTM A 276 Tp.420 / Cu-Alloy
25	Handwheel	ASTM A 197	ASTM A 197	ASTM A 197	ASTM A 197
26	Handwheel Nut	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 4	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
88	Nameplate	S.S.	S.S.	S.S.	S.S.
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

	NPS	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L (RF)	900 + 1500 Lb	216	229	254	279	305	368
	2500 Lb	264	273	308	348	384	451
H (Open)	900 + 1500 Lb	318	318	318	398	408	524
	2500 Lb	333	333	333	410	420	524
W	900 + 2500 Lb	160	160	180	200	250	280
Weight	900 + 1500 Lb	15,5	16,9	18,9	28,9	34,3	52,8
	2500 Lb	18,0	20,5	23,0	36,1	45,0	81,5

150~600Lb (Flanged End Check Valve)



Standard Material Specifications

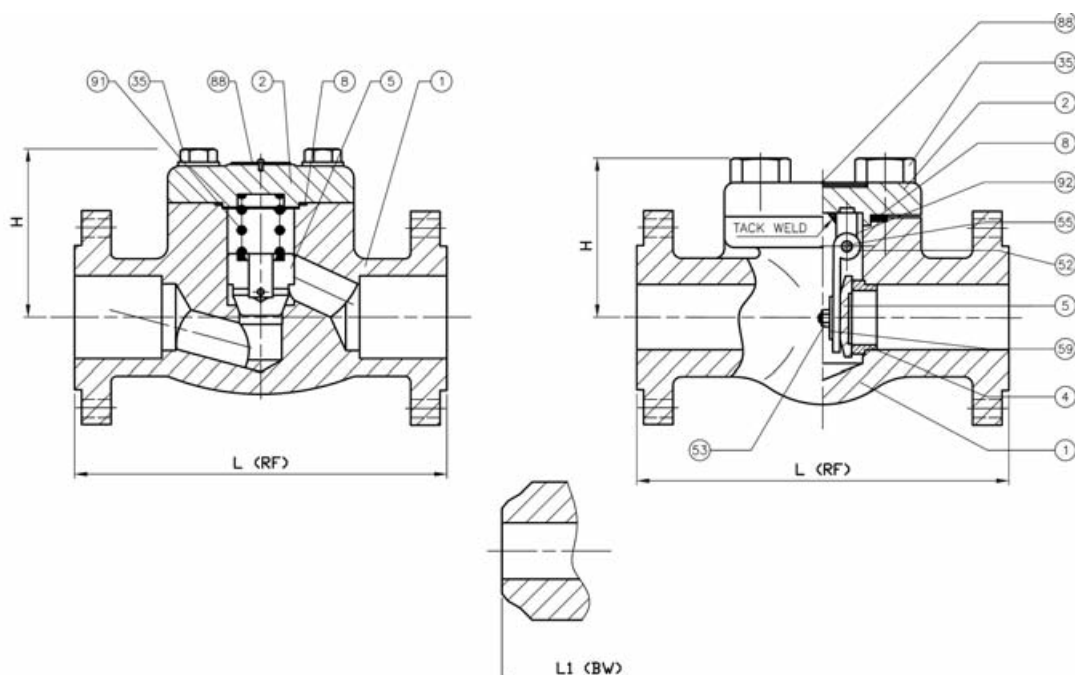
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
4	Seat	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
52	Hinge	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
53	Nut for Disc	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
55	Hinge Pin	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
59	Washer	S.S.	S.S.	S.S.	S.S.
88	Nameplate	S.S.	S.S.	S.S.	S.S.
91	Spring	ASTM A 182 F304	ASTM A 182 F304	ASTM A 182 F304 (L)	ASTM A 276 F316 (L)
92	Stirrup	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS			1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L (RF) L1 (BW)	150 Lb		108	117	127	140	165	203
	300 Lb		152	178	203	216	229	267
	600 Lb		165	190	216	229	241	292
H	150 - 300 Lb		61	61	79	95	103	118
	600 Lb		61	79	95	103	118	135
Weight	150	RF	2,6	3,4	4,4	8,2	8,9	12,6
		BW	1,7	1,9	2,1	5,1	5,5	7,9
	300	RF	2,7	3,7	4,7	8,8	9,6	13,7
		BW	1,9	2,1	3,0	5,1	6,6	7,9
	600	RF	3,0	4,0	5,8	9,5	10,1	15,6
		BW	2,0	3,1	4,2	7,2	8,6	13,6

900~1500Lb (Flanged Steel Flange End Check Valve)



Standard Material Specifications

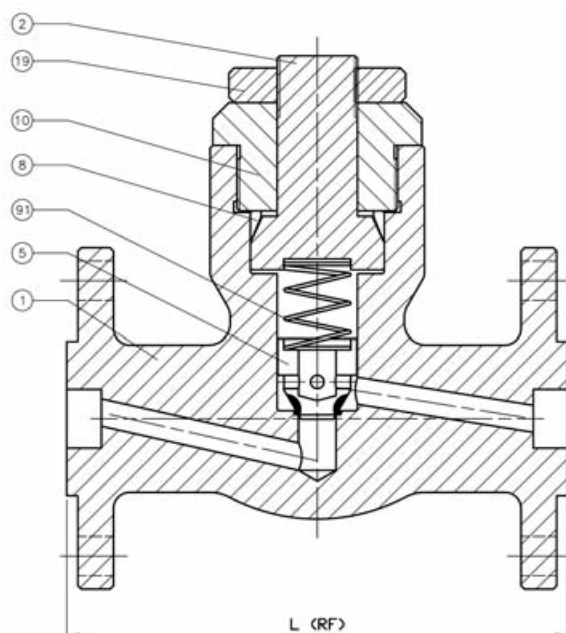
NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
4	Seat	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
8	Gasket	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite	SPW AISI 316 + Graphite
35	Bonnet Bolt	ASTM A 193 Gr. B7	ASTM A 193 Gr. B16	ASTM A 193 Gr. B8	ASTM A 193 Gr. B8M
52	Hinge	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
53	Nut for Disc	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 2H	ASTM A 194 Gr. 8	ASTM A 194 Gr. 8M
55	Hinge Pin	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
59	Washer	S.S.	S.S.	S.S.	S.S.
88	Nameplate	S.S.	S.S.	S.S.	S.S.
91	Spring	ASTM A 182 F304	ASTM A 182 F304	ASTM A 182 F304 (L)	ASTM A 276 F316 (L)
92	Stirrup	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

NPS		1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L (RF)	900 + 1500 Lb	216	229	254	279	305	368
L1 (BW)	900 + 1500 Lb	216	229	254	279	305	368
H	900 + 1500 Lb	79	79	95	104	120	139
Weight	RTJ	8,5	10,5	15,7	20,8	27,2	33,0
	BW	6,4	8,0	13,2	17,8	24,2	29,7

900~1500Lb (Flanged End Pressure-Seal Piston Check Valve)



Standard Material Specifications

NO.	Part. Name	Carbon Steel	Alloy Steel	Stainless Steel	
		Type A105	Type F22	Type F304 (L)	Type F316(L)
1	Body	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
2	Bonnet	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
5	Disc	ASTM A 276 Tp.410	ASTM A 276 Tp.410 +Stellite	ASTM A 276 F304 (L) +Stellite	ASTM A 276 F316 (L) +Stellite
8	Gasket	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
10	Gasket Retainer	ASTM A 105	ASTM A 182 F22	ASTM A 182 F304 (L)	ASTM A 182 F316 (L)
19	Retainer Ring	ASTM A 276 Tp.410	ASTM A 276 Tp.410	ASTM A 276 F304 (L)	ASTM A 276 F316 (L)
88	Nameplate	S.S.	S.S.	S.S.	S.S.
91	Spring	ASTM A 182 F304	ASTM A 182 F304	ASTM A 182 F304 (L)	ASTM A 276 F316 (L)
Suitable Medium		W.O.G. etc.		HNO ₃ , CH ₃ OOH, etc.	
Suitable Temperature		-29°C + 425°C	-29°C + 550°C	-29°C + 180°C	

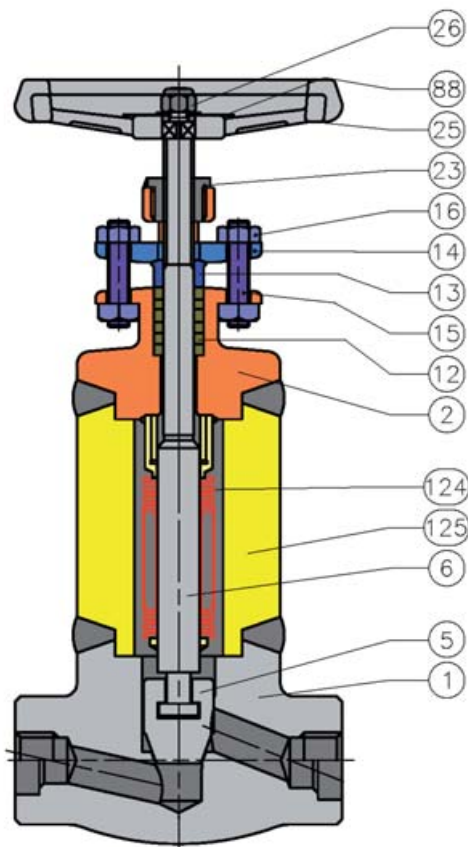
Note: Other materials are available upon request.

Dimensions (mm) and Weights (Kg)

	NPS	1/2"	3/4"	1"	1" 1/4	1" 1/2	2"
L (RF)	900 + 1500 Lb	216	229	254	279	305	368
	2500 Lb	264	273	308	349	384	451
H (Open)	900 + 1500 Lb	117	117	117	152	152	195
	2500 Lb	117	117	117	152	152	195
Weight	900 + 1500 Lb	10,5	11,9	13,9	19,9	26,9	32,5
	2500 Lb	12,6	14,9	16,5	24,8	30,0	35,0

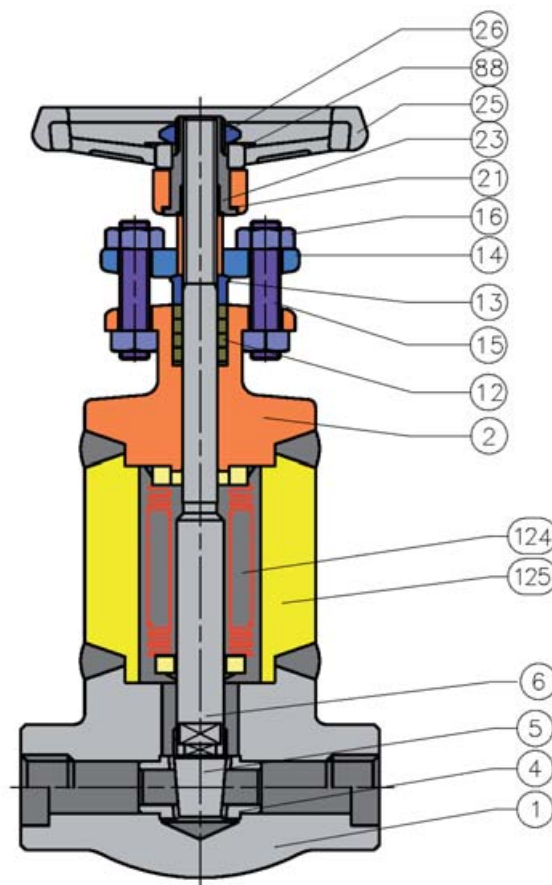
SPECIAL FEATURES

On request, Vitas may produce also special valve as:



B.O.M. FORGED GLOBE VALVE WELDED BONNET

1	BODY	ASTM A 105
2	BONNET	ASTM A 105
4	SEAT	ASTM A 276 Tp.410
5	WEDGE	ASTM A 276 Tp.410
6	STEM	ASTM A 276 Tp.410
12	PACKING	GRAPHITE
13	GLAND PACKING	A276-410
14	GLAND FLANGE	ASTM A 105
15	GLAND BOLT	ASTM A 193 B7
16	GLAND NUT	ASTM A 194 2H
23	YOKE BUSHING	ASTM A 439 D-2C
25	HANDWHEEL	CARBON STEEL
26	HANDWHEEL NUT	ASTM A 194 2H
124	BELLOW SEAL	ASTM A 182 F316
125	EXTENSION	ASTM A 105



B.O.M. FORGED GATE VALVE WELDED BONNET

1	BODY	ASTM A 105
2	BONNET	ASTM A 105
4	SEAT	ASTM A 276 Tp.410
5	WEDGE	ASTM A 276 Tp.410
6	STEM	ASTM A 276 Tp.410
12	PACKING	GRAPHITE
13	GLAND PACKING	A276-410
14	GLAND FLANGE	ASTM A 105
15	GLAND BOLT	ASTM A 193 B7
16	GLAND NUT	ASTM A 194 2H
23	YOKE BUSHING	ASTM A 439 D-2C
25	HANDWHEEL	CARBON STEEL
26	HANDWHEEL NUT	ASTM A 194 2H
124	BELLOW SEAL	ASTM A 182 F316
125	EXTENSION	ASTM A 105

From the production of our Gate, Globe welded bonnet design we may also obtain Bellow Seal Valves

Size 1/2" to 2"

Class 800 up to 1500

Class 2500 on request due to pressure involved

EXTENDED BONNET

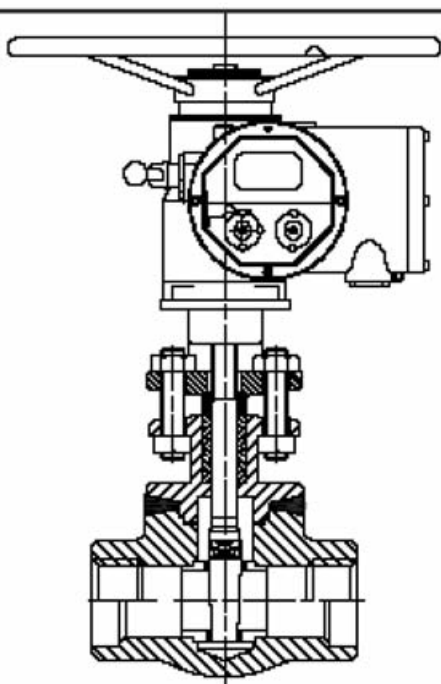
BOLTED & WELDED BONNET Reduced Bore

Outside screw & yoke. Threaded, Butt Welding and socket weld ends



From the production of our Gate, Globe welded bonnet design and bolted bonnet we may also obtain Cryogenic Valves as per above picture.

Size $\frac{1}{2}$ " to 2" Class 800 up to 2500 suitable for -196°C



***ACTUATED Gate and Globe Valve
(Pneumatic, Hydraulic or Electric)***



A Long Experience in Energy Equipment and one Goal:

The Customer's satisfaction.



Vicenza Plant.



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