



Forged Steel Valves

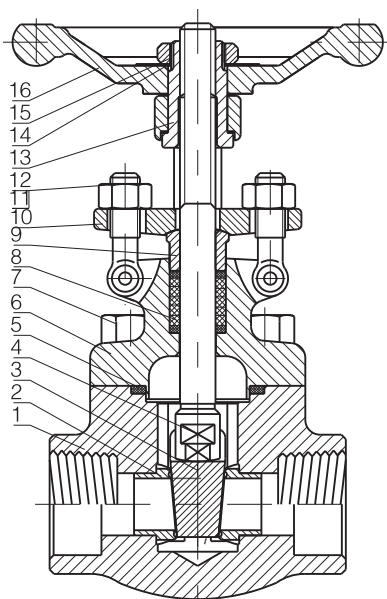


Forged Steel Gate Valve-S20

Bolted Bonnet
Welded Bonnet

Applicable Standards

1. Design and Manufacture
API 602, ASME B16.34
2. Connection end
Socket Weld End(SW): ASME B16.11
Threaded End(NPT): ASME B1.20.1
Butt-Weld End(BW): ASME B16.25
Flange End(RF/RTJ): ASME B16.5
3. Test & Inspection
API 602, API 598
4. Design Description
Outside Screw and Yoke(OS&Y)
5. Main Materials:
A105, LF2, F5, F11, F22,
304(L), 316(L), F347, F321,
F51, Alloy 20, Monel



Default Material

No.	PART	ASTM Material
		A105
1	BODY	A105N
2	SEAT	STL
3	GATE	410
4	STEM	F6a
5	GASKET	304 + Graphite
6	BONNET	A105N
7	BOLT	B7
8	PACKING	Flexible Graphite
9	GLAND	410
10	GLAND FLANGE	A105N
11	NUT	A194 2H
12	EYEBOLT	A193 B7
13	STEM NUT	A276 410
14	NAMEPLATE	AL
15	LOCK NUT	AISI 1035
16	HANDWHEEL	ASTM A197

Different Trim are available upon request.

Forged Steel Gate Valve-S20

DIMENSIONS

CL800

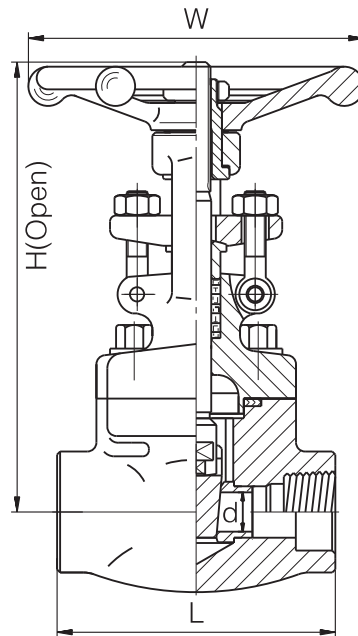
Bolted Bonnet/Welded Bonnet, Reduced Port, Outside Screw and Yoke (OS&Y), Threaded, Butt Weld, Socket Weld. Design: API 602

Size (NPS)	R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face To Face	L	79	92	111	120	120	140
Handwheel Diameter	W	100	100	125	160	160	180
Height	H	161	163	196	223	251	290
Flow Port Diameter	d	10	12	17	22	28	36

CL900~1500

Bolted Bonnet/Welded Bonnet, Reduced Port, Outside Screw and Yoke (OS&Y), Threaded, Butt Weld, Socket Weld. Design: API 602

Size (NPS)	R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face To Face	L	111	111	120	120	140	178
Handwheel Diameter	W	125	125	160	160	180	200
Height	H	191	191	219	243	296	316
Flow Port Diameter	d	10	12	17	22	28	36



Bolted Bonnet
Welded Bonnet

CL150-300-600

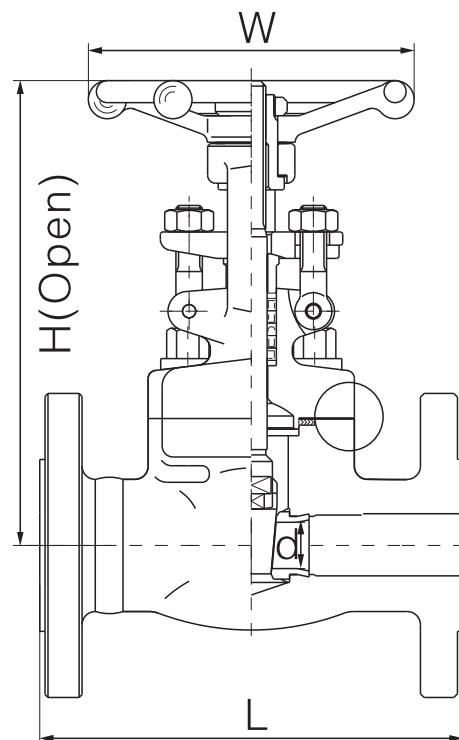
Bolted Bonnet, Reduced Port, Outside Screw and Yoke(OS & Y)
Flange RF,Design to API602

Size (NPS)			1/2	3/4	1	1 1/4	1 1/2	2	
Face to face	CL150	L (RF)	108	117	127	140	165	178	
	CL300		140	152	165	178	190	216	
	CL600		165	190	216	229	241	292	
Handwheel diameter			100	100	125	160	160	180	
Height	CL150	W	176	184	17	226	250	290	
	CL300,CL600		161	163	96	226	250	290	
Height (angle dimension)			H	10	12	17	22	28	36

CL900-CL1500

Bolted Bonnet, Reduced Port, Outside Screw and Yoke(OS & Y)
Flange RTJ,Design to API602

Size (NPS)		1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L(RTJ)	216	229	254	279	305	371
Handwheel diameter	W	125	125	160	160	180	200
Height	H	191	192	219	257	296	316
Height (angle dimension)	d	10	12	17	22	28	36



Flange Type

Forged Steel Preassure Seal Gate Valve

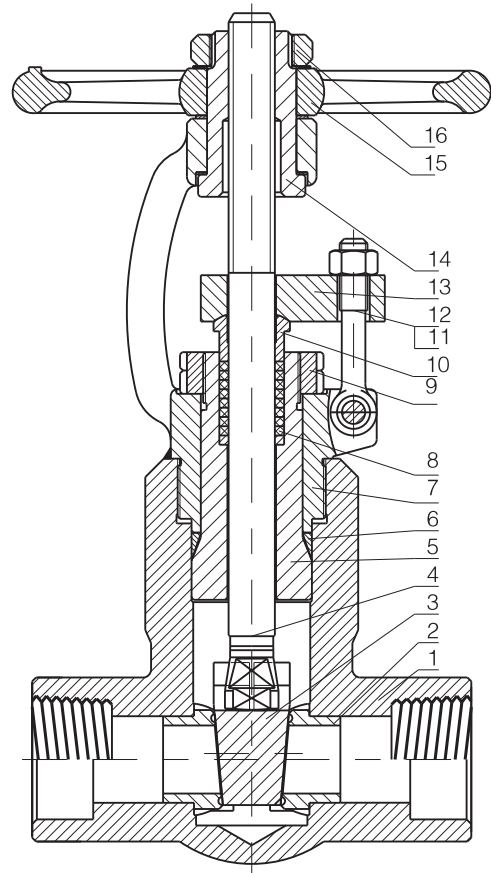
Applicable Standards

1. Design and manufacture
API 602, BS5352, ASME B16.34
2. Connection end
Socket Weld End(SW): ASME B16.11
Threaded End(NPT): ASME B1.20.1
Butt Weld End(BW): ASME B16.25
Flange End(RTJ): ASME B16.5
3. Test & Inspection
API 602, API 598
4. Design Description
Pressure Seal Bonnet
Outside Screw and Yoke(OS&Y)
5. Main Materials:
A105, LF2, F5, F11, F22,
304(L), 316(L), F347, F321,
F51, Alloy 20, Monel



No.	PART	ASTM Material
		A105
1	BODY	A105N
2	SEAT	STL
3	GATE	410 + STL
4	STEM	F6a
5	BONNET	A105N
6	PRESSURE SEAL RING	304 + Graphite
7	YOKE	A105N
8	PACKING	Graphite/SS304+Graphite
9	NUT	CARBON STEEL
10	GLAND	410
11	NUT	A194 2H
12	EYEBOLT	A193 B7
13	GLAND FLANGE	A105N
14	STEM NUT	A276 410
15	LOCK NUT	AISI 1035
16	HANDWHEEL	ASTM A197

Different Trim are available upon request.



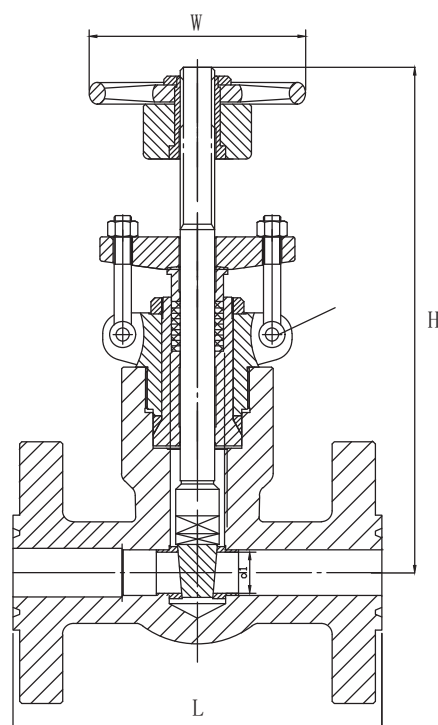
Forged Steel Pressure Seal Gate Valve

DIMENSIONS

CL2500

Pressure Seal Bonnet , Full Port, Outside Screw and Yoke(OS & Y)
Flange RTJ ends; Design to ASME B16.34

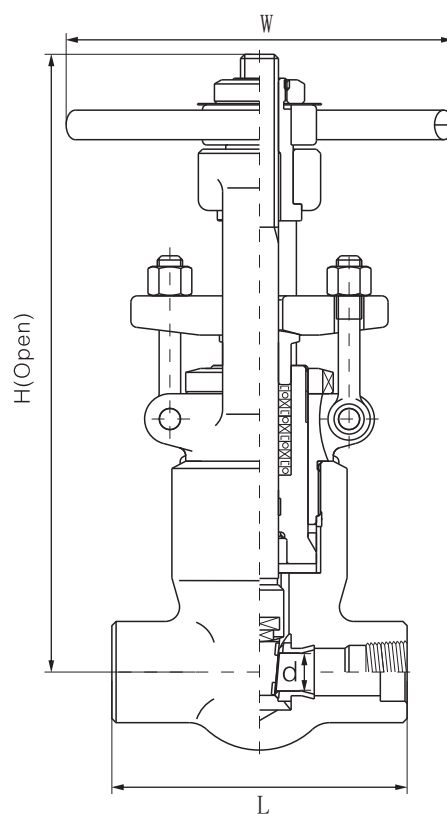
Size (NPS)		1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L	264	273	308	352	387	454
Handwheel diameter	W	200	200	200	280	280	300
Height	H	325	325	325	373	406	495
Height (angle dimension)	d	10	12	17	22	28	36



CL2500

Pressure Seal Bonnet , Full Port, Outside Screw and Yoke(OS & Y)
Socket Welded ends, Design to ASME B16.34

Size (NPS)	F.P	1/2	3/4	1	1 1/4	1 1/2	2
Face to face length	L	186	186	186	232	232	279
Handwheel diameter	W	180	180	180	250	250	300
Height	H	325	325	327	467	468	540
Flow port diameter	d	10	12	17	22	28	36



Forged Steel Globe Valve-S21



Bolted Bonnet
Welded Bonnet

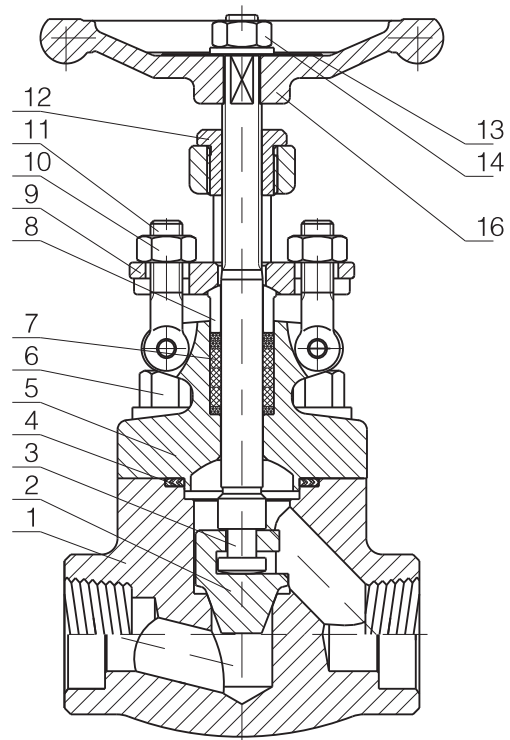
Applicable Standards

1. Design and manufacture
API 602, ASME B16.34
2. Connection end
Socket Weld End(SW):ASME B16.11
Threaded End(NPT):ASME B1.20.1
Butt-Weld End(BW):ASME B16.25
Flange End(RF/RTJ):ASME B16.5
3. Test & Inspection
API 598
4. Design Description
Outside Screw and Yoke(OS&Y)
5. Main Materials:
A105, LF2, F5, F11, F22,
304(L), 316(L), F347, F321,
F51, Alloy 20, Monel

Default Material

No.	PART	ASTM Material
		A105
1	BODY	A105N+STL
2	DISC	410
3	STEM	F6a
4	GASKET	304 + Graphite
5	BONNET	A105N
6	BOLT	B7
7	PACKING	Flexible Graphite
8	GLAND	A182 F6
9	GLAND FLANGE	A105
10	NUT	A194 2H
11	EYEBOLT	A193 B7
12	STEM NUT	A276 410
13	LOCK NUT	AISI 1035
14	NAMEPLATE	AL
15	HANDWHEEL	ASTM A197

Different Trim are available upon request.



Forged Steel Globe Valve-S21

DIMENSIONS

CL800

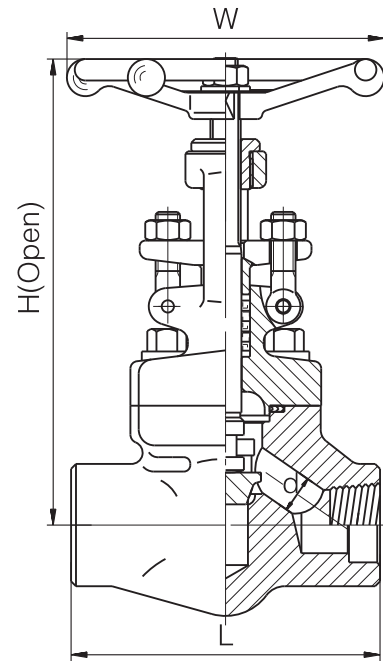
Bolted Bonnet/Welded Bonnet, Full Port/Reduced Port, Outside Screw and Yoke (OS&Y), Threaded, Butt Weld, Socket Weld. Design: API 602

Size (NPS)	R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face To Face	L	79	92	111	120	152	172
Handwheel Diameter	W	100	100	125	160	160	180
Height	H	164	164	203	224	260	300
Flow Port Diameter	d	9.5	12.5	17	21	28	36

CL900~1500

Bolted Bonnet/Welded Bonnet, Full Port/Reduced Port, Outside Screw and Yoke (OS&Y), Threaded, Butt Weld, Socket Weld. Design: API 602

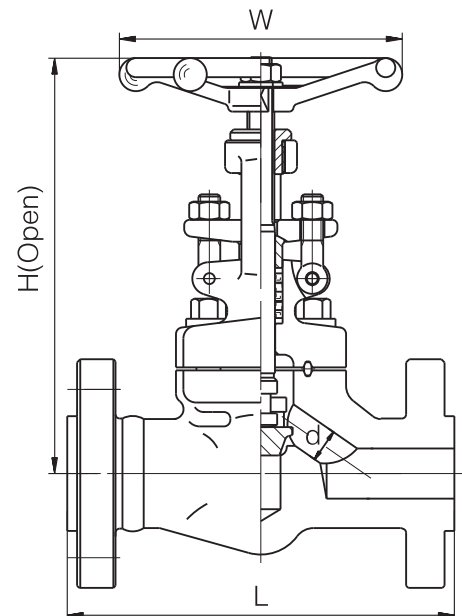
Size (NPS)	R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face To Face	L	111	111	120	152	172	220
Handwheel Diameter	W	125	125	160	160	180	240
Height	H	171	207	240	258	330	370
Flow Port Diameter	d	9.5	12.5	17	21	28	36



CL150-300-600

Bolted Bonnet/Welded Bonnet, Reduced Port, Outside Screw and Yoke (OS&Y), RF Flange End. Design: API 602

Size (NPS)		R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face to Face (mm)	CL150	L	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	CL150	H	180	184	217	224	260	300
	CL300/600		164	164	203	224	260	300
Flow Port Diameter		d	9.5	12.5	17	21	28	36



CL900~1500

Bolted Bonnet/Welded Bonnet, Reduced Port, Outside Screw and Yoke (OS&Y), RTJ Flange End. Design: API 602

Size (NPS)	R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face to Face	L	216	229	254	279	305	371
Handwheel Diameter	W	125	125	160	160	180	200
Height	H	207	207	230	160	300	355
Flow Port Diameter	d	9.5	12.5	17	21	28	36

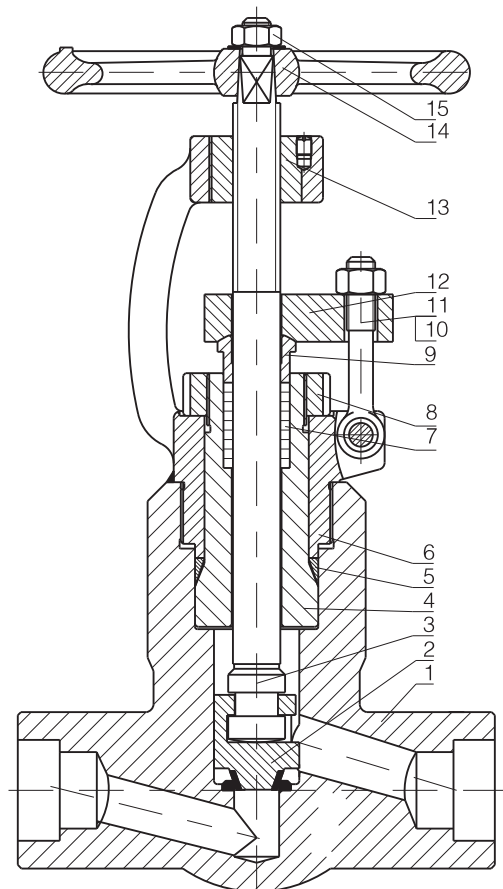
Forged Steel Pressure Seal Globe Valve

Applicable Standards

1. Design and Manufacture
API 602, ASME B16.34
2. Connection end
Socket Weld End(SW):ASME B16.11
Threaded End(NPT):ASME B1.20.1
Butt-Weld End(BW):ASME B16.25
Flange End(RTJ):ASME B16.5
3. Test & Inspection
API 598
4. Design Description
Outside Screw and Yoke(OS&Y)
5. Main Materials:
A105, LF2, F5, F11, F22,
304(L), 316(L), F347, F321,
F51, Alloy 20, Monel



No.	PART	ASTM Material
		A105
1	BODY	A105N+STL
2	DISC	410+STL
3	STEM	F6a
4	BONNET	A105N
5	PRESSURE SEAL RING	304 + Graphite
6	YOKE	A105N
7	PACKING	Graphite/SS304+Graphite
8	NUT	CARBON STEEL
9	GLAND	A182 F6
10	NUT	A194 2H
11	EYEBOLT	A193 B7
12	GLAND FLANGE	A105N
13	STEM NUT	A276 410
14	LOCK NUT	AISI 1035
15	HANDWHEEL	ASTM A197



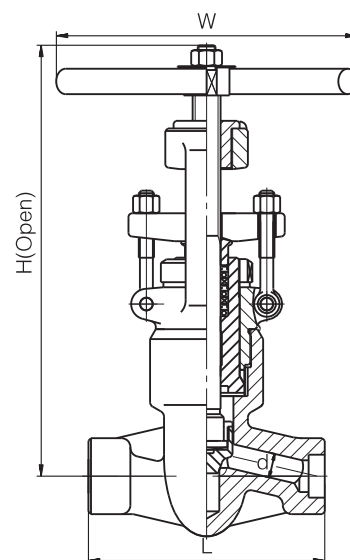
Forged Steel Pressure Seal Globe Valve

DIMENSIONS

CL2500

Pressure Seal Bonnet, Reduced Port, Outside Screw and Yoke (OS&Y), Threaded, Butt Weld, Socket Weld. Design: ASME B16.34

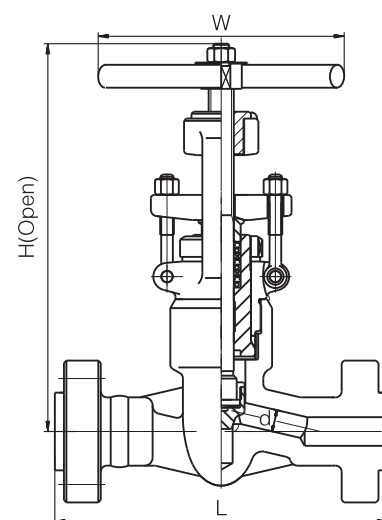
Size (NPS)	R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face to Face	L	186	186	186	232	232	279
Handwheel Diameter	W	180	180	180	250	250	300
Height	H	375	378	380	490	490	540
Flow Port Diameter	d	9.5	12.5	17	21	28	36



CL2500

Pressure Seal Bonnet, Reduced Port, Outside Screw and Yoke (OS&Y), RTJ Flange End. Design: ASME B16.34

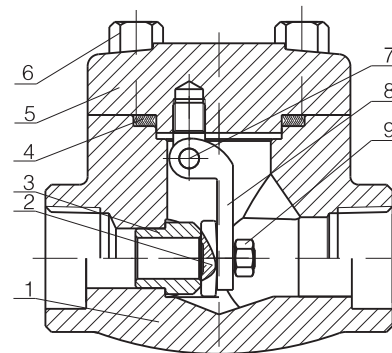
Size (NPS)	R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face to Face	L	264	273	308	352	387	454
Handwheel Diameter	W	200	200	200	280	280	300
Height	H	320	320	320	440	440	490
Flow Port Diameter	d	9.5	12.5	17	21	28	36



Forged Steel Check Valve-S22/23

Applicable standards

1. Design and Manufacture
API 602, ASME B16.34
2. Connection end
Socket Weld End(SW):ASME B16.11
Threaded End(NPT):ASME B1.20.1
Butt-Weld End(BW):ASME B16.25
Flange End(RF/RTJ):ASME B16.5
3. Test & Inspection
API 598
4. Design Description
Bolted Bonnet
Welded Bonnet
5. Main Materials:
A105, LF2, F5, F11, F22,
304(L), 316(L), F347, F321,
F51, Alloy 20, Monel

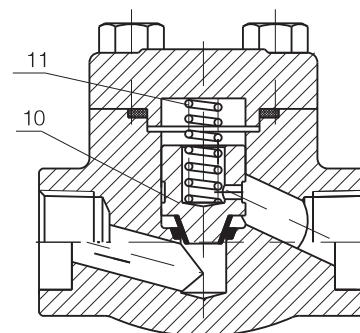


S22

S22- FORGED STEEL SWING CHECK VALVE

No.	PART	ASTM Material
		A105
1	BODY	A105N
2	DISC	F6a
3	SEAT	410+STL
4	GASKET	304 + Graphite
5	BONNET	A105N
6	BOLT	B7
7	PIN	410
8	HINGE	304
9	NUT	A194 2H
10	SPRING	SS304

Different Trim are available upon request.



S23

S23- FORGED STEEL LIFT (GLOBE) CHECK VALVE

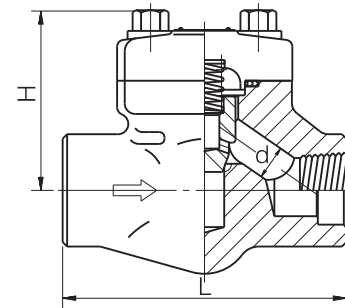
Forged Steel Check Valve-S22/23

DIMENSIONS

CL800

Bolted Bonnet/Welded Bonnet, Full Port /Reduced Port,
Threaded, Butt Weld, Socket Weld. Design: API 602

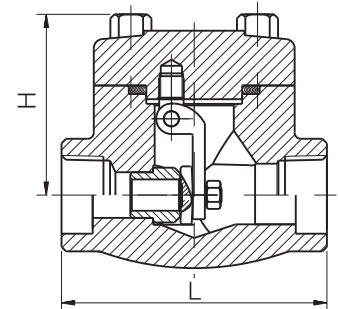
Size (NPS)		R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face To Face	L	Lift type	79	92	111	120	152	172
		Swing type	79	92	111	120	120	140
Height	H	Lift type	61	61	78	84	103	118
		Swing type	61	61	78	84	101	120
Flow Port Diameter	d	Lift type	10.5	13.5	17	22	28	34
		Swing type	10	12	17	22	28	36



CL900~1500

Pressure Seal Bonnet, Full Port /Reduced Port,
Threaded, Butt Weld, Socket Weld. Design: ASME B16.34

Size (NPS)		R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face To Face	L	Lift type	111	111	120	152	172	220
		Swing type	111	111	120	120	140	178
Height	H	Lift type	78	78	84	103	118	132
		Swing type	78	78	84	101	120	133
Flow Port Diameter	d	Lift type	10.5	13.5	17	22	28	34
		Swing type	10	12	17	22	28	36



CL150-300-600

Bolt Bonnet/Weld Bonnet. Reduce Port.
RF Flange End, Design: API 602

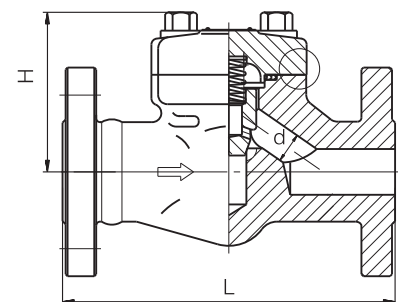
Size (NPS)		R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face To Face	CL150	L	108	118	127	140	165	203
	CL300		153	178	203	216	229	267
	CL600		165	191	216	229	241	292
Height	CL150	H	77	81	93	95	103	118
	CL300/600		61	78	84	101	120	133
Flow Port Diameter (d)		Lift type	10.5	13.5	17	22	28	34
		Swing type	10	12	17	22	28	36

If you want to order the one piece body, please contact sale department

CL900~1500

RTJ Flange End, Design: API 602

Size (NPS)		R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face To Face	L	(RTJ)	216	229	254	279	305	371
Height	H		81	93	95	101	118	130
Flow Port Diameter	d	Lift type	10.5	13.5	17	22	28	34
		Swing type	10	12	17	22	28	36



NOTE: If you want to order the one piece body, please contact sale department.

CL900 and CL1500 have the same face to face dimension.

Pressure Seal Check Valve

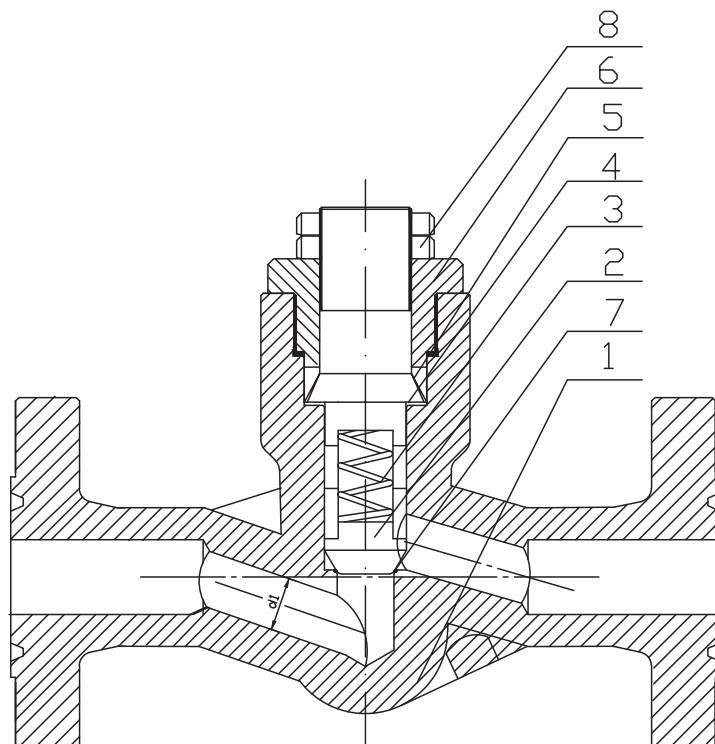
Applicable standards

1. Design and Manufacture
API 602, ASME B16.34
2. Connection end
Socket Weld End(SW):ASME B16.11
Threaded End(NPT):ASME B1.20.1
Butt-Weld End(BW):ASME B16.25
Flange End(RF/RTJ):ASME B16.5
3. Test & Inspection
API 598
4. Design Description
Pressure Seal Bonnet
5. Main Materials:
A105, LF2, F5, F11, F22,
304(L), 316(L), F347, F321,
F51, Alloy 20, Monel



No.	PART	ASTM Material
		A105
1	BODY	A105N
2	DISC	410+STL
3	SEAT	410+STL
4	GASKET	304 + Graphite
5	BONNET	A105N
6	BOLT	B7
7	PIN	410
8	HINGE	304
9	NUT	A194 2H
10	SPRING	SS304

Different Trim are available upon request.



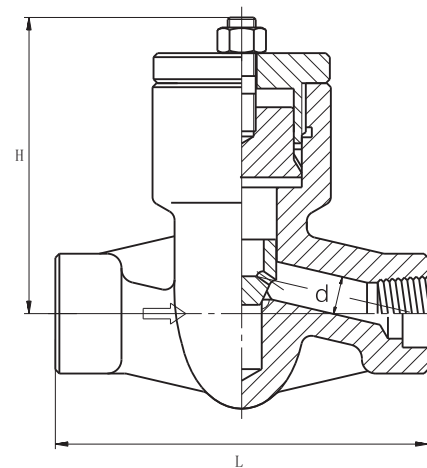
Pressure Seal Check Valve

DIMENSIONS

CL2500

Pressure Seal Bonnet, Reduce Port.
Threaded, Butt-Weld, Socket Weld ,Design:ASME B16.34

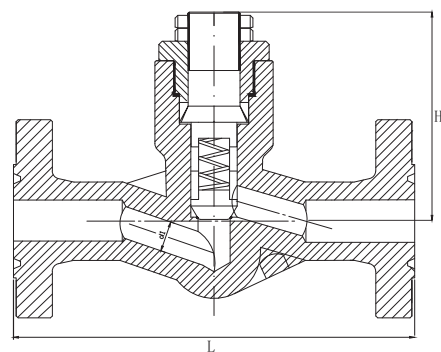
Size (NPS)	R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face to Face	L	186	186	186	232	232	279
Height	H	117	117	117	152	152	195
Flow Port Diameter	d	10.5	13.5	18	22	28	34



CL2500

Pressure Seal Bonnet, Reduce Port. RTJ End, Design:ASME B16.34

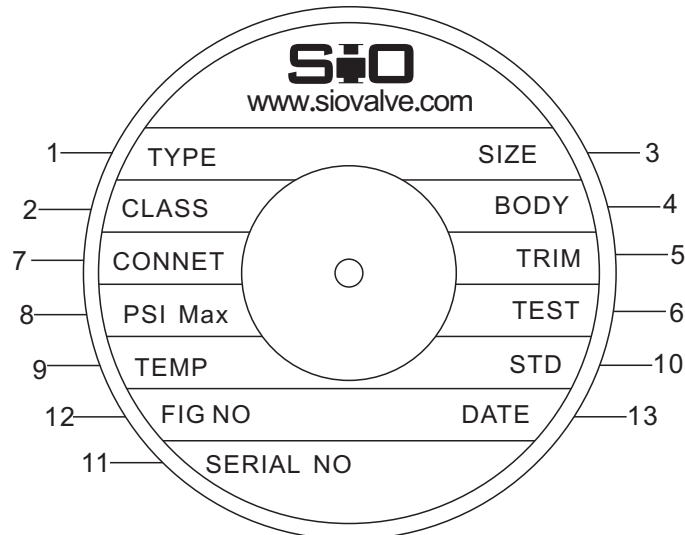
Size (NPS)	R.P	1/2	3/4	1	1.1/4	1.1/2	2
Face To Face	L	264	273	308	352	387	454
Height	H	117	117	117	152	152	195
Flow Port Diameter	d	9.5	12.5	17	21	28	36



Forged Steel Gate/Globe/Check Valve

Valve ID Tag & Valve Markings Identification

Valve ID Tag

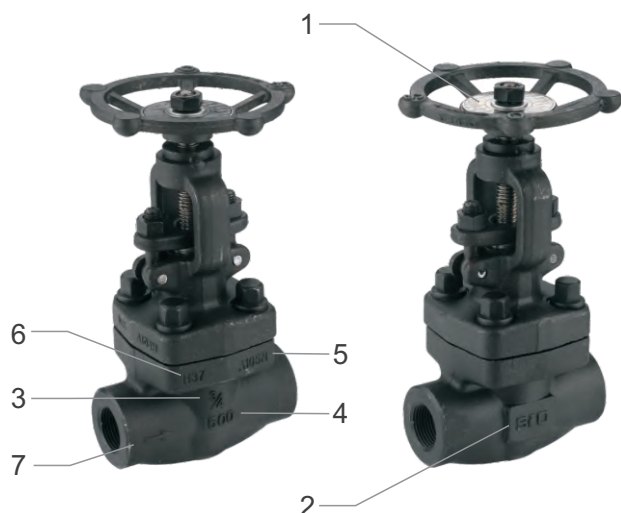


No	Name	Description
1	Valve Type	Identifies the valve type (GATE, GLOBE, SWING CHECK etc)
2	Pressure Class	Identifies pessure classification per ANSI
3	Size	Identifies the valve size
4	Body Material	Identifies the body material
5	Trim Material	Identifies the trim material (1,5,8 as per API)
6	Test Standard	Identifies the valve test standard (API 598)
7	Ends Type	Identifies the Connection Type(RF, RTJ, BW)
8	Max working Pressure	Identifies the maximum opeating pressure in PSI
9	Temperature Range	Identifies the operating temperature Range in CELSIUS EQUAL
10	Design Standard	Identifies Design and Manufacturing conformance(API600, 6D, BS1868, BS1873)
11	Serial No	Identifies certified manacturers serial number
12	Figure Number	Identifies the detailed valve configuration (valve type, bore size, pressure class, materials, etc.)
13	Manufacturing Date	Identifies the date the valve manufacturing completion date

Valve Markings

No	Description
1	Tag
2	Brand
3	Size
4	Pressure Class
5	Body Material
6	Heat No
7	*Flow Direction

Globe Valve & Check Valve Only



Forged Steel Gate/Globe/Check Valve

How To Order

Example

FIG NO: 2C10RFLC82G09

VALVE TYPE	BONNET	CLASS	BODY	ENDS	TRIM	SIZE
S20	B	80	1	N	8	04

Forged Steel Gate Valve, Bolted Bonnet, Class 800, NPT threaded Ends, Body A105N, Trim 8, Size 1/2"

Valve Type

Code	Type
S20	Forged Steel Gate Valve
S21	forged Steel Globe Valve
S22	Forged Steel Swing Check Valve
S23	Forged Steel Lift(Globe) Check Valve

Bonnet Type

Code	Type
B	Bolted Bonnet
W	Welded Bonnet
P	Pressure Seal Bonnet

Rating Pressure

Code	10	20	30	80	50	60	90
Class	150	300	600	800	900	1500	2500

Connection ends

Code	Type	Code	Type	Code	Type	Code	Type
S	SOCKET WELD END	B	BUTT WELD END	R	RAISED FALNGE	F	FLATE FACE FLANGE
N	NPT THREADED END	SN	THREAED*SOCKET	J	RTJ FLANGE	XT	EXTEND TUBE END

Body Materia

CODE	Material	CODE	Material	CODE	Material
1	A105(N)	A	Alloy 20	B	254SMO
3	F304	F	F22	D	904L
5	F316	U	Duplex SS	H	Hastelloy
8	LF2	I	Inconel	E	Incoloy
9	F11	W	Super Duplex	M	Monel

Other material is available upon request

TRIM MATERIAL

CODE	DISC SURFACE	SEAT SURFACE	STEM MATERIAL
1	13Cr	13Cr	ASTMA A 182 Grade F6a
2	SS304	SS304	ASTMA A 182 Grade F304
5	Stellite.6	Stellite.6	ASTMA A 182 Grade F6a
8	13Cr	Stellite.6	ASTMA A 182 Grade F6a
9	Monel	Monel	Monel
10	SS316	SS316	ASTMA A 182 Grade F316
12	SS316	Stellite.6	ASTMA A 182 Grade F316

More trim material is available according to API 600 trim.

Size

Code	Size	Code	Size
02	1/4"	06	1"
03	3/8"	07	1 1/4"
04	1/2"	08	1 1/2"
05	3/4"	09	2"



Authorized distributor

IMPORTANT NOTICE

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