EliteValve

elitevalve.com

Customized
valve solutions
for the toughest
applications

Forged Steel Valves

Gate Valves | Globe Valves | Check Valves

Offering both standard and custom-engineered solutions, Elite Valve can meet all your process requirements.

Contents

Product Features

Introduction and Features

- Elite Valve manufactures and stocks full line of commercial forged carbon steel and stainless steel gate, globe and check valves (standard and Bellow) strictly engineered and manufactured to API, ANSI, ASME, ASTM and other recognized industrial standards.
- Elite's forged steel valves are built in various body materials, trim options and connection styles – offering the solution to your specific application needs in Petroleum Refineries, Chemical Process and Power Generation.
- Body materials are standardized to A105N for carbon steel, 316SSL for stainless steel and A350LF2 for low carbon steel structures. **Other ASME B16.34 materials are available upon request.** See Pressure-temperature rating at the end of this catalogue for all materials offered.
- The carbon steel and low carbon steel valves with NACE package comply with NACE MR0103 specification, and contain no copper bearing alloys.
- Elite's forged steel valves come standard with Stellite#6 hard-faced seat rings with solid wedge for gate valves and renewable discs for globe and check valves.
- Designed to API602/ASME B16.34, all NCI forged steel valves come with Class 800# rating (1500# optional) with a size range from ½" thru 2", NPT, Socket Weld ends, Butt Weld ends, Flanged ends, etc.

Designed and Manufactured to the Following Industry Standards

- All forged steel valves are designed to API602.
- Pressure/Temperature rating conforms to ANSI/ASME B16.34.
- NACE package are designed and manufactured to NACE MR0103.
- All valves are tested according to API598.
- Connection ends are designed and manufactured to ANSI/ASME B1.20.1 for NPT thread ends, B16.11 for Socket Weld ends, B16.25 for Butt Weld ends and B16.34 for Flanged ends.

Standard and Bellow Style Forged Steel Valve In-Stock Items

Gate Valves, Globe Valves, Swing and Lift Check Valves are available standard in-stock with the following specifications:

- Pressure/Temperature Rating: ANSI Class 150, 300, 600, 800
- Size: ½" to 2"
- End Connection: NPT x NPT, SW x SW, NPT x SW, BW x BW and F x F
- Bonnet: OS&Y and Bolted
- Body Material: A105N, A182-F316L, and A350-LF2

Material Specifications

Body, Bonnet/Cover Materials

Elite Valve Material Code	ASTM Specification	Nominal Designation	Recommended Service Condition
A5*	A105 / A105N	Carbon Steel	General non-corrosive water, steam, oil and gases services between -20°F(-29°C) and 800°F(425°C).
LF*	A350-LF2	Low Temp. C.S.	General non-corrosive water, steam, oil and gases services between -50°F(-46°C) and 650°F(343°C).
SL*	A182 F316L	Stainless Steel	Corrosive services, Acetic acid, calcium carbonate, calcium lactate, sea water, steam and sulfites up to 800°F(427°C).

* Standard Materials

** Other Materials available on request

Trim Specification

Elite Valve Trim Code	API Trim #	API Nominal Trim	Seat Surface Material	Seat Surface Specification	Stem/Bushing Material	Stem/Bushing Specification	Recommended Service Applications†
05*	5	Hardfaced	Co-Cr A	–	13Cr	ASTM A276 T410/T420	High pressure and slightly erosive and corrosive services. Excellent for high pressure water and steam service.
08*	8	F6	13Cr	ASTM A182 (F6a)	–	ASTM A276 T410/T420	Universal trim for general service requiring long service life. As trim 5 for moderate pressure and more corrosive service. Steam, gas and general service.
		Hardfaced	Co-Cr A	–	–	–	
10	10	316	18Cr-8Ni	ASTM A182 (F316)	18Cr-8Ni-Mo	ASTM A276 T316	For superior resistance for liquids and gases which are corrosive to 410 Stainless Steel. Low temperature service standard for 316SS valves.
12*	12	316	18Cr-8Ni-Mo	ASTM A182 (F316)	18Cr-8Ni-Mo	ASTM A276 T316	As trim 10 but for medium pressure and more corrosive or asrasive service.
		Hardfaced	Trim 5 or 5A		–	–	
14	14	Alloy 20	19Cr-29Ni	ASTM B473	19Cr-29Ni	ASTM B473	As trim 13 but for medium pressure and more corrosive service.
		Hardfaced	Trim 5 or 5A	–	–	–	

NOTE: Data provided in this chart is for informational purpose only. Always consult current API publications to verify information and trim data

† Temperatures shown may vary depending on media, pressure and service applications

* Standard Materials

** Other Materials available on request

Code Index

How to Order Forged Steel Valves

1	2	3		4	5	6		7		8		9
Category	Pressure	End		Body	Bonnet	Trim		Accessories		Options		Size
G S	0 8	T D	–	A 5	1	0 8	–	H W	–	N C	–	0 0 5

1 Category

GS	Gate Valve Solid Wedge	**CS**	Check Valve Swing
SL	Globe Valve Linear	**CP**	Check Valve Piston

2 Pressure Rating

01	Class 150	**06**	Class 600
03	Class 300	**08**	Class 800

3 End Style

RF	Raised Face Flanged	**SW**	Socket Weld
FF	Flat Faced Flanged	**BW**	Butt Weld
ST	Socket Weld x Threaded	**TD**	NPT Threaded

4 Body Material

A5	A105N	**L1**	LC1
LF	LF2	**SL**	SS 316L
LC	LCC		

5 Bonnet Option

1	Bolted Bonnet	**3**	Welded Bellows Seal
2	Bolted Bellows Seal		

6 Trim Design

05	API Trim 5, Hardfaced	**10**	API Trim 10, 316
08	API Trim 8, F6 and Hardfaced	**12(ST)**	API Trim 12, 316 and Hardfaced

7 Accessories

HW	Handwheel	**EA**	Electric Actuator
PA	Pneumatic Actuator	**GO**	Gear Operator
BS	Bare Stem		

8 Special Options

NC	NACE for H2S Service	**TF**	Teflon Disc Insert
OX	Oxygen Cleaning	**CC**	Customized Coating

9 Sizes

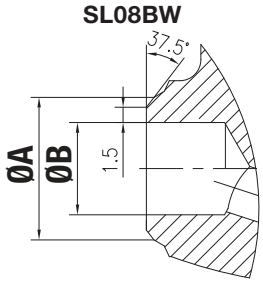
002	1/4"	**012**	1-1/4"
003	3/8"	**015**	1-1/2"
005	1/2"	**020**	2"
007	3/4"	**025**	2-1/2"
010	1"		

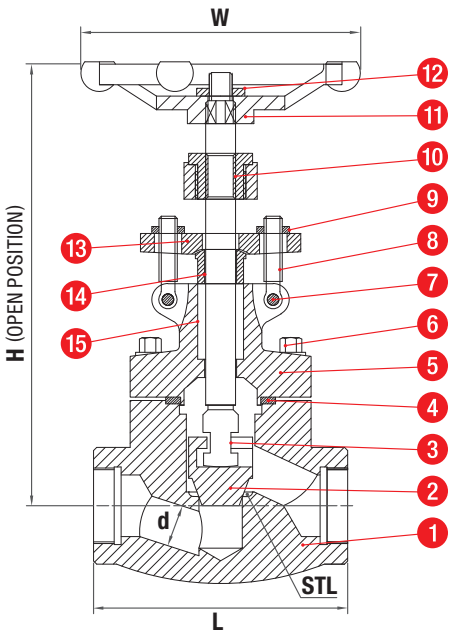
SL08TD(SW/BW)

Description

- Forged Carbon or Stainless Steel Body and Bonnet
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- ½"–2" Screwed (NPT) or Socket Weld (SW) or Butt Weld (BW) ends
- Designed to API 602/ ASME B16.34
- Tested to API 598
- NPT ends conforms to ASME B1.20.1
- SW ends conforms to ASME B16.11
- BW ends conforms to ASME B16.25 (Sch 40)

SL08BW





BW End Dimensions				
Size	A		B	
	mm	in	mm	in
1/2"	21.3	0.84	15	0.59
3/4"	26.7	1.05	20	0.79
1"	33.4	1.31	25	0.98
1¼"	42.2	1.66	32	1.26
1½"	48.3	1.90	40	1.57
2	60.3	2.37	50	1.97

NPT, SW and BW Dimensions										
Size	L		W		H		d		Weight	
	mm	in	mm	in	mm	in	mm	in	kg	lbs
1/2"	79	3.1	100	3.9	166	6.5	10.3	0.4	2.2	4.9
3/4"	92	3.6	100	3.9	175	6.9	12.7	0.5	2.4	5.3
1"	111	4.4	125	4.9	206	8.1	17	0.7	4.1	9.0
1¼"	120	4.7	160	6.3	228	9.0	23	0.9	5.8	12.8
1½"	152	6.0	160	6.3	262	10.3	28	1.1	7.8	17.2
2	172	6.8	180	7.1	300	11.8	36	1.4	12.1	26.7

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		SL08TD(SW/BW) A5108HW (Trim 8)	SL08TD(SW/BW) A5105HW (Trim 5)	SL08TD(SW/BW) A5108HW-NC (Trim 8)	SL08TD(SW/BW) A5105HW-NC (Trim 5)	SL08TD(SW/BW) SL110HW (Trim 10)	SL08TD(SW/BW) SL112HW (Trim 12)	SL08TD(SW/BW) LF101HW (Trim 10)	SL08TD(SW/BW) LF112HW (Trim 12)
1	Body+Seat	A105+STL	A105+STL	A105N+STL	A105N+STL	316L	316L+STL	A350-LF2	A350-LF2+STL
2	Disc	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite
5	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
6	Bonnet bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
7	pin	A276-410	A276-410	A276-410	A276-410	A276-304	A276-304	A276-410	A276-410
8	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
9	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
10	Stem nut	A108-1045	A108-1045	A108-1045	A108-1045	A276-410	A276-410	A108-1045	A108-1045
11	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
12	Lock nut	A194-2H	A194-2H	A194-2H	A194-2H	A194-8	A194-8	A194-2H	A194-2HM
13	Gland Flange	A105	A105	A105	A105	316	316	A105	A105
14	Gland	A276-410	A276-410	A276-410	A276-410	A276-316	A276-316	A276-410	A276-410
15	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite

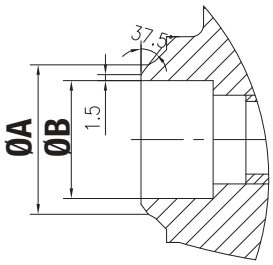
The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

GS08TD(SW/BW)

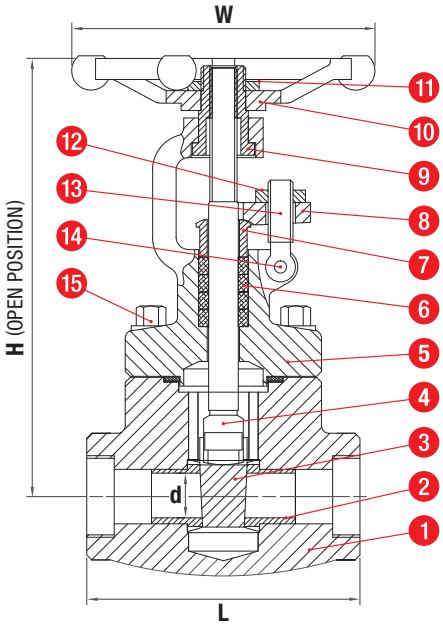
Description

- Forged Carbon or Stainless Steel Body and Bonnet
- Outside Screw and Yoke (OS&Y)
- Rising Stem / non-rising handwheel
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- ½"–2" Screwed (NPT) or Socket Weld (SW) or Butt Weld (BW) ends
- Designed to API 602/ ASME B16.34
- Tested to API 598
- NPT ends conforms to ASME B1.20.1
- SW ends conforms to ASME B16.11
- BW ends conforms to ASME B16.25 (Sch 40)

GS08BW



BW End Dimensions				
Size	A		B	
	mm	in	mm	in
1/2"	21.3	0.84	15	0.59
3/4"	26.7	1.05	20	0.79
1"	33.4	1.31	25	0.98
1¼"	42.2	1.66	32	1.26
1½"	48.3	1.90	40	1.57
2	60.3	2.37	50	1.97



NPT, SW and BW Dimensions										
Size	L		W		H		d		Weight	
	mm	in	mm	in	mm	in	mm	in	kg	lbs
1/2"	79	3.1	100	3.9	166	6.5	10.5	0.4	2.2	4.9
3/4"	92	3.6	100	3.9	169	6.7	13.5	0.5	2.3	5.1
1"	111	4.4	125	4.9	193	7.6	18	0.7	4.1	9.0
1¼"	120	4.7	160	6.3	230	9.1	23	0.9	5.8	12.8
1½"	120	4.7	160	6.3	246	9.7	29	1.1	7.0	15.4
2	140	5.5	180	7.1	283	11.1	36	1.4	10.4	22.9

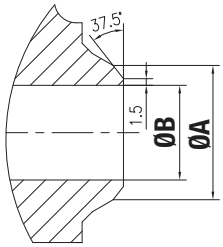
See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body/		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		GS08TD(SW/BW) A5108HW (Trim 8)	GS08TD(SW/BW) A5105HW (Trim 5)	GS08TD(SW/BW) A5108HW-NC (Trim 8)	GS08TD(SW/BW) A5105HW-NC (Trim 5)	GS08TD(SW/BW) SL110HW (Trim 10)	GS08TD(SW/BW) SL112HW (Trim 12)	GS08TD(SW/BW) LF101HW (Trim 10)	GS08TD(SW/BW) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Seat	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	316	316+STL	A182-F6a	316+STL
3	Wedge	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
5	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
6	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
7	Gland	A276-410	A276-410	A276-410	A276-410	A276-316	A276-316	A276-410	A276-410
8	Gland Flange	A105	A105	A105	A105	316	316	A105	A105
9	Stem Nut	A108-1045	A108-1045	A108-1045	A108-1045	A276-410	A276-410	A108-1045	A108-1045
10	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
11	Lock Nut	A194-2H	A194-2H	A194-2H	A194-2H	A194-8M	A194-8M	A194-4	A194-4M
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
14	Pin	A276-410	A276-410	A276-410	A276-410	A276-304	A276-304	A276-410	A276-410
15	Bonnet Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

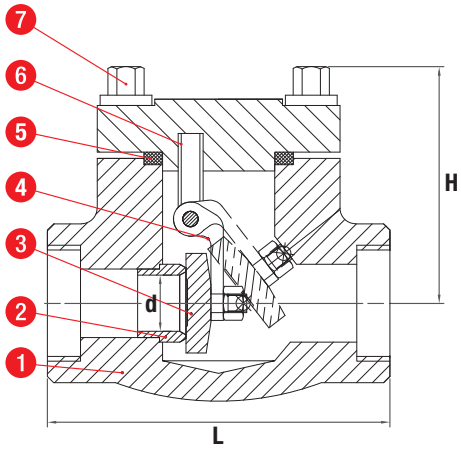
CS08TD(SW/BW)

CS08BW



Description

- Carbon or Stainless Steel Body and Cap
- Bolted Cap
- Conventional Port
- "–2" Screwed (NPT) or Socket Weld (SW) or Butt Weld (BW) ends
- Designed to API 602 / ASME B16.34
- Tested to API 598
- NPT ends conforms to ASME B1.20.1
- SW ends conforms to ASME B16.11
- BW ends conforms to ASME B16.25 (Sch 40)



BW End Dimensions

Size	A		B	
	mm	in	mm	in
1/2"	21.3	0.84	15	0.59
3/4"	26.7	1.05	20	0.79
1"	33.4	1.31	25	0.98
1¼"	42.2	1.66	32	1.26
1½"	48.3	1.90	40	1.57
2	60.3	2.37	50	1.97

NPT, SW and BW Dimensions

Size	L		H		d		Weight	
	mm	in	mm	in	mm	in	kg	lbs
1/2"	79	3.1	62	2.4	10.5	0.4	1.6	3.5
3/4"	92	3.6	65	2.6	13.5	0.5	1.8	4.0
1"	111	4.4	78	3.1	18	0.7	2.8	6.2
1¼"	120	4.7	85	3.3	23	0.9	3.9	8.6
1½"	120	4.7	105	4.1	29	1.1	4.6	10.1
2	140	5.5	120	4.7	36	1.4	7.0	15.4

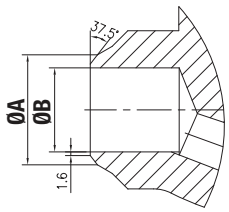
See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		CS08TD(SW/BW) A5108HW (Trim 8)	CS08TD(SW/BW) A5105HW (Trim 5)	CS08TD(SW/BW) A5108HW-NC (Trim 8)	CS08TD(SW/BW) A5105HW-NC (Trim 5)	CS08TD(SW/BW) SL110HW (Trim 10)	CS08TD(SW/BW) SL112HW (Trim 12)	CS08TD(SW/BW) LF101HW (Trim 10)	CS08TD(SW/BW) LF112 (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A305 LF2	A305 LF2
2	Seat	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	316	316+STL	A182-F6a	316+STL
3	Disc	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
4	Rocker and Pin	304	304	304	304	316	316	304	304
5	Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite
6	Bonnet Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320 L7	A320 L7M
7	Bonnet	A105	A105	A105N	A105N	A276-316L	A276-316L	A350 LF2	A350 LF2

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

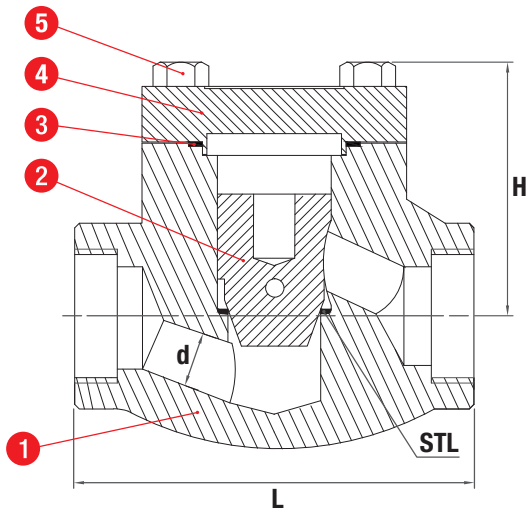
CP08TD(SW/BW)

CP08BW



Description

- Carbon or Stainless Steel Body and Cap
- Bolted Cap
- Conventional Port
- ½"–2" Screwed (NPT) or Socket Weld (SW) or Butt Weld (BW) ends
- Designed to API 602 / ASME B16.34
- Tested to API 598
- NPT ends conforms to ASME B1.20.1
- SW ends conforms to ASME B16.11
- BW ends conforms to ASME B16.25 (Sch 40)



BW End Dimensions				
Size	A		B	
	mm	in	mm	in
1/2"	21.3	0.84	15	0.59
3/4"	26.7	1.05	20	0.79
1"	33.4	1.31	25	0.98
1¼"	42.2	1.66	32	1.26
1½"	48.3	1.90	40	1.57
2	60.3	2.37	50	1.97

NPT, SW and BW Dimensions								
Size	L		H		d		Weight	
	mm	in	mm	in	mm	in	kg	lbs
1/2"	79	3.1	62	2.4	10.3	0.4	1.6	3.5
3/4"	92	3.6	65	2.6	12.7	0.5	1.8	4.0
1"	111	4.4	78	3.1	17	0.7	3.1	6.8
1¼"	120	4.7	82	3.2	23	0.9	4.2	9.3
1½"	152	6.0	102	4.0	28	1.1	6.4	14.1
2	172	6.8	120	4.7	36	1.4	10.0	22.0

See P-T Ratings for all materials offered at the end of this catalogue

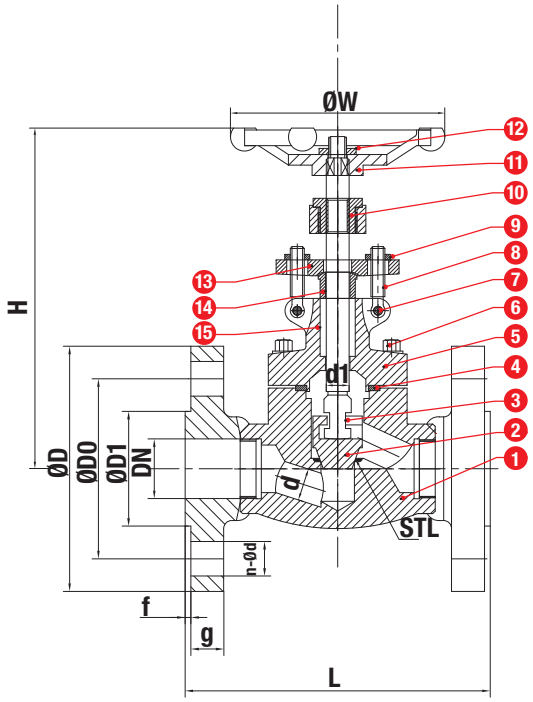
No.	Part Name	A10 Body		A105N Body NACE			316L SS Body NACE	LF2 Body NACE
		CP08TD(SW/BW) A5108 (Trim 8)	CP08TD(SW/BW) A5105 (Trim 5)	CP08TD(SW/BW) A5108-NC (Trim 8)	CP08TD(SW/BW) A5105-NC (Trim 5)	CP08TD(SW/BW) A5112-NC (Trim 12)	CP08TD(SW/BW) SL112-NC (Trim 12)	CP08TD(SW/BW) LF112-NC (Trim 12)
1	Body / Seat	A105 / STL	A105 / STL	A105N / STL	A105N / STL	A105N / STL	316L / STL	A350-LF2 / STL
2	Disc	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	316
3	Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite
4	Cap	A105	A105	A105N	A105N	A105N	316L	A350 LF2
5	Cap Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B7M	A193-B8M	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

SL01(RF)

Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/Integral)
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings



Dimensions																
Size	L		ØD		ØDO		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	108	4.25	90	3.54	60.3	2.37	34.9	1.37	9.6	0.38	2	0.08	4 - 16	0.16 - 0.63	100	3.94
3/4"	117	4.61	100	3.94	69.9	2.75	42.9	1.69	11.2	0.44	2	0.08	4 - 16	0.16 - 0.63	100	3.94
1"	127	5.00	110	4.33	79.4	3.13	50.8	2.00	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	125	4.92
1¼"	140	5.51	115	4.53	88.9	3.50	63.5	2.50	14.3	0.56	2	0.08	4 - 16	0.16 - 0.63	160	6.30
1½"	165	6.50	125	4.92	98.4	3.87	73	2.87	15.9	0.63	2	0.08	4 - 16	0.16 - 0.63	160	6.30
2	178	7.01	150	5.91	120.7	4.75	92.1	3.63	17.9	0.70	2	0.08	4 - 19	0.16 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

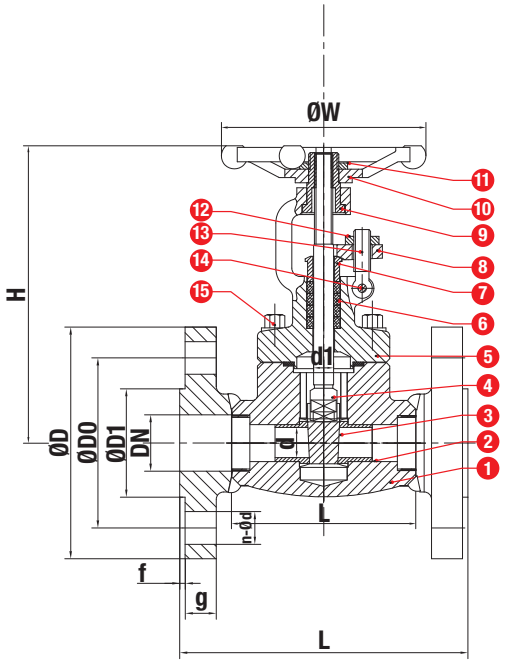
No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		SL01(RF) A5108HW (Trim 8)	SL01(RF) A5105HW (Trim 5)	SL01(RF) A5108HW-NC (Trim 8)	SL01(RF) A5105HW-NC (Trim 5)	SL01(RF) SL110HW (Trim 10)	SL01(RF) SL112HW (Trim 12)	SL01(RF) LF101HW (Trim 10)	SL01(RF) LF112HW (Trim 12)
1	Body / Seat	A105+STL	A105+STL	A105N+STL	A105N+STL	316L	316L+STL	A350-LF2	A350-LF2+STL
2	Disc	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite
5	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
6	Bonnet bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
7	Pin	A276-410	A276-410	A276-410	A276-410	A276-304	A276-304	A276-410	A276-410
8	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
9	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
10	Stem nut	A108-1045	A108-1045	A108-1045	A108-1045	A276-410	A276-410	A108-1045	A108-1045
11	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
12	Lock nut	A194-2H	A194-2H	A194-2H	A194-2H	A194-8	A194-8	A194-2H	A194-2HM
13	Gland Flange	A105	A105	A105	A105	316	316	A105	A105
14	Gland	A276-410	A276-410	A276-410	A276-410	A276-316	A276-316	A276-410	A276-410
15	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

GS01(RF)

Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/ Integral)
- Outside Screw and Yoke (OS&Y)
- Rising Stem / non-rising handwheel
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34/ASME B16.10
- Tested to API 598
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings



Dimensions																
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	108	4.25	90	3.54	60.3	2.37	34.9	1.37	9.6	0.38	2	0.08	4 - 16	0.16 - 0.63	100	3.94
3/4"	117	4.61	100	3.94	69.9	2.75	42.9	1.69	11.2	0.44	2	0.08	4 - 16	0.16 - 0.63	100	3.94
1"	127	5.00	110	4.33	79.4	3.13	50.8	2.00	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	125	4.92
1¼"	140	5.51	115	4.53	88.9	3.50	63.5	2.50	14.3	0.56	2	0.08	4 - 16	0.16 - 0.63	160	6.30
1½"	165	6.50	125	4.92	98.4	3.87	73	2.87	15.9	0.63	2	0.08	4 - 16	0.16 - 0.63	160	6.30
2	178	7.01	150	5.91	120.7	4.75	92.1	3.63	17.9	0.70	2	0.08	4 - 19	0.16 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

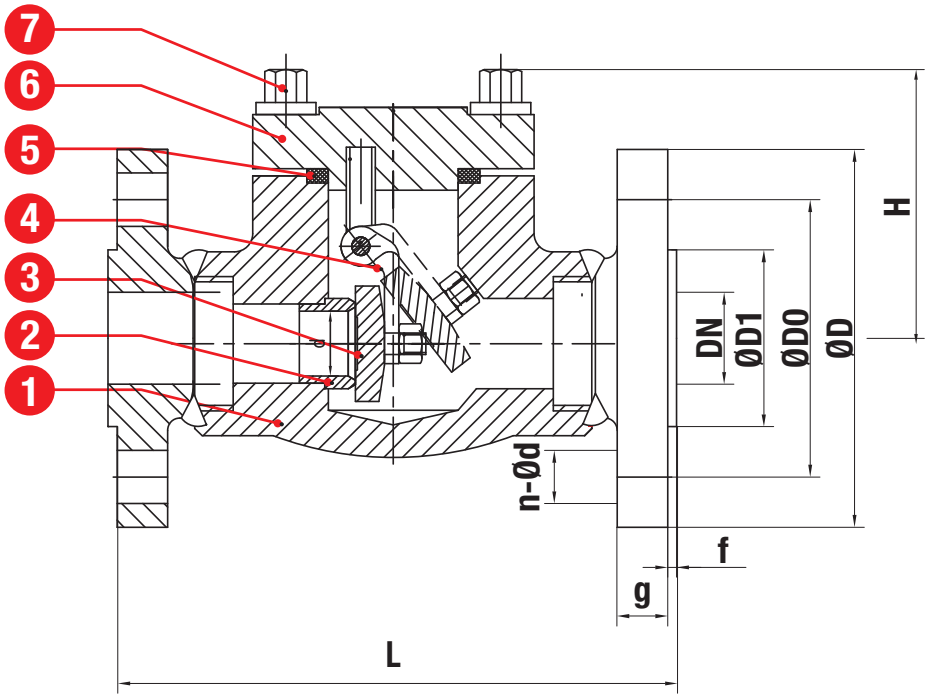
No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		GS01(RF) A5108HW (Trim 8)	GS01(RF) A5105HW (Trim 5)	GS01(RF) A5108HW-NC (Trim 8)	GS01(RF) A5105HW-NC (Trim 5)	GS01(RF) SL110HW (Trim 10)	GS01(RF) SL112HW (Trim 12)	GS01(RF) LF101HW (Trim 10)	GS01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Seat	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	316	316+STL	A182-F6a	316+STL
3	Wedge	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
5	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
6	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
7	Gland	A276-410	A276-410	A276-410	A276-410	A276-316	A276-316	A276-410	A276-410
8	Gland Flange	A105	A105	A105	A105	316	316	A105	A105
9	Stem Nut	A108-1045	A108-1045	A108-1045	A108-1045	A276-410	A276-410	A108-1045	A108-1045
10	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
11	Lock Nut	A194-2H	A194-2H	A194-2H	A194-2H	A194-8M	A194-8M	A194-4	A194-4M
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
14	Pin	A276-410	A276-410	A276-410	A276-410	A276-304	A276-304	A276-410	A276-410
15	Bonnet Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

CS01(RF)

Description

- Carbon or Stainless Steel Body and Cap (Welded/Integral)
- Boltaed Cap
- Conventional Port
- Designed to API 602 / ASME B16.34
- Tested to API 598
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings



Dimensions																
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	108	4.25	90	3.54	60.3	2.37	34.9	1.37	9.6	0.38	2	0.08	4 - 16	0.16 - 0.63	100	3.94
3/4"	117	4.61	100	3.94	69.9	2.75	42.9	1.69	11.2	0.44	2	0.08	4 - 16	0.16 - 0.63	100	3.94
1"	127	5.00	110	4.33	79.4	3.13	50.8	2.00	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	125	4.92
1¼"	140	5.51	115	4.53	88.9	3.50	63.5	2.50	14.3	0.56	2	0.08	4 - 16	0.16 - 0.63	160	6.30
1½"	165	6.50	125	4.92	98.4	3.87	73	2.87	15.9	0.63	2	0.08	4 - 16	0.16 - 0.63	160	6.30
2	178	7.01	150	5.91	120.7	4.75	92.1	3.63	17.9	0.70	2	0.08	4 - 19	0.16 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

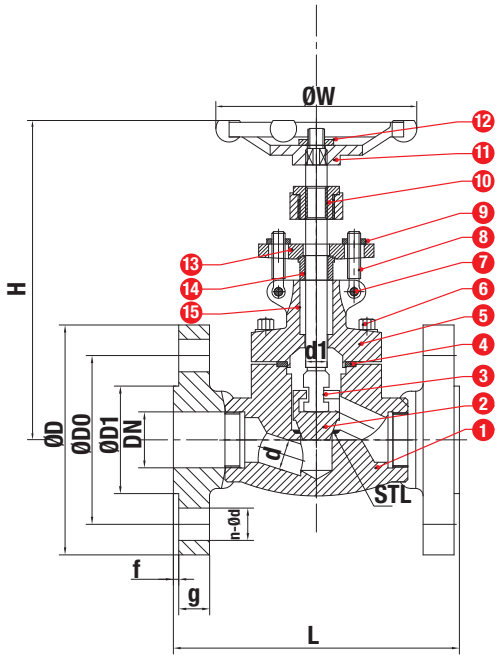
No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		CS01(RF) A5108HW (Trim 8)	CS01(RF) A5105HW (Trim 5)	CS01(RF) A5108HW-NC (Trim 8)	CS01(RF) A5105HW-NC (Trim 5)	CS01(RF) SL110HW (Trim 10)	CS01(RF) SL112HW (Trim 12)	CS01(RF) LF101HW (Trim 10)	CS01(RF) LF112 (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A305 LF2	A305 LF2
2	Seat	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	316	316+STL	A182-F6a	316+STL
3	Disc	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
4	Rocker	304	304	304	304	316	316	304	304
5	Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite
6	Bonnet Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320 L7	A320 L7M
7	Bonnet	A105	A105	A105N	A105N	A276-316L	A276-316L	A350 LF2	A350 LF2

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

SL03(RF)

Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/Integral)
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings



Dimensions																
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	140	5.51	95	3.74	66.7	2.63	34.9	1.37	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	100	3.94
3/4"	152	5.98	115	4.53	82.6	3.25	42.9	1.69	14.3	0.56	2	0.08	4 - 19	0.16 - 0.75	100	3.94
1"	165	6.50	125	4.92	88.9	3.50	50.8	2.00	15.9	0.63	2	0.08	4 - 19	0.16 - 0.75	125	4.92
1¼"	178	7.01	135	5.31	98.4	3.87	63.5	2.50	17.5	0.69	2	0.08	4 - 19	0.16 - 0.75	160	6.30
1½"	190	7.48	155	6.10	114.3	4.50	73	2.87	19.1	0.75	2	0.08	4 - 22	0.16 - 0.87	160	6.30
2	216	8.50	165	6.50	127	5.00	92.1	3.63	20.7	0.81	2	0.08	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

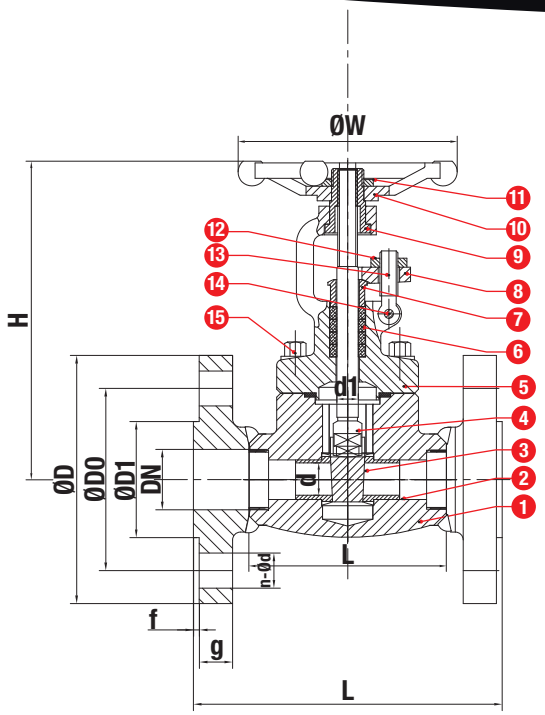
No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		SL03(RF) A5108HW (Trim 8)	SL03(RF) A5105HW (Trim 5)	SL03(RF) A5108HW-NC (Trim 8)	SL03(RF) A5105HW-NC (Trim 5)	SL03(RF) SL110HW (Trim 10)	SL03(RF) SL112HW (Trim 12)	SL03(RF) LF101HW (Trim 10)	SL03(RF) LF112HW (Trim 12)
1	Body / Seat	A105+STL	A105+STL	A105N+STL	A105N+STL	316L	316L+STL	A350-LF2	A350-LF2+STL
2	Disc	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite
5	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
6	Bonnet bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
7	Pin	A276-410	A276-410	A276-410	A276-410	A276-304	A276-304	A276-410	A276-410
8	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
9	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
10	Stem nut	A108-1045	A108-1045	A108-1045	A108-1045	A276-410	A276-410	A108-1045	A108-1045
11	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
12	Lock nut	A194-2H	A194-2H	A194-2H	A194-2H	A194-8	A194-8	A194-2H	A194-2HM
13	Gland Flange	A105	A105	A105	A105	316	316	A105	A105
14	Gland	A276-410	A276-410	A276-410	A276-410	A276-316	A276-316	A276-410	A276-410
15	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

GS03(RF)

Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/ Integral)
- Outside Screw and Yoke (OS&Y)
- Rising Stem / non-rising handwheel
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings



Dimensions																
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	140	5.51	95	3.74	66.7	2.63	34.9	1.37	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	100	3.94
3/4"	152	5.98	115	4.53	82.6	3.25	42.9	1.69	14.3	0.56	2	0.08	4 - 19	0.16 - 0.75	100	3.94
1"	165	6.50	125	4.92	88.9	3.50	50.8	2.00	15.9	0.63	2	0.08	4 - 19	0.16 - 0.75	125	4.92
1¼"	178	7.01	135	5.31	98.4	3.87	63.5	2.50	17.5	0.69	2	0.08	4 - 19	0.16 - 0.75	160	6.30
1½"	190	7.48	155	6.10	114.3	4.50	73	2.87	19.1	0.75	2	0.08	4 - 22	0.16 - 0.87	160	6.30
2	216	8.50	165	6.50	127	5.00	92.1	3.63	20.7	0.81	2	0.08	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

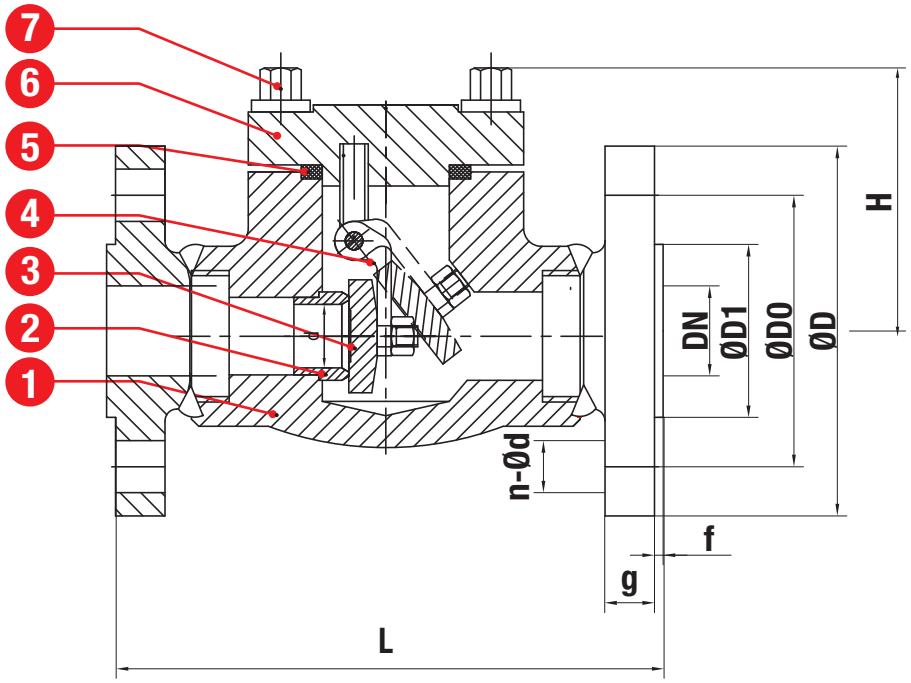
No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		GS03(RF) A5108HW (Trim 8)	GS03(RF) A5105HW (Trim 5)	GS03(RF) A5108HW-NC (Trim 8)	GS03(RF) A5105HW-NC (Trim 5)	GS03(RF) SL110HW (Trim 10)	GS03(RF) SL112HW (Trim 12)	GS03(RF) LF101HW (Trim 10)	GS03(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Seat	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	316	316+STL	A182-F6a	316+STL
3	Wedge	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
5	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
6	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
7	Gland	A276-410	A276-410	A276-410	A276-410	A276-316	A276-316	A276-410	A276-410
8	Gland Flange	A105	A105	A105	A105	316	316	A105	A105
9	Stem Nut	A108-1045	A108-1045	A108-1045	A108-1045	A276-410	A276-410	A108-1045	A108-1045
10	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
11	Lock Nut	A194-2H	A194-2H	A194-2H	A194-2H	A194-8M	A194-8M	A194-4	A194-4M
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
14	Pin	A276-410	A276-410	A276-410	A276-410	A276-304	A276-304	A276-410	A276-410
15	Bonnet Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

CS03(RF)

Description

- Carbon or Stainless Steel Body and Cap (Welded/Integral)
- Bolted Cap
- Conventional Port
- Designed to API 602 / ASME B16.34
- Tested to API 598
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings



Dimensions																
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	140	5.51	95	3.74	66.7	2.63	34.9	1.37	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	100	3.94
3/4"	152	5.98	115	4.53	82.6	3.25	42.9	1.69	14.3	0.56	2	0.08	4 - 19	0.16 - 0.75	100	3.94
1"	165	6.50	125	4.92	88.9	3.50	50.8	2.00	15.9	0.63	2	0.08	4 - 19	0.16 - 0.75	125	4.92
1¼"	178	7.01	135	5.31	98.4	3.87	63.5	2.50	17.5	0.69	2	0.08	4 - 19	0.16 - 0.75	160	6.30
1½"	190	7.48	155	6.10	114.3	4.50	73	2.87	19.1	0.75	2	0.08	4 - 22	0.16 - 0.87	160	6.30
2	216	8.50	165	6.50	127	5.00	92.1	3.63	20.7	0.81	2	0.08	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

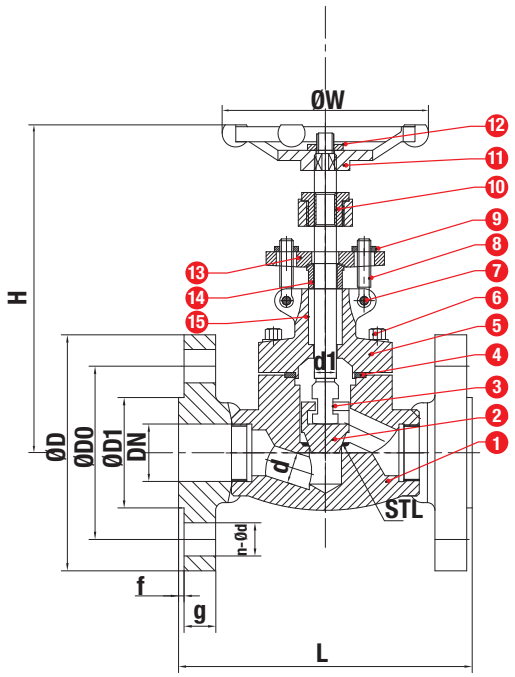
No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		CS03(RF) A5108HW (Trim 8)	CS03(RF) A5105HW (Trim 5)	CS03(RF) A5108HW-NC (Trim 8)	CS03(RF) A5105HW-NC (Trim 5)	CS03(RF) SL110HW (Trim 10)	CS03(RF) SL112HW (Trim 12)	CS03(RF) LF101HW (Trim 10)	CS03(RF) LF112 (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A305 LF2	A305 LF2
2	Seat	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	316	316+STL	A182-F6a	316+STL
3	Disc	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
4	Rocker	304	304	304	304	316	316	304	304
5	Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite
6	Bonnet Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320 L7	A320 L7M
7	Bonnet	A105	A105	A105N	A105N	A276-316L	A276-316L	A350 LF2	A350 LF2

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

SL06(RF)

Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/Integral)
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings



Dimensions																
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	165	6.50	95	3.74	66.7	2.63	34.9	1.37	14.3	0.56	7	0.28	4 - 16	0.16 - 0.63	100	3.94
3/4"	190	7.48	115	4.53	82.6	3.25	42.9	1.69	15.9	0.63	7	0.28	4 - 19	0.16 - 0.75	100	3.94
1"	216	8.50	125	4.92	88.9	3.50	50.8	2.00	17.5	0.69	7	0.28	4 - 19	0.16 - 0.75	125	4.92
1¼"	229	9.02	135	5.31	98.4	3.87	63.5	2.50	20.7	0.81	7	0.28	4 - 19	0.16 - 0.75	160	6.30
1½"	241	9.49	155	6.10	114.3	4.50	73	2.87	22.3	0.88	7	0.28	4 - 22	0.16 - 0.87	160	6.30
2	292	11.50	165	6.50	127	5.00	92.1	3.63	25.4	1.00	7	0.28	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

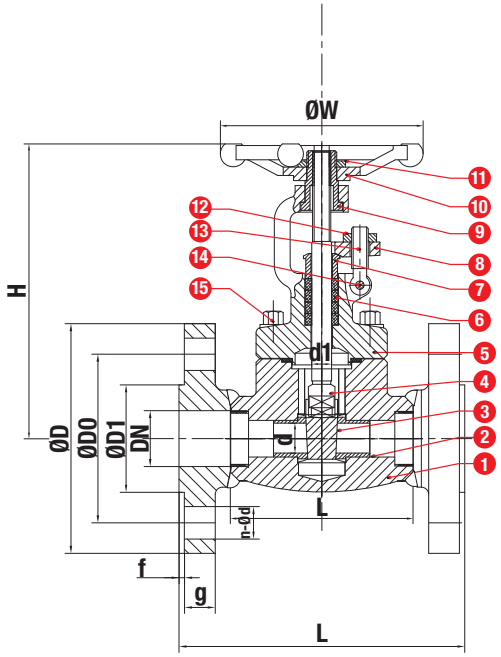
No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		SL06(RF) A5108HW (Trim 8)	SL06(RF) A5105HW (Trim 5)	SL06(RF) A5108HW-NC (Trim 8)	SL06(RF) A5105HW-NC (Trim 5)	SL06(RF) SL110HW (Trim 10)	SL06(RF) SL112HW (Trim 12)	SL06(RF) LF101HW (Trim 10)	SL06(RF) LF112HW (Trim 12)
1	Body / Seat	A105+STL	A105+STL	A105N+STL	A105N+STL	316L	316L+STL	A350-LF2	A350-LF2+STL
2	Disc	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite
5	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
6	Bonnet bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
7	Pin	A276-410	A276-410	A276-410	A276-410	A276-304	A276-304	A276-410	A276-410
8	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
9	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
10	Stem nut	A108-1045	A108-1045	A108-1045	A108-1045	A276-410	A276-410	A108-1045	A108-1045
11	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
12	Lock nut	A194-2H	A194-2H	A194-2H	A194-2H	A194-8	A194-8	A194-2H	A194-2HM
13	Gland Flange	A105	A105	A105	A105	316	316	A105	A105
14	Gland	A276-410	A276-410	A276-410	A276-410	A276-316	A276-316	A276-410	A276-410
15	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

GS06(RF)

Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/ Integral)
- Outside Screw and Yoke (OS&Y)
- Rising Stem / non-rising handwheel
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings



Dimensions																
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	165	6.50	95	3.74	66.7	2.63	34.9	1.37	14.3	0.56	7	0.28	4 - 16	0.16 - 0.63	100	3.94
3/4"	190	7.48	115	4.53	82.6	3.25	42.9	1.69	15.9	0.63	7	0.28	4 - 19	0.16 - 0.75	100	3.94
1"	216	8.50	125	4.92	88.9	3.50	50.8	2.00	17.5	0.69	7	0.28	4 - 19	0.16 - 0.75	125	4.92
1¼"	229	9.02	135	5.31	98.4	3.87	63.5	2.50	20.7	0.81	7	0.28	4 - 19	0.16 - 0.75	160	6.30
1½"	241	9.49	155	6.10	114.3	4.50	73	2.87	22.3	0.88	7	0.28	4 - 22	0.16 - 0.87	160	6.30
2	292	11.50	165	6.50	127	5.00	92.1	3.63	25.4	1.00	7	0.28	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

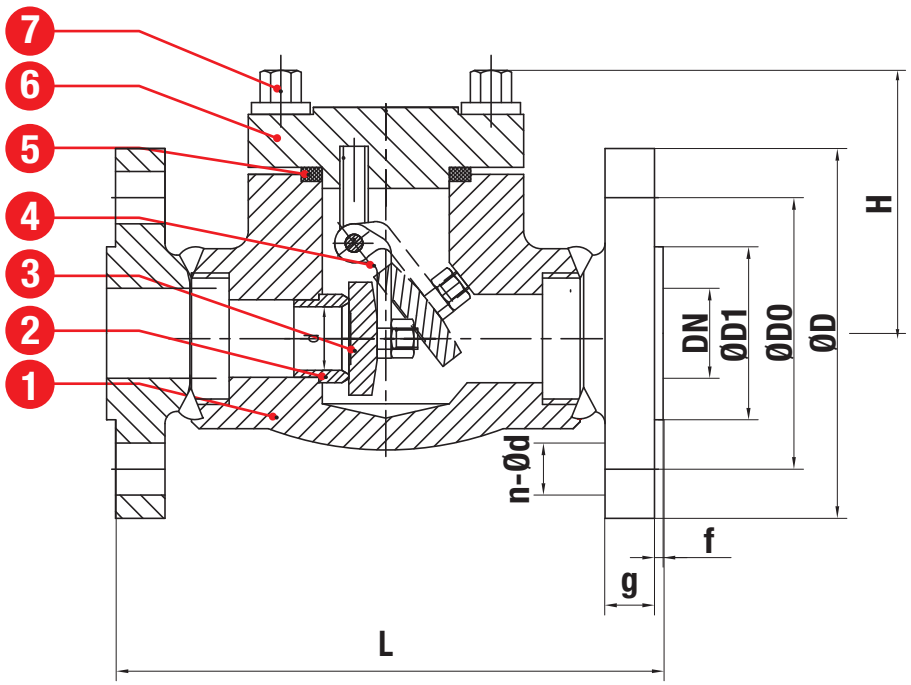
No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		GS06(RF) A5108HW (Trim 8)	GS06(RF) A5105HW (Trim 5)	GS06(RF) A5108HW-NC (Trim 8)	GS06(RF) A5105HW-NC (Trim 5)	GS06(RF) SL110HW (Trim 10)	GS06(RF) SL112HW (Trim 12)	GS06(RF) LF101HW (Trim 10)	GS06(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Seat	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	316	316+STL	A182-F6a	316+STL
3	Wedge	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
5	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
6	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
7	Gland	A276-410	A276-410	A276-410	A276-410	A276-316	A276-316	A276-410	A276-410
8	Gland Flange	A105	A105	A105	A105	316	316	A105	A105
9	Stem Nut	A108-1045	A108-1045	A108-1045	A108-1045	A276-410	A276-410	A108-1045	A108-1045
10	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
11	Lock Nut	A194-2H	A194-2H	A194-2H	A194-2H	A194-8M	A194-8M	A194-4	A194-4M
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
14	Pin	A276-410	A276-410	A276-410	A276-410	A276-304	A276-304	A276-410	A276-410
15	Bonnet Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

CS06(RF)

Description

- Carbon or Stainless Steel Body and Cap (Welded/Integral)
- Bolted Cap
- Conventional Port
- Designed to API 602 / ASME B16.34
- Tested to API 598
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings



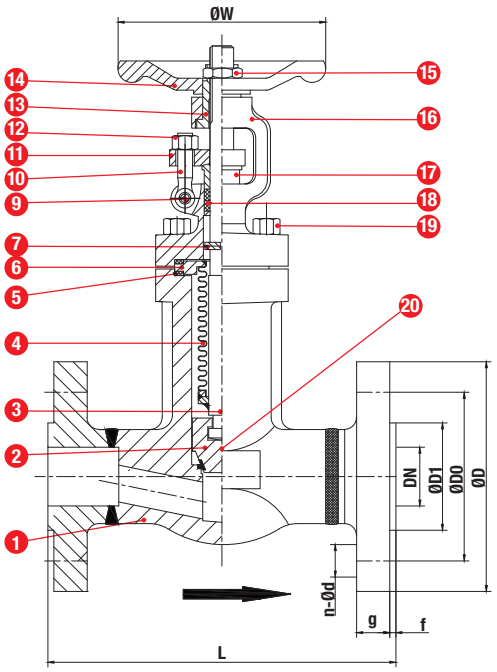
Dimensions																
Size	L		ØD		ØDO		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	165	6.50	95	3.74	66.7	2.63	34.9	1.37	14.3	0.56	7	0.28	4 - 16	0.16 - 0.63	100	3.94
3/4"	190	7.48	115	4.53	82.6	3.25	42.9	1.69	15.9	0.63	7	0.28	4 - 19	0.16 - 0.75	100	3.94
1"	216	8.50	125	4.92	88.9	3.50	50.8	2.00	17.5	0.69	7	0.28	4 - 19	0.16 - 0.75	125	4.92
1¼"	229	9.02	135	5.31	98.4	3.87	63.5	2.50	20.7	0.81	7	0.28	4 - 19	0.16 - 0.75	160	6.30
1½"	241	9.49	155	6.10	114.3	4.50	73	2.87	22.3	0.88	7	0.28	4 - 22	0.16 - 0.87	160	6.30
2	292	11.50	165	6.50	127	5.00	92.1	3.63	25.4	1.00	7	0.28	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L SS Body NACE		LF2 Body NACE	
		CS06(RF) A5108HW (Trim 8)	CS06(RF) A5105HW (Trim 5)	CS06(RF) A5108HW-NC (Trim 8)	CS06(RF) A5105HW-NC (Trim 5)	CS06(RF) SL110HW (Trim 10)	CS06(RF) SL112HW (Trim 12)	CS06(RF) LF101HW (Trim 10)	CS06(RF) LF112 (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A305 LF2	A305 LF2
2	Seat	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	A182-F6a+STL	316	316+STL	A182-F6a	316+STL
3	Disc	A182-F6a	A182-F6a+STL	A182-F6a	A182-F6a+STL	316	316	A182-F6a	316
4	Rocker	304	304	304	304	316	316	304	304
5	Gasket	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite	304+Graphite
6	Bonnet Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320 L7	A320 L7M
7	Bonnet	A105	A105	A105N	A105N	A276-316L	A276-316L	A350 LF2	A350 LF2

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

SL01(RF) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/Integral)
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

Dimensions

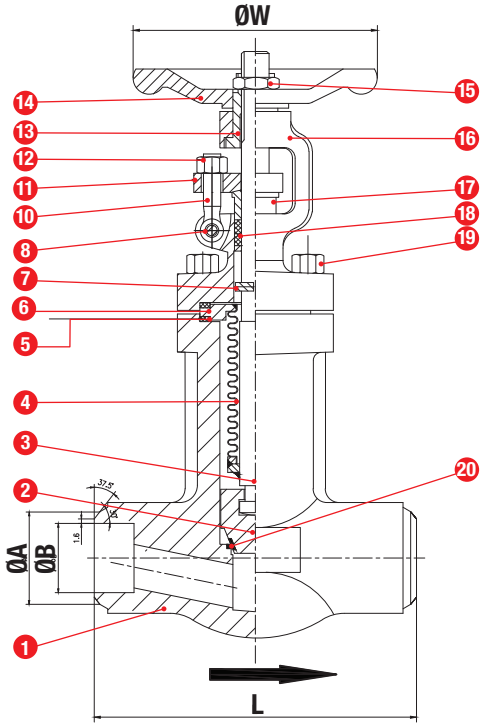
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	108	4.25	90	3.54	60.3	2.37	34.9	1.37	9.6	0.38	2	0.08	4 - 16	0.16 - 0.63	100	3.94
3/4"	117	4.61	100	3.94	69.9	2.75	42.9	1.69	11.2	0.44	2	0.08	4 - 16	0.16 - 0.63	100	3.94
1"	127	5.00	110	4.33	79.4	3.13	50.8	2.00	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	125	4.92
1¼"	140	5.51	115	4.53	88.9	3.50	63.5	2.50	14.3	0.56	2	0.08	4 - 16	0.16 - 0.63	160	6.30
1½"	165	6.50	125	4.92	98.4	3.87	73	2.87	15.9	0.63	2	0.08	4 - 16	0.16 - 0.63	160	6.30
2	203	7.99	150	5.91	120.7	4.75	92.1	3.63	17.5	0.69	2	0.08	4 - 19	0.16 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		SL01(RF) A5108HW (Trim 8)	SL01(RF) A5105HW (Trim 5)	SL01(RF) A5108HW-NC (Trim 8)	SL01(RF) A5105HW-NC (Trim 5)	SL01(RF) SL110HW (Trim 10)	SL01(RF) SL112HW (Trim 12)	SL01(RF) LF101HW (Trim 10)	SL01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	316	316+STL	A182-F6a	316+STL
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
5	Gasket	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite
6	End Fitting	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316L	316L	A350-LF2	A350-LF2
7	Anti-Rotation Pin	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316	316	A182-F6a	316
8	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
9	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
10	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
11	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	304	304	A182-F6a	316
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
14	Handwheel	QT400-18	QT400	QT400	QT400	QT400	QT400	QT400	QT400
15	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-4	A194-4M
16	Bonnet	ASTM A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	ASTM A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
20	Seat	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat	Integral Seat	Integral Seat	Integral Seat

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

SL01(BW) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

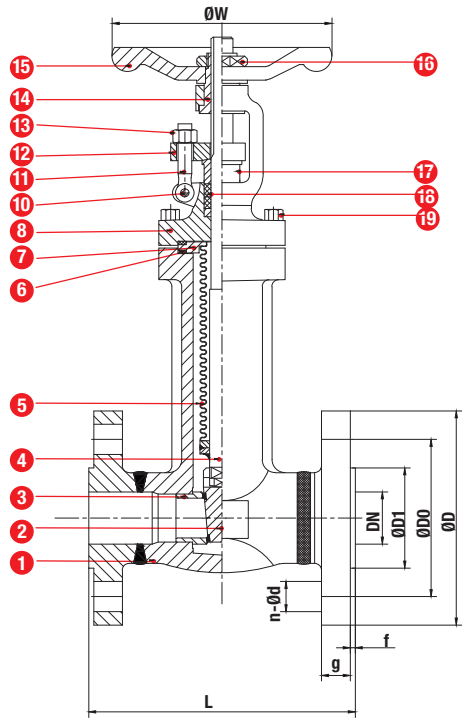
Dimensions										
Size	L		W		A		B		SCH	
	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	92	3.62	100	3.94	21.3	0.84	15	0.59	40	1.57
3/4"	92	3.62	100	3.94	26.7	1.05	20	0.79	40	1.57
1"	111	4.37	125	4.92	33.4	1.31	25	0.98	40	1.57
1¼"	120	4.72	160	6.30	42.2	1.66	32	1.26	40	1.57
1½"	152	5.98	160	6.30	48.3	1.90	40	1.57	40	1.57
2	172	6.77	180	7.09	60.3	2.37	50	1.97	40	1.57

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		SL01(RF) A5108HW (Trim 8)	SL01(RF) A5105HW (Trim 5)	SL01(RF) A5108HW-NC (Trim 8)	SL01(RF) A5105HW-NC (Trim 5)	SL01(RF) SL110HW (Trim 10)	SL01(RF) SL112HW (Trim 12)	SL01(RF) LF101HW (Trim 10)	SL01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	316	316+STL	A182-F6a	316+STL
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
5	Gasket	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite
6	End Fitting	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316L	316L	A350-LF2	A350-LF2
7	Anti-Rotation Pin	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316	316	A182-F6a	316
8	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
9	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
10	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
11	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	304	304	A182-F6a	316
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
14	Handwheel	QT400-18	QT400	QT400	QT400	QT400	QT400	QT400	QT400
15	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-4	A194-4M
16	Bonnet	ASTM A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	ASTM A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
20	Seat	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat	Integral Seat	Integral Seat	Integral Seat

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

GS01(RF) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/Integral)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

Dimensions

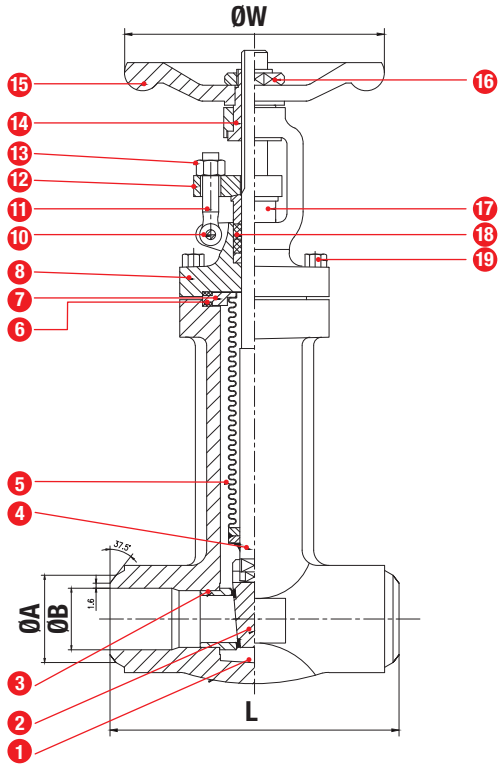
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	108	4.25	90	3.54	60.3	2.37	34.9	1.37	9.6	0.38	2	0.08	4 - 16	0.16 - 0.63	100	3.94
3/4"	117	4.61	100	3.94	69.9	2.75	42.9	1.69	11.2	0.44	2	0.08	4 - 16	0.16 - 0.63	100	3.94
1"	127	5.00	110	4.33	79.4	3.13	50.8	2.00	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	125	4.92
1¼"	140	5.51	115	4.53	88.9	3.50	63.5	2.50	14.3	0.56	2	0.08	4 - 16	0.16 - 0.63	160	6.30
1½"	165	6.50	125	4.92	98.4	3.87	73	2.87	15.9	0.63	2	0.08	4 - 16	0.16 - 0.63	160	6.30
2	178	7.01	150	5.91	120.7	4.75	92.1	3.63	17.5	0.69	2	0.08	4 - 19	0.16 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		GS01(RF) A5108HW (Trim 8)	GS01(RF) A5105HW (Trim 5)	GS01(RF) A5108HW-NC (Trim 8)	GS01(RF) A5105HW-NC (Trim 5)	GS01(RF) SL110HW (Trim 10)	GS01(RF) SL112HW (Trim 12)	GS01(RF) LF101HW (Trim 10)	GS01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	A182 316L	A182 316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	A182 316	A182 316+STL	A182-F6a	316+STL
3	Seat	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A182 316	A182 316	Seat	Seat + 13Cr
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A182 316	A182 316	A182-F6a	316
5	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
6	Gasket	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite
7	End Fitting	ASTM A182 304	ASTM A182 304	ASTM A182 304	ASTM A182 304	316L	316L	A350-LF2	A350-LF2
8	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
9	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
10	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A276 304	304	A182-F6a	304
11	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M
12	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	316	316	A182-F6a	316
13	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8	A194-8M	A194-4	A194-4M
14	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
15	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
16	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-2HM	A194-2HM
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

GS01(BW) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet
- Rising Stem / non-rising handwheel
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- End flange connections as per ASME 16.25
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

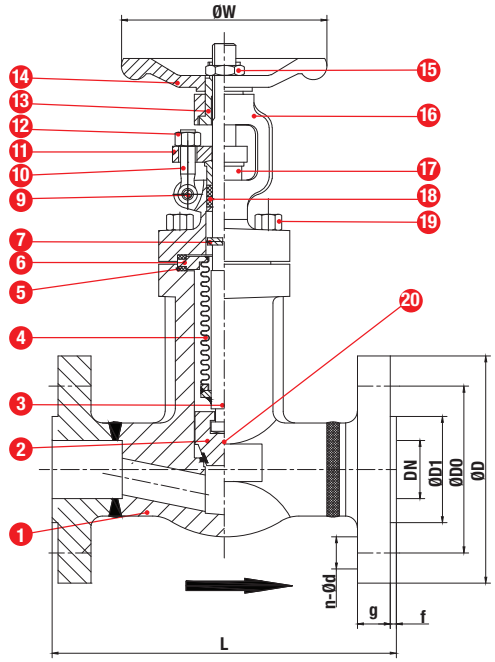
Dimensions										
Size	L		W		A		B		SCH	
	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	92	3.62	100	3.94	21.3	0.84	15	0.59	40	1.57
3/4"	92	3.62	100	3.94	26.7	1.05	20	0.79	40	1.57
1"	111	4.37	125	4.92	33.4	1.31	25	0.98	40	1.57
1¼"	120	4.72	160	6.30	42.2	1.66	32	1.26	40	1.57
1½"	120	4.72	160	6.30	48.3	1.90	40	1.57	40	1.57
2	140	5.51	180	7.09	60.3	2.37	50	1.97	40	1.57

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		GS01(RF) A5108HW (Trim 8)	GS01(RF) A5105HW (Trim 5)	GS01(RF) A5108HW-NC (Trim 8)	GS01(RF) A5105HW-NC (Trim 5)	GS01(RF) SL110HW (Trim 10)	GS01(RF) SL112HW (Trim 12)	GS01(RF) LF101HW (Trim 10)	GS01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	A182 316L	A182 316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	A182 316	A182 316+STL	A182-F6a	316+STL
3	Seat	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A182 316	A182 316	Seat	Seat + 13Cr
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A182 316	A182 316	A182-F6a	316
5	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
6	Gasket	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite
7	End Fitting	ASTM A182 304	ASTM A182 304	ASTM A182 304	ASTM A182 304	316L	316L	A350-LF2	A350-LF2
8	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
9	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
10	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A276 304	304	A182-F6a	304
11	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M
12	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	316	316	A182-F6a	316
13	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8	A194-8M	A194-4	A194-4M
14	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
15	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
16	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-2HM	A194-2HM
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

SL03(RF) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/Integral)
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

Dimensions

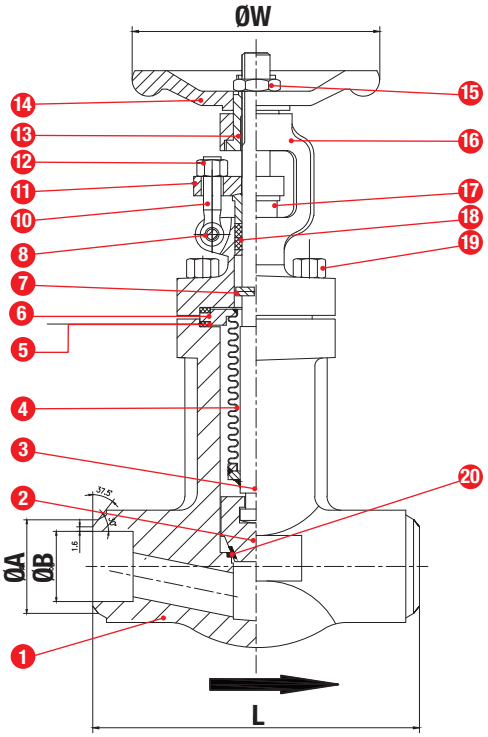
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	152	5.98	95	3.74	66.7	2.63	34.9	1.37	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	95	3.74
3/4"	178	7.01	115	4.53	82.6	3.25	42.9	1.69	14.3	0.56	2	0.08	4 - 19	0.16 - 0.75	95	3.74
1"	203	7.99	125	4.92	88.9	3.50	50.8	2.00	15.9	0.63	2	0.08	4 - 19	0.16 - 0.75	125	4.92
1¼"	216	8.50	135	5.31	98.4	3.87	63.5	2.50	17.5	0.69	2	0.08	4 - 19	0.16 - 0.75	160	6.30
1½"	229	9.02	155	6.10	114.3	4.50	73	2.87	19.1	0.75	2	0.08	4 - 22	0.16 - 0.87	160	6.30
2	267	10.51	165	6.50	127	5.00	92.1	3.63	20.7	0.81	2	0.08	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		SL01(RF) A5108HW (Trim 8)	SL01(RF) A5105HW (Trim 5)	SL01(RF) A5108HW-NC (Trim 8)	SL01(RF) A5105HW-NC (Trim 5)	SL01(RF) SL110HW (Trim 10)	SL01(RF) SL112HW (Trim 12)	SL01(RF) LF101HW (Trim 10)	SL01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	316	316+STL	A182-F6a	316+STL
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
5	Gasket	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite
6	End Fitting	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316L	316L	A350-LF2	A350-LF2
7	Anti-Rotation Pin	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316	316	A182-F6a	316
8	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
9	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
10	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
11	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	304	304	A182-F6a	316
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
14	Handwheel	QT400-18	QT400	QT400	QT400	QT400	QT400	QT400	QT400
15	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-4	A194-4M
16	Bonnet	ASTM A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	ASTM A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
20	Seat	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat	Integral Seat	Integral Seat	Integral Seat

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

SL03(BW) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

Dimensions										
Size	L		W		A		B		SCH	
	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	92	3.62	100	3.94	21.3	0.84	15	0.59	40	1.57
3/4"	92	3.62	100	3.94	26.7	1.05	20	0.79	40	1.57
1"	111	4.37	125	4.92	33.4	1.31	25	0.98	40	1.57
1¼"	120	4.72	160	6.30	42.2	1.66	32	1.26	40	1.57
1½"	152	5.98	160	6.30	48.3	1.90	40	1.57	40	1.57
2	172	6.77	180	7.09	60.3	2.37	50	1.97	40	1.57

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		SL01(RF) A5108HW (Trim 8)	SL01(RF) A5105HW (Trim 5)	SL01(RF) A5108HW-NC (Trim 8)	SL01(RF) A5105HW-NC (Trim 5)	SL01(RF) SL110HW (Trim 10)	SL01(RF) SL112HW (Trim 12)	SL01(RF) LF101HW (Trim 10)	SL01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	316	316+STL	A182-F6a	316+STL
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
5	Gasket	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite
6	End Fitting	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316L	316L	A350-LF2	A350-LF2
7	Anti-Rotation Pin	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316	316	A182-F6a	316
8	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
9	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
10	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
11	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	304	304	A182-F6a	316
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
14	Handwheel	QT400-18	QT400	QT400	QT400	QT400	QT400	QT400	QT400
15	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-4	A194-4M
16	Bonnet	ASTM A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	ASTM A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
20	Seat	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat	Integral Seat	Integral Seat	Integral Seat

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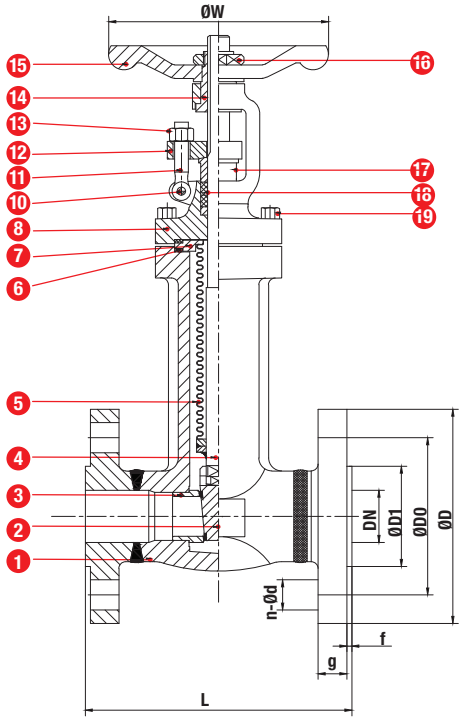
GS03(RF) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/Integral)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

Dimensions

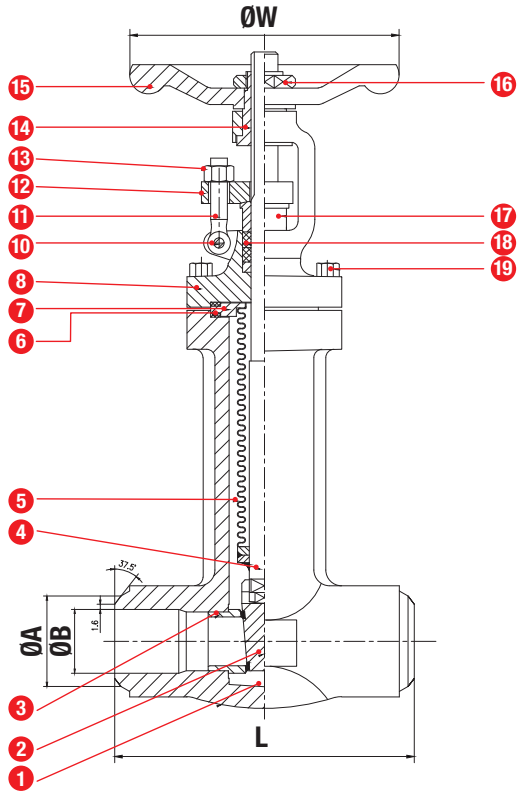
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	140	5.51	95	3.74	66.7	2.63	34.9	1.37	12.7	0.50	2	0.08	4 - 16	0.16 - 0.63	100	3.94
3/4"	152	5.98	115	4.53	82.6	3.25	42.9	1.69	14.3	0.56	2	0.08	4 - 19	0.16 - 0.75	100	3.94
1"	165	6.50	125	4.92	88.9	3.50	50.8	2.00	15.9	0.63	2	0.08	4 - 19	0.16 - 0.75	125	4.92
1¼"	178	7.01	135	5.31	98.4	3.87	63.5	2.50	17.5	0.69	2	0.08	4 - 19	0.16 - 0.75	160	6.30
1½"	190	7.48	155	6.10	114.3	4.50	73	2.87	19.1	0.75	2	0.08	4 - 22	0.16 - 0.87	160	6.30
2	216	8.50	165	6.50	127	5.00	92.1	3.63	20.7	0.81	2	0.08	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		GS01(RF) A5108HW (Trim 8)	GS01(RF) A5105HW (Trim 5)	GS01(RF) A5108HW-NC (Trim 8)	GS01(RF) A5105HW-NC (Trim 5)	GS01(RF) SL110HW (Trim 10)	GS01(RF) SL112HW (Trim 12)	GS01(RF) LF101HW (Trim 10)	GS01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	A182 316L	A182 316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	A182 316	A182 316+STL	A182-F6a	316+STL
3	Seat	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A182 316	A182 316	Seat	Seat + 13Cr
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A182 316	A182 316	A182-F6a	316
5	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
6	Gasket	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite
7	End Fitting	ASTM A182 304	ASTM A182 304	ASTM A182 304	ASTM A182 304	316L	316L	A350-LF2	A350-LF2
8	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
9	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
10	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A276 304	304	A182-F6a	304
11	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M
12	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	316	316	A182-F6a	316
13	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8	A194-8M	A194-4	A194-4M
14	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
15	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
16	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-2HM	A194-2HM
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

GS03(BW) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

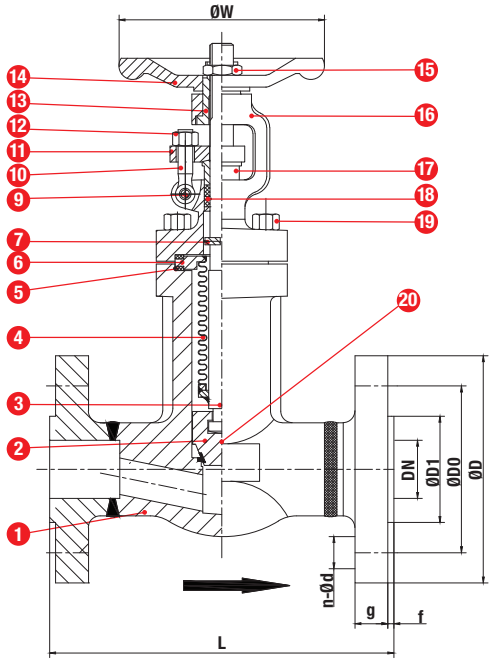
Dimensions										
Size	L		W		A		B		SCH	
	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	92	3.62	100	3.94	21.3	0.84	15	0.59	40	1.57
3/4"	92	3.62	100	3.94	26.7	1.05	20	0.79	40	1.57
1"	111	4.37	125	4.92	33.4	1.31	25	0.98	40	1.57
1¼"	120	4.72	160	6.30	42.2	1.66	32	1.26	40	1.57
1½"	120	4.72	160	6.30	48.3	1.90	40	1.57	40	1.57
2	140	5.51	180	7.09	60.3	2.37	50	1.97	40	1.57

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		GS01(RF) A5108HW (Trim 8)	GS01(RF) A5105HW (Trim 5)	GS01(RF) A5108HW-NC (Trim 8)	GS01(RF) A5105HW-NC (Trim 5)	GS01(RF) SL110HW (Trim 10)	GS01(RF) SL112HW (Trim 12)	GS01(RF) LF101HW (Trim 10)	GS01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	A182 316L	A182 316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	A182 316	A182 316+STL	A182-F6a	316+STL
3	Seat	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A182 316	A182 316	Seat	Seat + 13Cr
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A182 316	A182 316	A182-F6a	316
5	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
6	Gasket	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite
7	End Fitting	ASTM A182 304	ASTM A182 304	ASTM A182 304	ASTM A182 304	316L	316L	A350-LF2	A350-LF2
8	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
9	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
10	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A276 304	304	A182-F6a	304
11	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M
12	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	316	316	A182-F6a	316
13	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8	A194-8M	A194-4	A194-4M
14	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
15	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
16	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-2HM	A194-2HM
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

SL06(RF) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/Integral)
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

Dimensions

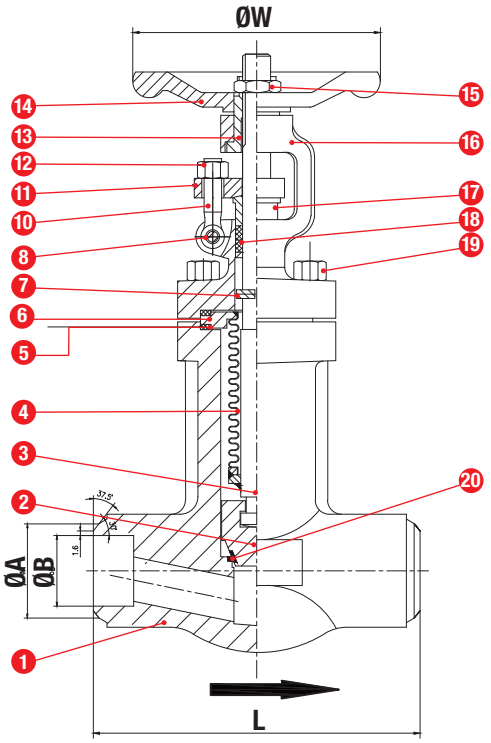
Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	165	6.50	95	3.74	66.7	2.63	34.9	1.37	14.3	0.56	7	0.28	4 - 16	0.16 - 0.63	100	3.94
3/4"	190	7.48	115	4.53	82.6	3.25	42.9	1.69	15.9	0.63	7	0.28	4 - 19	0.16 - 0.75	100	3.94
1"	216	8.50	125	4.92	88.9	3.50	50.8	2.00	17.5	0.69	7	0.28	4 - 19	0.16 - 0.75	125	4.92
1¼"	229	9.02	135	5.31	98.4	3.87	63.5	2.50	20.7	0.81	7	0.28	4 - 19	0.16 - 0.75	160	6.30
1½"	241	9.49	155	6.10	114.3	4.50	73	2.87	22.3	0.88	7	0.28	4 - 22	0.16 - 0.87	160	6.30
2	292	11.50	165	6.50	127	5.00	92.1	3.63	25.4	1.00	7	0.28	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		SL01(RF) A5108HW (Trim 8)	SL01(RF) A5105HW (Trim 5)	SL01(RF) A5108HW-NC (Trim 8)	SL01(RF) A5105HW-NC (Trim 5)	SL01(RF) SL110HW (Trim 10)	SL01(RF) SL112HW (Trim 12)	SL01(RF) LF101HW (Trim 10)	SL01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	316	316+STL	A182-F6a	316+STL
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
5	Gasket	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite
6	End Fitting	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316L	316L	A350-LF2	A350-LF2
7	Anti-Rotation Pin	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316	316	A182-F6a	316
8	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
9	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
10	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
11	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	304	304	A182-F6a	316
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
14	Handwheel	QT400-18	QT400	QT400	QT400	QT400	QT400	QT400	QT400
15	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-4	A194-4M
16	Bonnet	ASTM A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	ASTM A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
20	Seat	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat	Integral Seat	Integral Seat	Integral Seat

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

SL06(BW) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet
- Outside Screw and Yoke (OS&Y)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

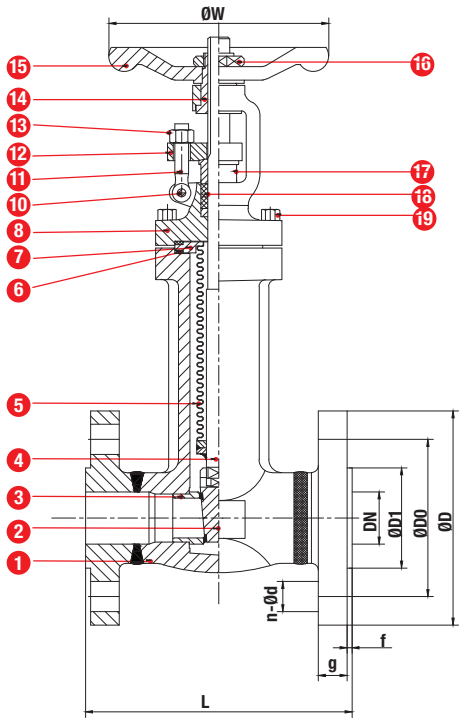
Dimensions										
Size	L		W		A		B		SCH	
	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	92	3.62	100	3.94	21.3	0.84	15	0.59	40	1.57
3/4"	92	3.62	100	3.94	26.7	1.05	20	0.79	40	1.57
1"	111	4.37	125	4.92	33.4	1.31	25	0.98	40	1.57
1¼"	120	4.72	160	6.30	42.2	1.66	32	1.26	40	1.57
1½"	152	5.98	160	6.30	48.3	1.90	40	1.57	40	1.57
2	172	6.77	180	7.09	60.3	2.37	50	1.97	40	1.57

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		SL01(RF) A5108HW (Trim 8)	SL01(RF) A5105HW (Trim 5)	SL01(RF) A5108HW-NC (Trim 8)	SL01(RF) A5105HW-NC (Trim 5)	SL01(RF) SL110HW (Trim 10)	SL01(RF) SL112HW (Trim 12)	SL01(RF) LF101HW (Trim 10)	SL01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	316	316+STL	A182-F6a	316+STL
3	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	316	316	A182-F6a	316
4	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
5	Gasket	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite	304+ Flexible Graphite
6	End Fitting	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316L	316L	A350-LF2	A350-LF2
7	Anti-Rotation Pin	ASTM A276 304	ASTM A276 304	ASTM A276 304	ASTM A276 304	316	316	A182-F6a	316
8	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
9	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
10	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
11	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	304	304	A182-F6a	316
12	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8M	A194-8M	A194-4	A194-4M
13	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
14	Handwheel	QT400-18	QT400	QT400	QT400	QT400	QT400	QT400	QT400
15	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-4	A194-4M
16	Bonnet	ASTM A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	ASTM A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8M	A193-B8M	A320-L7	A320-L7M
20	Seat	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat + 13Cr	Integral Seat	Integral Seat	Integral Seat	Integral Seat

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

GS06(RF) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet (Welded/Integral)
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

Dimensions

Size	L		ØD		ØD0		ØD1		g		f		n - Ød		W	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	165	6.50	95	3.74	66.7	2.63	34.9	1.37	14.3	0.56	7	0.28	4 - 16	0.16 - 0.63	100	3.94
3/4"	190	7.48	115	4.53	82.6	3.25	42.9	1.69	15.9	0.63	7	0.28	4 - 19	0.16 - 0.75	100	3.94
1"	216	8.50	125	4.92	88.9	3.50	50.8	2.00	17.5	0.69	7	0.28	4 - 19	0.16 - 0.75	125	4.92
1¼"	229	9.02	135	5.31	98.4	3.87	63.5	2.50	20.7	0.81	7	0.28	4 - 19	0.16 - 0.75	160	6.30
1½"	241	9.49	155	6.10	114.3	4.50	73	2.87	22.3	0.88	7	0.28	4 - 22	0.16 - 0.87	160	6.30
2	292	11.50	165	6.50	127	5.00	92.1	3.63	25.4	1.00	7	0.28	8 - 19	0.31 - 0.75	180	7.09

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		GS01(RF) A5108HW (Trim 8)	GS01(RF) A5105HW (Trim 5)	GS01(RF) A5108HW-NC (Trim 8)	GS01(RF) A5105HW-NC (Trim 5)	GS01(RF) SL110HW (Trim 10)	GS01(RF) SL112HW (Trim 12)	GS01(RF) LF101HW (Trim 10)	GS01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	A182 316L	A182 316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	A182 316	A182 316+STL	A182-F6a	316+STL
3	Seat	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A182 316	A182 316	Seat	Seat + 13Cr
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A182 316	A182 316	A182-F6a	316
5	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
6	Gasket	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite
7	End Fitting	ASTM A182 304	ASTM A182 304	ASTM A182 304	ASTM A182 304	316L	316L	A350-LF2	A350-LF2
8	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
9	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
10	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A276 304	304	A182-F6a	304
11	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M
12	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	316	316	A182-F6a	316
13	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8	A194-8M	A194-4	A194-4M
14	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
15	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
16	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-2HM	A194-2HM
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M

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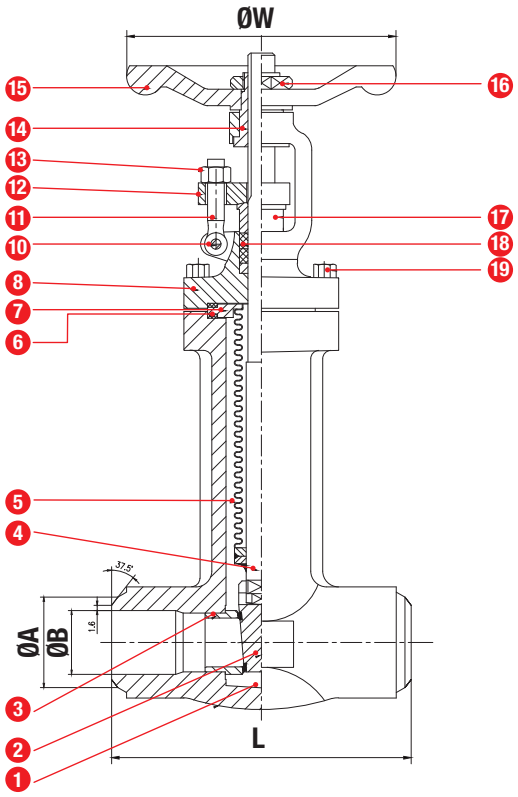
GS06(BW) Bellow



Description

- Forged Carbon or Stainless Steel Body and Bonnet
- Rising Stem
- Bolted Bonnet
- Conventional Port
- Solid wedge and Integral Backseat
- Designed to API 602/ASME B16.34
- Tested to API 598
- Welded Bonnet style available upon request
- End flange connections as per ASME B16.5
- Body and Bonnet is also available in alternate materials as per P-T Ratings

Dimensions										
Size	L		W		A		B		SCH	
	mm	in	mm	in	mm	in	mm	in	mm	in
1/2"	92	3.62	100	3.94	21.3	0.84	15	0.59	40	1.57
3/4"	92	3.62	100	3.94	26.7	1.05	20	0.79	40	1.57
1"	111	4.37	125	4.92	33.4	1.31	25	0.98	40	1.57
1¼"	120	4.72	160	6.30	42.2	1.66	32	1.26	40	1.57
1½"	120	4.72	160	6.30	48.3	1.90	40	1.57	40	1.57
2	140	5.51	180	7.09	60.3	2.37	50	1.97	40	1.57

See P-T Ratings for all materials offered at the end of this catalogue

No.	Part Name	A105 Body		A105N Body NACE		316L S.S. Body		LF2 Body	
		GS01(RF) A5108HW (Trim 8)	GS01(RF) A5105HW (Trim 5)	GS01(RF) A5108HW-NC (Trim 8)	GS01(RF) A5105HW-NC (Trim 5)	GS01(RF) SL110HW (Trim 10)	GS01(RF) SL112HW (Trim 12)	GS01(RF) LF101HW (Trim 10)	GS01(RF) LF101HW (Trim 12)
1	Body	A105	A105	A105N	A105N	A182 316L	A182 316L	A350-LF2	A350-LF2
2	Disc	A276-410+STL	A276-410	A182-F6a+STL	A182-F6a	A182 316	A182 316+STL	A182-F6a	316+STL
3	Seat	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A182 316	A182 316	Seat	Seat + 13Cr
4	Stem	A182-F6a	A182-F6a	A182-F6a	A182-F6a	A182 316	A182 316	A182-F6a	316
5	Bellow	304SS	304SS	304SS	304SS	316	316	A182-F6a	316
6	Gasket	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite	304+Flexible Graphite
7	End Fitting	ASTM A182 304	ASTM A182 304	ASTM A182 304	ASTM A182 304	316L	316L	A350-LF2	A350-LF2
8	Bonnet	A105	A105	A105N	A105N	316L	316L	A350-LF2	A350-LF2
9	Upper Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
10	Pin	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	A276 304	304	A182-F6a	304
11	Bolt	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M
12	Cover	ASTM A105	ASTM A105	ASTM A105	ASTM A105	316	316	A182-F6a	316
13	Nut	A194-2H	A194-2H	A194-2HM	A194-2HM	A194-8	A194-8M	A194-4	A194-4M
14	Stem Nut	1035	1035	1035	1035	A276-410	A276-410	A276-410	A276-410
15	Handwheel	QT400	QT400	QT400	QT400	QT400	QT400	QT400	QT400
16	Nut	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A2 SS, Gr. 35	A194-2HM	A194-2HM
17	Gland	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 410	ASTM A276 304	304	A182-F6a	304
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Bolt (F/Bolted Conn.)	A193-B7	A193-B7	A193-B7M	A193-B7M	A193-B8	A193-B8M	A320-L7	A320-L7M

The Bill of materials are subject to change for non-wetted components while meeting the above mentioned industry standards.

Engineering Specifications

Pressure - Temperature Ratings for Class 800 Forged Steel Valves

Maximum Working Pressure (PSIG)																			
Common Name		A351 CF8M [J] (316ss) A351 CG8M [E] (317ss) A182 Gr. F316[J]		A182 Gr. F5 A182 Gr. F5a A217 Gr. C5		A182 F304L[K] A182 F316L[K]		A182 F11[F][I] A217 Gr. WC6[C]		A182 F22[I] A217 Gr. WC9[C]		A105[A][B]		A350 LF2[A]		A216 WCB[A]		A352 LCC [D] A350 LF3 [D] A352 LC3[D]	
Material Group		2.2		1.13		2.3		1.9		1.10		1.1		1.1		1.1		1.2	
Service Temperature		PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR
°C	°F																		
-29	-20	1920	133.39	2000	138.91	1600	111.33	2000	138.92	2000	138.91	1975	137.18	1975	137.18	1975	137.18	2000	138.91
38	100	1920	133.39	2000	138.91	1600	111.33	2000	138.92	2000	138.91	1975	137.18	1975	137.18	1975	137.18	2000	138.91
93	200	1655	115.12	1985	137.87	1365	95.13	1925	133.74	1940	134.77	1810	125.81	1810	125.81	1810	125.81	1940	134.77
149	300	1495	104.09	1910	132.70	1215	84.78	1850	128.57	1880	130.63	1745	121.37	1745	121.37	1745	121.37	1880	130.63
204	400	1370	95.47	1880	130.63	1120	78.23	1775	123.40	1775	123.4	1690	117.53	1690	117.53	1690	117.53	1775	123.40
260	500	1275	88.92	1775	123.40	1050	73.41	1615	112.36	1615	112.36	1610	112.02	1610	112.02	1610	112.02	1615	112.36
316	600	1205	84.10	1615	112.36	990	69.27	1570	109.26	1570	109.26	1515	105.47	1515	105.47	1515	105.47	1570	109.26
343	650	1180	82.37	1570	109.26	975	68.24	1515	105.47	1515	105.47	1465	102.02	1465	102.02	1465	102.02		
371	700	1160	80.99	1515	105.47	960	67.20	1420	98.92	1420	98.92	1415	98.57	1415	98.57	1415	98.57		
399	750	1140	79.61	1410	98.23	940	65.82	1355	94.44	1355	94.44	1350	94.09	1350	94.09	1350	94.09		
427	800	1125	78.58	1355	94.47	920	64.45	1300	90.65	1300	90.65	1100	76.86	1100	76.86	1100	76.86		
454	850	1115	77.89	1290	89.96	900	63.07	1200	83.75	1200	83.75	850	59.62	850	59.62	850	59.62		
482	900	1105	77.20	985	68.93			850	59.62	1025	71.68	615	43.42	615	43.42	615	43.42		
510	950	1030	72.03	735	51.69			575	40.66	710	49.97	365	26.18	365	26.18	365	26.18		
538	1000	970	67.89	530	37.56			385	27.56	465	33.07	225	16.53	225	16.53	225	16.53		

Flow Coefficients (Cv / Kv) for Class 800

Size	Gate Valve		Globe Valve		Swing Check Valve		Piston Check Valve	
	Cv	Kv	Cv	Kv	Cv	Kv	Cv	Kv
1/2"	4.2	3.6	1.5	1.3	4.7	4.1	1.4	1.2
3/4"	8.9	7.7	2.7	2.3	8.1	7.0	2.1	1.8
1"	21.5	18.6	5.1	4.4	14.4	12.5	3.9	3.4
1¼"	24.9	21.5	11.2	9.7	32.1	27.8	7.8	6.7
1½"	55.5	48.0	16.5	14.3	35.6	30.8	12.5	10.8
2"	85.4	73.8	27.3	23.6	53.1	45.9	19.1	16.5

Engineering Specifications

Pressure - Temperature Ratings for Class 150 Forged Steel Valves

Maximum Working Pressure (PSIG)

Common Name		A351 CF8M [J] (316ss) A351 CG8M [E] (317ss) A182 Gr. F316 [J]		A182 Gr. F5 A182 Gr. F5a A217 Gr. C5		A182 F304L[K] A182 F316L[K]		A351 CN7M [G] Alloy 20		A995 Gr. 4A [H] CD3MN 2205ss		A105[A][B]		A350 LF2[A]		A216 WCB[A]		A352 LCC [D] A350 LF3 [D] A352 LC3[D]	
Material Group		2.2		2.2		2.8		3.17		2.8		-		-		1.1		1.2	
Service Temperature		PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR
°C	°F																		
-29	-20	275	19.97	275	19.97	230	16.87	230	16.87	290	21.01	285	20.66	285	20.66	285	20.66	290	21.01
38	100	275	19.97	275	19.97	230	16.87	230	16.87	290	21.01	285	20.66	285	20.66	285	20.66	290	21.01
93	200	235	17.22	235	17.22	195	14.46	200	14.80	260	18.84	260	18.84	260	18.84	260	18.84	260	18.84
149	300	215	15.84	215	15.84	175	13.08	180	13.42	230	16.87	230	16.87	230	16.87	230	16.87	230	16.87
204	400	195	14.46	195	14.46	160	12.04	160	12.04	200	14.80	200	14.80	200	14.80	200	14.80	200	14.80
260	500	170	12.73	170	12.73	145	11.01	150	11.36	170	12.73	170	12.73	170	12.73	170	12.73	170	12.73
316	600	140	10.67	140	10.67	140	10.67	140	10.67	140	10.67	140	10.67	140	10.67	140	10.67	140	10.67
343	650	125	9.63	125	9.63	125	9.63			125	9.63	125	9.63	125	9.63	125	9.63	125	9.63
371	700	110	8.60	110	8.60	110	8.60			110	8.60	110	8.60	110	8.60	110	8.60	110	8.60
399	750	95	7.56	95	7.56	95	7.56			95	7.56	95	7.56	95	7.56	95	7.56	95	7.56
427	800	80	6.53	80	6.53	80	6.53					80	6.53	80	6.53	80	6.53	80	6.53
454	850	65	5.49	65	5.49	65	5.49					65	5.49	65	5.49	65	5.49	65	5.49
482	900	50	4.46	50	4.46							50	4.46	50	4.46	50	4.46	50	4.46
510	950	35	3.43	35	3.43											35	3.43	35	3.43
538	1000	20	2.39	20	2.39											20	2.39	20	2.39

Pressure - Temperature Ratings for Class 300 Forged Steel Valves

Maximum Working Pressure (PSIG)

Common Name		A351 CF8M [J] (316ss) A351 CG8M [E] (317ss) A182 Gr. F316[J]		A182 Gr. F5 A182 Gr. F5a A217 Gr. C5		A182 F304L[K] A182 F316L[K]		A351 CN7M [G] Alloy 20		A995 Gr. 4A [H] CD3MN 2205ss		A105[A][B]		A350 LF2[A]		A216 WCB[A]		A352 LCC[D]	
Material Group		2.2		1.13		2.8		3.17		2.8		1.1		1.1		1.1		1.2	
Service Temperature		PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR
°C	°F																		
-29	-20	720	50.66	720	50.66	600	42.38	600	42.38	750	52.72	740	52.03	740	52.03	740	52.03	750	52.72
38	100	720	50.66	720	50.66	600	42.38	520	36.87	750	52.72	740	52.03	740	52.03	740	52.03	750	52.72
93	200	620	43.76	620	43.76	505	35.83	465	33.07	745	52.38	675	47.55	675	47.55	680	47.90	750	52.72
149	300	560	39.62	560	39.62	455	32.38	420	29.97	665	46.86	655	46.17	655	46.17	655	46.17	730	51.34
204	400	515	36.52	515	36.52	415	29.63	390	27.90	615	43.42	635	44.79	635	44.79	635	44.79	705	49.62
260	500	480	34.11	480	34.11	380	27.21	360	25.83	580	41.00	600	42.38	600	42.38	605	42.73	665	46.86
316	600	450	32.04	450	32.04	360	25.83			555	39.28	550	38.93	550	38.93	570	40.31	605	42.73
343	650	440	31.35	440	31.35	350	25.14			545	38.59	535	37.90	535	37.90	550	38.93	590	41.69
371	700	435	31.01	435	31.01	345	24.80			540	38.24	535	37.90	535	37.90	530	37.56	555	39.28
399	750	425	30.32	425	30.32	335	24.11			530	37.56	505	35.83	505	35.83	505	35.83	505	35.83
427	800	420	29.97	420	29.97	330	23.77					410	29.28	410	29.28	410	29.28	410	29.28
454	850	420	29.97	420	29.97	320	23.08					270	19.63	270	19.63	320	23.08	320	23.08
482	900	415	29.63	415	29.63							170	12.73	170	12.73	230	16.87	225	16.53
510	950	385	27.56	385	27.56											135	10.32	135	10.32
538	1000	365	26.18	365	26.18											85	6.87	85	6.87

Engineering Specifications

Pressure - Temperature Ratings for Class 600 Forged Steel Valves

Maximum Working Pressure (PSIG)

Common Name		A351 CF8M [J] (316ss) A351 CG8M [E] (317ss) A182 Gr. F316[J]		A182 Gr. F5 A182 Gr. F5a A217 Gr. C5		A182 F304L[K] A182 F316L[K]		A351 CN7M [G] Alloy 20		A995 Gr. 4A [H] CD3MN 2205ss		A105[A][B]		A350 LF2[A]		A216 WCB [A]		A352 LCC [D] A350 LF3 [D] A352 LC3 [D]	
Material Group		2.2		1.13		2.8		3.17		2.8		1.1		1.1		1.1		1.2	
Service Temperature		PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR	PSIG	BAR
°C	°F																		
-29	-20	1440	100.30	1440	100.30	1200	83.75	1200	83.75	1500	104.43	1480	103.06	1480	103.06	1480	103.06	1500	104.43
38	100	1440	100.30	1440	100.30	1200	83.75	1200	83.75	1500	104.43	1480	103.06	1480	103.06	1480	103.06	1500	104.43
93	200	1240	86.51	1240	86.51	1015	71.00	1160	80.99	1490	103.75	1350	94.092	1350	94.092	1350	94.092	1500	104.43
149	300	1120	78.23	1120	78.23	910	63.76	1020	71.34	1335	93.06	1315	91.68	1315	91.68	1315	91.68	1455	101.33
204	400	1025	71.68	1025	71.68	825	57.89	930	65.13	1230	85.82	1270	88.58	1270	88.58	1270	88.58	1410	98.23
260	500	995	69.62	995	69.62	765	53.76	850	59.62	1160	80.99	1200	83.75	1200	83.75	1200	83.75	1330	92.71
316	600	900	63.07	900	63.07	720	50.66	790	55.48	1115	77.89	1095	76.51	1095	76.51	1095	76.51	1210	84.42
343	650	890	62.38	890	62.38	700	49.28	740	52.03	1095	76.51	1075	75.13	1075	75.13	1075	75.13	1175	82.03
371	700	870	61.00	870	61.00	685	48.24	710	49.97	1085	75.82	1065	74.44	1065	74.44	1065	74.44	1135	79.27
399	750	855	59.96	855	59.96	670	47.21			1065	74.44	1010	70.65	1010	70.65	1010	70.65	1010	70.65
427	800	845	59.27	845	59.27	660	46.52					825	57.89	825	57.89	825	57.89	825	57.89
454	850	835	58.58	835	58.58	645	45.48					535	37.90	535	37.90	535	37.90	535	37.90
482	900	830	58.24	830	58.24							345	24.80	345	24.80	345	24.80	345	24.80
510	950	775	54.45	775	54.45											205	15.15	205	15.15
538	1000	700	49.28	700	49.28											105	8.25	105	8.25

NOTE: In accordance with API 602, the Pressure/Temperature ratings for Intermediate Class 800, the linear interpolation of Standard Class 600 and Standard Class 900 pressure/temperature ratings listed in ASME B16.34. ASME Boiler and Pressure Vessel Code Section II materials that also meet the requirements of the listed ASTM specification may also be used.

(A) Permissible, but not recommended for prolonged usage above 800 °F (425°C)

(B) Only killed steel shall be used above 850 °F (455°C)

(C) Not to be used above 1100 °F (595°C)

(D) Not to be used above 600 °F (315°C)

(E) Not to be used over 1000 °F (538°C)

(F) Use normalized and tempered material only

(G) Use solution annealed material only

(H) This steel may become brittle after service at moderately elevated temperatures. Not to be used over 600°F.

(I) Permissible, but not recommended for prolonged use above 1100 °F (595°C)

(J) At temperature over 1000°F (538°C), use only when carbon content is 0.04% or higher

(K) Not to be used over 800 °F (425°C)

End Connection Selection:

(A) Threaded-end or combination of threaded-end valves are milited to NPS 2" and smaller and may be designated as Standard Class, Special Class, or Limited Class upto 600 Class. The ratings terminate at 1000 °F (538 °C)

(B) Socket weld valves are limited to NPS 2" and smaller and may be designated as Standard Class, Special Class, or Limited Class

(C) Butt weld valves may be designated as Standard Class, Special Class, or Limited Class

(D) Flanged end valves may be rated 150, 300 and 600 Standard Class only, 1000 °F (538 °C) maximum

(E) Special Class valves require additional inspection per ASME B16.34, para. 2.1.3

(F) Do not interpolate Limited Class above 900°F (482 °C)

(G) All other forged/cast steel valves (Standard and Bellow Style) (1/2" - 2") have pressure-Temperature ratings as per ASME B16.24

Notes

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