



FORGED STEEL GATE, GLOBE AND CHECK VALVES

Model: G01.1001/G03.1001/C02.1001



SPECIFICATION

DESIGN	API 602
MAX PRESSURE RANGE	6250 Psi (439 bar)
MAX TEMPERATURE RANGE	648°C (1200°F)
TESTING INSPECTION	API 598
CONNECTION	NPT (ASME B1.20.1) Flanged Ends to Class 150/300/600

PRESSURE TEMPERATURE CHART (API 602, ASME B 16.34)

A 105 Standard Class

Temperature		Pressure Class											
		Class 150		Class 300		Class 600		Class 800*		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	285	20.0	740	52.0	1480	104.1	1975	138.8	3705	260.5	6170	433.8
200	93.3	260	18.3	675	47.5	1350	94.9	1800	126.5	3375	237.3	5625	395.5
300	148.9	230	16.2	655	46.1	1315	92.5	1750	123	3280	230.6	5470	384.6
400	204.4	200	14.1	635	44.6	1270	89.3	1690	118.8	3170	222.9	5280	371.2
500	260	170	12.0	600	42.2	1200	84.4	1595	112	2995	210.6	4990	350.8
600	315.6	140	9.8	550	38.7	1095	77	1460	102.6	2735	192.3	4560	320.6
650	343.3	125	8.8	535	37.6	1075	75.6	1430	100.5	2685	188.8	4475	314.6
700	371.1	110	7.7	535	37.6	1065	74.9	1420	99.8	2665	187.4	4440	312.2
750	398.9	95	6.7	505	35.5	1010	71	1345	94.6	2520	177.2	4200	295.3
800	426.7	80	5.6	410	28.8	825	58	1100	77.3	2060	144.8	3430	241.2
850	454.4	65	4.6	270	19.0	535	37.6	715	50.3	1340	94.2	2230	156.8
900	482.2	50	3.5	170	12.0	345	24.3	460	32.3	860	60.5	1430	100.5
950	510	35	2.5	105	7.4	205	14.4	275	19.3	515	36.2	860	60.5
1000	537.8	20	1.4	50	3.5	105	7.4	140	9.9	260	18.3	430	30.2

*Pressure/Temperature Class Values as per API 602

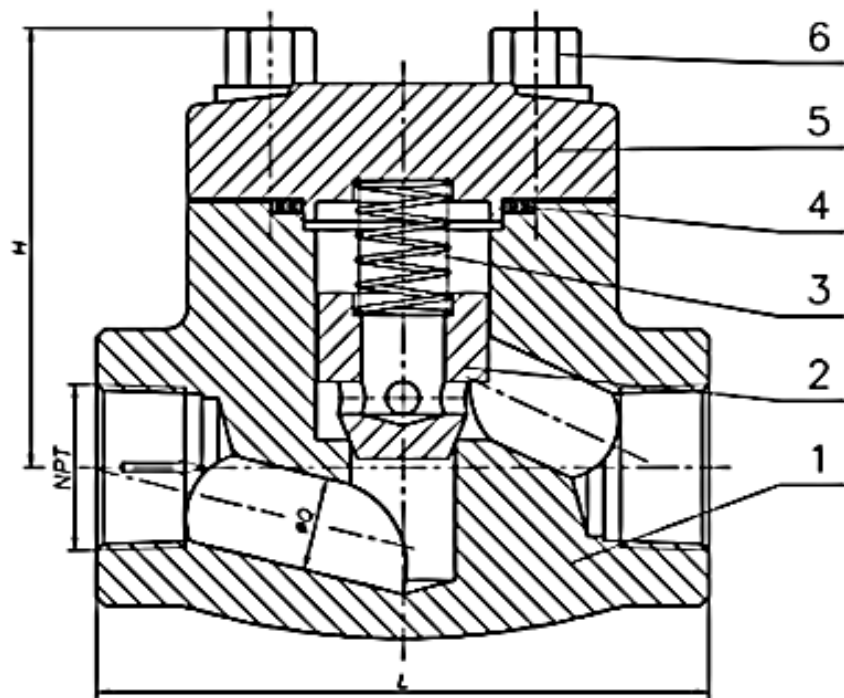
Note: A 105 permissible, but not recommended for prolonged usage above about 80°F

A 182 F22 Standard Class

Temperature		Pressure Class											
		Class 150		Class 300		Class 600		Class 800*		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	290	20.4	750	52.7	1500	105.5	2000	140.5	3750	263.7	6250	439.4
200	93.3	260	18.3	715	52.7	1500	105.5	1910	134.2	3750	263.7	6250	439.4
300	148.9	230	16.2	730	51.3	1455	102.3	1805	126.8	3640	255.9	6070	426.8
400	204.4	200	14.1	705	49.6	1410	99.1	1730	121.6	3530	248.2	5880	413.4
500	260	170	12	665	46.8	1330	93.5	1705	119.8	3325	233.8	5540	389.5
600	315.6	140	9.8	605	42.5	1210	85.1	1615	113.5	3025	212.7	5040	354.4
650	343.3	125	8.8	590	41.5	1175	82.6	1570	110.3	2940	206.7	4905	344.9
700	371.1	110	7.7	570	40.1	1135	79.8	1515	106.5	2840	199.7	4730	332.6
750	398.9	95	6.7	530	37.3	1065	74.9	1420	99.8	2660	187.0	4430	311.5
800	426.7	80	5.6	510	35.9	1015	71.4	1355	95.2	2540	178.6	4230	297.4
850	454.4	65	4.6	485	34.1	975	68.6	1300	91.4	2435	171.2	4060	285.5
900	482.2	50	3.5	450	31.6	900	63.3	1200	84.3	2245	157.8	3745	263.3
950	510	35	2.5	375	26.4	755	53.1	1005	70.6	1855	132.5	3145	221.1
1000	537.8	20	1.4	260	18.3	520	36.6	715	50.2	1305	91.8	2170	152.6
1050	565.6	20	1.4	175	12.3	350	24.6	530	37.2	875	61.5	1455	102.3
1100	593.3	20	1.4	110	7.7	220	15.5	300	21.1	550	38.7	915	64.3
1150	621.1	20	1.4	70	4.9	135	9.5	275	19.3	345	24.3	570	40.1
1200	648.9	20	1.4	40	2.8	80	5.6	145	10.2	205	14.4	345	24.3

*Pressure/Temperature Class Values as per API 602
Note: A 182 F22 use normalized and tempered material only

FORGED STEEL CHECK VALVE



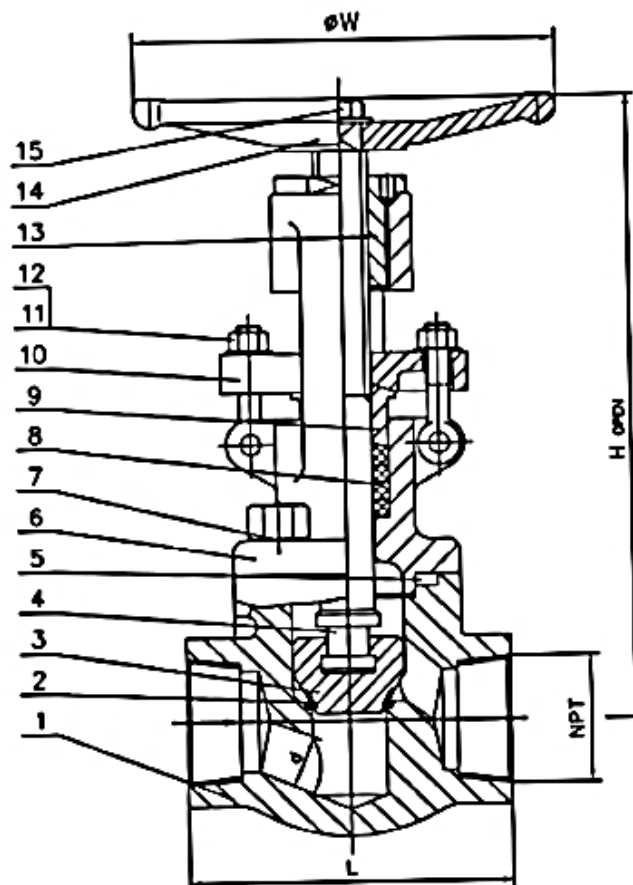
MATERIAL

No.	Parts	Materials
1.	Body + Seat	A105+STL
2.	Disc	A276 420
3.	Spring	A276 304
4.	Gasket	304SS+Graphite
5.	Bonnet	A105
6.	Bolt	A193 B7

DIMENSION

Size	Class	Dimension(mm)			
		L	NPT	ØQ	H
1/2"	800	79	1/2"	10	54
3/4"	800	92	3/4"	13	57
1"	800	111	1"	17	65
1¼"	800	120	1¼"	23	82
1½"	800	152	1½"	27	90
2"	800	172	2"	33	107

FORGED STEEL GLOBE VALVE



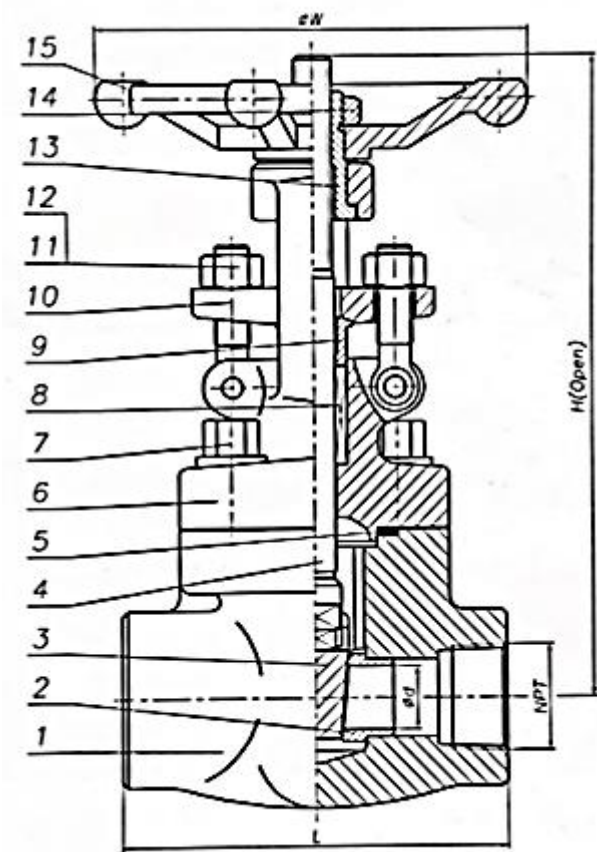
MATERIAL

No.	Parts	Materials
1.	Body	A105
2.	Seat Facing	SS316
3.	Disc	A276 420+STL
4.	Stem	A182 F6a
5.	Gasket	304SS+Graphite
6.	Bonnet	A105
7.	Bonnet Bolt	A193 B7
8.	Stem Packing	Graphite
9.	Gland	A276 420
10.	Gland Flange	A105
11.	Gland Eyebolt	A193 B7
12.	Gland Nut	A194 2H
13.	Stem Nut	A276 410
14.	Hand Wheel	A197
15.	Hand Wheel Lock Nut	AISI 1020

DIMENSION

Size	Class	Dimension(mm)			
		L	NPT	ϕQ	H
1/2"	800	79	1/2"	10	159
3/4"	800	92	3/4"	13	162
1"	800	111	1"	17	189
1 1/4"	800	120	1 1/4"	23	224
1 1/2"	800	152	1 1/2"	27	238
2"	800	172	2"	33	279

FORGED STEEL GATE VALVE



MATERIAL

No.	Parts	Materials	No.	Parts	Materials
1.	Body	A105N	9.	Gland	A276 420
2.	Seat	A276 420+STL	10.	Gland Flange	A105
3.	Wedge	A182 F6a	11.	Gland Eyebolt	A193 B7
4.	Stem	A182 F6a	12.	Nut	A194 2H
5.	Gasket	304SS+Graphite	13.	Stem Nut	A276 410
6.	Bonnet	A105N	14.	Locking Nut	A29 1035
7.	Bolt	A193 B7	15.	Hand Wheel	A197
8.	Packing	Graphite			

DIMENSION

Size	Class	Dimension(mm)				
		L	NPT	Ød	ØW	H
1/2"	800	79	1/2"	10.5	96	149
3/4"	800	92	3/4"	13.5	96	154
1"	800	111	1"	18	120	183
1½"	800	120	1½"	29	150	242
2"	800	140	2"	37	150	273