

**Gate, Globe & Check Valve
Forged Steel, Bolted / Welded Bonnet
Socket weld ends**



Type GTF



Type GLF



Type PCF

1/2" - 2" (15-50)

Class 800, 1500, 2500

Design Accordance with API 602 & ASME B 16.34

Applications

- General Industry, power stations, process engineering
- For water, steam, gas, oil and other non-aggressive media
- Further applications on request

Operating data

- Pressure range upto 431 Bar/6250 PSI
- Temperature range up to +593°C/1100°F
- Minimum temperature 0°C (less than 0°C on request)
- Pressure temperature rating as per ASME B 16.34, Standard class

Materials

- ASTM A 105 from 0°C to 425°C
- ASTM A 182 316L from 0°C to 450°C
- ASTM A 182 F22 from 0°C to 593°C

Design

- As per API 602 # 800 & # 1500 Valves
- As per ASME B 16.34 # 2500 Valves
- Bolted Bonnet Construction for # 800 Valves
- Welded Bonnet Construction for # 1500 & # 2500 Valves
- Hard faced Seats (13% Cr / Stellite)
- Encapsulated gasket for #800 Valves

Variants on request

- Locking arrangement
- Flanged Ends to # 150/300/600
- Threaded / Butt Weld connections
- Position indicator
- Other Material of construction

Remarks :

(Type Series Booklet References)

SICCA 900-2500 GTC	: 7241.2/12-11
SICCA 900-2500 GLC	: 7242.2/12-11
SICCA 900-2500 SCC	: 7243.2/12-11
SICCA 150-600 GTC	: 7244.2/12-11
SICCA 150-600 GLC	: 7245.2/12-11
SICCA 150-600 SCC	: 7246.2/12-11
Operating instructions no.	: 0500.80/05 - 18 G3

On all enquiries / orders please specify :

- | | |
|--------------------------|---|
| 1. Type | 8. Material of construction |
| 2. ASME pressure class | 9. Flow medium |
| 3. Size | 10. Flow rate Min. / Max. |
| 4. Design pressure | 11. Type of end connection |
| 5. Operating pressure | 12. Variants |
| 6. Operating temperature | 13. Type Series Booklet no. |
| 7. Differential pressure | 14. Valve data sheet
(if applicable) |

When ordering spares indicate valve serial number.

Pressure Temperature Chart

MATERIAL : A 105 Standard Class

NOTE : Permissible, but not recommended for prolonged usage above about 800°F

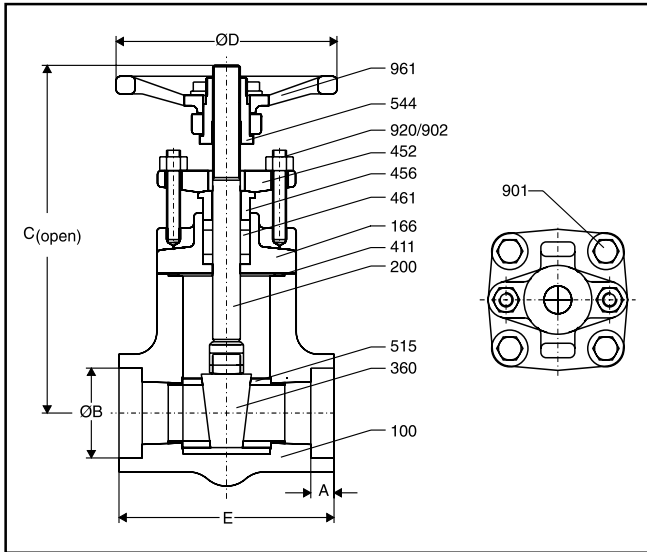
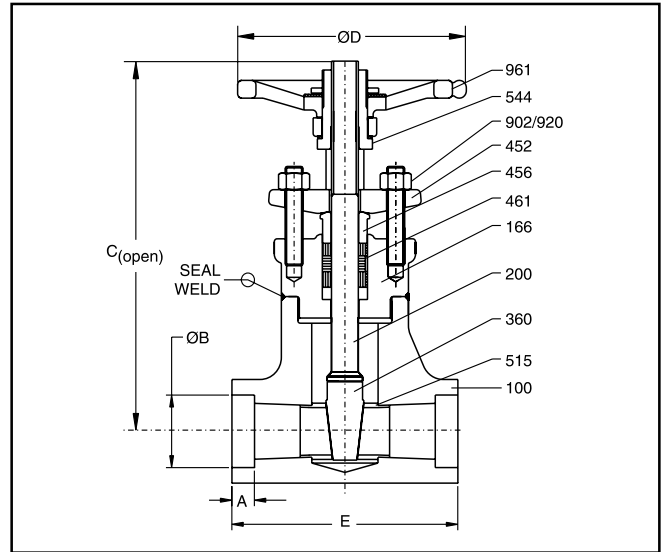
Temperature		Pressure class											
		# 150		# 300		# 600		# 800*		# 1500		# 2500	
		PSI	Kg/cm ²	PSI	Kg/cm ²	PSI	Kg/cm ²	PSI	Kg/cm ²	PSI	Kg/cm ²	PSI	Kg/cm ²
°F	°C												
-20 to 100	-29 to 38	285	20.0	740	52.0	1480	104.1	1975	138.9	3705	260.5	6170	433.8
200	93.3	260	18.3	680	47.8	1360	95.6	1810	127.3	3395	238.7	5655	397.6
300	148.9	230	16.2	655	46.1	1310	92.1	1745	122.7	3270	229.9	5450	383.2
400	204.4	200	14.1	635	44.6	1265	88.9	1690	118.8	3170	222.9	5280	371.2
500	260.0	170	12.0	605	42.5	1205	84.7	1610	113.2	3015	212.0	5025	353.3
600	315.6	140	9.8	570	40.1	1135	79.8	1515	106.5	2840	199.7	4730	332.6
650	343.3	125	8.8	550	38.7	1100	77.3	1465	103.0	2745	193.0	4575	321.7
700	371.1	110	7.7	530	37.3	1060	74.5	1415	99.5	2665	187.4	4425	311.1
750	398.9	95	6.7	505	35.5	1015	71.4	1350	94.9	2535	178.2	4230	297.4
800	426.7	80	5.6	410	28.8	825	58.0	1100	77.3	2055	144.5	3430	241.2
850	454.4	65	4.6	320	22.5	640	45.0	850	59.8	1595	112.1	2655	186.7
900	482.2	50	3.5	230	16.2	460	32.3	615	43.2	1150	80.9	1915	134.6
950	510.0	35	2.5	135	9.5	275	19.3	365	25.7	685	48.2	1145	80.5
1000	537.8	20	1.4	85	6.0	170	12.0	225	15.8	430	30.2	715	50.3

MATERIAL : A 182 F22 Standard Class

NOTE : Use normalised and tempered material only

Temperature		Pressure class											
		# 150		# 300		# 600		# 800*		# 1500		# 2500	
		PSI	Kg/cm ²	PSI	Kg/cm ²	PSI	Kg/cm ²	PSI	Kg/cm ²	PSI	Kg/cm ²	PSI	Kg/cm ²
°F	°C												
-20 to 100	-29 to 38	290	20.4	750	52.7	1500	105.5	2000	140.6	3750	263.7	6250	439.4
200	93.3	260	18.3	750	52.7	1500	105.5	2000	140.6	3750	263.7	6250	439.4
300	148.9	230	16.2	730	51.3	1455	102.3	1940	136.4	3640	255.9	6070	426.8
400	204.4	200	14.1	705	49.6	1410	99.1	1880	132.2	3530	248.2	5880	413.4
500	260.0	170	12.0	665	46.8	1330	93.5	1775	124.8	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	354.3
650	343.3	125	8.8	590	41.5	1175	82.6	1570	110.4	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	95.3	2540	178.6	4230	297.4
850	454.4	65	4.6	485	34.1	975	68.5	1300	91.4	2435	171.2	4060	285.4
900	482.2	50	3.5	450	31.6	900	63.3	1200	84.4	2245	157.8	3745	263.3
950	510.0	35	2.5	385	27.1	755	53.1	1025	72.1	1930	135.7	3220	226.4
1000	537.8	20	1.4	265	18.6	535	37.6	710	49.9	1335	93.9	2230	156.8
1050	565.6	20	1.4	175	12.3	350	24.6	465	32.7	875	61.5	1455	102.3
1100	593.3	20	1.4	110	7.7	220	15.5	295	20.7	550	38.7	915	64.3
1150	621.1	20	1.4	70	4.9	135	9.5	180	12.7	345	24.3	570	40.1
1200	648.9	15	1.1	40	2.8	80	5.6	110	7.7	205	14.4	345	24.3

* Pressure/Temperature Class Values as per API 602

800 GATE VALVE

1500 GATE VALVE

A. DESIGN / TEST SPECIFICATION

TEST (API 598)	(kg/cm ²)	(PSI)	TESTING MEDIUM
SHELL	210	2975	WATER
BACK SEAT	153	2173	
SEAT LEAK	4 TO 7	58 TO 100	AIR
DESIGN SPECIFICATIONS			
GENERAL VALVE DESIGN & PR. TEMP. RATING			API 602
SOCKET WELD END DIMENSIONS			ASME B16.11
END TO END AS PER MANUFACTURER'S STANDARD			

A. DESIGN / TEST SPECIFICATION

TEST (API 598)	(kg/cm ²)	(PSI)	TESTING MEDIUM
SHELL	396	5625	WATER
BACK SEAT	291	4125	
SEAT LEAK	4 TO 7	58 TO 100	AIR
DESIGN SPECIFICATIONS			
GENERAL VALVE DESIGN			API 602
PRESSURE TEMPERATURE RATINGS			ASME B16.34
SOCKET WELD END DIMENSIONS			ASME B16.11
END TO END AS PER MANUFACTURER'S STANDARD			

B. DIMENSIONS

SIZE		E		ØB		C (open)		ØD		A	
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
1/2	15	2.9	73	0.9	21.8	5.0	140	3.7	96	0.4	9.5
3/4	20	3.2	82	1.1	27.2	5.4	155	3.7	96	0.5	12.5
1	25	3.5	90	1.3	33.9	5.9	170	4.1	103	0.5	12.5
1½	40	5.0	127	1.9	48.8	8.1	240	5.0	127	0.5	12.5
2	50	5.8	148	2.4	61.2	9.5	285	5.8	150	0.6	16.0

B. DIMENSIONS

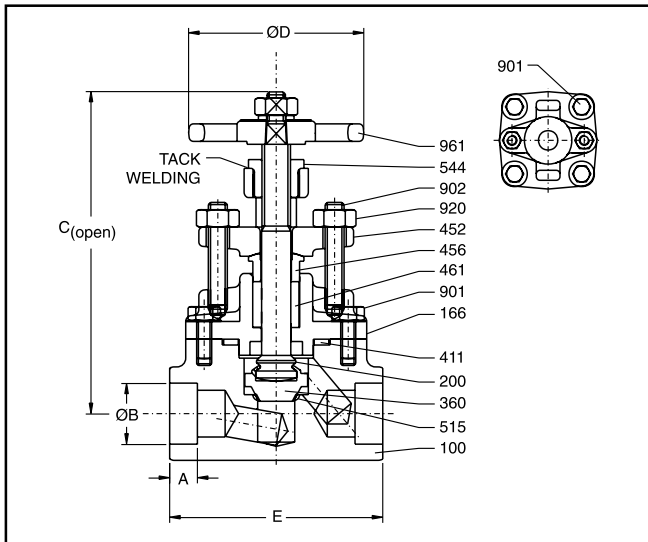
SIZE		E		ØB		C (open)		ØD		A	
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
1/2	15	2.9	73	0.9	21.8	6.1	170	3.7	96	0.4	9.5
3/4	20	3.7	94	1.1	27.2	6.5	190	3.7	96	0.5	12.5
1	25	4.8	122	1.3	33.9	7.5	210	5.0	127	0.5	12.5
1½	40	6.3	160	1.9	48.8	10.1	290	5.8	150	0.5	12.5
2	50	7.0	178	2.4	61.2	10.7	315	5.8	150	0.6	16.0

C. MATERIAL

PART NO.	PART NAME	MATERIALS AS PER ASTM	
100	BODY	A 105	A 182-F316L
166	BONNET	A 105	A 182-F316L
200	STEM	A 479-410-2	A 276-316L
360	WEDGE	A 217-CA15	A 351-CF3M
411	GASKET	SS + GRPH	SS+GRPH
452	GLAND FLANGE	A 105	A 182-F316L
456	GLAND BUSH	A 276-410	A 276-316L
461	GLAND PACKING	GRAPHITE	GRAPHITE
515	SEAT RING	A 276-410+ST6	A 276-316L
544	STEM NUT	A 582-416	A 582-416
901	HEX BOLT	A 193-B7	A 193-B8M
902	STUD	A 193-B6	A 193-B8M
920	HEX NUT	A 194-2H	A 194-B8
961	HAND WHEEL	IS 2108-BM 340 / SG IRON	

C. MATERIAL

PART NO.	PART NAME	MATERIALS AS PER ASTM	
100	BODY	A 105	A 182 F22
166	BONNET	A 105	A 182 F22
200	STEM	A 479-410-2	A 479-410-2
360	WEDGE	A 217-CA15	Stellited
452	GLAND FLANGE	A 105	A 105
456	GLAND BUSH	A 276-410	A 276-410
461	GLAND PACKING	GRAPHITE	GRAPHITE
515	SEAT RING	A 276-410+ST6	A 276-410+ST6
544	STEM NUT	A 582-416	A 582-416
902	STUD	A 193-B8M Cl.2	A 193-B8M CL.2
920	HEX NUT	A 194-2H	A 194-2H
961	HAND WHEEL	IS 2108-BM 340 / SG IRON	

800 GLOBE VALVE

A. DESIGN / TEST SPECIFICATIONS

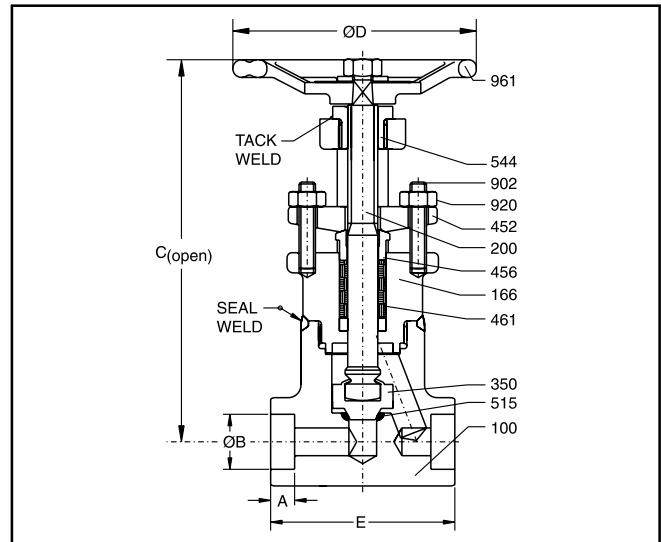
TEST (API 598)	(kg/cm ²)	(PSI)	TESTING MEDIUM
SHELL	210	2975	WATER
BACK SEAT	153	2173	
SEAT LEAK	153	2173	
DESIGN SPECIFICATIONS			
GENERAL VALVE DESIGN & PR. TEMP. RATING			API 602
SOCKET WELD END DIMENSIONS			ASME B16.11
END TO END AS PER MANUFACTURER'S STANDARD			

B. DIMENSIONS

SIZE		E		ØB		C(open)		ØD		A	
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
1/2	15	2.9	73	0.9	21.8	4.7	125	3.0	75	0.4	9.5
3/4	20	3.2	82	1.1	27.2	5.2	142	3.0	75	0.5	12.5
1	25	4.3	108	1.3	33.9	5.8	180	4.7	120	0.5	12.5
1½	40	6.0	152	1.9	48.8	8.0	220	5.7	144	0.5	12.5
2	50	5.8	148	2.4	61.2	10.4	285	5.7	144	0.6	16.0

C. MATERIAL

PART NO.	PART NAME	MATERIALS AS PER ASTM	
100	BODY	A 105	A 182-F316L
166	BONNET	A 105	A 182-F316L
200	STEM	A 479-410-2	A 276-316L
360	DISC	A 276-410 (H)	A 351-CF3M
411	GASKET	SS + GRPH	SS+GRPH
452	GLAND FLANGE	A 105	A 182-F316L
456	GLAND BUSH	A 276-410	A 276-316L
461	GLAND PACKING	GRAPHITE	GRAPHITE
515	SEAT	ST6 (INTEGRAL)	A 276-316L
544	STEM NUT	A 582-416	A 582-416
901	HEX BOLT	A 193-B7	A 193-B8M
902	STUD	A 193-B6	A 193-B8M
920	HEX NUT	A 194-2H	A 194-B8
961	HAND WHEEL	S 2108-BM 340 / SG IRON	

1500 GLOBE VALVE

A. DESIGN / TEST SPECIFICATIONS

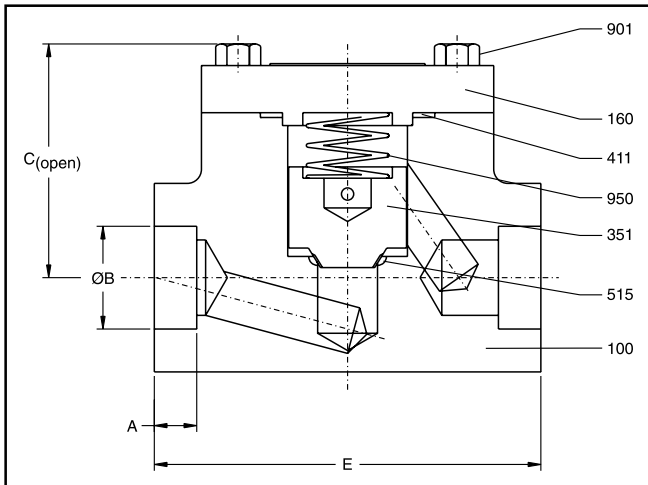
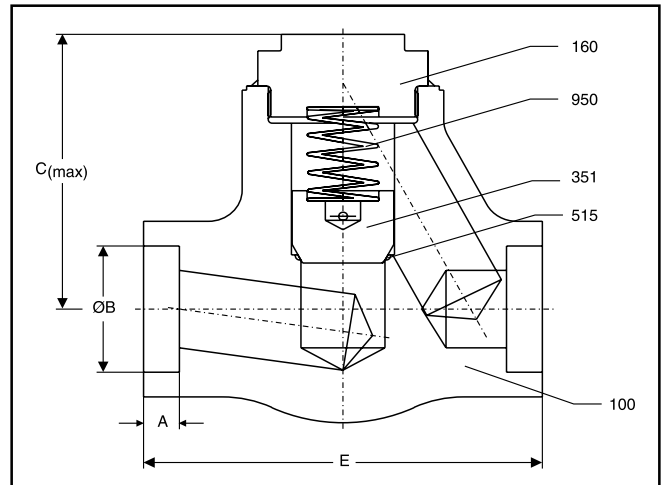
TEST (API 598)	(kg/cm ²)	(PSI)	TESTING MEDIUM
SHELL	396	5625	WATER
BACK SEAT	291	4125	
SEAT LEAK	291	4125	
DESIGN SPECIFICATIONS			
GENERAL VALVE DESIGN			API 602
PPRESSURE TEMPERATURE RATINGS			ASME B16.34
SOCKET WELD END DIMENSIONS			ASME B16.11
END TO END AS PER MANUFACTURER'S STANDARD			

B. DIMENSIONS

SIZE		E		ØB		C(open)		ØD		A	
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
1/2	15	2.9	73	0.9	21.8	6.7	180	5.0	127	0.4	9.5
3/4	20	3.7	94	1.1	27.2	8.7	230	7.3	145	0.5	12.5
1	25	4.8	122	1.3	33.9	9.3	250	7.3	145	0.5	12.5
1½	40	6.3	160	1.9	48.8	11.6	315	8.0	203	0.5	12.5
2	50	7.0	178	2.4	61.2	12.2	335	8.0	203	0.6	16.0

C. MATERIAL

PART NO.	PART NAME	MATERIALS AS PER ASTM	
100	BODY	A 105	A 182 F22
166	BONNET	A 105	A 182 F22
200	STEM	A 479-410-2	A 479-410-2
350	DISC	A 276-410 (H)	SS 304+ST6
452	GLAND FLANGE	A 105	A 105
456	GLAND BUSH	A 276-410	A 276-410
461	GLAND PACKING	GRAPHITE	GRAPHITE
515	SEAT	ST6 (INTEGRAL)	ST6 (INTEGRAL)
544	STEM NUT	A 582-416	A 582-416
902	STUD	A 193-B8M Cl.2	A 193-B8M Cl.2
920	HEX NUT	A 194-2H	A 194-2H
961	HAND WHEEL	IS 2108-BM 340 / SG IRON	

800 CHECK VALVE

1500 CHECK VALVE

A. DESIGN / TEST SPECIFICATIONS

TEST (API 598)	(kg/cm ²)	(PSI)	TESTING MEDIUM
SHELL	210	2975	WATER
SEAT LEAK	153	2173	
DESIGN SPECIFICATIONS			
GENERAL VALVE DESIGN & PR. TEMP. RATING			API 602
SOCKET WELD END DIMENSIONS			ASME B16.11
END TO END AS PER MANUFACTURER'S STANDARD			

A. DESIGN / TEST SPECIFICATIONS

TEST (API 598)	(kg/cm ²)	(PSI)	TESTING MEDIUM
SHELL	396	5625	WATER
SEAT LEAK	291	4125	
DESIGN SPECIFICATIONS			
GENERAL VALVE DESIGN			API 602
PRESSURE TEMPERATURE RATINGS			ASME B16.34
SOCKET WELD END DIMENSIONS			ASME B16.11
END TO END AS PER MANUFACTURER'S STANDARD			

B. DIMENSIONS

SIZE		E		ØB		C(open)		A	
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
1/2	15	2.9	73	0.9	21.8	2.0	50	0.4	9.5
3/4	20	3.2	82	1.1	27.2	2.4	60	0.5	12.5
1	25	4.3	108	1.3	33.9	2.6	65	0.5	12.5
1½	40	6.0	152	1.9	48.8	3.5	90	0.5	12.5
2	50	5.8	148	2.4	61.2	4.9	125	0.6	16.0

B. DIMENSIONS

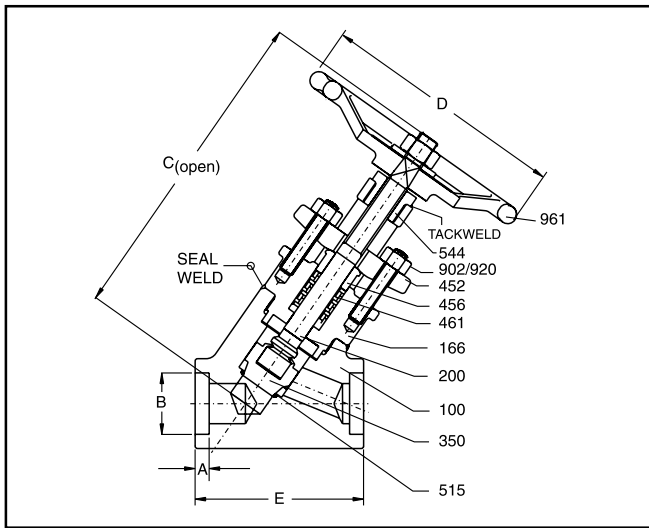
SIZE		E		ØB		C		A	
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
1/2	15	2.9	73	0.9	21.8	2.6	65	0.4	9.5
3/4	20	3.7	94	1.1	27.2	3.1	80	0.5	12.5
1	25	4.8	122	1.3	33.9	3.7	95	0.5	12.5
1½	40	6.3	160	1.9	48.8	4.7	120	0.5	12.5
2	50	7.0	178	2.4	61.2	5.5	140	0.6	16.0

C. MATERIAL

PART NO.	PART NAME	MATERIALS AS PER ASTM	
100	BODY	A 105	A 182-316L
160	COVER	A 105	A 182-316L
351	DISC	A 276-410 (H)	A 276-316L
411	GASKET	SS + GRPH	SS + GRPH
515	SEAT	ST6 (INTEGRAL)	INTEGRAL
901	HEX BOLT	A 193-B7	A 193 - B8M Cl. 2
950	SPRING	A 313-SS 302	SS 304

C. MATERIAL

PART NO.	PART NAME	MATERIALS AS PER ASTM	
100	BODY	A 105	A 182 - F22
160	COVER	A 105	A 182 - F22
351	DISC	A 276-410 (H)	SS 304 + ST6
515	SEAT	ST6 (INTEGRAL)	ST6 (INTEGRAL)
950	SPRING	A 313 - SS 302	A 313 - SS 302

2500 Y - GLOBE

A. DESIGN / TEST SPECIFICATIONS

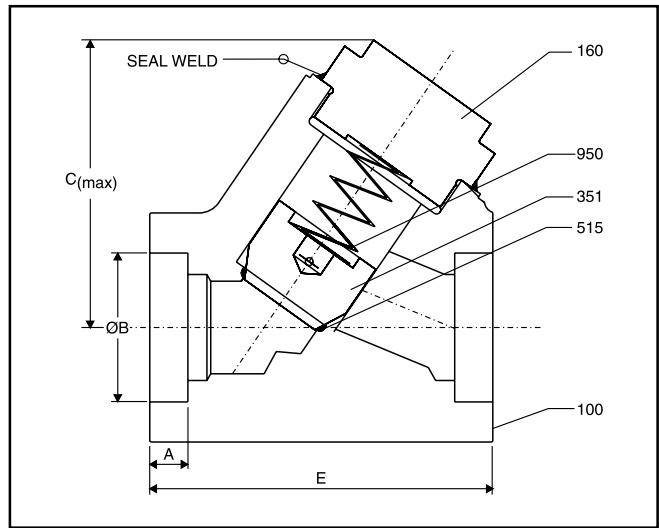
TEST (API 598)	(kg/cm ²)	(PSI)	TESTING MEDIUM
SHELL	660	9375	WATER
BACK SEAT	484	6875	
SEAT LEAK	484	6875	
DESIGN SPECIFICATIONS			
GENERAL VALVE DESIGN & PR. TEMP. RATING			ASME B16.34
SOCKET WELD END DIMENSIONS			ASME B16.11
END TO END AS PER MANUFACTURER'S STANDARD			

B. DIMENSIONS

SIZE		E		ØB		C(open)		ØD		A	
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
1/2	15	3.3	85	0.9	21.8	7.3	186	5.0	127	0.4	9.5
3/4	20	3.9	98	1.1	27.2	8.7	220	7.3	145	0.5	12.5
1	25	4.1	104	1.3	33.9	9.5	240	7.3	145	0.5	12.5
1½	40	5.7	144	1.9	48.8	11.8	300	8.0	203	0.5	12.5
2	50	5.7	144	2.4	61.2	15.0	380	10.0	255	0.6	16.0

C. MATERIAL

PART NO.	PART NAME	MATERIALS AS PER ASTM	
100	BODY	A 105	A 182-F22
166	BONNET	A 105	A 182-F22
200	STEM	A 479-410-2	A 479-410-2
350	DISC	SS 304 + ST6	SS 304 + ST6
452	GLAND FLANGE	A 105	A 105
456	GLAND BUSH	A 276-410	A 276-410
461	GLAND PACKING	GRAPHITE	GRAPHITE
515	SEAT	ST6 (INTEGRAL)	ST6 (INTEGRAL)
544	STEM NUT	A 582-416	A 582-416
902	STUD	A 193-B8M Cl.2	A 193-B8M Cl.2
920	HEX NUT	A 194-2H	A 194-2H
961	HAND WHEEL	IS 2108-BM 340 / SG IRON	

2500 Y - CHECK

A. DESIGN / TEST SPECIFICATIONS

TEST (API 598)	(Kg/cm ²)	(PSI)	TESTING MEDIUM
SHELL	660	9375	WATER
SEAT LEAK	484	6875	
DESIGN SPECIFICATIONS			
GENERAL VALVE DESIGN & PR. TEMP. RATING			ASME B16.34
SOCKET WELD END DIMENSIONS			ASME B16.11
END TO END AS PER MANUFACTURER'S STANDARD			

B. DIMENSIONS

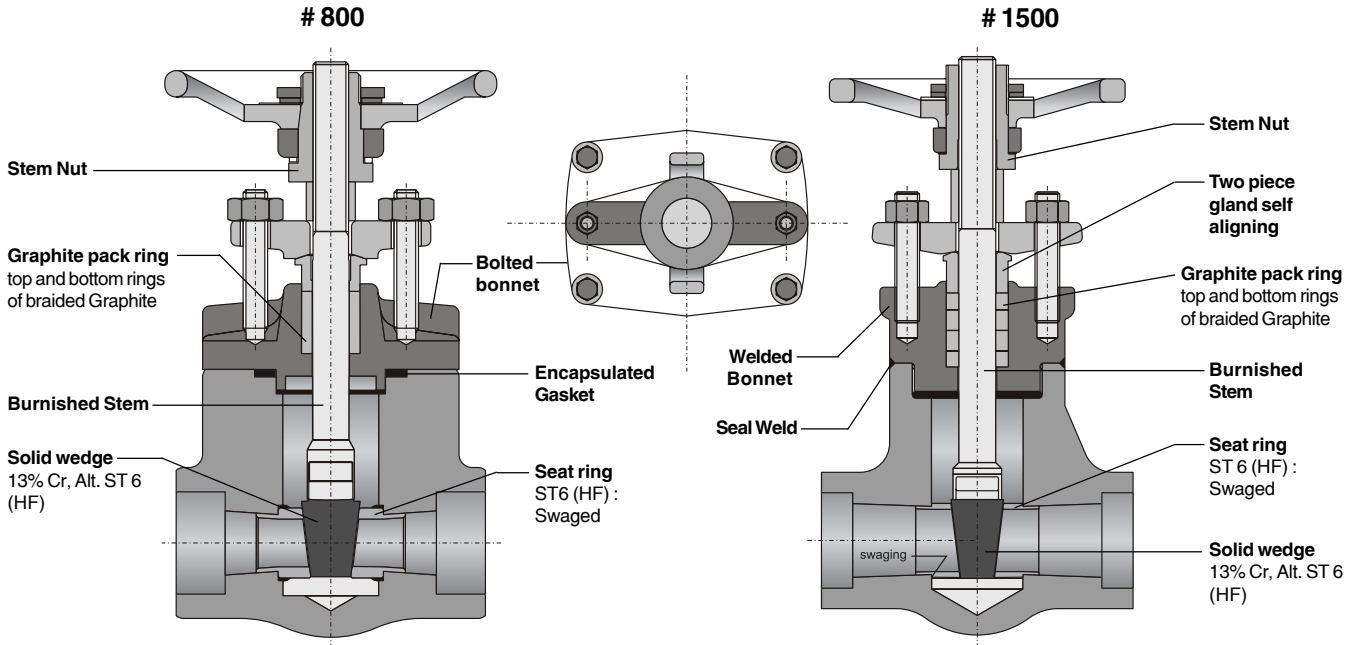
SIZE		E		ØB		C(max)		A	
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
1/2	15	3.4	85	0.9	21.8	3.0	80	0.4	9.5
3/4	20	3.9	98	1.1	27.2	3.0	80	0.5	12.5
1	25	4.1	104	1.3	33.9	3.5	90	0.5	12.5
1½	40	5.7	144	1.9	48.8	4.7	120	0.5	12.5
2	50	5.7	144	2.4	61.2	5.0	130	0.6	16.0

C. MATERIAL

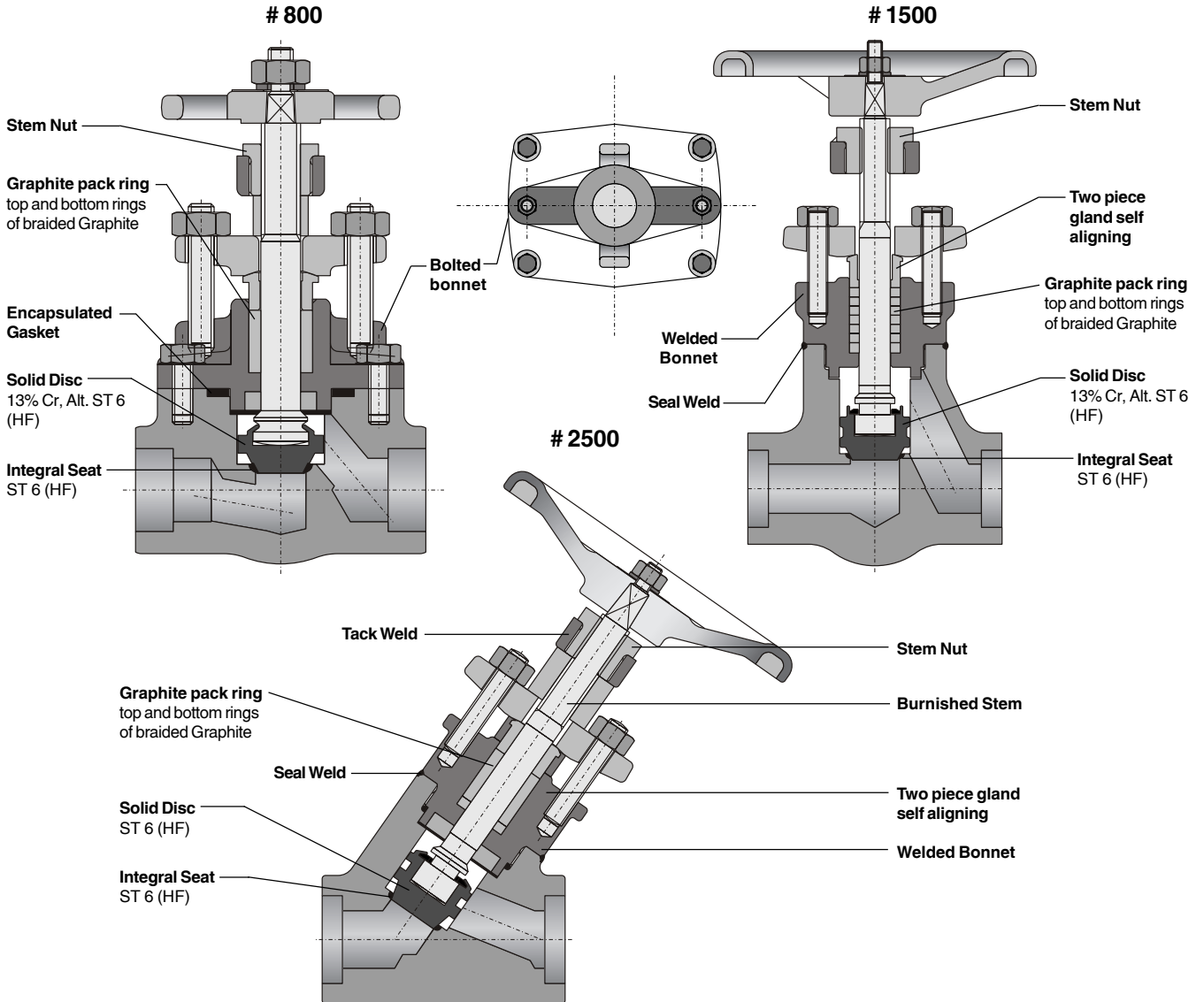
PART NO.	PART NAME	MATERIALS AS PER ASTM	
100	BODY	A105	A182 - F22
160	COVER	A105	A182 - F22
351	DISC	SS 304 + ST6	SS 304 + ST6
515	SEAT	ST6 (INTEGRAL)	ST6 (INTEGRAL)
950	SPRING	A 313-SS 302	A 313-SS 302

Product features to our Customer's benefit

Gate Valve



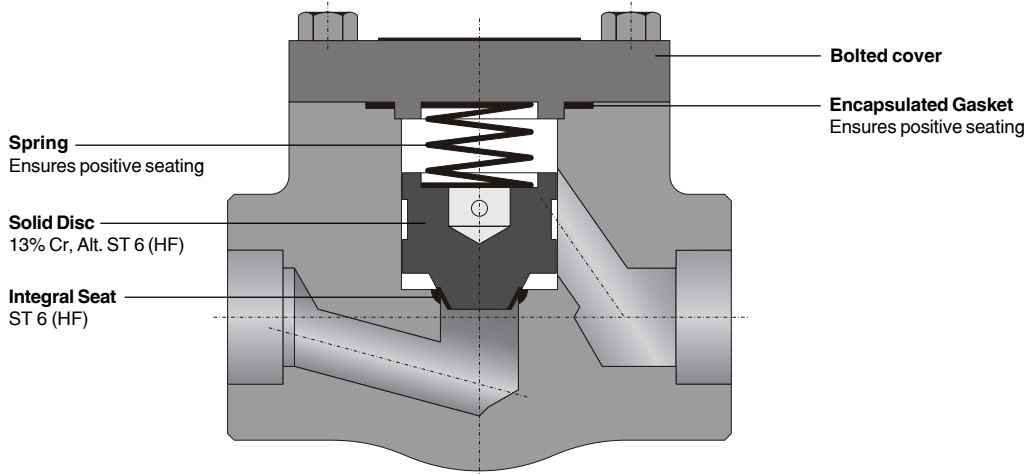
Globe Valve



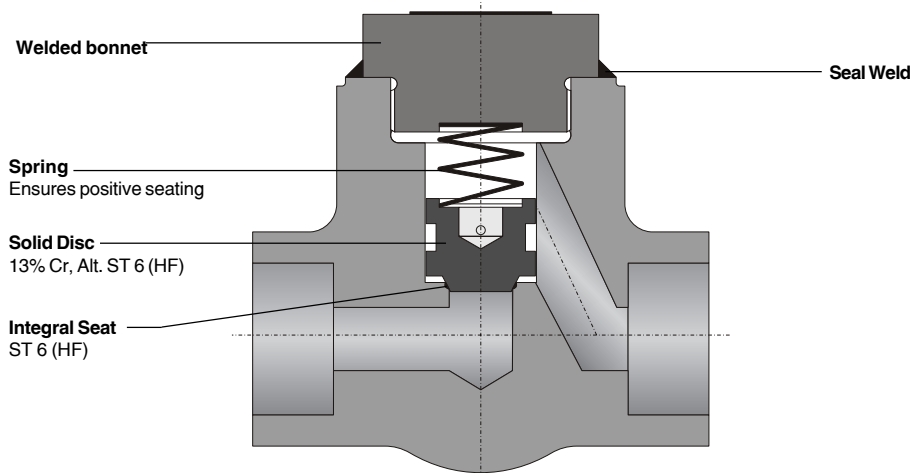
Product features to our Customer's benefit

Check Valve

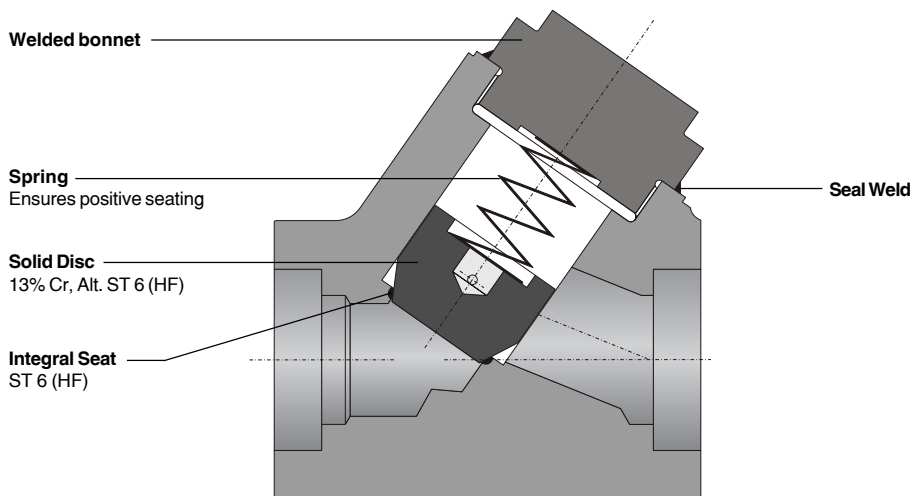
800



1500



2500



Technical matter. Subject to change without notice.



KSB Pumps Limited

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