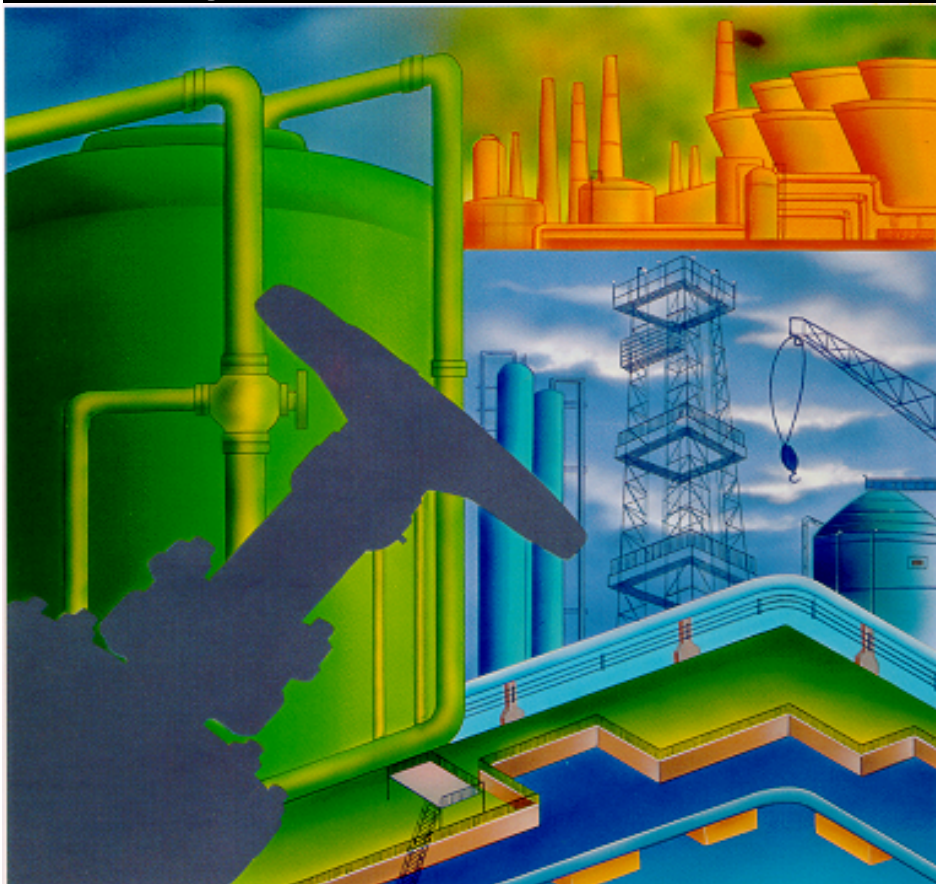
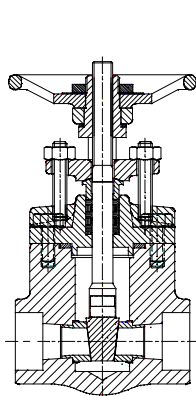


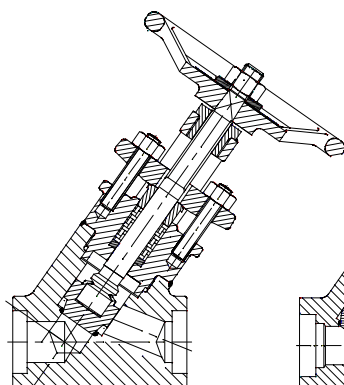
Catalogo Valvole ANSI serie SICCA



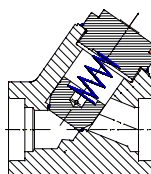
ANSI/ASME gate, globe and check valves forged steel



Type GTF



Type GLF



Type PCF

with socket weld ends
or with socket thread ends

Class 800-2500
1/2" - 2"

Application

- Power stations, general industry, process engineering
- For water, steam, gas, oil and other non-aggressive media
- Other applications on request

Operating Data

- Maximum allowable pressure 439 bar
- Maximum allowable temperature 593 °C
- Pressure-temperature ratings see next side ¹⁾
- ¹⁾ Minimum temperature 0 °C, less than 0 °C on request

Materials

- A 105 from 0 °C to +425 °C / 800 °F
- A 182 F22 from 0 °C to +593 °C / 1100 °F

Design

- Class 800/1500: API 602 for gate valve, BS 5352 for globe and check valves
- Class 2500: ASME B 16.34
- Bolted bonnet for class 800
- Welded bonnet for class 1500/2500
- Socket weld for class 800-2500, socket thread NPT (F) for class 800
- Trim No. 8 (Stellite - 13% Cr) for class 800
- Trim No. 8 (Stellite - 13% Cr) and No. 5 (double stellite) for class 1500
- Trim No. 5 (double stellite) for class 2500
- Solid wedge
- Integral back seat
- Outside screw and yoke for gate and globe valve
- Spring loaded piston for check valve
- Non-rotating stem for gate valve
- Rotating stem for globe valve

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of annex I for fluids of the groups 1 and 2.

Variants on request

- Position indicator
- Locking device
- Flanged ends to class 150/300/600
- Actuator
- Butt weld execution
- Other materials and Trim
- Other execution

Remarks

- Operating instructions no: 0570.84

On all enquiries / orders please specify

- | | |
|-----------------------------|------------------------------------|
| 1. Type | 8. Flow medium |
| 2. ANSI Pressure class | 9. Type of end connection |
| 3. Size | 10. Pipe schedule |
| 4. Design pressure | 11. Variants |
| 5. Operating pressure | 12. Type leaflet no. |
| 6. Differential pressure | 13. Valve data sheet if applicable |
| 7. Material of construction | |

When ordering spare parts, indicate original factory number and year of manufacture.



Pressure-Temperature ratings (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 800 °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	1885	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

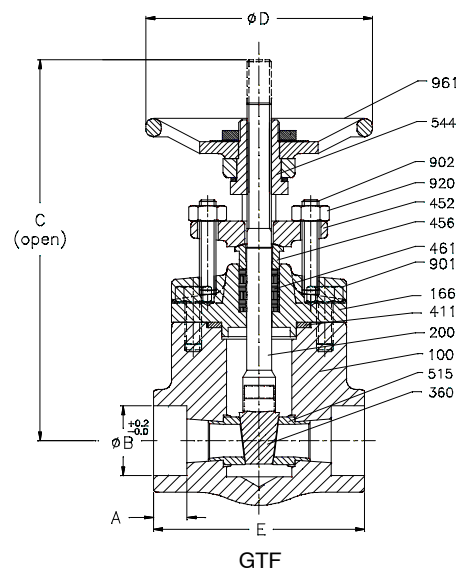
Note: A 182 F22 use normalised and tempered material only

SICCA® 800, type GTF
Design / test specification

Test (API 598)	bar	(PSI)	Testing medium
Shell	210	2963	Inhibited water
Back seat	153	2173	
Seat leak	4 to 7	60 to 100	Air

Design specification

General valve design and pT-Rating	API 602
Socket weld end dimension	ASME B16.11
End to end as per manufacturer's standard	


Material

Part no.	Part name	Materials as per ASTM
100	Body	A 105
166	Bonnet	A 105
200	Stem	A 479-410-2
360	Wedge	A 217-CA15
411	Gasket	SS + Graphite
452	Gland flange	A 105
456	Gland bush	A 276-410
461	Gland packing	Graphite
515	Seat ring	A 276-410+ST6
544	Stem nut	A 473-416
901	Hex bolt	A 193-B7
902	Stud	A 193-B6
920	Hex nut	A 194-2H
961	Handwheel	IS 2108-A

Dimensions

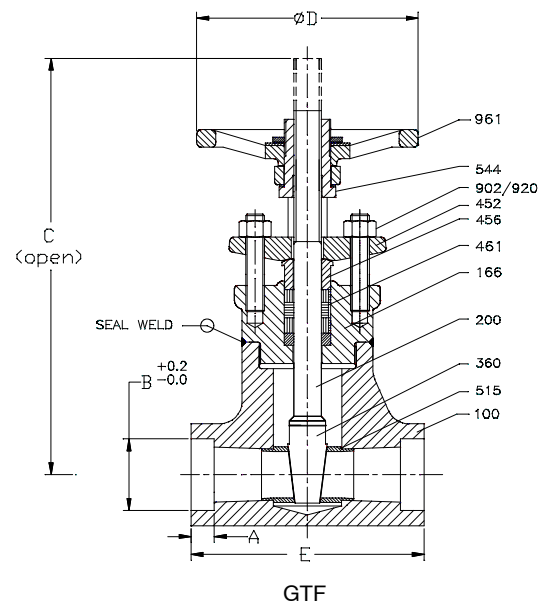
Size		E		Ø B		C		Ø D		A	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1/2	15	2,9	73	0,9	21,8	4,5	115	3,5	90	0,4	9,5
3/4	20	3,2	82	1,1	27,1	5,1	130	3,5	90	0,5	13,0
1	25	3,5	90	1,3	33,8	5,7	144	4,0	102	0,5	13,0
1 1/2	40	5,0	127	1,9	48,7	7,8	198	5,0	125	0,5	13,0
2	50	5,8	148	2,4	61,1	9,3	237	6,0	152	0,6	16,0

SICCA® 1500, type GTF
Design / test specification

Test (API 598)	bar	(PSI)	Testing medium
Shell	396	5625	Inhibited water
Back seat	291	4125	
Seat leak	4 to 6	60 to 100	Air

Design specification

General valve design	API 602
pT-Rating	ASME B16.34
Socket weld end dimension	ASME B16.11
End to end as per manufacturer's standard	


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	
360	Wedge	A 217-CA15	Stellited
452	Gland flange	A 105	
456	Gland bush	A 276-410	
461	Gland packing	Graphite	
515	Seat ring	A 276-410+ST6	
544	Stem nut	A 473-416	
902	Stud	A 193-B8M Cl.2	
920	Hex nut	A 194-2H	
961	Handwheel	IS 2108-A	

Dimensions

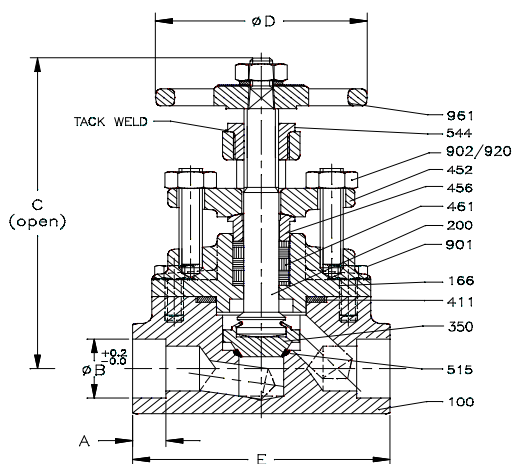
Size		E		Ø B		C		Ø D		A	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1/2	15	2,9	73	0,9	21,8	5,7	145	3,5	90	0,4	9,5
3/4	20	3,7	94	1,1	27,1	6,2	159	3,5	90	0,5	13,0
1	25	4,8	122	1,3	33,8	7,3	185	5,0	125	0,5	13,0
1 1/2	40	6,3	160	1,9	48,7	9,6	245	6,0	152	0,5	13,0
2	50	7,0	178	2,4	61,1	10,3	262	6,0	152	0,6	16,0

SICCA® 800, type GLF
Design / test specification

Test (API 598)	bar	(PSI)	Testing medium
Shell	210	2963	Inhibited water
Back seat	153	2173	
Seat leak	153	2173	

Design specification

General valve design	BS 5352
pT-Rating	ASME B16.34
Socket weld end dimension	ASME B16.11
End to end as per manufacturer's standard	


GLF
Material

Part no.	Part name	Materials as per ASTM
100	Body	A 105
166	Bonnet	A 105
200	Stem	A 479-410-2
350	Disc	A 276-410 (H)
411	Gasket	SS + Graphite
452	Gland flange	A 105
456	Gland bush	A 276-410
461	Gland packing	Graphite
515	Seat	ST6 (integral)
544	Stem nut	A 473-416
901	Hex bolt	A 193-B7
902	Stud	A 193-B6
920.1	Hex nut	A 194-2H
920.2	Hex nut	A 194-2H
961	Handwheel	IS 2108-A

Dimensions

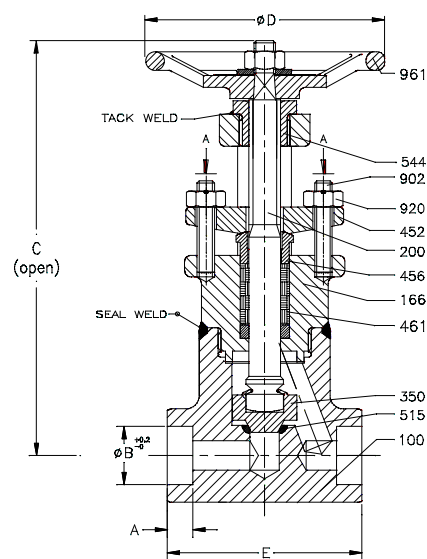
Size		E		Ø B		C		Ø D		A	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1/2	15	2,9	73	0,9	21,8	4,6	118	4,0	100	0,4	9,5
3/4	20	3,2	82	1,1	27,1	5,1	130	4,0	100	0,5	13,0
1	25	3,5	90	1,3	33,8	6,0	151	4,0	100	0,5	13,0
1 1/2	40	5,0	127	1,9	48,7	7,8	197	8,0	200	0,5	13,0
2	50	5,8	148	2,4	61,1	10,2	260	8,0	200	0,6	16,0

SICCA® 1500, type GLF
Design / test specification

TEST (API 598)	BAR	(PSI)	Testing medium
Shell	396	5625	Inhibited water
Back seat	291	4125	
Seat leak	291	4125	

Design specification

General valve design	API 5352
pT-Rating	ASME B16.34
Socket weld end dimension	ASME B16.11
End to end as per manufacturer's standard	


GLF
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	
350	Disc	A 276-410 (H)	SS 304+ST6
452	Gland flange	A 105	
456	Gland bush	A 276-410	
461	Gland packing	Graphite	
515	Seat	ST6 (integral)	
544	Stem nut	A 473-416	
902	Stud	A 193-B8M Cl.2	
920.1	Hex nut	A 194-2H	
920.2	Hex nut	A 194-2H	
961	Handwheel	IS 2108-A	

Dimensions

Size		E		Ø B		C		Ø D		A	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1/2	15	2,9	73	0,9	21,8	6,5	164	3,5	90	0,4	9,5
3/4	20	3,7	94	1,1	27,1	8,0	202	6,0	152	0,5	13,0
1	25	4,8	122	1,3	33,8	8,3	211	6,0	152	0,5	13,0
1 1/2	40	6,3	160	1,9	48,7	11,0	278	8,0	203	0,5	13,0
2	50	7,0	178	2,4	61,1	11,7	297	8,0	203	0,6	16,0

SICCA® 800, type PCF
Design / test specification

TEST (API 598)	BAR	(PSI)	Testing medium
Shell	210	2963	Inhibited water
Back seat	N. A.	N. A.	
Seat leak	153	2173	

Design specification

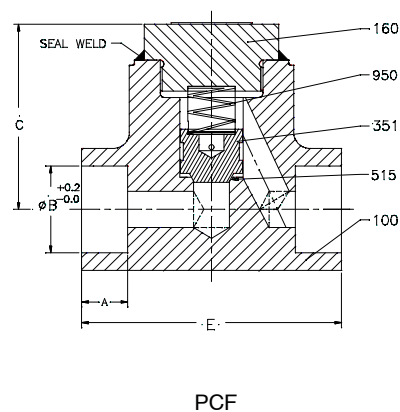
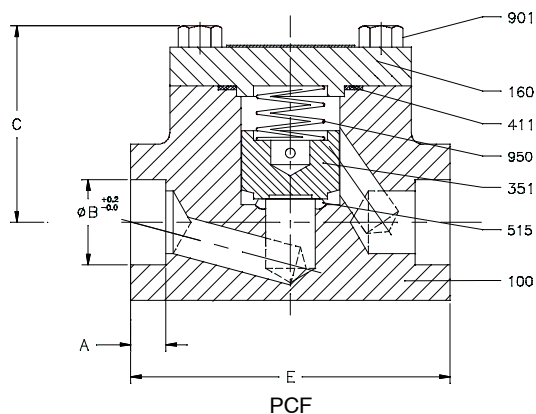
General valve design	BS 5352
pT-Rating	ASME B16.34
Socket weld end dimension	ASME B16.11
End to end as per manufacturer's standard	

SICCA® 1500, type PCF
Design / test specification

TEST (API 598)	BAR	(PSI)	Testing medium
Shell	396	5625	Inhibited water
Back seat	N. A.	N. A.	
Seat leak	291	4125	

Design specification

General valve design	BS 5352
pT-Rating	ASME B16.34
Socket weld end dimension	ASME B16.11
End to end as per manufacturer's standard	


Material

Part no.	Part name	Materials as per ASTM
100	Body	A 105
160	Cover	A 105
351	Disc	A 276-410 (H)
411	Gasket	SS + Graphite
515	Seat	ST6 (integral)
901	Hex bolt	A 193-B7
950	Spring	A 313-SS 302

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)	
950	Spring	A 313-SS 302	

Dimensions

Size		E		Ø B		C		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	27,1	2,6	66	0,5	13,0
1	25	3,5	90	1,3	33,8	3,0	78	0,5	13,0
1 1/2	40	5,0	127	1,9	48,7	4,5	115	0,5	13,0
2	50	5,8	148	2,4	61,1	6,5	165	0,6	16,0

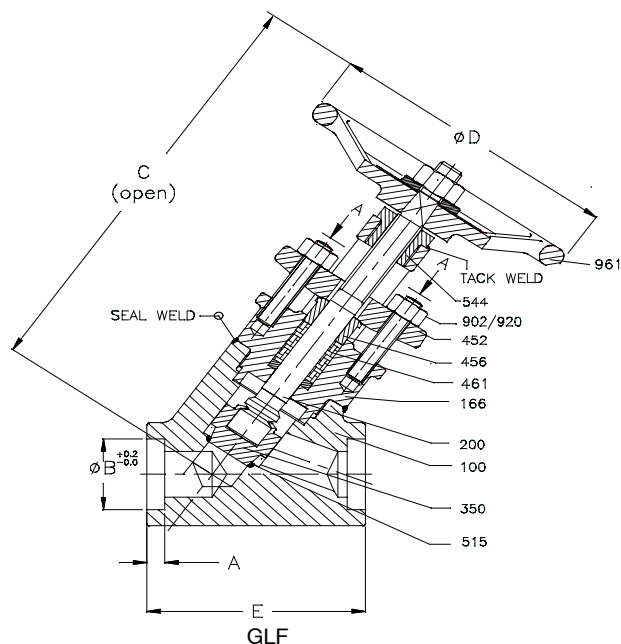
Dimensions

Size		E		Ø B		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	27,1	3,0	76	0,5	13,0
1	25	4,8	122	1,3	33,8	3,4	86	0,5	13,0
1 1/2	40	6,3	160	1,9	48,7	4,6	116	0,5	13,0
2	50	7,0	178	2,4	61,1	5,2	133	0,6	16,0

Minimum opening pressure: 0,2 bar

SICCA® 2500, type GLF
Design / test specification

Test (API 598)	bar	(PSI)	Testing medium
Shell	660	9375	Inhibited water
Back seat	484	6875	
Seat leak	484	6875	
Design specification			
General valve design and pT-Rating			ASME B16.34
Socket weld end dimension			ASME B16.11
End to end as per manufacturer's standard			


Material

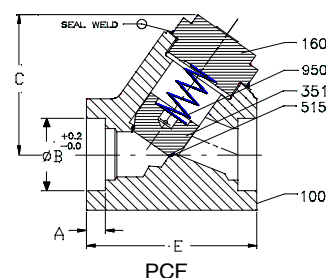
Part no.	Part name	Materials as per ASTM	
100	Body	A 105	A 182 F22
166	Bonnet	A 105	A 182 F22
200	Stem	A 479-410-2	
350	Disc	SS 304+ST6	
452	Gland flange	A 105	
456	Gland bush	A 276-410	
461	Gland packing	Graphite	
515	Seat	ST6 (integral)	
544	Stem nut	A 473-416	
902	Stud	A 193-B8M Cl.2	
920	Hex nut	A 194-2H	
961	Handwheel	IS 2108-A	

Dimensions

Size		E		Ø B		C		Ø D		A	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1/2	15	3,3	85	0,9	21,8	6,5	166	3,5	90	0,4	10,0
3/4	20	3,9	98	1,1	27,1	8,3	210	6,0	152	0,5	13,0
1	25	4,1	104	1,3	33,8	8,3	210	6,0	152	0,5	13,0
1 1/2	40	5,7	144	1,9	48,7	10,8	275	8,0	203	0,5	14,0
2	50	5,7	144	2,4	61,1	11,0	280	8,0	203	0,6	16,0

SICCA® 2500, type PCF
Design / test specification

TEST (API 598)	BAR	(PSI)	Testing medium
Shell	660	9375	Inhibited water
Back seat	-	-	
Seat leak	484	6875	
Design specification			
General valve design and pT-Rating			ASME B16.34
Socket weld end dimension			ASME B16.11
End to end as per manufacturer's standard			


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	SS 304+ST6	
515	Seat	ST6 (integral)	
950	Spring	A 313-SS 302	

Dimensions

Size		E		Ø B		C		A	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1/2	15	3,4	85	0,9	21,8	2,8	70	0,4	10,0
3/4	20	3,9	98	1,1	27,1	3,0	76	0,5	13,0
1	25	4,1	104	1,3	33,8	3,3	84	0,5	13,0
1 1/2	40	5,7	144	1,9	48,7	4,6	116	0,5	13,0
2	50	5,7	144	2,4	61,1	4,8	123	0,6	16,0

Minimum opening pressure: 0,2 bar

Product Features - to our Customers' Benefit

Two piece gland arrangement

Your benefit

- Self aligning bush
- Even compression of packing rings
- No distortion on stem surface due to improper assembly

Burnished stem

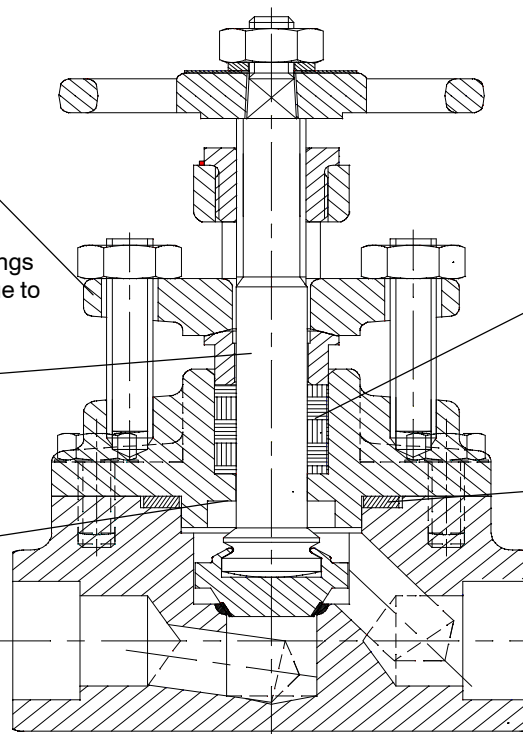
Your benefit

- Long gland life

Integral back seat

Your benefit

- Additional stem seal to guard emergency operation
- Blow-out protection
- Relief of packing arrangement



T-pattern

Die-moulded graphite rings, top and bottom rings braided

Your benefit

- Prevents extrusion of graphite

Encapsulated spiral wound stainless steel gasket with graphite filling (class 800)

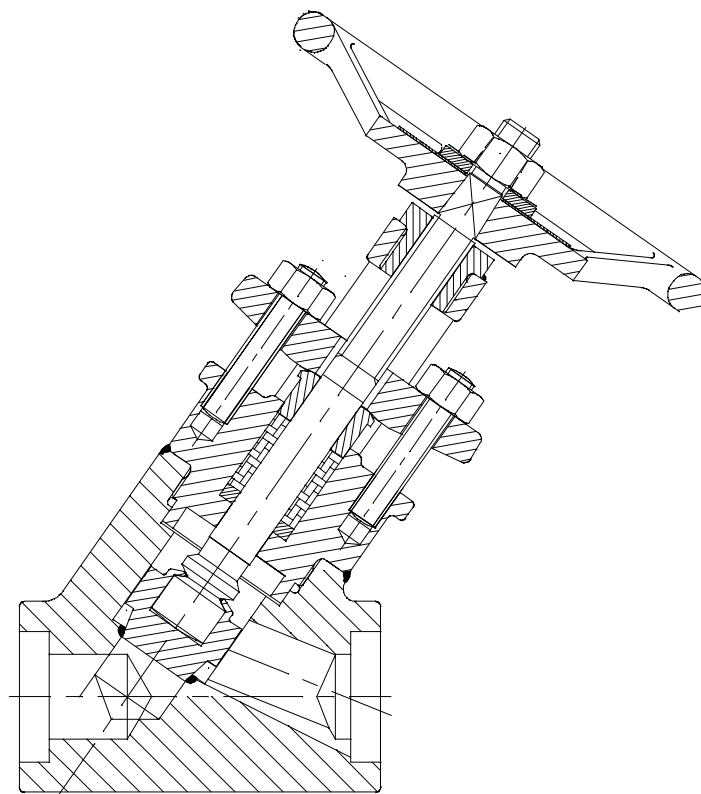
Your benefit

- Secured sealing due to effective compression

Y-pattern

Your benefit

- Reduced pressure drop



Y-pattern

Product features – to our Customers' Benefit

Two piece gland arrangement

Your benefit

- Self aligning bush
- Even compression of packing rings
- No distortion on stem surface due to improper assembly

Burnished stem

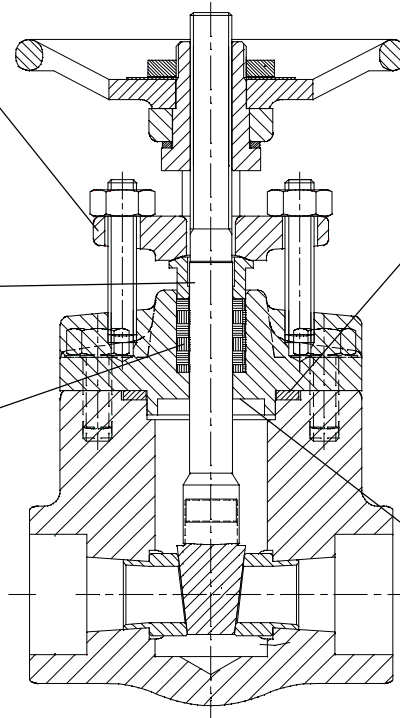
Your benefit

- Long gland life

Die-moulded graphite rings, top and bottom rings braided

Your benefit

- Prevents extrusion of graphite



GTF

Encapsulated spiral wound stainless steel gasket with graphite filling (class 800)

Your benefit

- Secured sealing due to effective compression

Integral back seat

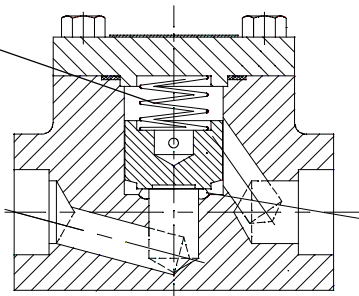
Your benefit

- Additional stem seal to guard emergency operation
- Blow-out protection
- Relief of packing arrangement

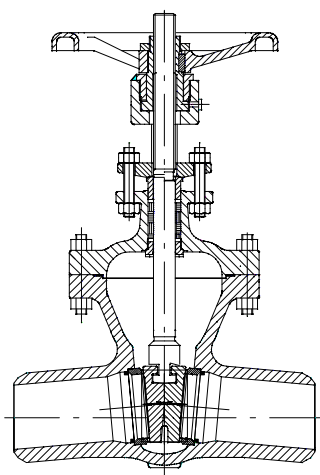
Spring loaded piston

Your benefit

- Secured closing operation independent of installation orientation



PCF



Type GTC

**ANSI/ASME gate valves
cast steel**

bolted bonnet

butt weld ends
flanged

**Class 150-600
2"-12"**

Applications

- Refineries, power stations, process and general industry
- For water, steam, gas, oil and other non-aggressive media
- Other applications on request

Operating Data

- Maximum allowable pressure 104 bar
- Maximum allowable temperature 593 °C
- Pressure-temperature ratings see next side ¹⁾
- ¹⁾ Minimum temperature 0 °C, less than 0 °C on request

Materials

- A 216 WCB from 0 °C to 425 °C/ 800 °F
- A 217 WC6 from 0 °C to 593 °C/ 1100 °F
- A 351 CF8 from 0 °C to 537 °C/ 1000 °F

Design

- pT-Ratings as per ASME B 16.34, Standard class
- As per API 600
- Out-side screw and yoke
- Non-rotating stem
- Bolted bonnet
- Butt weld ends or flanged (RF)
- Flexible wedge
- Trim No. 8 (Stellite – 13% Cr)
- Trim No. 5 (double Stellite)
- Trim No. 2 (stainless steel)
- Trim No. 10 (stainless steel)
- Graphite gaskets and packings with braided anti-extrusion rings
- Back seat bush

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of annex I for fluids of the groups 1 and 2.

Variants on request

- Position indicator
- Locking arrangement
- Bypass execution
- Actuator execution
- Other materials
- Other Trim Nos.
- Other variants

Remarks

- Cast steel globe valve leaflet no: 7245.1
- Cast steel check valve leaflet no: 7246.1
- Operating instructions no: 0570.87

On all enquiries/orders please specify

- | | |
|-----------------------------|------------------------------------|
| 1. Type | 8. Flow medium |
| 2. ANSI Pressure class | 9. Type of end connection |
| 3. Size | 10. Pipe schedule |
| 4. Design pressure | 11. Variants |
| 5. Operating pressure | 12. Type leaflet no. |
| 6. Differential pressure | 13. Valve data sheet if applicable |
| 7. Material of construction | |



Pressure-Temperature ratings (ASME B 16.34)

A 216 WCB Standard Class

Temperature		Class 150		Class 300		Class 600	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	285	20.0	740	52.0	1480	104.1
200	93.3	260	18.3	675	47.5	1350	94.9
300	148.9	230	16.2	655	46.1	1315	92.5
400	204.4	200	14.1	635	44.6	1270	89.3
500	260.0	170	12.0	600	42.2	1200	84.4
600	315.6	140	9.8	550	38.7	1095	77.0
650	343.3	125	8.8	535	37.6	1075	75.6
700	371.1	110	7.7	535	37.6	1065	74.9
750	398.9	95	6.7	505	35.5	1010	71.0
800	426.7	80	5.6	410	28.8	825	58.0
850	454.4	65	4.6	270	19.0	535	37.6
900	482.2	50	3.5	170	12.0	345	24.3
950	510.0	35	2.5	105	7.4	205	14.4
1000	537.8	20	1.4	50	3.5	105	7.4

A 217 WC6 Standard Class

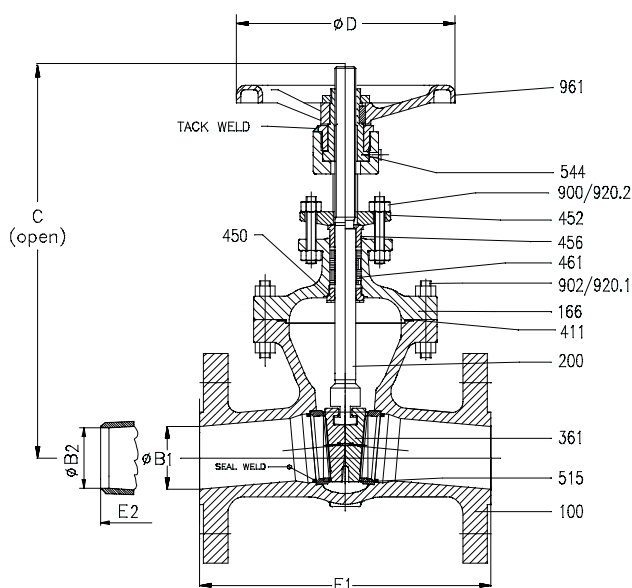
Temperature		Class 150		Class 300		Class 600	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	290	20.4	750	52.7	1500	105.5
200	93.3	260	18.3	750	52.7	1500	105.5
300	148.9	230	16.2	720	50.6	1445	101.6
400	204.4	200	14.1	695	48.9	1385	97.4
500	260.0	170	12.0	665	46.8	1330	93.5
600	315.6	140	9.8	605	42.5	1210	85.1
650	343.3	125	8.8	590	41.5	1175	82.6
700	371.1	110	7.7	570	40.1	1135	79.8
750	398.9	95	6.7	530	37.3	1065	74.9
800	426.7	80	5.6	510	35.9	1015	71.4
850	454.4	65	4.6	485	34.1	975	68.6
900	482.2	50	3.5	450	31.6	900	63.3
950	510.0	35	2.5	320	22.5	640	45.0
1000	537.8	20	1.4	215	15.1	430	30.2
1050	565.6	20	1.4	145	10.2	290	20.4
1100	593.3	20	1.4	95	6.7	190	13.4
1150	621.1	20	1.4	60	4.2	125	8.8
1200	648.9	15	1.1	40	2.8	75	8.3

A 351 CF8 Standard Class

Temperature		Class 150		Class 300		Class 600	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	275	19.3	720	50.6	1440	101.2
200	93.3	235	16.5	600	42.2	1200	84.4
300	148.9	205	14.4	540	38.0	1080	75.9
400	204.4	190	13.4	495	34.8	995	70.0
500	260.0	170	12.0	465	32.7	930	65.4
600	315.6	140	9.8	435	30.6	875	61.5
650	343.3	125	8.8	430	30.2	860	60.5
700	371.1	110	7.7	425	29.9	850	59.8
750	398.9	95	6.7	415	29.2	830	58.4
800	426.7	80	5.6	405	28.5	805	56.6
850	454.4	65	4.6	395	27.8	790	55.5
900	482.2	50	3.5	390	27.4	780	54.8
950	510.0	35	2.5	380	26.7	765	53.8
1000	537.8	20	1.4	320	22.5	640	45.0
1050	565.6	20	1.4			615	43.2
1100	593.3	20	1.4	255	17.9	515	36.2
1150	621.1	20	1.4	200	14.1	400	28.1
1200	648.9	20	1.4	155	10.9	310	21.8
1250	676.7	20	1.4	115	8.1	225	15.8
1300	704.4	20	1.4	85	6.0	170	12.0
1350	732.2	20	1.4	60	4.2	125	8.8
1400	760.0	20	1.4	50	3.5	95	6.7
1450	787.8	15	1.1	35	2.5	70	4.9
1500	815.6	10	0.7	25	1.8	55	3.9

Test specifications

Test / test pressure	Class 150		Class 300		Class 600		Testing medium
	PSI	bar	PSI	bar	PSI	bar	
Shell	455	32	1138	80	2233	157	Inhibited water
Back seat	327	23	825	58	1636	115	
Seat leak	85	6	85	6	85	6	Air



Type GTC

Design specifications

General valve design	: API 600
Pressure, temperature rating	: ASME B 16.34
Standard class	
Flanged end design	: ASME B 16.5
Butt weld end design	: ASME B 16.25
End to end dimension	: ASME B 16.10
Testing standard	: API 598

Dimensions

Class 150		2"	3"	4"	6"	8"	10"	12"
E1	Inch	7,0	8,0	9,0	10,5	11,5	13,0	14,0
	mm	178,0	203,0	229,0	276,0	292,0	330,0	356,0
B1	Inch	2,0	3,0	4,0	6,0	8,0	10,0	12,0
	mm	51,0	76,0	102,0	152,0	203,0	254,0	305,0
C	Inch	12,6	14,0	16,1	21,8	29,7	35,2	42,0
	mm	305,0	355,0	410,0	554,0	755,0	895,0	1075,0
ØD	Inch	8,0	10,0	10,0	14,0	18,0	18,0	20,0
	mm	203,0	254,0	254,0	356,0	457,0	457,0	508,0
E2*	Inch	8,5	11,1	12,0	15,9	16,5	18,0	19,0
	mm	216,0	282,0	305,0	403,0	419,0	457,0	502,0
B2*	Inch	2,0	3,1	4,0	6,1	8,0	10,0	11,0
	mm	52,5	78,0	102,0	154,0	203,0	254,0	303,0

* Schedule 40 for class 150. Alternate schedule on request.

Class 300		2"	3"	4"	6"	8"	10"	12"
E1	Inch	8,5	11,1	12,0	15,9	16,5	18,0	19,8
	mm	216,0	282,0	305,0	403,0	419,0	457,0	502,0
B1	Inch	2,0	3,0	4,0	6,0	8,0	10,0	12,0
	mm	51,0	76,0	102,0	152,0	203,0	254,5	305,0
C	Inch	13,1	16,0	19,5	26,1	31,5	38,4	43,5
	mm	335,0	407,0	495,0	664,0	800,0	975,0	1106,0
ØD	Inch	8,0	10,0	10,0	14,0	18,0	20,0	20,0
	mm	203,0	254,0	254,0	356,0	457,0	508,0	508,0
E2*	Inch	8,5	11,1	12,0	15,9	16,5	18,0	19,8
	mm	216,0	282,0	305,0	403,0	419,0	457,0	502,0
B2*	Inch	2,0	3,1	4,0	6,1	8,0	10,0	11,9
	mm	52,5	78,0	102,0	154,0	203,0	254,5	303,0

* Schedule 40 for class 300. Alternate schedule on request.

Class 600		2"	3"	4"	6"	8"	10"	12"
E1	Inch	11,5	14,0	17,0	22,0	26,0	31,0	33,0
	mm	292,0	356,0	432,0	559,0	660,0	787,0	838,0
B1	Inch	2,0	3,0	4,0	6,0	8,0	9,8	11,7
	mm	51,0	76,0	102,0	152,0	200,0	248,0	298,0
C	Inch	14,3	17,1	20,7	27,6	33,0	38,7	47,9
	mm	362,0	435,0	527,0	702,0	839,0	984,0	1216,0
ØD	Inch	8,0	10,0	14,0	20,0	20,0	20,0	24,0
	mm	203,0	254,0	356,0	508,0	508,0	508,0	610,0
E2*	Inch	11,5	14,0	17,0	22,0	26,0	31,0	33,0
	mm	292,0	356,0	432,0	559,0	660,0	787,0	838,0
B2*	Inch	1,9	2,9	3,8	5,8	7,6	9,6	11,4
	mm	49,0	73,5	97,0	146,5	192,5	243,0	289,0

* Schedule 80 for class 600. Alternate schedule on request.

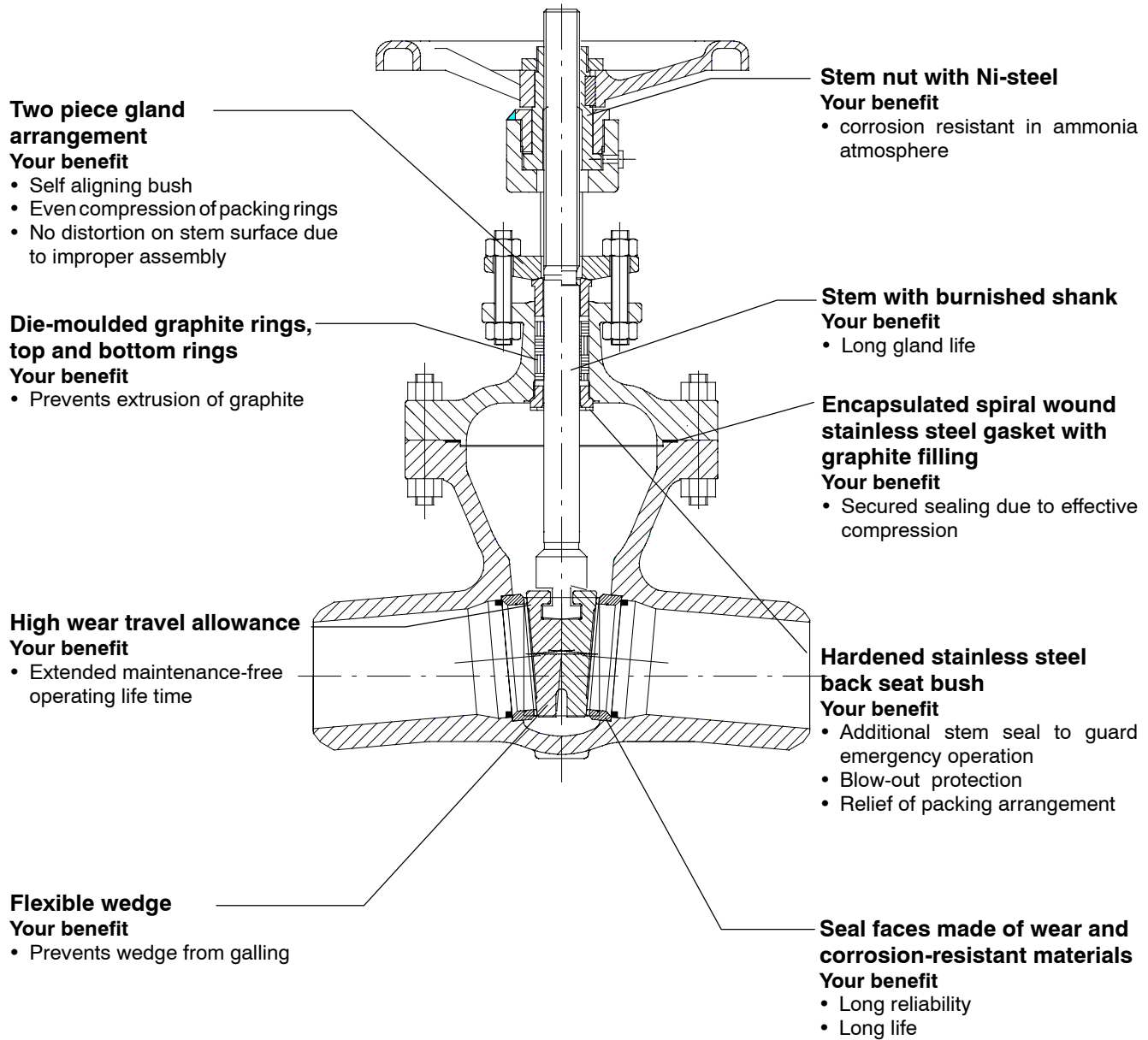
Materials

Part no.	Part name	Materials as per ASTM		
100	Body	A 216-WCB	A 217-WC6	A 351-CF8
166	Bonnet	A 216-WCB	A 217-WC6	A 351-CF8
200	Stem	A 479-410-2		A 276-304
361	Wedge	A 217 CA 15 / A 216-WCB+13%Cr	A 217-WC6+ST6	A 351-CF8
* 411	Gasket	SS 316 + GRPH		
450	Back seat	A 276-410 (H)		A 276-304
452	Gland flange	A 105		A 351-CF8
456	Gland bush	A 276-410		A 276-304
461	Gland packing	Graphite		
515	Seat ring	A 216-WCB+ST6	A 217-WC6+ST6	A 351-CF8
544	Stem nut	A 439-D2		
900	Gland bolt	A 307-B		A 182-F304
902	Stud	A 193 B7	A 193-B16	A 193-B8
920.1	Hex nut	A 194-2H	A 194-2H	A 194-8
920.2			A 194-4	
961	Handwheel	SG 400/12		

* Flat graphite with SS insert for # 150 only.
Spiral wound gasket for # 300 and # 600.

Note: Subject to change without notice on account of continuous improvement.

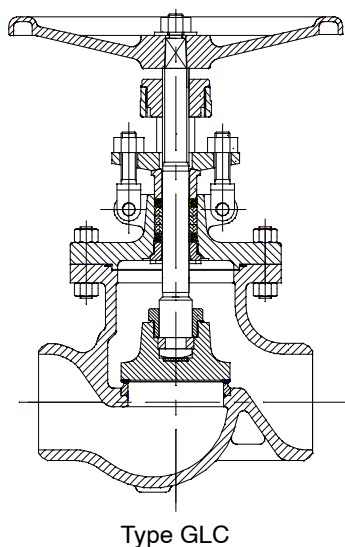
Product features - to our customers' benefit



Subject to modifications without notice

01.02.2002

7244.1/3-10



ANSI/ASME globe valves cast steel

bolted bonnet

butt weld ends
flanged

Class 150-600
2"-10"

Applications

- Refineries, power stations, process and general industry
- For water, steam, gas, oil and other non-aggressive media
- Other applications on request

Operating data

- Maximum allowable pressure 104 bar
- Maximum allowable temperature 593 °C
- Pressure-temperature ratings see next side ¹⁾
- ¹⁾ Minimum temperature 0 °C, less than 0 °C on request

Materials

- A 216 WCB from 0 °C to 425 °C / 800 °F
- A 217 WC6 from 0 °C to 593 °C / 1100 °F
- A 351 CF8 from 0 °C to 537 °C / 1000 °F

Design

- pT-Ratings as per ASME B 16.34, Standard class
- As per BS 1873
- Out-side screw and yoke
- Rotating stem,
Non-rotating stem for class 600, 8" and above
- Bolted bonnet
- Butt weld ends or flanged (RF)
- Flat disc, class 150-600 up to 6"
Tapered disc, class 600 8" and above
- Trim No. 8 (Stellite – 13% Cr)
Trim No. 5 (double Stellite)
Trim No. 2 (stainless steel)
Trim No. 10 (stainless steel)
- Graphite gaskets and packings with braided anti-extrusion rings
- Back seat bush

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of annex I for fluids of the groups 1 and 2.

Variants on request

- Position indicator
- Locking arrangement
- Bypass execution
- Actuator execution
- Other Trim Nos.
- Other variants

Remarks

- Cast steel gate valve leaflet no: 7244.1
- Cast steel check valve leaflet no: 7246.1
- Operating instructions no: 0570.87

On all enquiries/orders please specify

- | | |
|-----------------------------|------------------------------------|
| 1. Type | 8. Flow medium |
| 2. ANSI Pressure class | 9. Type of end connection |
| 3. Size | 10. Pipe schedule |
| 4. Design pressure | 11. Variants |
| 5. Operating pressure | 12. Type leaflet no. |
| 6. Differential pressure | 13. Valve data sheet if applicable |
| 7. Material of construction | |



Pressure-Temperature ratings (ASME B 16.34)

A 216 WCB Standard Class

Temperature		Class 150		Class 300		Class 600	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	285	20.0	740	52.0	1480	104.1
200	93.3	260	18.3	675	47.5	1350	94.9
300	148.9	230	16.2	655	46.1	1315	92.5
400	204.4	200	14.1	635	44.6	1270	89.3
500	260.0	170	12.0	600	42.2	1200	84.4
600	315.6	140	9.8	550	38.7	1095	77.0
650	343.3	125	8.8	535	37.6	1075	75.6
700	371.1	110	7.7	535	37.6	1065	74.9
750	398.9	95	6.7	505	35.5	1010	71.0
800	426.7	80	5.6	410	28.8	825	58.0
850	454.4	65	4.6	270	19.0	535	37.6
900	482.2	50	3.5	170	12.0	345	24.3
950	510.0	35	2.5	105	7.4	205	14.4
1000	537.8	20	1.4	50	3.5	105	7.4

A 217 WC6 Standard Class

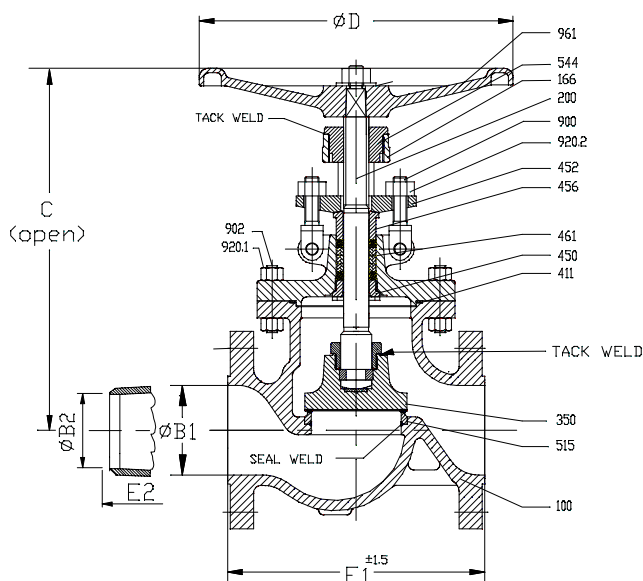
Temperature		Class 150		Class 300		Class 600	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	290	20.4	750	52.7	1500	105.5
200	93.3	260	18.3	750	52.7	1500	105.5
300	148.9	230	16.2	720	50.6	1445	101.6
400	204.4	200	14.1	695	48.9	1385	97.4
500	260.0	170	12.0	665	46.8	1330	93.5
600	315.6	140	9.8	605	42.5	1210	85.1
650	343.3	125	8.8	590	41.5	1175	82.6
700	371.1	110	7.7	570	40.1	1135	79.8
750	398.9	95	6.7	530	37.3	1065	74.9
800	426.7	80	5.6	510	35.9	1015	71.4
850	454.4	65	4.6	485	34.1	975	68.6
900	482.2	50	3.5	450	31.6	900	63.3
950	510.0	35	2.5	320	22.5	640	45.0
1000	537.8	20	1.4	215	15.1	430	30.2
1050	565.6	20	1.4	145	10.2	290	20.4
1100	593.3	20	1.4	95	6.7	190	13.4
1150	621.1	20	1.4	60	4.2	125	8.8
1200	648.9	15	1.1	40	2.8	75	8.3

A 351 CF8 Standard Class

Temperature		Class 150		Class 300		Class 600	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	275	19.3	720	50.6	1440	101.2
200	93.3	235	16.5	600	42.2	1200	84.4
300	148.9	205	14.4	540	38.0	1080	75.9
400	204.4	190	13.4	495	34.8	995	70.0
500	260.0	170	12.0	465	32.7	930	65.4
600	315.6	140	9.8	435	30.6	875	61.5
650	343.3	125	8.8	430	30.2	860	60.5
700	371.1	110	7.7	425	29.9	850	59.8
750	398.9	95	6.7	415	29.2	830	58.4
800	426.7	80	5.6	405	28.5	805	56.6
850	454.4	65	4.6	395	27.8	790	55.5
900	482.2	50	3.5	390	27.4	780	54.8
950	510.0	35	2.5	380	26.7	765	53.8
1000	537.8	20	1.4	320	22.5	640	45.0
1050	565.6	20	1.4			615	43.2
1100	593.3	20	1.4	255	17.9	515	36.2
1150	621.1	20	1.4	200	14.1	400	28.1
1200	648.9	20	1.4	155	10.9	310	21.8
1250	676.7	20	1.4	115	8.1	225	15.8
1300	704.4	20	1.4	85	6.0	170	12.0
1350	732.2	20	1.4	60	4.2	125	8.8
1400	760.0	20	1.4	50	3.5	95	6.7
1450	787.8	15	1.1	35	2.5	70	4.9
1500	815.6	10	0.7	25	1.8	55	3.9

Test specifications

Test / test pressure	Class 150		Class 300		Class 600		Testing medium
	PSI	bar	PSI	bar	PSI	bar	
Shell	455	32	1138	80	2233	157	Inhibited water
Back seat	327	23	825	58	1636	115	
Seat leak	327	23	825	58	1636	115	



Type GLC

Design Specifications

General valve design	: BS 1873
Pressure, temperature rating	: ASME B 16.34
	Standard class
Flanged end design	: ASME B 16.5
Butt weld end design	: ASME B 16.25
End to end dimension	: ASME B 16.10
Testing standard	: API 598

Dimensions

Class 150		2"	3"	4"	6"	8"	10"
E1	Inch	8,0	9,5	11,5	16,0	19,5	24,5
	mm	203,0	241,0	292,0	406,0	495,0	622,0
B1	Inch	2,0	3,0	4,0	6,0	8,0	10,0
	mm	51,0	76,0	102,0	152,0	203,0	254,0
C	Inch	12,2	14,6	16,6	20,5	25,8	31,1
	mm	310,0	372,0	422,0	520,0	655,0	790,0
ØD	Inch	8,0	10,0	14,0	14,0	18,0	20,0
	mm	203,0	254,0	356,0	356,0	457,0	508,0
E2*	Inch	8,0	9,5	11,5	16,0	19,5	24,5
	mm	203,0	241,0	292,0	406,0	495,0	622,0
B2*	Inch	2,1	3,1	4,0	6,1	8,0	10,0
	mm	52,5	78,0	102,0	154,0	203,0	254,5

* Schedule 40 for class 150. Alternate schedule on request.

Class 300		2"	3"	4"	6"	8"	10"
E1	Inch	10,5	12,5	14,0	17,5	22,0	24,5
	mm	267,0	318,0	356,0	445,0	559,0	622,0
B1	Inch	2,0	3,0	4,0	6,0	8,0	10,0
	mm	51,0	76,0	102,0	152,0	203,0	254,0
C	Inch	13,0	15,2	18,3	21,5	28,3	32,3
	mm	330,0	385,0	465,0	545,0	720,0	821,0
ØD	Inch	8,0	10,0	14,0	18,0	18,0	20,0
	mm	203,0	254,0	356,0	457,0	457,0	508,0
E2*	Inch	10,5	12,5	14,0	17,5	22,0	24,5
	mm	267,0	318,0	356,0	445,0	559,0	622,0
B2*	Inch	2,0	3,1	4,0	6,1	8,0	10,0
	mm	52,5	78,0	102,0	154,0	203,0	254,5

* Schedule 40 for class 300. Alternate schedule on request.

Class 600		2"	3"	4"	6"	8"	10"
E1	Inch	11,5	14,0	17,0	22,0	26,0	31,0
	mm	292,0	356,0	432,0	559,0	660,0	787,0
B1	Inch	2,0	3,0	4,0	6,0	8,0	9,8
	mm	51,0	76,0	102,0	152,0	200,0	248,0
C	Inch	14,3	17,1	19,0	26,5	30,7	41,0
	mm	362,0	435,0	482,0	672,0	780,0	1040,0
ØD	Inch	10,0	14,0	14,0	20,0	24,0	24,0
	mm	254,0	356,0	356,0	508,0	610,0	610,0
E2*	Inch	11,5	14,0	17,0	22,0	26,0	31,0
	mm	292,0	356,0	432,0	559,0	660,0	787,0
B2*	Inch	1,9	2,9	3,8	5,8	7,6	9,6
	mm	49,0	73,5	97,0	146,5	193,5	243,0

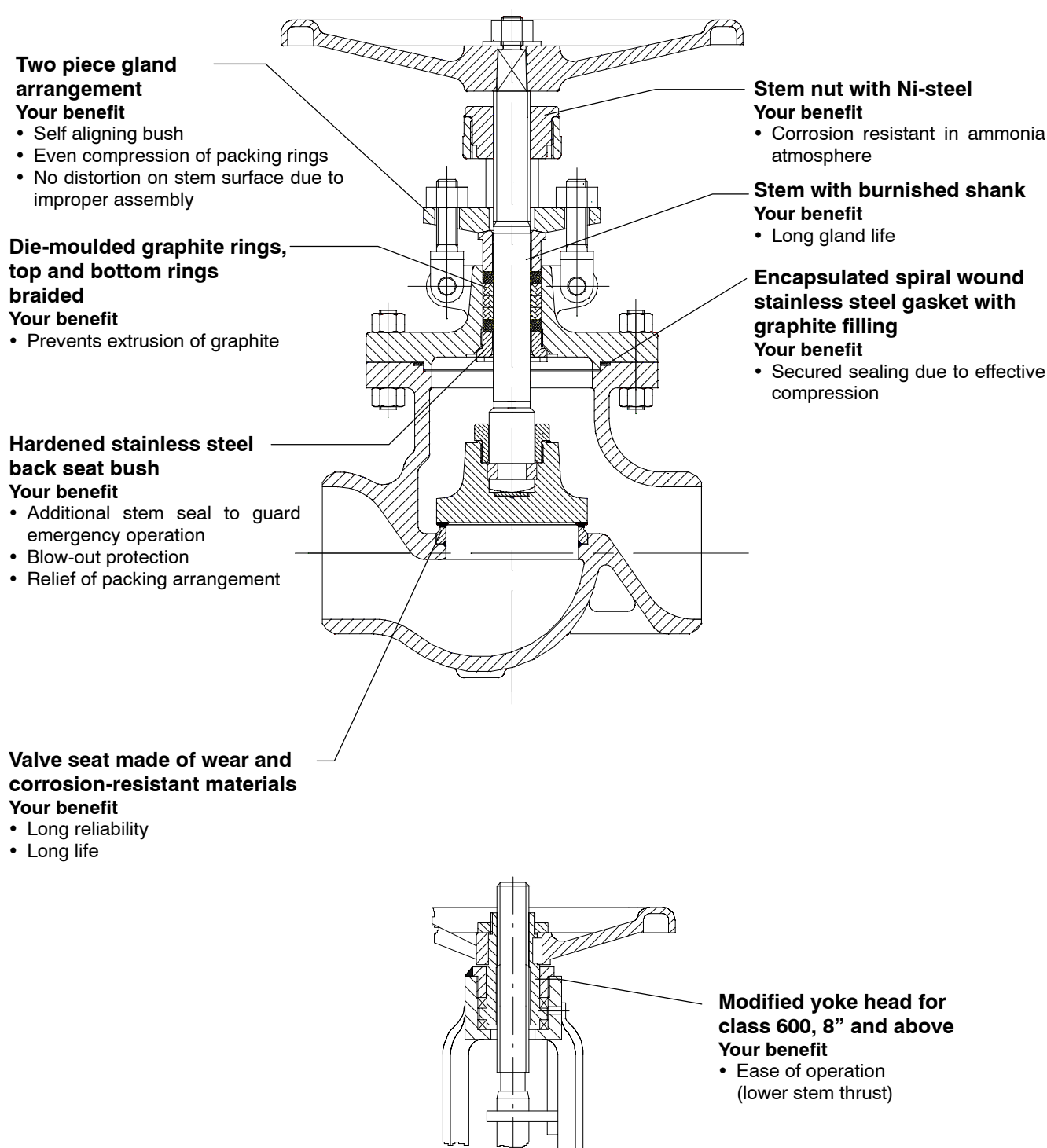
* Schedule 80 for class 600. Alternate schedule on request.

Materials

Part no.	Part name	Materials as per ASTM		
100	Body	A 216-WCB	A 217-WC6	A 351-CF8
166	Bonnet	A 216-WCB	A 217-WC6	A 351-CF8
200	Stem	A 479-410-2		A 276-304
350	Wedge	A 217 CA 15 / A 216WCB+13%Cr	A 217-WC6+ST6	A 351-CF8
411	Gasket	SS 316 + GRPH		
450	Back seat	A 276-410 (H)		A 276-304
452	Gland flange	A 105		A 351-CF8
456	Gland bush	A 276+410		A 276-304
461	Gland packing	Graphite		
515	Seat ring	A 216-WCB+ST6	A 217-WC6+ST6	A 351-CF8
544	Stem nut	A 439-D2		
900	Gland bolt	A 307-B		A 182-F304
902	Stud	A 193 B7	A 193-B16	A 193 B8
920.1	Hex nut	A 194-2H	A 194-2H	A 194-8
920.2			A 194-4	
961	Handwheel	SG 400/12		

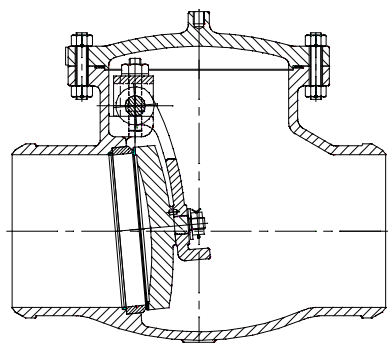
Note: Subject to change without notice on account of continuous improvement.

Product features - to our customers' benefit



ANSI/ASME swing check valves cast steel

bolted bonnet



Type SCC

butt weld ends
flanged

Class 150-600
2"-12"

Applications

- Refineries, power stations, process and general Industry
- For water, steam, gas, oil and other non-aggressive media
- Other applications on request

Operating data

- Maximum allowable pressure 104 bar
- Maximum allowable temperature 593 °C
- Pressure-temperature ratings see next side ¹⁾
- ¹⁾ Minimum temperature 0 °C, less than 0 °C on request

Materials

- A 216 WCB from 0 °C to 425 °C / 800 °F
- A 217 WC6 from 0 °C to 593 °C / 1100 °F
- A 351 CF8 from 0 °C to 537 °C / 1000 °F

Design

- As per BS 1868
- Swing check arrangement with inside hinge pin
- Non-turning disc
- Bolted bonnet
- Butt weld ends or flanged (RF)
- Trim No. 8 (Stellite - 13% Cr)
- Trim No. 5 (double Stellite)
- Trim No. 2 (stainless steel)
- Trim No. 10 (stainless steel)

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of annex I for fluids of the groups 1 and 2.

Variants on request

- Bypass execution
- Drain plug
- Other materials
- Other Trim Nos.
- Other variants

Remarks

- Cast steel gate valve leaflet no: 7244.1
- Cast steel globe valve leaflet no: 7245.1
- Operating instructions no: 0570.87

On all enquiries/orders please specify

- | | |
|-----------------------------|------------------------------------|
| 1. Type | 8. Flow medium |
| 2. ANSI Pressure class | 9. Type of end connection |
| 3. Size | 10. Pipe schedule |
| 4. Design pressure | 11. Variants |
| 5. Operating pressure | 12. Type leaflet no. |
| 6. Differential pressure | 13. Valve data sheet if applicable |
| 7. Material of construction | |



Pressure-Temperature ratings (ASME B 16.34)

A 216 WCB Standard Class

Temperature		Class 150		Class 300		Class 600	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	285	20,0	740	52,0	1480	104,1
200	93,3	260	18,3	675	47,5	1350	94,9
300	148,9	230	16,2	655	46,1	1315	92,5
400	204,4	200	14,1	635	44,6	1270	89,3
500	260,0	170	12,0	600	42,2	1200	84,4
600	315,6	140	9,8	550	38,7	1095	77,0
650	343,3	125	8,8	535	37,6	1075	75,6
700	371,1	110	7,7	535	37,6	1065	74,9
750	398,9	95	6,7	505	35,5	1010	71,0
800	426,7	80	5,6	410	28,8	825	58,0
850	454,4	65	4,6	270	19,0	535	37,6
900	482,2	50	3,5	170	12,0	345	24,3
950	510,0	35	2,5	105	7,4	205	14,4
1000	537,8	20	1,4	50	3,5	105	7,4

A 217 WC6 Standard Class

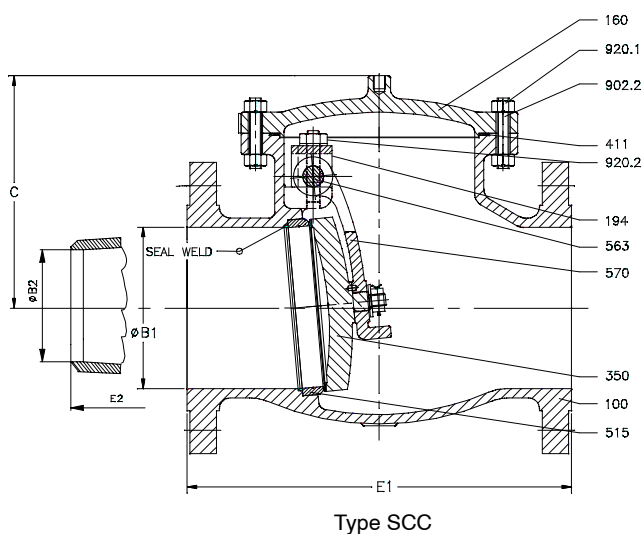
Temperature		Class 150		Class 300		Class 600	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	290	20,4	750	52,7	1500	105,5
200	93,3	260	18,3	750	52,7	1500	105,5
300	148,9	230	16,2	720	50,6	1445	101,6
400	204,4	200	14,1	695	48,9	1385	97,4
500	260,0	170	12,0	665	46,8	1330	93,5
600	315,6	140	9,8	605	42,5	1210	85,1
650	343,3	125	8,8	590	41,5	1175	82,6
700	371,1	110	7,7	570	40,1	1135	79,8
750	398,9	95	6,7	530	37,3	1065	74,9
800	426,7	80	5,6	510	35,9	1015	71,4
850	454,4	65	4,6	485	34,1	975	68,6
900	482,2	50	3,5	450	31,6	900	63,3
950	510,0	35	2,5	320	22,5	640	45,0
1000	537,8	20	1,4	215	15,1	430	30,2
1050	565,6	20	1,4	145	10,2	290	20,4
1100	593,3	20	1,4	95	6,7	190	13,4
1150	621,1	20	1,4	60	4,2	125	8,8
1200	648,9	15	1,1	40	2,8	75	8,3

A 351 CF8 Standard Class

Temperature		Class 150		Class 300		Class 600	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	275	19,3	720	50,6	1440	101,2
200	93,3	235	16,5	600	42,2	1200	84,4
300	148,9	205	14,4	540	38,0	1080	75,9
400	204,4	190	13,4	495	34,8	995	70,0
500	260,0	170	12,0	465	32,7	930	65,4
600	315,6	140	9,8	435	30,6	875	61,5
650	343,3	125	8,8	430	30,2	860	60,5
700	371,1	110	7,7	425	29,9	850	59,8
750	398,9	95	6,7	415	29,2	830	58,4
800	426,7	80	5,6	405	28,5	805	56,6
850	454,4	65	4,6	395	27,8	790	55,5
900	482,2	50	3,5	390	27,4	780	54,8
950	510,0	35	2,5	380	26,7	765	53,8
1000	537,8	20	1,4	320	22,5	640	45,0
1050	565,6	20	1,4			615	43,2
1100	593,3	20	1,4	255	17,9	515	36,2
1150	621,1	20	1,4	200	14,1	400	28,1
1200	648,9	20	1,4	155	10,9	310	21,8
1250	676,7	20	1,4	115	8,1	225	15,8
1300	704,4	20	1,4	85	6,0	170	12,0
1350	732,2	20	1,4	60	4,2	125	8,8
1400	760,0	20	1,4	50	3,5	95	6,7
1450	787,8	15	1,1	35	2,5	70	4,9
1500	815,6	10	0,7	25	1,8	55	3,9

Test specifications

Test / test pressure	Class 150		Class 300		Class 600		Testing medium
	PSI	bar	PSI	bar	PSI	bar	
Shell	455	32	1138	80	2233	157	Inhibited water
Seat leak	327	23	825	58	1636	115	



Design specifications

General valve design	: BS 1868
Pressure, temperature rating	: ASME B 16.34
	Standard class
Flanged end design	: ASME B 16.5
Butt weld end design	: ASME B 16.25
End to end dimension	: ASME B 16.10
Testing standard	: API 598

Dimensions

Class 150		2"	3"	4"	6"	8"	10"	12"
E1	Inch	8,0	9,5	11,5	14,0	19,5	24,5	27,5
	mm	203,0	241,0	292,0	356,0	495,0	622,0	699,0
B1	Inch	2,0	3,0	4,0	6,0	8,0	10,0	12,0
	mm	51,0	76,0	102,0	152,0	230,0	254,0	305,0
C	Inch	5,3	7,0	8,0	10,0	12,0	15,0	16,0
	mm	135,0	175,0	200,0	255,0	307,0	380,0	407,0
E2*	Inch	8,0	9,5	11,5	14,0	19,5	24,5	27,5
	mm	203,0	241,0	292,0	356,0	495,0	622,0	699,0
B2*	Inch	2,1	3,1	4,0	6,1	8,0	10,0	11,9
	mm	53,0	78,0	102,0	154,0	203,0	255,0	303,0

* Schedule 40 for class 150. Alternate schedule on request.

Class 300		2"	3"	4"	6"	8"	10"	12"
E1	Inch	10,5	12,5	14,0	17,5	21,0	24,5	28,0
	mm	267,0	318,0	356,0	445,0	533,0	622,0	711,0
B1	Inch	2,0	3,0	4,0	6,0	8,0	10,0	12,0
	mm	51,0	76,0	102,0	152,0	203,0	254,0	305,0
C	Inch	5,6	7,0	8,0	10,0	12,6	14,8	16,7
	mm	142,0	175,0	200,0	250,0	320,0	375,0	425,0
E2*	Inch	10,5	12,5	14,0	17,5	21,0	24,5	28,0
	mm	267,0	318,0	356,0	445,0	533,0	622,0	711,0
B2*	Inch	2,1	3,1	4,0	6,1	8,0	10,0	11,9
	mm	53,0	78,0	102,0	154,0	203,0	255,0	303,0

* Schedule 40 for class 300. Alternate schedule on request.

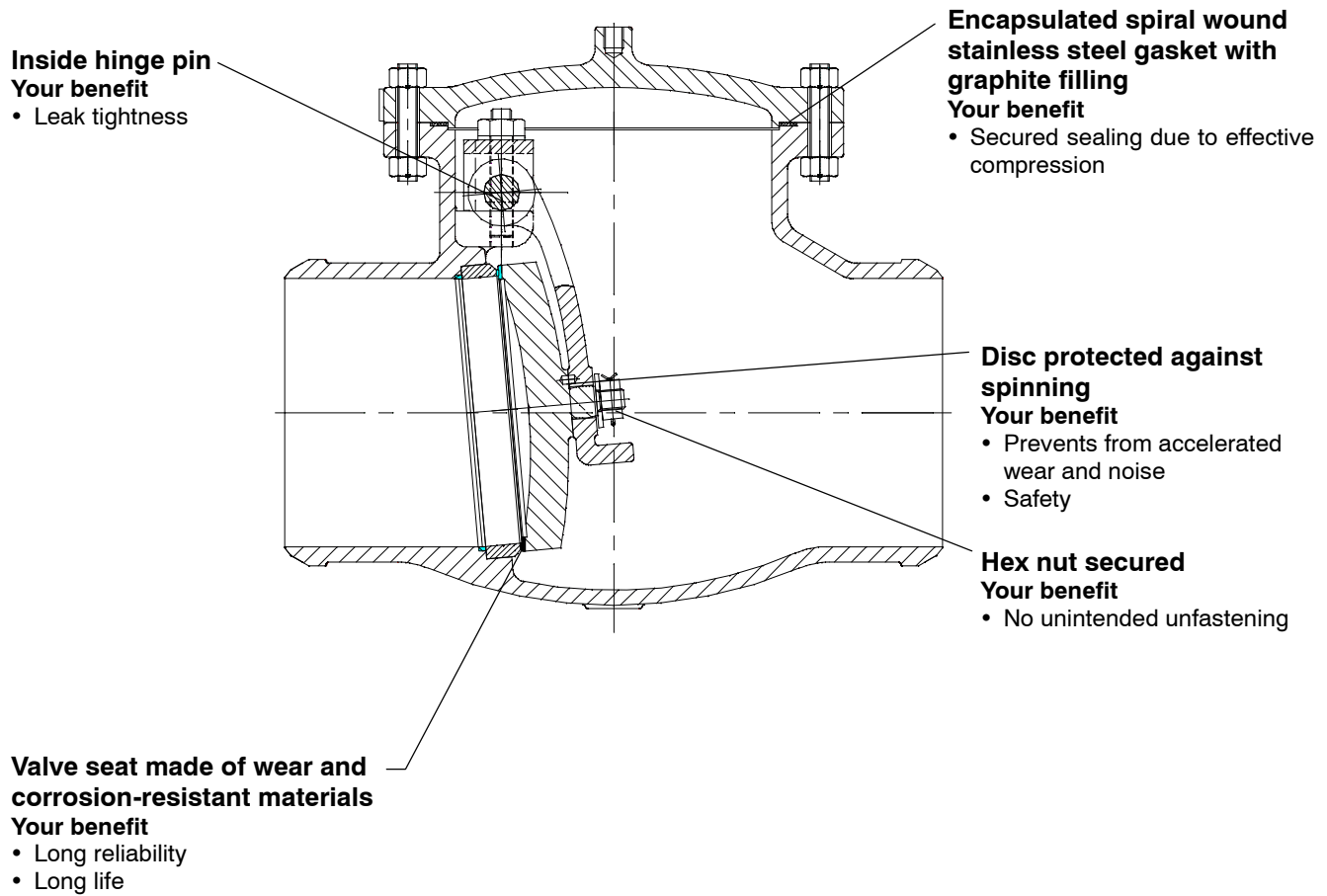
Class 600		2"	3"	4"	6"	8"	10"	12"
E1	Inch	11,5	14,0	17,0	22,0	26,0	31,0	33,0
	mm	292,0	356,0	432,0	559,0	660,0	787,0	838,0
B1	Inch	2,0	3,0	4,0	6,0	8,0	9,8	11,7
	mm	51,0	76,0	102,0	152,0	200,0	248,0	298,0
C	Inch	6,9	8,1	9,8	10,8	14,5	16,3	20,4
	mm	175,0	206,0	250,0	275,0	370,0	415,0	518,0
E2*	Inch	11,5	14,0	17,0	22,0	26,0	31,0	33,0
	mm	292,0	356,0	432,0	559,0	660,0	787,0	838,0
B2*	Inch	1,9	2,9	3,8	5,8	7,6	9,6	11,4
	mm	49,0	74,0	97,0	146,5	194,0	243,0	289,0

* Schedule 80 for class 600. Alternate schedule on request.

Materials

Part no.	Part name	Materials as per ASTM
100	Body	A216-WCB
160	Cover	A216-WCB
194	Hinge Bracket	A216-WCB
350	Disc	A217 CA 15 / A216WCB+13%Cr
411	SW Gasket	SS 316 + GRPH
515	Seat ring	A216-WCB+ST6
563	Hinge pin	A276-410 (H)
570	Disc carrier	A216-WCB
902	Stud	A 193-B7
920.1	Hex nut	A 194-2H
920.2		SS (18-8)

Product features - to our customers' benefit



Subject to modifications without notice

01.02.2002

7246.1/3-10



Type GTC

**ANSI/ASME gate valves
cast steel**

pressure seal bonnet

with butt weld ends

**Class 900-2500
2"-12"**

Application

- Power stations, general industry, process engineering
- For water, steam, gas, oil and other non-aggressive media
- Other applications on request

Operating Data

- Maximum allowable pressure 439 bar
 - Maximum allowable temperature 593 °C
 - Pressure-temperature ratings see next side ¹⁾
- ¹⁾ Minimum temperature 0 °C, less than 0 °C on request

Materials

- A 216 WCB from 0 °C to 425 °C / 800 °F
- A 217 WC9 from 0 °C to 593 °C / 1100 °F
- A 217 WC6 from 0 °C to 593 °C / 1100 °F

Design

- As per ASME B 16.34
- Pressure seal bonnet design
- Butt weld ends
- Trim No. 5 (double stellited)
- Graphite gaskets and packings with braided anti-extrusion rings
- Reduced bore design
- Double disc wedge design
- Integral stellited back seat
- Out-side screw and yoke
- Yoke head with ISO-flange for actuator fitting
- Non-rotating stem

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of annex I for fluids of the groups 1 and 2.

Variants on request

- Position indicator
- Locking arrangement
- By-pass execution
- Actuator execution / gear execution
- Bonnet pressure relief arrangement
- Full bore design
- Other materials
- Other Trim-Nos.
- Other executions

Remarks

- Pressure seal globe valve leaflet no: 7242.1
- Pressure seal check valve leaflet no: 7243.1
- Operating instructions no: 0570.84

On all enquiries / orders please specify

- | | |
|-----------------------------|------------------------------------|
| 1. Type | 8. Flow medium |
| 2. ANSI Pressure class | 9. Type of end connection |
| 3. Size | 10. Pipe schedule |
| 4. Design pressure | 11. Variants |
| 5. Operating pressure | 12. Type leaflet no. |
| 6. Differential pressure | 13. Valve data sheet if applicable |
| 7. Material of construction | |

When ordering spare parts, indicate original factory number and year of manufacture.



Pressure-Temperature ratings (ASME B 16.34)

A 216 WCB Special Class

Temperature		Class 900		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	2250	158.2	3750	263.7	6250	439.4
200	93.3						
300	148.9						
400	204.4						
500	260	2140	150.5	3565	250.7	5940	417.6
600	315.6						
650	343.3						
700	371.1						
750	398.9	2080	146.2	3470	244.0	5780	406.4
800	426.7	1890	132.9	3150	221.5	5250	369.1
850	454.4	1545	108.6	2570	180.7	4285	301.3
900	482.2	1005	70.7	1670	117.4	2785	195.8
950	510.0	645	45.3	1070	75.2	1785	125.5
1000	537.8	385	27.1	645	45.3	1070	75.2
1050	565.6	195	13.7	320	22.5	535	37.6

A 217 WC9 Special Class

Temperature		Class 900		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	2250	158.1	3750	263.7	6250	439.4
200	93.3	2250	158.1	3750	263.7	6250	439.4
300	148.9	2225	156.4	3705	260.5	6180	434.5
400	204.4	2175	152.8	3620	254.5	6035	424.3
500	260	2160	151.8	3600	253.1	6000	421.9
600	315.6	2160	151.8	3600	253.1	6000	421.9
650	343.3	2145	150.7	3580	251.7	5965	419.4
700	371.1	2135	150.0	3555	249.9	5930	416.9
750	398.9	2070	145.5	3450	242.6	5750	404.3
800	426.7	2020	142.0	3365	236.6	5605	394.1
850	454.4	1930	135.6	3215	226.0	5355	376.5
900	482.2	1800	126.5	3000	210.9	5000	351.6
950	510.0	1415	99.4	2355	165.9	3930	276.3
1000	537.8	975	68.5	1630	114.6	2715	190.9
1050	565.6	655	46.0	1095	77.0	1820	128.0
1100	593.3	410	28.8	685	48.2	1145	80.5
1150	621.1	255	17.9	430	30.2	715	50.3
1200	648.9	155	10.9	255	17.9	430	30.2

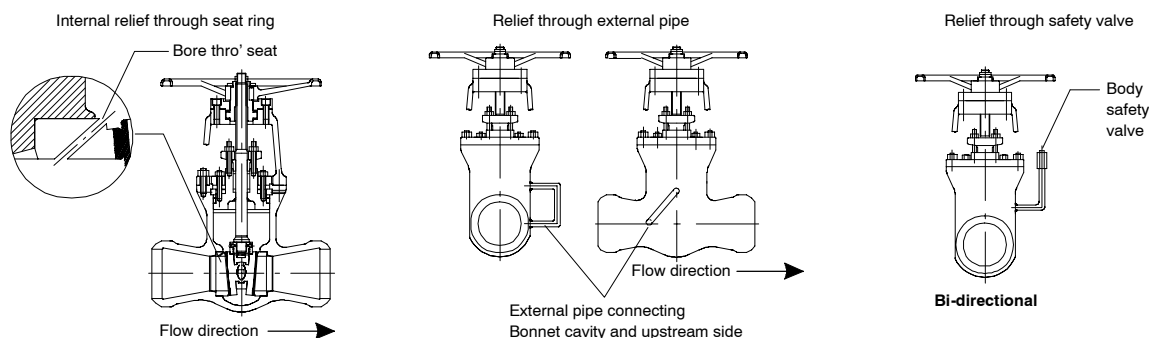
A 217 WC6 Special Class

Temperature		Class 900		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	2250	158.1	3750	263.7	6250	439.4
200	93.3						
300	148.9						
400	204.4						
500	260	2200	154.6	3665	257.7	6110	429.6
600	315.6						
650	343.3						
700	371.1						
750	398.9	2185	153.5	3645	256.3	6070	426.8
800	426.7	2160	151.8	3600	253.1	6000	421.9
850	454.4	2030	142.7	3385	238.0	5645	396.9
900	482.2	1760	123.7	2935	206.4	4895	344.2
950	510.0	1195	84.0	1995	140.3	3320	233.4
1000	537.8	810	56.9	1350	94.9	2250	158.2
1050	565.6	540	37.9	900	63.3	1500	105.5
1100	593.3	360	25.3	600	42.2	1000	70.3
1150	621.1	230	16.2	385	27.1	645	45.3
1200	648.9	140	9.8	235	16.5	395	27.8

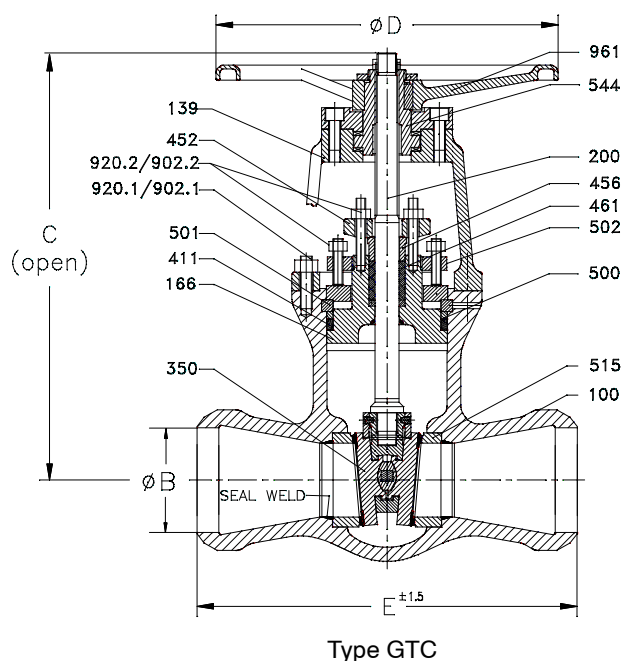
Test specifications

Test / test pressure	Class 900		Class 1500		Class 2500		Testing medium
	PSI	bar	PSI	bar	PSI	bar	
Shell	3375	238	5625	396	9375	660	Inhibited water
Back seat	2475	174	4125	291	6875	484	
Seat leak	60 to 100	4 to 7	60 to 100	4 to 7	60 to 100	4 to 7	Air

Pressure Relief Arrangement (Optional safety devices):



Important note: A pressure relief is necessary if, with the Gate valve closed, there is a danger of trapped liquid becoming overheated, thus creating an unacceptable pressure increase inside the valve. KSB standard valve is not provided with safety device. Pressure relief arrangement can be provided in any of the above options. When ordering please state whether a pressure relief is required and by which method. For pressure relief through safety valve a boss is provided in our valve. For spring loaded body safety valve; refer leaflet number 7300.1



Design Specifications

General valve design & pressure, temperature rating : ASME B 16.34 Special class
 Butt weld end design : ASME B 16.25
 End to end dimension : ASME B 16.10
 Testing : API 598, ASME B16.34 Section 8

Dimensions

Class 900		2"	3"	4"	6"	8"	10"	12"
E	Inch	8,5	12,0	14,0	20,0	26,0	31,0	36,0
	mm	215,9	304,8	355,6	508,0	660,4	787,4	914,4
ØB*	Inch	1,9	2,9	3,6	5,5	7,2	9,1	10,8
	mm	48,0	73,5	92,0	140,0	182,5	230,0	273,0
C	Inch	15,3	15,3	18,5	24,6	32,7	38,7	47,6
	mm	390,0	390,0	470,0	625,0	830,0	982,0	1210,0
ØD	Inch	10,0	10,0	14,0	18,0	18,0	24,0	24,0
	mm	254,0	254,0	356,0	457,0	457,0	610,0	610,0

* Schedule 80 up to 3", schedule 120 for 4" and above
 Alternate schedule on request

Class 1500		2"	3"	4"	6"	8"	10"	12"
E	Inch	8,5	12,0	16,0	22,0	28,0	34,0	39,0
	mm	215,9	304,8	406,0	559,0	711,0	865,0	991,0
ØB*	Inch	1,7	2,6	2,9	5,2	6,8	8,5	10,1
	mm	43,0	66,5	73,0	132,0	173,0	216,0	257,0
C	Inch	19,1	18,7	21,0	25,4	34,1	39,0	45,5
	mm	487,0	475,0	535,0	645,0	868,0	990,0	1155,0
ØD	Inch	10,0	10,0	14,0	18,0	24,0	24,0	24,0
	mm	254,0	254,0	356,0	457,0	610,0	610,0	610,0

* Schedule 160
 Alternate schedule on request

Class 2500		2"	3"	4"	6"	8"
E	Inch	11,0	14,5	18,0	24,0	30,0
	mm	279,0	368,0	459,0	610,0	762,0
ØB*	Inch	1,5	2,3	3,2	4,9	6,8
	mm	38,0	58,5	80,0	124,5	173,0
C	Inch	19,1	18,1	22,2	27,0	34,2
	mm	486,0	461,0	564,0	686,0	870,0
ØD	Inch	14,0	18,0	20,0	20,0	24,0
	mm	356,0	457,0	508,0	508,0	610,0

* Schedule XXS up to 6", schedule 160 for 8"
 Alternate schedule on request

Materials

Part No.	Description	Material		
100	Body	A 216-WCB	A 217-WC9	A 217-WC6
139	Yoke	A216-WCB		
166	* Bonnet	A 216-WCB+ST6	A 217-WC9+ST6	A 217-WC6+ST6
200	Stem	A479-410-2		
350	Disc	A216-WCB+ST6	A217-WC9+ST6	A217-WC6+ST6
411	Gasket	Graphite		
452	Gland Flange	A216-WCB	A217-WC9	A217-WC6
456	Gland Bush	A276-410		
461	Gland Packing	Graphite		
500	Spacer Ring	A217-CA15		
501	Thrust Ring	A 217-CA15		
502	Retaining Plate	IS 2062		
515	Seat Ring	A216-WCB+ST6	A 217-WC9+ST6	A 217-WC6+ST6
544	Stem Nut	Al. Bronze		
902.1	Stud	A139-B7	A193-B16	
902.2				
920.1 / 920.2	Hex. Nut	A194-2H	A194-4	
961	Handwheel	SG 400/12		

Product features - to our Customers' Benefit

Non-rising handwheel

Your benefit

- Ideal in confined spaces

Stem nut guided in bearing

Your benefit

- Ease of operation
- Life time lubrication

Two piece gland arrangement

Your benefit

- Self aligning bush
- Even compression of packing rings
- No distortion on stem surface due to improper assembly

Pressure-seal bonnet

Your benefit

- Safe sealing towards the atmosphere

Back seat

Your benefit

- Additional stem seal for emergency operation
- Blow-out protection
- Relief of packing arrangement

Double disc wedge arrangement

Your benefit

- Precise alignment to the body seats
- Wedges are easy to replace
- Tight at low differential pressure
- No accelerated wear of sealing faces
- Life extension due to provision of putting shim between the spherical thrust rings

Lock nut for stroke limitation

Your benefit

- Prevents wedge from galling

Yoke head equipped with ISO-flange

Your benefit

- Retrofitting of actuator/gear box possible

Stem with burnished shank

Your benefit

- Long gland life

Die-moulded graphite rings, top and bottom rings

Your benefit

- Prevents extrusion of graphite

Stellite hardfacing on ductile buffer layer

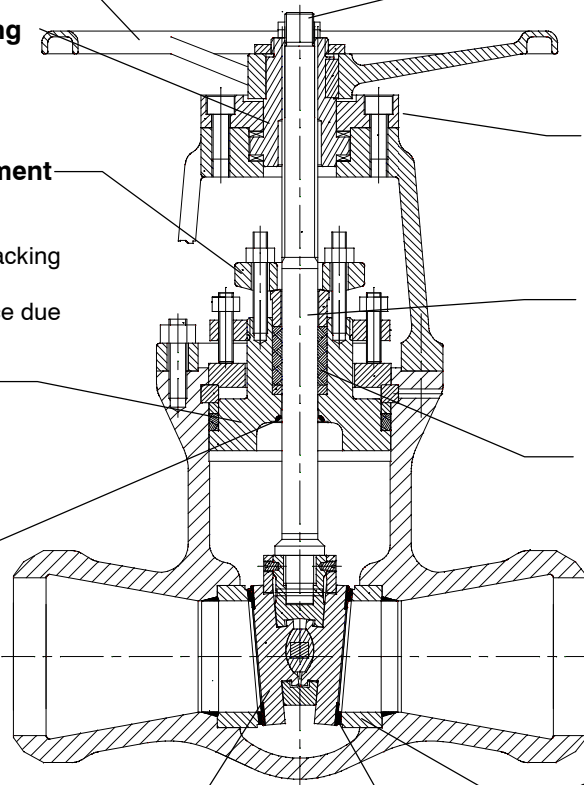
Your benefit

- Prevents chipping of stellite
- Extended life time

Seal faces made of wear and corrosion-resistant materials

Your benefit

- High reliability
- Long life





Type GLC

**ANSI/ASME globe valves
cast steel**

pressure seal bonnet

with butt-weld ends

**Class 900-2500
2"-8"**

Applications

- Power stations, general industry, process engineering
- For water, steam, gas, oil and other non-aggressive media
- Other applications on request

Operating Data

- Maximum allowable pressure 439 bar
- Maximum allowable temperature 593 °C
- Pressure-temperature ratings see next side ¹⁾
¹⁾ Minimum temperature 0 °C, less than 0 °C on request

Materials

- A 216 WCB from 0 °C to 425 °C / 800 °F
- A 217 WC9 from 0 °C to 593 °C / 1100 °F
- A 217 WC6 from 0 °C to 593 °C / 1100 °F

Design

- As per ASME B 16.34
- Pressure seal bonnet design
- Butt weld ends
- Trim No. 5 (double stellited)
- Graphite gaskets & packings with braided anti-extrusion rings
- Tapered seat
- Integral stellited back seat
- Outside screw and yoke
- Yoke head with ISO-flange for actuator fitting
- Non-rotating stem
- Y-pattern body design

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of annex I for fluids of the groups 1 and 2.

Variants on request

- Position indicator
- Locking arrangement
- By-pass execution
- Actuator execution/gear execution
- Other materials
- Other Trim Nos.
- Other variants

Remarks

- Pressure seal gate valve leaflet no: 7241.1
- Pressure seal check valve leaflet no: 7243.1
- Operating instructions no: 0570.84

On all enquiries / orders please specify

- | | |
|-----------------------------|------------------------------------|
| 1. Type | 8. Flow medium |
| 2. ANSI Pressure class | 9. Type of end connection |
| 3. Size | 10. Pipe schedule |
| 4. Design pressure | 11. Variants |
| 5. Operating pressure | 12. Type leaflet no. |
| 6. Differential pressure | 13. Valve data sheet if applicable |
| 7. Material of construction | |

When ordering spare parts, indicate original factory number and year of manufacture.



Pressure-Temperature ratings (ASME B 16.34)

A 216 WCB Special Class

Temperature		Class 900		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	2250	158.2	3750	263.7	6250	439.4
200	93.3						
300	148.9						
400	204.4						
500	260						
600	315.6	2140	150.5	3565	250.7	5940	417.6
650	343.3	2100	147.6	3495	245.7	5825	409.6
700	371.1	2080	146.2	3470	244.0	5780	406.4
750	398.9	1890	132.9	3150	221.5	5250	369.1
800	426.7	1545	108.6	2570	180.7	4285	301.3
850	454.4	1005	70.7	1670	117.4	2785	195.8
900	482.2	645	45.3	1070	75.2	1785	125.5
950	510.0	385	27.1	645	45.3	1070	75.2
1000	537.8	195	13.7	320	22.5	535	37.6

A 217 WC9 Special Class

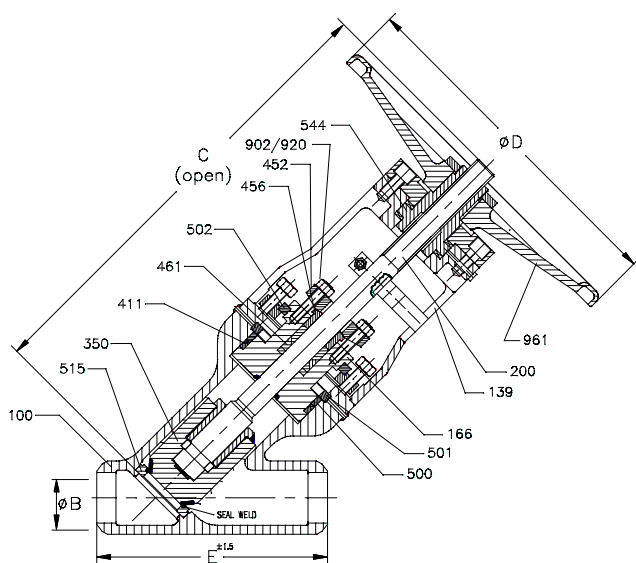
Temperature		Class 900		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	2250	158.1	3750	263.7	6250	439.4
200	93.3	2250	158.1	3750	263.7	6250	439.4
300	148.9	2225	156.4	3705	260.5	6180	434.5
400	204.4	2175	152.8	3620	254.5	6035	424.3
500	260	2160	151.8	3600	253.1	6000	421.9
600	315.6	2160	158.1	3600	253.1	6000	421.9
650	343.3	2145	150.7	3580	251.7	5965	419.4
700	371.1	2135	150.0	3555	249.9	5930	416.9
750	398.9	2070	145.5	3450	242.6	5750	404.3
800	426.7	2020	142.0	3365	236.6	5605	394.1
850	454.4	1930	135.6	3215	226.0	5355	376.5
900	482.2	1800	126.5	3000	210.9	5000	351.6
950	510.0	1415	99.4	2355	165.9	3930	276.3
1000	537.8	975	68.5	1630	114.6	2715	190.9
1050	565.6	655	46.0	1095	77.0	1820	128.0
1100	593.3	410	28.8	685	48.2	1145	80.5
1150	621.1	255	17.9	430	30.2	715	50.3
1200	648.9	155	10.9	255	17.9	430	30.2

A 217 WC6 Special Class

Temperature		Class 900		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	2250	158.1	3750	263.7	6250	439.4
200	93.3						
300	148.9						
400	204.4						
500	260						
600	315.6	2200	154.6	3665	257.7	6110	429.6
650	343.3						
700	371.1						
750	398.9						
800	426.7						
850	454.4	2160	151.8	3600	253.1	6000	421.9
900	482.2	2030	142.7	3385	238.0	5645	396.9
950	510.0	1760	123.7	2935	206.4	4895	344.2
1000	537.8	1195	84.0	1995	140.3	3320	233.4
1050	565.6	810	56.9	1350	94.9	2250	158.2
1100	593.3	540	37.9	900	63.3	1500	105.5
1150	621.1	360	25.3	600	42.2	1000	70.3
1200	648.9	230	16.2	385	27.1	645	45.3
1200	648.9	140	9.8	235	16.5	395	27.8

Test specifications

Test / test pressure	Class 900		Class 1500		Class 2500		Testing medium
	PSI	bar	PSI	bar	PSI	bar	
Shell	3375	238	5625	396	9375	660	Inhibited water
Back seat	2475	174	4125	291	6875	484	
Seat Leak	2475	174	4125	291	6875	484	



Type GLC

Design Specifications

General valve design & pressure, temperature rating	: ASME B 16.34 Special class
Butt weld end design	: ASME B 16.25
End to end dimension	: ASME B 16.10
Testing	: API 598, ASME B 16.34 Section 8

Dimensions

Class 900		2"	3"	4"	6"	8"
E	Inch	14,5	12,0	14,0	20,0	26,0
	mm	368,3	304,8	355,6	508,0	660,4
ØB*	Inch	1,9	2,9	3,6	5,5	7,2
	mm	48,0	73,5	92,0	140,0	182,5
C	Inch	19,2	24,6	28,0	31,9	35,4
	mm	489,0	625,0	710,0	810,0	900,0
ØD	Inch	14,0	18,0	20,0	20,0	20,0
	mm	356,0	457,0	508,0	508,0	508,0

* Schedule 80 up to 3", schedule 120 for 4" and above
Alternate schedule on request

Class 1500		2"	3"	4"	6"
E	Inch	14,6	18,5	16,0	27,8
	mm	369,8	469,9	406,4	706,4
ØB*	Inch	1,7	2,6	3,4	5,2
	mm	43,0	66,5	87,5	132,0
C	Inch	27,1	28,1	34,5	40,1
	mm	690,0	715,0	878,0	1020,0
ØD	Inch	14,0	20,0	20,0	24,0
	mm	356,0	508,0	508,0	610,0

* Schedule 160
Alternate schedule on request

Class 2500		2"	3"	4"	6"
E	Inch	17,8	14,5	26,5	36,0
	mm	451,0	368,3	673,1	914,4
ØB*	Inch	1,5	2,3	3,2	4,9
	mm	38,0	58,5	80,0	124,5
C	Inch	26,9	28,0	30,7	44,2
	mm	684,0	710,0	780,0	1122,0
ØD	Inch	14,0	18,0	20,0	24,0
	mm	356,0	457,0	508,0	610,0

* Schedule XXS
Alternate schedule on request

Materials

Part No.	Description	Material		
100	Body	A 216-WCB	A 217-WC9	A 217-WC6
139	Yoke	A 216-WCB		
166	* Bonnet	A 216-WCB+ST6	A 217-WC9+ST6	A 217-WC6+ST6
200	Stem	A 479-410-2		
350	Disc	A 216-WCB+ST6	A 217-WC9+ST6	A 217-WC6+ST6
411	Gasket	Graphite		
452	Gland Flange	A 216-WCB	A 217-WC9	A 217-WC9
456	Gland Bush	A 276-410		
461	Gland Packing	Graphite		
500	Spacer Ring	A 217-CA15		
501	Thrust Ring	A 217-CA15		
515	Seat Ring	A 216-WCB+ST6	A 217-WC9+ST6	A 217-WC9+ST6
544	Stem Nut	Al. Bronze		
902.1	Stud	A 193-B7	A 193-B16	
902.2				
920.1	Hex. Nut	A 194-2H	A 194-4	
920.2				
961	Handwheel	SG 400/12		

Product features - to our Customers' Benefit

Non-rising handwheel Your benefit

- Ideal in confined spaces

Stem nut guided Your benefit

- Ease of operation
- Life time lubrication

Two piece gland arrangement Your benefit

- Self aligning bush
- Even compression of packing rings
- No distortion on stem surface due to improper assembly

Pressure-seal bonnet Your benefit

- Safe sealing towards the atmosphere

Back seat Your benefit

- Additional stem seal for emergency operation
- Blow-out protection
- Relief of packing arrangement

Yoke head equipped with ISO-flange Your benefit

- Retrofitting of actuator/gear box possible

Stem with burnished shank Your benefit

- Long gland life

Die-moulded graphite rings, top and bottom rings Your benefit

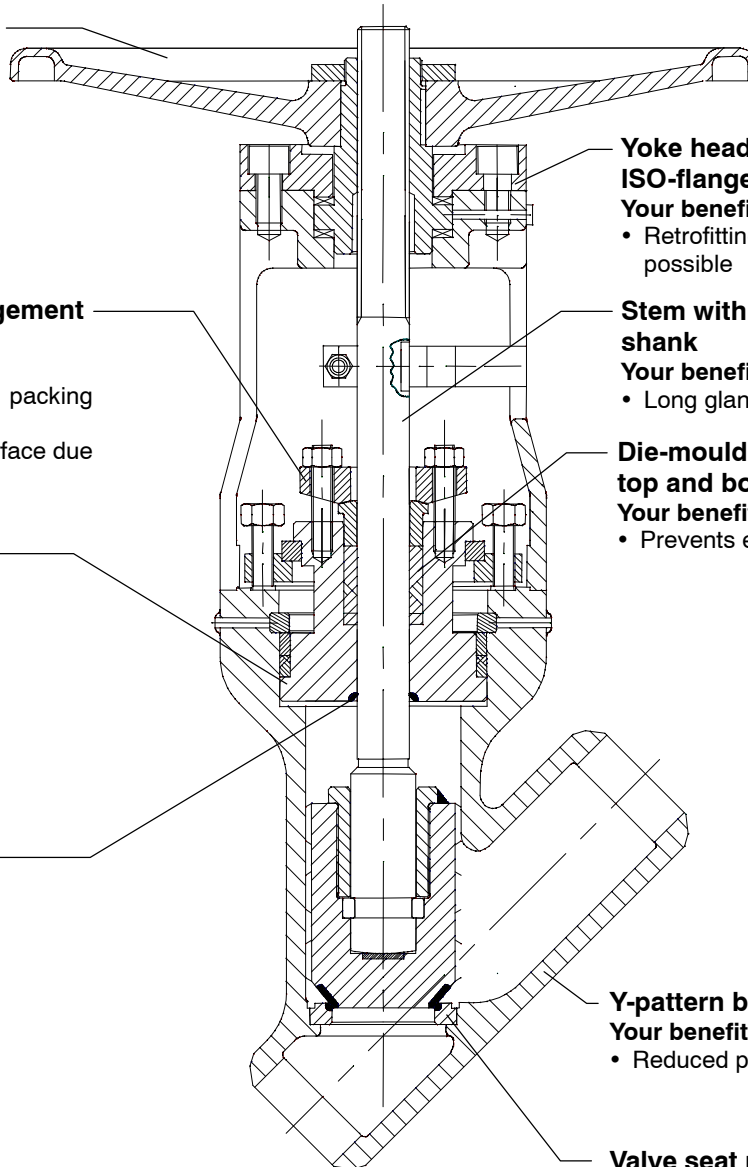
- Prevents extrusion of graphite

Y-pattern body design Your benefit

- Reduced pressure drop

Valve seat made of wear and corrosion-resistant materials Your benefit

- High reliability
- Long life



ANSI/ASME swing check valves cast steel



Type SCC

pressure seal bonnet

with butt weld ends

Class 900-2500
2"-12"

Application

- Power stations, general industry, process engineering
- For water, steam, gas, oil & other non-aggressive media
- Other applications on request

Operating Data

- Maximum allowable pressure 439 bar
- Maximum allowable temperature 593 °C
- Pressure-temperature ratings see next side ¹⁾
- ¹⁾ Minimum temperature 0 °C, less than 0 °C on request

Materials

- A 216 WCB from 0 °C to 425 °C / 800 °F
- A 217 WC9 from 0 °C to 593 °C / 1100 °F
- A 217 WC6 from 0 °C to 593 °C / 1100 °F

Design

- As per ASME B 16.34
- Pressure seal bonnet design
- Butt weld ends
- Trim No. 5 (double stellited)
- Swing check arrangement with inside hinge pin
- Non-turning disc

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of annex I for fluids of the groups 1 and 2.

Variants on request

- Drain plug
- Other materials
- Other Trim Nos.

Remarks

- Pressure seal gate valve leaflet no: 7241.1
- Pressure seal globe valve leaflet no: 7242.1
- Operating instructions no: 0570.84

On all enquiries / orders please specify

- | | |
|-----------------------------|------------------------------------|
| 1. Type | 8. Flow medium |
| 2. ANSI Pressure class | 9. Type of end connection |
| 3. Size | 10. Pipe schedule |
| 4. Design pressure | 11. Variants |
| 5. Operating pressure | 12. Type leaflet no. |
| 6. Differential pressure | 13. Valve data sheet if applicable |
| 7. Material of construction | |

When ordering spare parts, indicate original factory number and year of manufacture.



Pressure-Temperature ratings (ASME B 16.34)

A 216 WCB Special Class

Temperature		Class 900		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	2250	158.2	3750	263.7	6250	439.4
200	93.3						
300	148.9						
400	204.4						
500	260						
600	315.6	2140	150.5	3565	250.7	5940	417.6
650	343.3	2100	147.6	3495	245.7	5825	409.6
700	371.1	2080	146.2	3470	244.0	5780	406.4
750	398.9	1890	132.9	3150	221.5	5250	369.1
800	426.7	1545	108.6	2570	180.7	4285	301.3
850	454.4	1005	70.7	1670	117.4	2785	195.8
900	482.2	645	45.3	1070	75.2	1785	125.5
950	510.0	385	27.1	645	45.3	1070	75.2
1000	537.8	195	13.7	320	22.5	535	37.6

A 217 WC9 Special Class

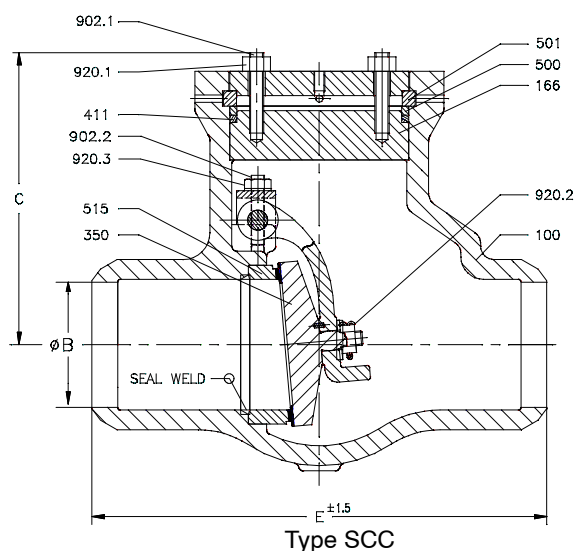
Temperature		Class 900		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	2250	158.1	3750	263.7	6250	439.4
200	93.3	2250	158.1	3750	263.7	6250	439.4
300	148.9	2225	156.4	3705	260.5	6180	434.5
400	204.4	2175	152.8	3620	254.5	6035	424.3
500	260	2160	151.8	3600	253.1	6000	421.9
600	315.6	2160	158.1	3600	253.1	6000	421.9
650	343.3	2145	150.7	3580	251.7	5965	419.4
700	371.1	2135	150.0	3555	249.9	5930	416.9
750	398.9	2070	145.5	3450	242.6	5750	404.3
800	426.7	2020	142.0	3365	236.6	5605	394.1
850	454.4	1930	135.6	3215	226.0	5355	376.5
900	482.2	1800	126.5	3000	210.9	5000	351.6
950	510.0	1415	99.4	2355	165.9	3930	276.3
1000	537.8	975	68.5	1630	114.6	2715	190.9
1050	565.6	655	46.0	1095	77.0	1820	128.0
1100	593.3	410	28.8	685	48.2	1145	80.5
1150	621.1	255	17.9	430	30.2	715	50.3
1200	648.9	155	10.9	255	17.9	430	30.2

A 217 WC6 Special Class

Temperature		Class 900		Class 1500		Class 2500	
°F	°C	PSI	bar	PSI	bar	PSI	bar
-20 to 100	-29 to 38	2250	158.1	3750	263.7	6250	439.4
200	93.3						
300	148.9						
400	204.4						
500	260						
600	315.6	2200	154.6	3665	257.7	6110	429.6
650	343.3						
700	371.1						
750	398.9						
800	426.7						
850	454.4	2160	151.8	3600	253.1	6000	421.9
900	482.2	2030	142.7	3385	238.0	5645	396.9
950	510.0	1760	123.7	2935	206.4	4895	344.2
1000	537.8	1195	84.0	1995	140.3	3320	233.4
1050	565.6	810	56.9	1350	94.9	2250	158.2
1100	593.3	540	37.9	900	63.3	1500	105.5
1150	621.1	360	25.3	600	42.2	1000	70.3
1200	648.9	230	16.2	385	27.1	645	45.3
1200	648.9	140	9.8	235	16.5	395	27.8

Test specifications

Test / test pressure	Class 900		Class 1500		Class 2500		Testing medium
	PSI	bar	PSI	bar	PSI	bar	
Shell	3375	238	5625	396	9375	660	Inhibited water
Seat leak	2475	174	4125	291	6875	484	



Design Specifications

General valve design & pressure, temperature rating	: ASME B 16.34 Special class
Butt weld end design	: ASME B 16.25
End to end dimension	: ASME B 16.10
Testing	: API 598, ASME B 16.34 Section 8

Dimensions

Class 900		2"	3"	4"	6"	8"	10"	12"
E	Inch	8,5	12,0	14,0	20,0	26,0	31,0	36,0
	mm	215,9	304,8	355,6	508,0	660,4	787,4	914,4
ØB*	Inch	1,9	2,9	3,6	5,5	7,2	9,0	10,8
	mm	48,0	73,5	92,0	140,0	182,5	230,0	273,0
C	Inch	6,5	8,5	11,0	12,2	14,0	17,0	20,1
	mm	165,0	215,0	280,0	310,0	356,0	431,0	511,0

* Schedule 80 up to 3", schedule 120 for 4" and above
Alternate schedule on request

Class 1500		2"	3"	4"	6"	8"	10"	12"
E	Inch	8,5	12,0	16,0	22,0	28,0	34,0	39,0
	mm	215,9	304,8	407,9	558,8	711,2	863,6	990,6
ØB*	Inch	1,7	2,6	3,4	5,2	6,8	8,5	10,1
	mm	43,0	66,5	87,5	132,0	173,0	216,0	257,0
C	Inch	8,2	10,0	12,2	15,1	17,7	18,5	25,2
	mm	210,0	255,0	310,0	385,0	450,0	470,0	640,0

* Schedule 160
Alternate schedule on request

Class 2500		2"	3"	4"	6"	8"	10"	12"
E	Inch	11,0	14,5	18,0	24,0	30,0	36,0	41,0
	mm	279,4	368,3	458,7	609,4	762,0	914,4	1041,4
ØB*	Inch	1,5	2,3	3,2	4,9	6,8	8,5	10,1
	mm	38,0	58,5	80,0	124,5	173,0	216,0	257,0
C	Inch	8,3	10,0	12,4	15,1	16,7	19,7	24,8
	mm	210,0	255,0	315,0	385,0	425,0	500,0	630,0

* Schedule XXS up to 6", schedule 160 for 8"
Alternate schedule on request

Materials

Part No.	Description	Material		
100	Body	A 216-WCB	A 217-WC9	A 217-WC6
166	* Bonnet	A 216-WCB	A 217-WC9	A 217-WC6
194	Hinge Bracket	A 216-WCB	A 217-WC9	
350	Disc	A 216-WCB+ST6	A 217-WC9+ST6	A 217-WC6+ST6
411	Gasket	Graphite		
500	Spacer ring	A 217-CA15		
501	Thrust ring	A 217-CA15		
515	Seat ring	A 216-WCB+ST6	A 217-WC9+ST6	A 217-WC6+ST6
563	Hinge pin	A 479-410-1		
570	Disc carrier	A 216-WCB	A 217-WC9	
902	Stud	A 193-B7	A 193-B16	
920	Hex. nut	A 194-2H	A 194-4	
933	Cotter pin	A 276-304		

Product features - to our customers' benefit

Pressure-seal bonnet

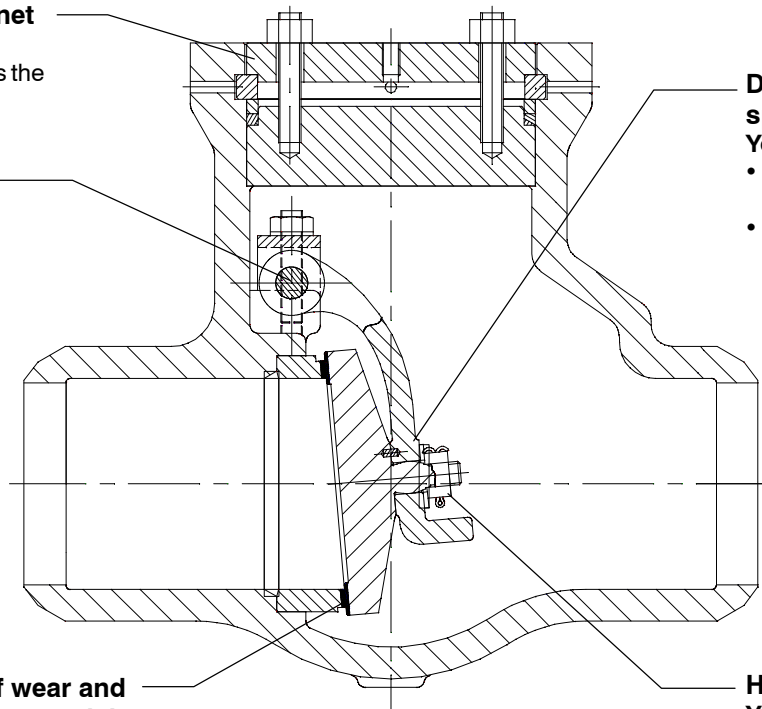
Your benefit

- Safe sealing towards the atmosphere

Inside hinge pin

Your benefit

- Leak tightness



Disc protected against spinning

Your benefit

- Prevents from accelerated wear and noise
- Safety

Seal faces made of wear and corrosion-resistant materials

Your benefit

- High reliability
- Long life

Hex nut secured

Your benefit

- No unintended unfastening



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