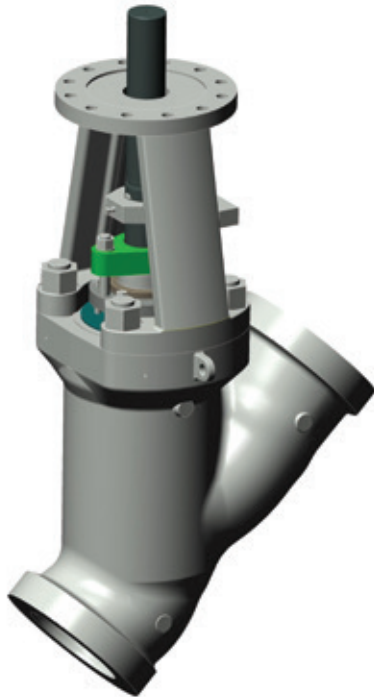


SEMPELL PRESSURE SEAL CAST GLOBE VALVES - STYLE A
Y AND T PATTERN

A wide range of globe valves specifically designed for high pressure and high temperature applications, where low pressure loss is required.



FEATURES

- A range of compact pressure seal globe valves designed according to ASME B16.34.
- All range is offered in all the material stated in the ASTM specifications (NACE compliance included), and designed to always guarantee the maximum safety and flow efficiency.
- Face to face dimensions as per ASME B16.10
- Available in Y and T pattern design (both also in Stop-Check configuration)
- Seat is welded-in
- Position indicator is offered as standard
- Stellite[®] gr.6 overlay on seat and disc; Stellite gr.21 overlay on bonnet.
- Standard ISO top mounting for easy assembly of any type of actuator or bevel gear
- Available options: parabolic disc, low emission packing, equalizing and overpressure pipe, limit switch in open or close position.
- Valves are offered as standard with manual operators (Hand wheel or bevel gear depending on size). Actuated options such as electric, pneumatic or hydraulic are available.

GENERAL APPLICATION

Our pressure seal globe valves are recommended for a wide range of very high pressures and temperature applications for steam and water in the power industry. These valves are ideally suited in applications requiring tight shutoff.

TECHNICAL DATA

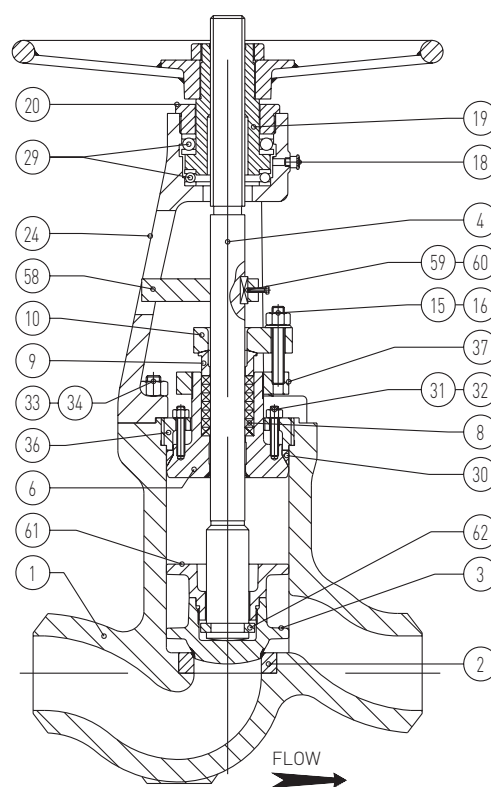
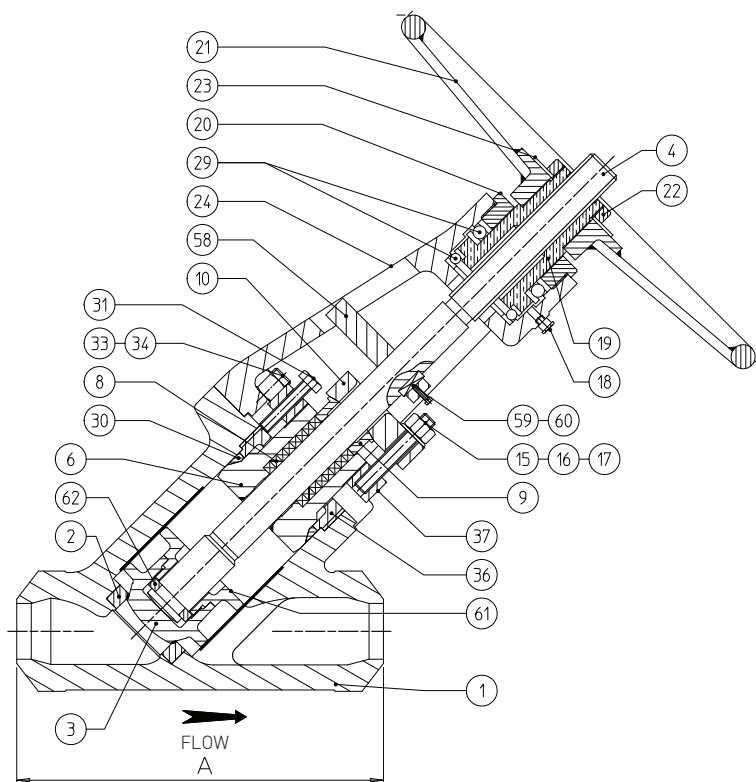
Sizes: DN 50 to 600 and larger (NPS 2-24)
 Temperature (°C): -46 to + 650
 Pressure ratings: ASME Class 1900 and 2850 for Y type
 ASME Class 1200, 1900 and 2850 for T type
 Body materials: All the cast materials stated in the ASTM spec.

Connections standards

Butt Weld according to ASME B16.25.
 Flanged Ends available for T type only, according to ASME B16.5

SEPELL PRESSURE SEAL CAST GLOBE VALVES - STYLE A

Y AND T PATTERN



MATERIAL SELECTION

Item	Description	Body in WCB	Body in WC6	Body in CF8M
1	Body	A216 WCB	A217 WC6	A351 CF8M
2	Seat ring	A105 + Stellite	A182 F22 + Stellite	A182 F316 + Stellite
3	Disc	A216 WCB + Stellite	A182 F11 + Stellite	A182 F316 + Stellite
4	Stem	A565 gr. 616 HT	A565 gr. 616 HT	A182 F316 or Nitronic® 50 ^[2]
6	Bonnet	A105 + Stellite	A182 F11 + Stellite	A182 F316 + Stellite
8	Packing	Flexible graphite inner rings and suitable anti-extrusion rings		
9	Gland	A182 F6a	A182 F6a	A182 F316
10	Gland flange	A105 or A516 gr. 70	A105 or A516 gr. 70	A182 F316 or A240 Tp. 316
15	Gland bolt	A193 B7	A193 B7	A193 B8
16	Gland nut	A194 2H	A194 2H	A194 8
18	Lubricator	Steel	Steel	Steel
19	Yoke sleeve	A763 gr.A	A763 gr.A	A763 gr.A
20	Yoke nut bushing	A105	A105	A105
24	Yoke	A216 WCB	A216 WCB	A216 WCB
29	Bearings	Steel	Steel	Steel
30	P.S. gasket	Soft iron silver plated	Soft iron silver plated	A182 F316
31	Bolt	A193 B7	A193 B16	A193 B8
32	Nut	A194 2H	A194 4	A194 8
33	Body - yoke bolt	A193 B7	A193 B7	A193 B7
34	Body - Yoke nut	A194 2H	A194 2H	A194 2H
36	Bonnet retaining ring	A105	A182 F11	A182 F316
37	Gland retaining ring	A516 gr. 70	A516 gr. 70	A516 gr. 70
58	Position indicator	A516 gr. 70	A516 gr. 70	A516 gr. 70
59	Screw	A193 B7	A193 B7	A193 B7
60	Key	Steel	Steel	Steel
61	Disc guide	A105	A182 F11	A182 F316
62	Stem segmental rings	A182 F6a	A182 F6a	A182 F316

NOTES

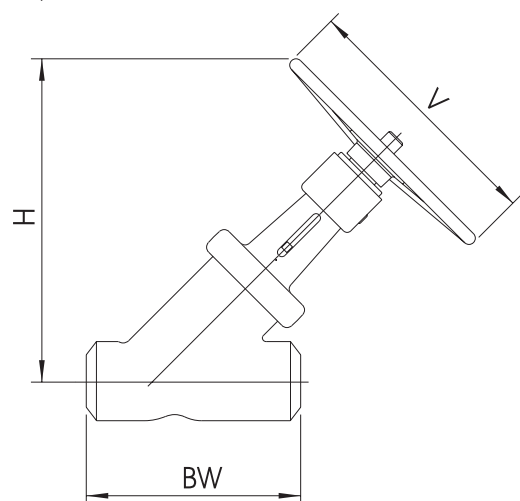
- Other materials are available on request.
Please consult supplier.
- Depending on size.

SEPELL PRESSURE SEAL CAST GLOBE VALVES - STYLE A

Y AND T PATTERN

PRESSURE SEAL CONFIGURATION

"Y" pattern



Size		ASME class 1900				Size		ASME class 2850			
DN	NPS	BW	H	V	Kg 2	DN	NPS	BW	H	V	Kg 2
50	2	-	-	-	-	50	2	-	-	-	-
65	2½	-	-	-	-	65	2½	-	-	-	-
80	3	381	670	500	100	80	3	368	770	650	180
100	4	406	910	575	200	100	4	457	960	750	230
125	5	-	-	BGO	-	125	5	-	-	BGO	-
150	6	559	980	BGO	450	150	6	610	1000	BGO	560
200	8	711	1130	BGO	700	200	8	762	1150	BGO	825
250	10	864	1445	BGO	1150	250	10	914	1390	BGO	1370
300	12	991	1880	BGO	1690	300	12	1041	1520	BGO	1870
350	14	1067	2060	BGO	2170	350	14	1130	1600	BGO	2650
400	16	1194	2120	BGO	3320	400	16	1245	2000	BGO	3870
450	18	1473	2230	BGO	3720	450	18	1397	2000	BGO	4200
500	20	1676	2340	BGO	5370	500	20	1524	2260	BGO	5970
550	22	-	-	BGO	-	550	22	-	-	BGO	-
600	24	1727	2450	BGO	7200	600	24	1829	2800	BGO	8000

NOTES

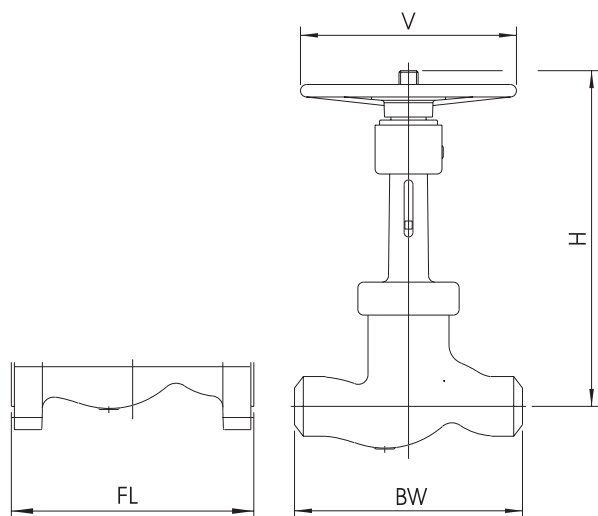
- All dimensions are in mm.
- Globe valves in sizes and classes larger than mentioned here are available. Please consult supplier for more information.
- Dim. H corresponds to the height of valve in open position.
- BGO stands for "Bevel Gear Operator".
- Kg 2 corresponds to weight in kilos for welding body style.

SEPELL PRESSURE SEAL CAST GLOBE VALVES - STYLE A

Y AND T PATTERN

PRESSURE SEAL CONFIGURATION

"T" pattern



Size	DN	NPS	ASME class 1200						ASME class 1900						ASME class 2850					
			FL	BW	H	V	Kg 1	Kg 2	FL	BW	H	V	Kg 1	Kg 2	FL	BW	H	V	Kg 1	Kg 2
50	2	-	-	-	-	-	-	368	368	580	400	80	60	451	451	750	500	130	120	
65	2½	-	-	-	-	-	-	419	419	690	500	120	95	508	508	770	575	200	150	
80	3	381	381	605	500	95	80	470	470	710	500	145	120	578	578	805	650	275	190	
100	4	457	457	820	575	180	140	546	546	785	575	230	175	673	673	965	750	510	325	
125	5	-	-	-	-	-	-	-	-	-	BGO	-	-	-	-	-	BGO	-	-	
150	6	610	610	1050	750	375	315	705	705	1030	BGO	470	435	914	914	1020	BGO	950	665	
200	8	737	737	1310	BGO	640	495	832	832	1250	BGO	1090	930	1022	1022	1125	BGO	1400	910	
250	10	838	838	1465	BGO	1100	885	991	991	1400	BGO	1480	1200	1270	1270	1380	BGO	1950	1250	
300	12	965	965	1640	BGO	1680	1395	1130	1130	1570	BGO	2200	1670	1422	1041	1590	BGO	2560	1430	

NOTES

1. All dimensions are in mm.
2. Globe valves in sizes and classes larger than mentioned here are available. Please consult supplier for more information.
3. Dim. H corresponds to the height of valve in open position.
4. BGO stands for "Bevel Gear Operator".
5. Kg 1 corresponds to weight in kilos for flanged body style. For sizes larger than NPS 24, weight depends on flange standards.
6. Kg 2 corresponds to weight in kilos for welding body style.

SEPELL PRESSURE SEAL CAST GLOBE VALVES - STYLE A

Y PATTERN

Standard ISO top mounting for easy assembly of any type of actuator or bevel gear

The pressure seal gasket between body and bonnet provides a strong sealing force. It is in fact first under bolting pre-load pressure, and then under line pressure

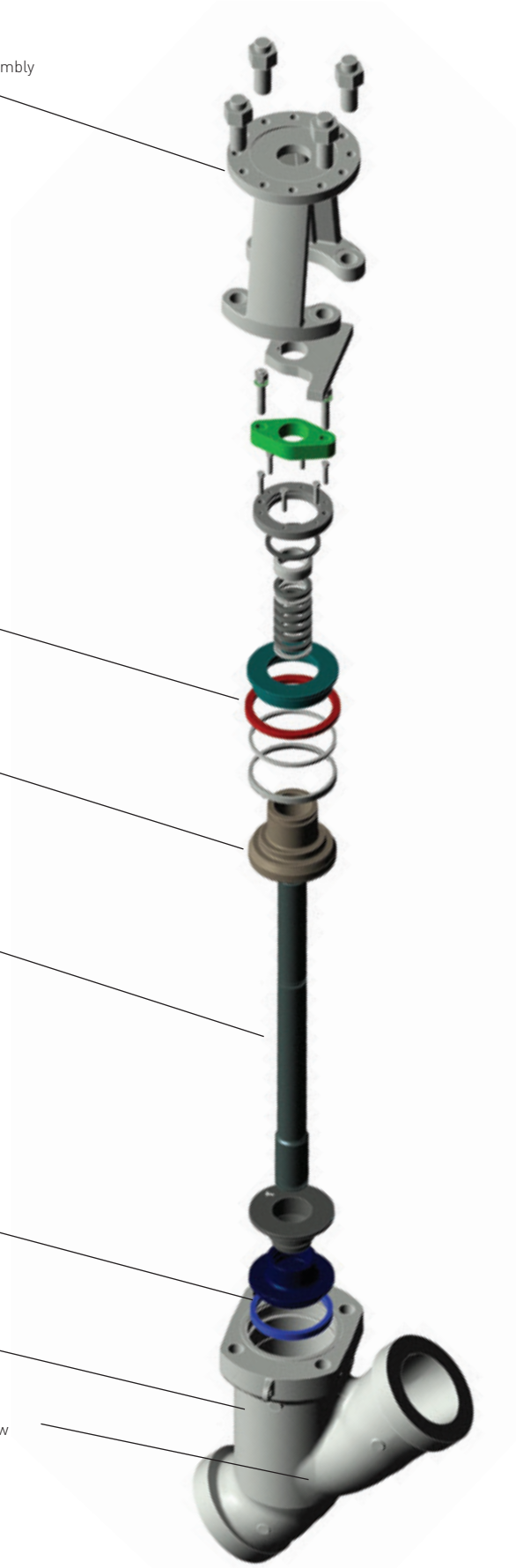
Backseats, for easy maintenance without interrupting production time

Rising stem – provides unrestricted flow with the disc completely outside the flow path

Renewable seats – for a simplified seats replacement

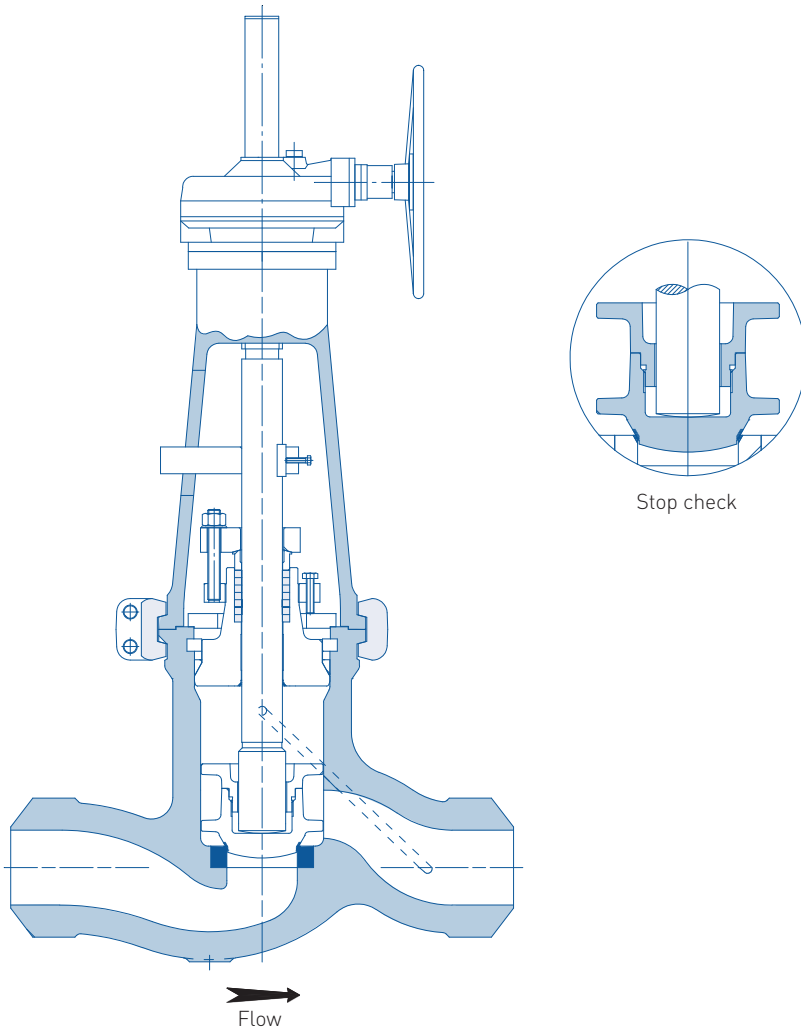
Unidirectional valve

Shape designed to grant a quiet linear flow passage in valve seat area – for a low pressure loss.



SEPELL PRESSURE SEAL CAST GLOBE VALVES - STYLE A Y AND T PATTERN

"STOP-CHECK" CONFIGURATION



HOW THE STOP CHECK GLOBE VALVES WORK.

The globe valves stop check can be used in two ways:

- a) as regulating valve
- b) as check valve

The stem is not connected with the disc therefore, when performing the opening, the disc is not dragged by the stem and remains in contact with the seat or it moves in the direction of the stem only if there is flow.

In absence of reversal flow, the disc closes the valve exactly as a check valve

In presence of flow and with the stem in any position other than valve closed, the disc will be positioned as follow:

- a) In an equilibrium condition between his weight and the thrust due the fluid
- b) Against the stem when the flow rate is sufficient to push it in this position

The stem has two functions:

- a) To limit the opening of the valve (adjust the flow rate of the valve to a predetermined max value)
- b) To force the closure of the valve regardless of the flow

The equalizing pipe has the function to stabilize the position of the disc in order to avoid noise and damage to the valve.

SEPELL PRESSURE SEAL CAST GLOBE VALVES - STYLE A

Y AND T PATTERN

1200 RATING CLASS (ASME B16.34)

ASTM Body mat'l cast	ASME code B16.34	Pressure in bar at temp. °C																				
		-29°																				
		to 38°	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538	550	575	600	625	650
WCB ***	Std.*	204.3	200.5	186.4	180.3	175.2	167.8	159.3	154.9	150.3	145.5	138.9	115.1	92.0	69.8	47.1	23.6	-	-	-	-	-
WCB ***	Spec.**	206.9	206.9	206.6	204.2	202.3	202.1	200.5	195.7	188.4	173.6	143.9	115.1	87.2	58.8	29.6	-	-	-	-	-	-
WC6 ****	Std.*	206.9	207.0	205.9	199.0	191.9	185.4	171.5	165.3	160.9	155.3	146.5	140.1	135.2	126.7	102.9	59.6	50.8	35.2	24.4	17.1	11.4
WC6 ****	Spec.**	206.9	206.9	206.9	206.9	206.9	206.9	206.9	206.9	205.7	202.0	200.9	198.6	188.6	171.0	128.7	74.5	63.6	44.0	30.6	21.3	14.2
WC9 *****	Std.*	206.9	206.9	206.1	200.7	194.6	185.4	171.5	165.3	160.9	155.3	146.5	140.1	135.2	126.7	112.8	73.8	62.6	42.1	27.6	17.9	11.4
WC9 *****	Spec.**	206.9	206.9	206.5	203.9	200.9	199.9	199.1	198.4	196.8	195.1	195.1	195.1	188.6	171.0	142.9	92.2	78.2	52.7	34.4	22.3	14.2
C12A	Std.*	206.9	206.9	206.1	200.7	194.6	185.4	171.5	165.3	160.9	155.3	146.5	140.1	135.2	126.7	112.8	100.4	99.9	95.8	78.0	58.4	39.7
C12A	Spec.**	206.9	206.9	206.9	206.9	206.9	206.9	206.9	206.9	205.7	202.0	200.9	198.6	188.6	171.0	142.9	116.0	116.0	114.4	97.5	73.1	49.7

1900 RATING CLASS (ASME B16.34)

ASTM Body mat'l cast	ASME code B16.34	Pressure in bar at temp. °C																				
		-29°																				
		to 38°	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538	550	575	600	625	650
WCB ***	Std.*	323.4	317.4	295.1	285.5	277.4	265.6	252.2	245.2	237.9	230.3	219.9	182.2	145.7	110.4	74.4	37.4	-	-	-	-	-
WCB ***	Spec.**	327.5	327.5	327.0	323.2	320.3	320.0	320.0	317.4	309.8	298.3	274.9	227.7	182.1	138.0	93.1	46.8	-	-	-	-	-
WC6 ****	Std.*	327.5	327.7	326.0	315.0	303.7	293.6	271.5	261.7	254.8	245.7	231.8	221.7	214.1	200.5	162.9	94.3	80.5	55.8	38.7	27.0	18.0
WC6 ****	Spec.**	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5	325.7	319.9	318.0	314.4	298.7	270.7	203.7	117.9	100.6	69.7	48.4	33.7	22.4
WC9 *****	Std.*	327.5	327.5	326.3	317.8	308.2	293.6	271.5	261.7	254.8	245.7	231.8	221.7	214.1	200.5	178.5	116.8	99.0	66.6	43.6	28.3	18.0
WC9 *****	Spec.**	327.5	327.5	326.9	322.7	318.1	316.5	315.3	314.1	311.6	308.8	308.8	308.8	298.7	270.7	226.2	146.0	123.7	83.4	54.5	35.3	22.4
C12A	Std.*	327.5	327.5	326.3	317.8	308.2	293.6	271.5	261.7	254.8	245.7	231.8	221.7	214.1	200.5	178.5	158.9	158.1	151.6	123.5	92.5	62.8
C12A	Spec.**	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5	325.7	319.9	318.0	314.4	298.7	270.7	226.2	183.7	183.7	181.1	154.4	115.6	78.6

2850 RATING CLASS (ASME B16.34)

ASTM Body mat'l cast	ASME code B16.34	Pressure in bar at temp. °C																				
		-29°																				
		to 38°	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538	550	575	600	625	650
WCB ***	Std.*	485.1	476.2	442.7	428.2	416.1	398.4	378.3	367.8	356.8	345.5	329.8	273.3	218.5	165.6	111.6	56.1	-	-	-	-	-
WCB ***	Spec.**	491.2	491.2	490.5	484.8	480.4	480.0	480.0	476.1	464.7	447.5	412.3	341.5	273.2	207.0	139.6	70.2	-	-	-	-	-
WC6 ****	Std.*	491.2	491.2	489.1	472.5	455.6	440.2	407.1	392.5	382.2	368.5	347.5	332.4	321.2	300.8	244.4	141.5	120.7	83.7	58.0	40.5	26.9
WC6 ****	Spec.**	491.2	491.2	491.2	491.2	491.2	491.2	491.2	491.2	488.6	479.8	476.9	471.6	448.1	406.2	305.5	176.8	150.9	104.5	72.5	50.6	33.6
WC9 *****	Std.*	491.2	491.2	489.5	476.8	462.2	440.2	407.1	392.5	382.2	368.5	347.5	332.4	321.2	300.8	267.9	175.2	148.5	100.0	65.4	42.4	26.9
WC9 *****	Spec.**	491.2	491.2	490.4	484.0	477.1	474.8	472.9	471.2	467.4	463.2	463.2	463.2	448.1	406.2	339.1	219.0	185.6	125.0	81.7	53.0	33.6
C12A	Std.*	491.2	491.2	489.5	476.8	462.2	440.2	407.1	392.5	382.2	368.5	347.5	332.4	321.2	300.8	267.9	238.1	237.1	227.4	185.3	138.7	94.3
C12A	Spec.**	491.2	491.2	491.2	491.2	491.2	491.2	491.2	491.2	488.6	479.8	476.9	471.6	448.1	406.2	339.1	275.5	275.5	271.6	231.5	173.4	117.9

NOTE

* Standard Class according to ASME B16.34

** Special Class according to ASME B16.34

*** WCB Upon exposure to temperatures above 425°C, the carbide phase of steel may be converted to graphite. Permissible but not recommended for prolonged usage above 425° C.

**** WC6 Not to be used above 595° C.

***** WC9 Permissible but not recommended for prolonged usage above 595° C.

SEPELL PRESSURE SEAL CAST GLOBE VALVES - STYLE A

Y AND T PATTERN

FLOW COEFFICIENT C_v FOR GLOBE VALVES Y PATTERN

NPS	DN	ASME Class	
		1900	2850
2	50	80	55
2 1/2	65	120	80
3	80	175	120
4	100	310	195
6	150	710	460
8	200	1225	830
10	250	1960	1345
12	300	2795	1910
14	350	3375	2385
16	400	4475	3160
18	450	5710	4050
20	500	7200	4935
22	550	8790	6040
24	600	10510	7260

FLOW COEFFICIENT C_v FOR GLOBE VALVES T PATTERN

NPS	DN	ASME Class		
		1200	1900	2850
2	50	40	40	25
2 1/2	65	60	60	40
3	80	95	85	60
4	100	175	155	95
6	150	405	350	230
8	200	700	605	410
10	250	1115	970	665
12	300	1600	1385	945
14	350	1955	1675	1185
16	400	2585	2225	1575
18	450	3315	2840	2015
20	500	4125	3585	2460
22	550	5025	4385	3015
24	600	6045	5245	3630

ORDERING GUIDE

Example:	4D	0	R	06	30	0	B3	H	A
Valve type									
4B Globe - T Pattern									
4D Globe - Y Pattern									
Valve configuration									
0 Basic									
1 Stop check execution									
Valve Rating									
E ASME 900									
F ASME 1500									
R ASME 1200									
L ASME 2500									
S ASME 1900									
U ASME 2850									
Nominal valve size									
02 2"									
25 2 1/2"									
03 3"									
04 4"									
05 5"									
06 6"									
07 7"									
08 8"									
10 10"									
12 12"									
14 14"									
16 16"									
18 18"									
20 20"									
22 22"									
24 24"									
Body material									
30 ASTM A216 WCB									
38 ASTM A217 C12A									
44 ASTM A217 WC6									
45 ASTM A217 WC9									
62 ASTM A351 CF8C									
65 ASTM A351 CF8M									
73 A352 LCB									
78 ASTM A494 CW-6MC									
99 ASTM A890 Gr 5A									
XY* Other material									
Cladding									
0 No cladding									
2 Sealing gasket area F316									
Trim									
B2 13% Cr. + 2 Stellite									
D2 F316 + 2 Stellite									
WZ* Other material									
Pipe connection									
A Flanged per ASME B16.5									
H Weld End ASME B16.25									
J Weld End EN 12267									
K Weld End ISO 9692									
Standard valve operation									
A Handwheel									
B Bevel gear									
C Bare shaft (Coupling type A)									
E Bare shaft for linear actuator									

* Other material available upon request.

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