



FASANI PRESSURE SEAL CAST GATE VALVES - STYLE A WEDGE GATE AND PARALLEL SLIDE

A series of robust gate valves specifically designed for applications in the power industry



FEATURES

- A range of compact pressure seal gate valves designed according to ASME B16.34.
- All range is offered in four standard cast materials: WCB (generally used on feed water lines), WC6 and WC9 (both used on steam lines), C12A (proposed for high temp. applications).
- End to end dimensions as per ASME B16.10 short pattern.
- Available in wedge gate and parallel slide configurations.
- Seats are welded in.
- Position indicator is offered as standard.
- Stellite® gr. 6 overlay on seat and wedge or disc; Stellite® gr. 21 overlay on backseat.
- Pressure seal gasket has trapezoidal shape for a low load on bolting, and is supplied in graphite with integral stainless steel anti-extrusion protection.
- Standard ISO top mounting for easy assembly of any type of actuator or bevel gear.
- Available options: wedge vent hole or overpressure pipe, by-pass, limit switch in open or closed 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 -Style A gate valves are recommended for several applications in the power industry, in particular in feed water lines, steam lines, and in services which involve high temperatures media.

TECHNICAL DATA

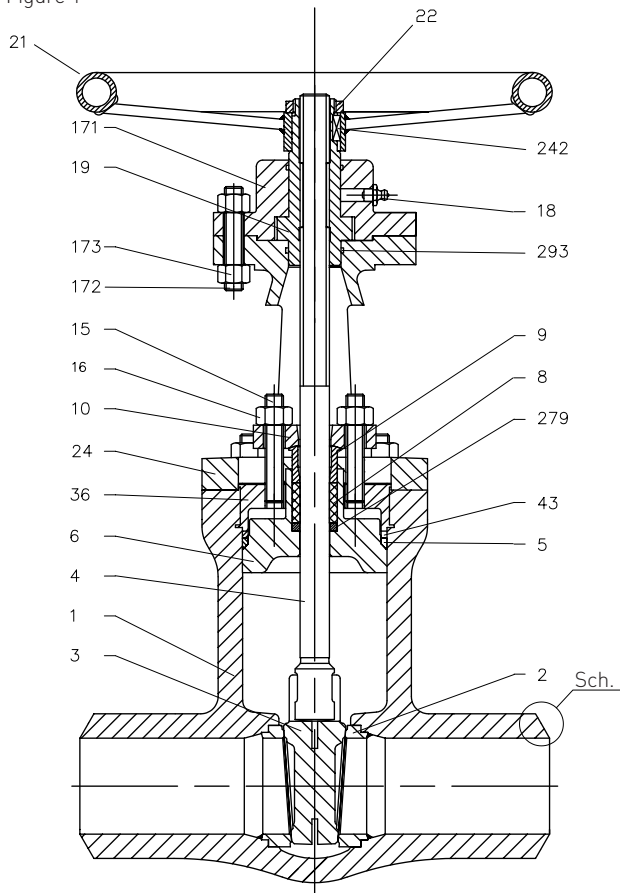
Sizes:	DN 50-600 (NPS 2-24)
Temperature [°C]:	-46 to +650
Pressure ratings:	ASME Class 900, 1500 and 2500
Body materials:	A216 WCB, A217 WC6, A217 WC9, A217 C12A
Connections standards:	Butt Welded according to ASME B16.25 Flanged Ends available upon request

FASANI PRESSURE SEAL CAST GATE VALVES - STYLE A

WEDGE GATE AND PARALLEL SLIDE

WEDGE GATE CONFIGURATION

Figure 1



PARALLEL SLIDE CONFIGURATION

Figure 2

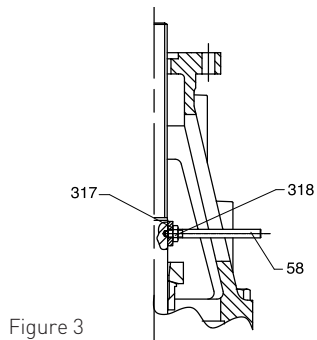
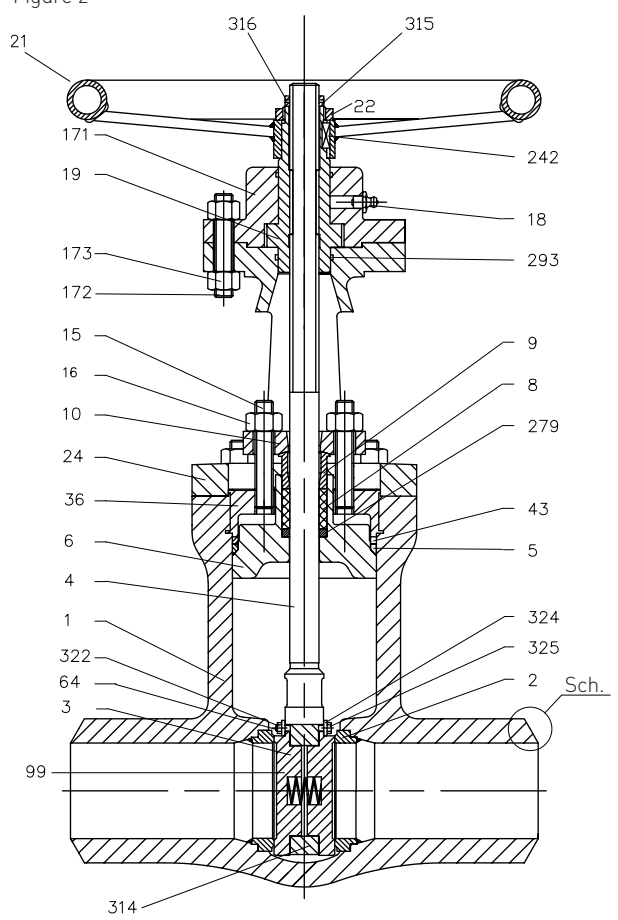


Figure 3

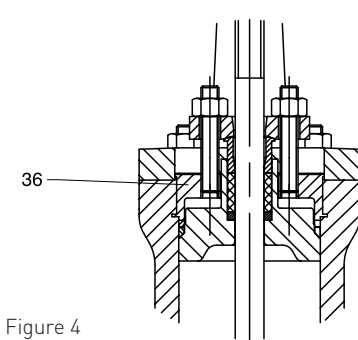


Figure 4

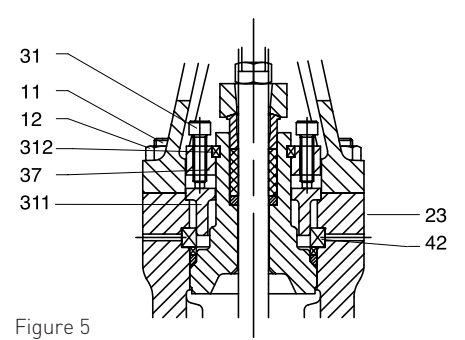


Figure 5

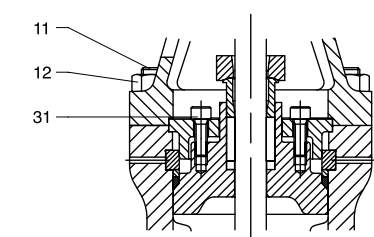


Figure 6

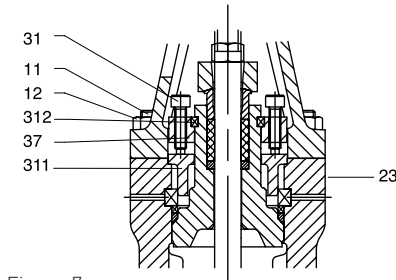


Figure 7

NOTES

1. Fig. 4 is applicable for NPS 2 and 2½ only.
2. Fig. 5 is applicable for NPS 3 only.
3. Fig. 6 is applicable for NPS 4 to 24 (ASME cl. 900 and 1500) and for NPS 12 to 24 (ASME cl. 2500).
4. Fig. 7 is applicable for NPS 4 to 10 (ASME cl. 2500).

FASANI PRESSURE SEAL CAST GATE VALVES - STYLE A

WEDGE GATE AND PARALLEL SLIDE

MATERIAL SPECIFICATION

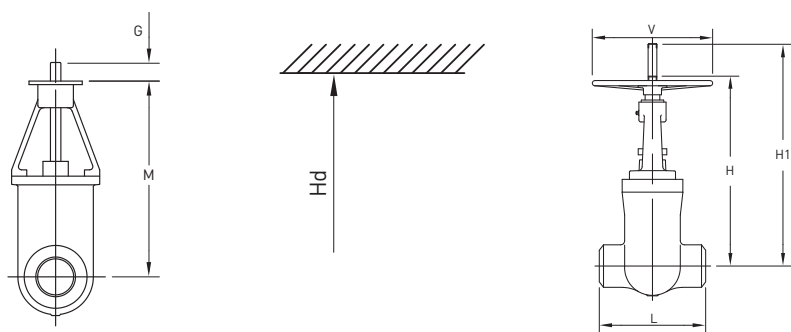
Item	Description	Body mat.: WCB	Body mat.: WC6	Body mat.: WC9	Body mat. C12A
1	Body	A 216 WCB	A 217 WC6	A 217 WC9	A217 C12A
2	Seat ¹	A 105 + Stellite gr. 6	A 182 F22 + Stellite gr. 6	A 182 F22 + Stellite gr. 6	A182 F91/St 12
3	Wedge ² (for wedge gate conf.)	A 216 WCB + Stellite gr. 6	A 217 WC9 + Stellite gr. 6	A 217 WC9 + Stellite gr. 6	A217 C12A/St 6
3	Disc ² (for parallel slide conf.)	A 105 + Stellite gr. 6	A 182 F22 + Stellite gr. 6	A 182 F22 + Stellite gr. 6	A182 F91/St 6
4	Stem	A 182 F6a Cl 2	A 565 gr 616HT	A 565 gr 616HT	A565 Gr 616HT
5	Gasket	316 reinforced graphite	316 reinforced graphite	316 reinforced graphite	Graphite/316
6	Bonnet	A 105 + Stellite gr. 21	A 182 F22 + Stellite gr. 21	A 182 F22 + Stellite gr. 21	A182 F91/St 21
8	Packing	Graphite	Graphite	Graphite	Graphite/Carbographite
9	Gland	A 182 F6a Cl 2	A 182 F6a Cl 2	A 182 F6a Cl 2	A182 F6a Cl2
10	Gland flange	A 516 gr 70	A 516 gr 70	A 516 gr 70	A240 Tp 316-316L
11	Body-yoke bolts	A 193 B7	A 193 B7	A 193 B16	A193 B16
12	Body-yoke nuts	A 194 2H	A 194 2H	A 194 4	A194 Gr 4
15	Gland bolts	A 193 B7	A 193 B7	A 193 B16	A193 B16
16	Gland nuts	A 194 2H	A 194 2H	A 194 4	A194 Gr 4
18	Lubricator	Carbon steel	Carbon steel	Carbon steel	Carbon steel
19	Yoke sleeve	A 763 Gr A	A 763 Gr A	A 763 Gr A	A763 Gr.A
21	Handwheel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
22	Handwheel nut	A 105	A 105	A 105	A105
23	Name plate	Stainless steel	Stainless steel	Stainless steel	Stainless steel
24	Yoke	A 216 WCB	A 216 WCB	A 216 WCB	A216 WCB
31	Bonnet screw	A 193 B7	A 193 B16	A 193 B16	A193 B16
36	Bonnet retaining ring ³	A 105	A 182 F22	A 182 F22	A182 F22
37	Gland bolts flange ⁴	A 105	A 105	A 105	A105
42	Segment ring ³	A 182 F22	A 182 F22	A 182 F22	A182 F91
43	Intermedia thrust ring	A 182 F22	A 182 F22	A 182 F22	A182 F6a Cl2
58	Position indicator	A 105	A 105	A 105	A182 F6a Cl2
64	Split pin	Stainless steel	Stainless steel	Stainless steel	Stainless steel
99	Spring	Inconel 718	Inconel 718	Inconel 718	UNS N07718
171	Bearings housing	A 105	A 105	A 105	A105
172	Coupling bolts	A 193 B7	A 193 B7	A 193 B7	A193 Gr.B7
173	Coupling nuts	A 194 2H	A 194 2H	A 194 2H	A194 Gr.2H
242	Key	Key steel	Key steel	Key steel	Key steel
279	Bottom ring	A 182 F6a Cl 2	A 182 F6a Cl 2	A 182 F6a Cl 2	A182 F6a Cl2
293	O-ring	FKM 70 sh	FKM 70 sh	FKM 70 sh	FKM70 sh
311	Retaining ring ⁶	A 105	A 105	A 105	A105
312	Two half ring ⁷	A 182 F6a Cl 2	A 182 F6a Cl 2	A 182 F6a Cl 2	A182 F6a Cl2
314	Anchor	A 216 WCB	A 217 WC9	A 217 WC9	A217 C12A
315	Stop ring	A 182 F6a Cl 2	A 182 F6a Cl 2	A 182 F6a Cl 2	A182 F6a Cl2
316	Pin	Stainless steel	Stainless steel	Stainless steel	A182 F316-F316L
317	Ring	A 105	A 105	A 105	A182 F6a Cl2
318	Nut	A 194 2H	A 194 2H	A 194 2H	A194 Gr 8
322	Nut	A 194 8	A 194 8	A 194 8	A194 Gr 8
324	Bushing	A 182 F6a Cl 2	A 182 F6a Cl 2	A 182 F6a Cl 2	A182 F6a Cl2
325	Screw	A 193 B8	A 193 B8	A 193 B8	A193 B8

NOTES

1. Seats are welded in.
2. Flexible.
3. Applicable for NPS 2 and 2½ only (ASME class 900-1500-2500).
4. Applicable for NPS 3 only (ASME class 900 and 1500); from NPS 2 to 10 (ASME class 2500).
6. Applicable for NPS 3 to 24 (ASME class 900 and 1500).
7. Applicable for NPS 3 (ASME class 900 and 1500); from NPS 2 to 10 (ASME class 2500).

FASANI PRESSURE SEAL CAST GATE VALVES - STYLE A

WEDGE GATE AND PARALLEL SLIDE



DIMENSIONS AND WEIGHTS ASME CLASS 900

Size NPS	G	M	L	Hd	H	H1	V	V1	Z	K	X	Top flange	Travel		Weight (bare shaft)
													(n° turns ± 1)	Travel (mm)	
2	140	395	216	760	535	600	200	-	-	-	-	F10	15	63	38
2½	140	395	254	760	535	600	200	-	-	-	-	F10	15	63	50
3	140	480	305	890	620	695	250	-	-	-	-	F10	18	76	55
4	150	520	356	960	665	765	300	-	-	-	-	F10	19	97	70
6	170	750	508	1335	-	-	-	600	350	840	1175	F14	22.5	142	175
8	180	870	660	1510	-	-	-	800	350	960	1295	F14	29.5	186	295
10	205	975	787	1725	-	-	-	800	430	1075	1435	F16	36.5	230	485
12	215	1130	914	1985	-	-	-	800	430	1230	1690	F25	43	273	795
14	230	1315	991	2260	-	-	-	800	550	1430	2000	F30	37	311	940
16	250	1465	1092	2515	-	-	-	800	550	1605	2150	F30	41	345	1240
18	250	1600	1143	2725	-	-	-	800	550	1745	2285	F35	46.5	391	1640
20	300	1740	1245	3005	-	-	-	800	430	2110	2495	F35	52	438	2150
24	305	2060	1397	3510	-	-	-	800	465	2480	2955	F40	41	517	2800

DIMENSIONS AND WEIGHTS ASME CLASS 1500

Size NPS	G	M	L	Hd	H	H1	V	V1	Z	K	X	Top flange	Travel		Weight (bare shaft)
													(n° turns ± 1)	Travel (mm)	
2	140	395	216	760	535	600	200	-	-	-	-	F10	15	63	38
2½	140	395	254	760	535	600	200	-	-	-	-	F10	15	63	50
3	140	480	305	890	620	695	250	-	-	-	-	F10	18	76	55
4	150	515	406	955	665	765	350	-	-	-	-	F14	19	95	95
6	175	745	559	1325	-	-	-	800	350	835	1170	F14	22	137	210
8	210	915	711	1630	-	-	-	800	430	1015	1375	F16	28.5	179	425
10	240	1030	864	1870	-	-	-	800	550	1150	1690	F25	26	220	735
12	245	1155	991	2085	-	-	-	800	550	1300	1840	F30	31	260	1160
14	245	1340	1067	2340	-	-	-	800	570	1485	2010	F35	34.5	291	1300
16	255	1465	1194	2540	-	-	-	800	430	1835	2120	F35	38.5	324	1750
18	255	1670	1346	2860	-	-	-	800	430	2040	2325	F35	30	376	2510
20	300	1840	1473	3165	-	-	-	800	465	2260	2635	F40	33	418	3350
24	300	2105	1943	3610	-	-	-	800	510	2530	3010	F48	39	490	4500

DIMENSIONS AND WEIGHTS ASME CLASS 2500

Size NPS	G	M	L	Hd	H	H1	V	V1	Z	K	X	Top flange	Travel		Weight (bare shaft)
													(n° turns ± 1)	Travel (mm)	
2	140	385	279	780	530	585	200	-	-	-	-	F10	13	55	40
2½	140	385	330	820	530	585	200	-	-	-	-	F10	13	55	50
3	155	455	368	880	610	675	250	-	-	-	-	F10	15	63	60
4	155	500	457	930	-	-	-	600	350	590	830	F14	15	75	110
6	175	755	610	1300	-	-	-	800	350	845	1180	F16	18.5	117	285
8	205	915	762	1700	-	-	-	800	430	1015	1375	F16	24	152	515
10	245	1110	914	2300	-	-	-	800	550	1250	1795	F30	23	191	1065
12	260	1205	1041	2300	-	-	-	800	570	1350	1890	F35	27	225	1655
14	255	1300	1118	2480	-	-	-	800	430	1670	1860	F35	29	245	1790
16	300	1515	1245	2840	-	-	-	800	465	1940	2210	F40	23	285	2550
18	300	1620	1397	3040	-	-	-	800	465	2040	2315	F40	25.5	319	3450
20	300	1770	1524	3270	-	-	-	800	510	2200	2670	F48	28	351	4650
24	390	2040	1676	3870	-	-	-	800	605	2550	3025	F60	33	420	6300

FASANI PRESSURE SEAL CAST GATE VALVES - STYLE A

WEDGE GATE AND PARALLEL SLIDE

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

Pressure seal gasket developed with trapezoidal shape in graphite with integral stainless steel anti extrusion protection, for a low load on bolting

Backseats, for easy maintenance without interrupting production time

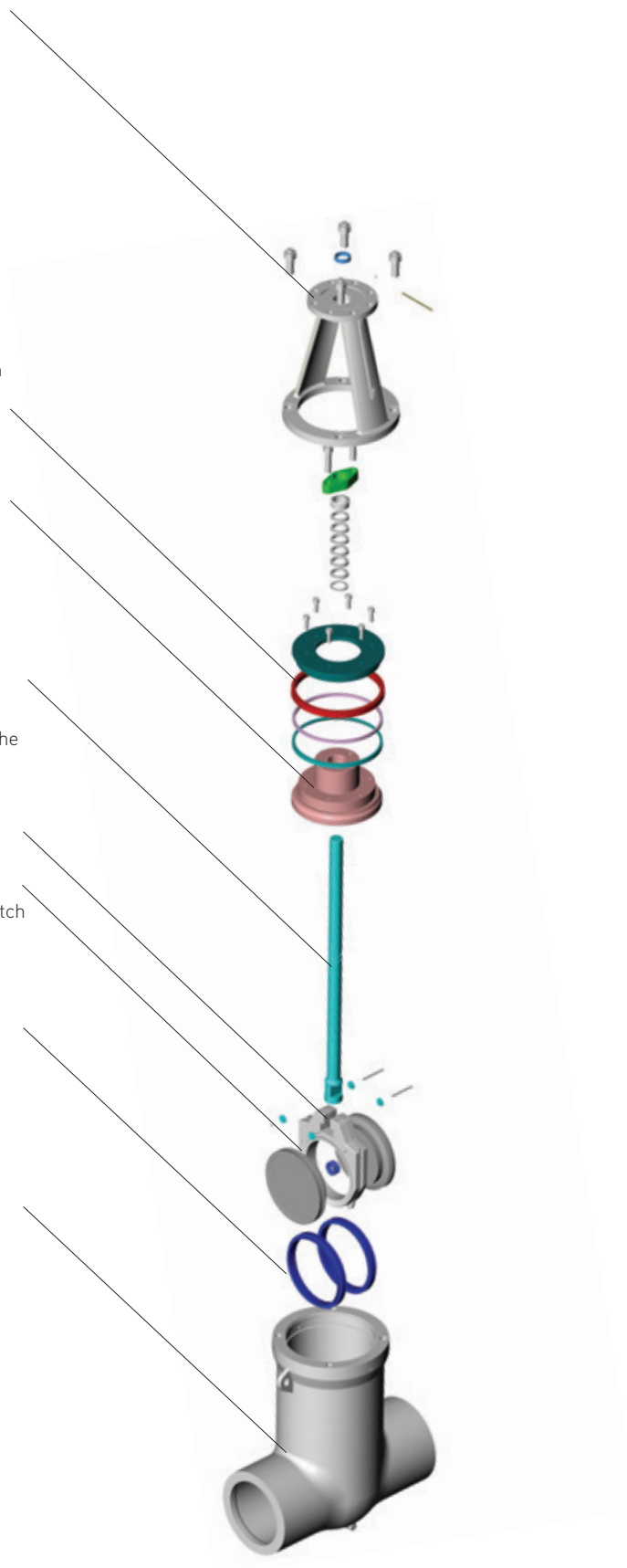
Rising stem - provides unrestricted flow with the disc completely outside the flow path

Integral T-head stem connection to the wedge - provides positive connection between stem and disc during all operating conditions.

Wedge guiding in the body for all the valve stroke - to ensure alignment of the disc with the seats, avoiding scratch or incorrect positioning

Renewable seats - for a simplified seats replacement

Bi-directional, except for the one equipped with by-pass and/or over pressure pipe



FASANI PRESSURE SEAL CAST GATE VALVES - STYLE A WEDGE GATE AND PARALLEL SLIDE

900 RATING CLASS (ASME B16.34)

ASTM body material cast	ASME code B16.34	Pressure in bar at temperature °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.*	153.2	150.4	139.8	135.2	131.4	125.8	119.5	116.1	112.7	109.1	104.2	86.3	69.0	52.3	35.3	17.7	-	-	-	-	-	-
WCB ***	Spec.**	155.1	155.1	154.9	153.1	151.7	151.6	151.6	150.3	146.7	141.3	130.2	107.9	86.3	65.4	44.1	22.2	-	-	-	-	-	-
WC6 ****	Std.*	155.1	155.1	154.4	149.2	143.9	139.0	128.6	124.0	120.7	116.5	109.8	105.1	101.4	95.1	77.2	44.7	38.1	26.4	18.3	12.8	8.5	
WC6 ****	Spec.**	155.1	155.1	155.1	155.1	155.1	155.1	155.1	154.3	151.5	150.6	148.9	141.4	128.2	96.5	55.8	47.7	33.0	22.9	16.0	10.6		
WC9 *****	Std.*	155.1	155.1	154.6	150.6	145.8	139.0	128.6	124.0	120.7	116.5	109.8	105.1	101.4	95.1	84.7	55.3	46.9	31.6	20.7	13.4	8.5	
WC9 *****	Spec.**	155.1	155.1	154.9	152.9	150.7	149.9	149.3	148.8	147.6	146.3	146.3	146.3	141.4	128.2	107.1	69.1	58.6	39.5	25.8	16.7	10.6	
C12A	Std.*	155.1	155.1	154.6	150.6	145.8	139.0	128.6	124.0	120.7	116.5	109.8	105.1	101.4	95.1	84.7	75.2	74.8	71.8	58.5	43.8	29.8	
C12A	Spec.**	155.1	155.1	155.1	155.1	155.1	155.1	155.1	154.3	151.5	150.6	148.9	141.4	128.2	107.1	86.9	86.9	85.7	73.1	54.8	37.2		

1500 RATING CLASS (ASME B16.34)

ASTM body material cast	ASME code B16.34	Pressure in bar at temperature °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.*	255.3	250.6	233.0	225.4	219.0	209.7	199.1	193.6	187.8	181.8	173.6	143.8	115.0	87.2	58.8	29.5	-	-	-	-	-	-
WCB ***	Spec.**	258.6	258.6	258.2	255.2	252.9	252.6	252.6	250.6	244.6	235.5	217.0	179.8	143.8	109.0	73.5	36.9	-	-	-	-	-	-
WC6 ****	Std.*	258.6	259.0	257.4	248.7	239.8	231.8	214.4	206.6	201.1	194.1	183.1	175.1	169.0	158.2	128.6	74.5	63.5	44.0	30.5	21.3	14.2	
WC6 ****	Spec.**	258.6	258.6	258.6	258.6	258.6	258.6	258.6	258.6	257.1	252.5	251.2	248.2	235.8	213.7	160.8	93.1	79.4	55.0	38.2	26.6	17.7	
WC9 *****	Std.*	258.6	258.6	257.6	250.8	243.4	231.8	214.4	206.6	201.1	194.1	183.1	175.1	169.0	158.2	140.9	92.2	78.2	52.6	34.4	22.3	14.2	
WC9 *****	Spec.**	258.6	258.6	258.1	254.8	251.1	249.9	248.9	248.0	246.0	243.8	243.8	243.8	235.8	213.7	178.6	115.2	97.7	65.8	43.0	27.9	17.7	
C12A	Std.*	258.6	258.6	257.6	250.8	243.4	231.8	214.4	206.6	201.1	194.1	183.1	175.1	169.0	158.2	140.9	125.5	124.9	119.7	97.5	73.0	49.6	
C12A	Spec.**	258.6	258.6	258.6	258.6	258.6	258.6	258.6	258.6	257.1	252.5	251.2	248.2	235.8	213.7	178.6	145.1	145.1	143.0	121.9	91.3	62.1	

2500 RATING CLASS (ASME B16.34)

ASTM body material cast	ASME code B16.34	Pressure in bar at temperature °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.*	425.5	417.7	388.3	375.6	365.0	349.5	331.8	322.6	313.0	303.1	289.3	239.7	191.7	145.3	97.9	49.2	-	-	-	-	-	-
WCB ***	Spec.**	430.9	430.9	430.3	425.3	421.4	421.1	421.1	417.6	407.6	392.5	361.7	299.6	239.6	181.6	122.4	61.6	-	-	-	-	-	-
WC6 ****	Std.*	430.9	430.9	429.0	414.5	399.6	386.2	357.1	344.3	335.3	323.2	304.9	291.6	281.8	263.9	214.4	124.1	105.9	73.4	50.9	35.5	23.6	
WC6 ****	Spec.**	430.9	430.9	430.9	430.9	430.9	430.9	430.9	430.9	428.6	420.9	418.3	413.7	393.1	356.3	268.0	155.1	132.4	91.7	63.6	44.4	29.5	
WC9 *****	Std.*	430.9	430.9	429.4	418.2	405.4	386.2	357.1	344.3	335.3	323.2	304.9	291.6	281.8	263.9	235.0	153.7	130.3	87.7	57.4	37.2	23.6	
WC9 *****	Spec.**	430.9	430.9	430.2	424.6	418.5	416.5	414.8	413.3	410.0	406.3	406.3	406.3	393.1	356.3	297.5	192.1	162.8	109.7	71.7	46.5	29.5	
C12A	Std.*	430.9	430.9	429.4	418.2	405.4	386.2	357.1	344.3	335.3	323.2	304.9	291.6	281.8	263.9	235.0	208.9	208.0	199.5	162.5	121.7	82.7	
C12A	Spec.**	430.9	430.9	430.9	430.9	430.9	430.9	430.9	430.9	428.6	420.9	418.3	413.7	393.1	356.3	297.5	241.7	241.7	238.3	203.1	152.1	103.4	

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.

FLOW COEFFICIENT Cv FOR WEDGE GATE VALVES

NPS	DN	ASME Class		
		900	1500	2500
2	50	170	170	110
2 ½	65	250	250	170
3	80	395	365	250
4	100	740	640	400
6	150	1670	1445	945
8	200	2860	2480	1685
10	250	4490	3930	2700
12	300	6405	5560	3810
14	350	7805	6690	4710
16	400	10230	8830	6210
18	450	13050	11210	7920
20	500	16145	14080	9615
22	550	19580	17130	11720
24	600	23435	20410	14040

FLOW COEFFICIENT Cv FOR PARALLEL SEAT GATE VALVES

NPS	DN	ASME Class		
		900	1500	2500
2	50	145	145	95
2 ½	65	215	215	145
3	80	345	320	215
4	100	645	560	350
6	150	1465	1270	830
8	200	2515	2180	1480
10	250	3960	3465	2375
12	300	5660	4910	3365
14	350	6905	5920	4170
16	400	9065	7820	5505
18	450	11585	9945	7030
20	500	14350	12505	8545
22	550	17425	15230	10435
24	600	20870	18160	12510

FASANI PRESSURE SEAL CAST GATE VALVES - STYLE A

WEDGE GATE AND PARALLEL SLIDE

Valve type	Old code	New uniqueness code
Flexible wedge	VS900PSA	1S0E*****
	VS1500PSA	1S0F*****
	VS2500PSA	1S0G*****
Parallel slide	VS900SPPSA	1P0E*****
	VS1500SPPSA	1P0F*****
	VS2500SPPSA	1P0G*****

CODING GUIDE

Example	1S	0	E	06	30	0	B3	H	A
Valve type									
1S	Gate - Flexible wedge								
1P	Gate - Parallel slide								
Valve configuration									
0	Basic								
Valve rating									
E	ASME 900								
F	ASME 1500								
G	ASME 2500								
Nominal valve size									
02	2"								
25	2½"								
03	3"								
KB	3"x2"x3"								
04	4"								
KC	4"x3"x4"								
06	6"								
K4	6"x4"x6"								
08	8"								
KF	8"x6"x8"								
10	10"								
AH	10"x8"x10"								
12	12"								
AL	12"x10"x12"								
14	14"								
AB	14"x12"x14"								
16	16"								
AD	16"x14"x16"								
18	18"								
AF	18"x16"x18"								
20	20"								
BH	20"x18"x20"								
22	22"								
BL	22"x20"x22"								
24	24"								
BB	24"x22"x24"								
Body material									
30	ASTM A216 WCB								
31	ASTM A216 WCC								
38	ASTM A217 C12A								
44	ASTM A217 WC6								
45	ASTM A217 WC9								
Cladding									
0	No cladding								
2	Sealing gasket area F316								
Trim									
B3	13% Cr. + 3 Stellite								
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								

