

Gate Valve

Gate valves are designed to operate in a fully open or fully closed position. When open, the media will flow with minimal turbulence and pressure drop through the valve.

Vogt gate valves are available with a variety of bonnet types, body and trim materials, and stem packings, in addition to a broad range of pressure classes and end connections including extended bodies.

The rugged construction of forged gate valves provide an extended life of safe operation. Metal-to-metal seating surfaces accommodate the widest range of pressure-temperature conditions.

Dimensions in the catalog selection pages are in inches and millimeters.

Dimensions are subject to change without notice.

See pages 20 – 46 for gate valve selections.



12111 Gate Valve

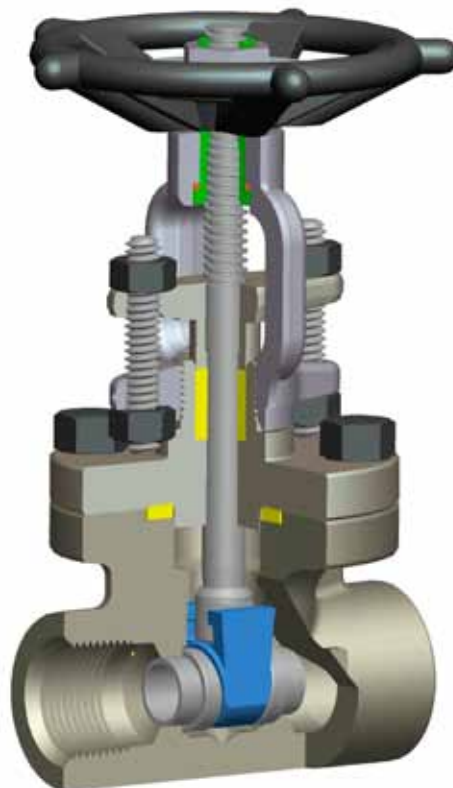
Class 800 Gate Valve

1 Conventional Port

2 Full Port



See pages 22 - 24



The Core of the Pressure Class 150, 300, 600 & 800 Gate Valve

CONNECTION	SERIES		BODY/BONNET	TRIM	RATING	
	1	2				
Threaded Socket Weld (SW) Threaded/Socket Weld (TSW) Butt Weld (BW)*	12111	13111	A105	13 Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
	32111	33111	A350 LF2	13 Cr	1975 PSI @ -50 F	136.2 BAR @ -46 C
	12401	13401	F316/F316L	316	1920 PSI @ 100 F	132.4 BAR @ 38 C
	82401	83401	F316H	316H		
	12321	13321	F11, Cl.2(1-1/4 Cr.)	13 Cr	2000 PSI @ 100 F	137.9 BAR @ 38 C
	12521	13521	F22, Cl.3(2-1/4 Cr.)			
	12421	13421	F5(5 Cr.)			
	12921	13921	F9(9 Cr.)			

*See page 26 for Butt Weld Ends

(UOP) Universal Oil Products Approved - For HF Alkylation Service						
CONNECTION	1	2	BODY/BONNET	TRIM	RATING	
Threaded	12111HF6	13111HF4	A105	Monel	1975 PSI @ 100 F	136.2 BAR @ 38 C
Socket Weld (SW)	12111HF7	13111HF5	A105	Monel	1975 PSI @ 100 F	136.2 BAR @ 38 C

12111 Gate Valve

Class 800 Gate Valve

1 Conventional Port

2 Full Port

Round Bolted Bonnet

Spiral Wound Gasket

Outside Screw & Yoke

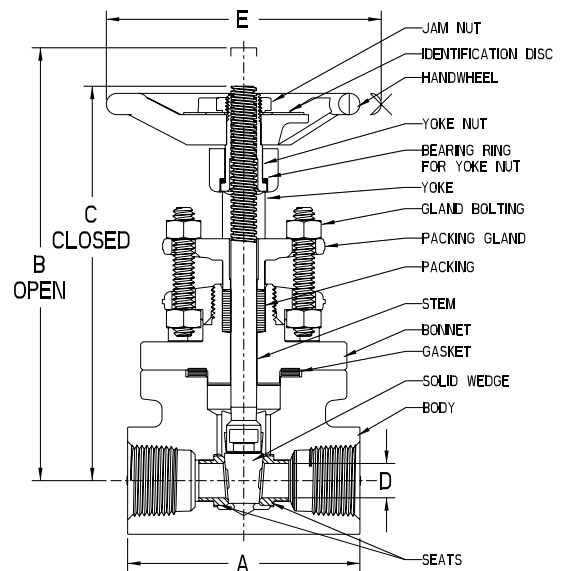
Bolted Gland

Solid Wedge

Hard Faced Seats

API 602 (3" is outside of the scope)

ASME B16.34



Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv	1
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-04	NPS	½	3.38	6.30	5.75	.50	4.00	5.0	9.6	2
	DN	15	86	160	146	12.7	102	2.3		
-05	NPS	¾	4.0	8.37	7.43	.75	4.75	8.6	28.7	
	DN	20	102	213	189	19.1	121	3.9		
-06	NPS	1	4.38	9.80	8.59	1.0	5.75	12.2	46.5	
	DN	25	111	249	218	25.4	146	5.5		
-07	NPS	1¼	4.75	10.12	8.71	1.25	5.75	16.7	80.5	
	DN	32	121	257	221	31.8	146	7.6		
-08	NPS	1½	5.25	11.12	9.40	1.50	7.0	23.0	109.6	
	DN	40	133	282	239	38.1	178	10.4		
-09	NPS	2	7.00	14.09	11.76	2.00	8.0	41.8	181.0	
	DN	50	178	358	299	50.8	203	19.0		

Refer to page 8 for optional trim and service configurations.

Refer to pages 11-12 for full materials description.

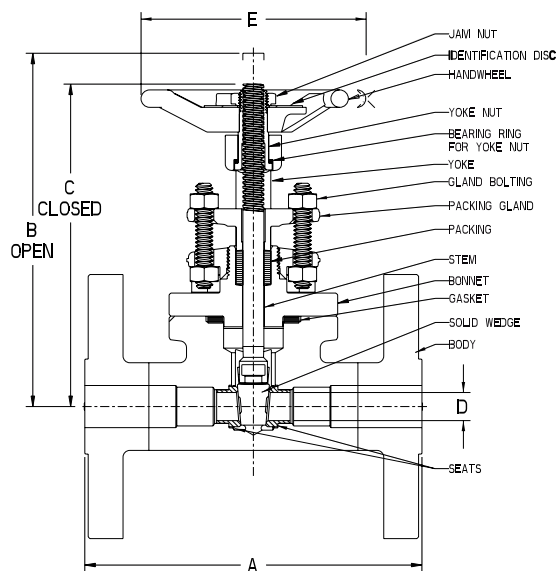
Refer to page 113 for end connections.

Refer to pages 116-117 for other ratings.

Forged Gate Valves

Class 150 Gate Valve Conventional Port

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34



CONNECTION	SERIES	BODY/BONNET	TRIM	RATING	
1/16 RF Flat Face	353	A105	13% Cr	285 PSI @ 100 F	19.6 BAR @ 38 C
	32353	A350 LF2	13% Cr	285 PSI @ 100 F	19.6 BAR @ 38 C
				285 PSI @ -50 F	19.6 BAR @ -46 C
	358	F316/F316L	316	275 PSI @ 100 F	19.0 BAR @ 38 C
	351	F11*, Cl.2	13% Cr	290 PSI @ 100 F	19.8 BAR @ 38 C
	352	F22*, Cl.3	13% Cr	290 PSI @ 100 F	19.8 BAR @ 38 C

**F11 & F22 not available in all sizes*

Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv	A105 ONLY
-04	NPS	½	4.25	6.30	5.74	.50	4.00	6.4	9.6	
	DN	15	108	160	146	12.7	102	2.9		
-05	NPS	¾	4.62	6.30	5.74	.50	4.00	8.0	9.7	
	DN	20	117	160	146	12.7	102	3.6		
-06	NPS	1	5.00	8.37	7.43	.75	4.75	12.3	20.3	
	DN	25	127	213	189	19.1	121	5.6		
-08	NPS	1½	6.50	10.12	8.71	1.25	5.75	23.0	91.6	
	DN	40	165	257	221	31.8	146	10.4		
-09	NPS	2	7.00	11.12	9.40	1.50	7.00	31.7	117.6	
	DN	50	178	282	239	38.1	178	14.4		
-10	NPS	2½	7.50	14.09	11.76	2.00	8.00	53.7	174	
	DN	65	191	358	299	50.8	203	24.4		
-11	NPS	3	8.00	14.09	11.76	2.00	8.00	57.6	203.9	
	DN	80	203	358	299	50.8	203	26.1		
-13	NPS	4	9.00	17.96	15.01	2.75	9.75	98.0	230.0	
	DN	100	229	456	381	69.9	248	44.5		

Refer to page 8 for optional trim and service configurations.
Refer to page 113 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

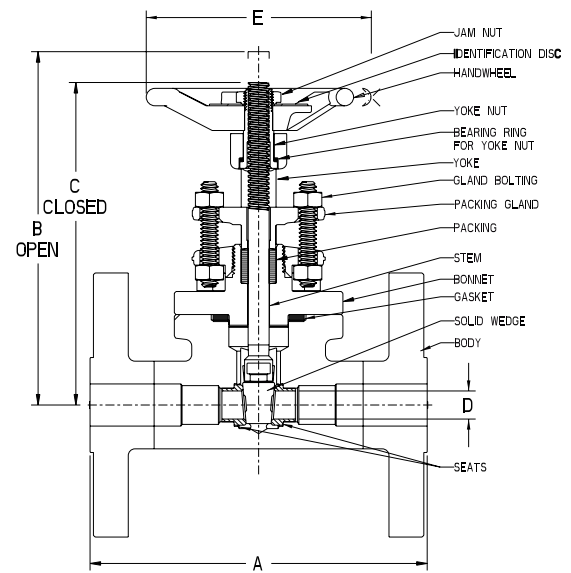
Forged Gate Valves

Class 300 Gate Valve

1 Conventional Port

2 Full Port

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34



CONNECTION	SERIES		BODY/BONNET	TRIM	RATING	
	1	2				
1/16 RF Flat Face FF	363	13363	A105	13% Cr	740 PSI @ 100 F	51.1 BAR @ 38 C
	32363	33363	A350 LF2	13% Cr	740 PSI @ 100 F	51.1 BAR @ 38 C
					740 PSI @ -50 F	51.1 BAR @ -46 C
	368	13368	F316/F316L	316	720 PSI @ 100 F	49.6 BAR @ 38 C
	361	13361	F11*, Cl.2	13% Cr	750 PSI @ 100 F	51.7 BAR @ 38 C
	362	13362	F22*, Cl.3	13% Cr	750 PSI @ 100 F	51.7 BAR @ 38 C

**F11 & F22 not available in all sizes*

Dimensions

1								
SIZE		A	B	C	D	E	WEIGHT	Cv
-04	NPS ½	5.5	6.30	5.74	.50	4.00	8.0	9.6
	DN 15	140	160	146	12.7	102	3.6	
-05	NPS ¾	6.00	6.30	5.74	.50	4.00	10.8	9.7
	DN 20	152	160	146	12.7	102	4.9	
-06	NPS 1	6.50	8.37	7.43	.75	4.75	15.5	20.3
	DN 25	165	213	189	19.1	121	7.0	
-08	NPS 1½	7.50	10.12	8.71	1.25	5.75	29.2	91.6
	DN 40	191	257	221	31.8	146	13.2	
-09	NPS 2	8.50	11.12	9.40	1.50	7.00	37.6	117.6
	DN 50	216	282	239	38.1	178	17.1	
-10	NPS 2½	9.50	14.09	11.76	2.00	8.00	61.6	174
	DN 65	241	358	299	50.8	203	27.9	
-11	NPS 3	11.12	14.09	11.76	2.00	8.00	71.6	203.9
	DN 80	282	358	299	50.8	203	32.5	
-13	NPS 4	12.00	17.96	15.01	2.75	9.75	121.9	230.0
	DN 100	305	456	381	69.9	248	55.3	

2								
SIZE		A	B	C	D	E	WEIGHT	Cv
-04	NPS ½	5.50	6.30	5.74	.50	4.00	8.6	9.6
	DN 15	140	160	146	12.7	102	3.9	
-05	NPS ¾	6.00	8.37	7.44	.75	4.75	13.9	28.7
	DN 20	152	213	189	19.1	121	6.3	
-06	NPS 1	6.50	9.80	8.59	1.00	5.75	18.5	46.5
	DN 25	165	249	218	25.4	146	8.4	
-08	NPS 1½	7.50	11.12	9.40	1.50	7.00	33.2	109.6
	DN 40	191	282	239	38.1	178	15.1	
-09	NPS 2	8.50	14.09	11.76	2.00	8.00	53.1	181.0
	DN 50	216	358	299	50.8	203	24.1	

SEE PAGE 26 FOR BUTT WELD ENDS

Refer to page 8 for optional trim and service configurations.
Refer to page 113 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

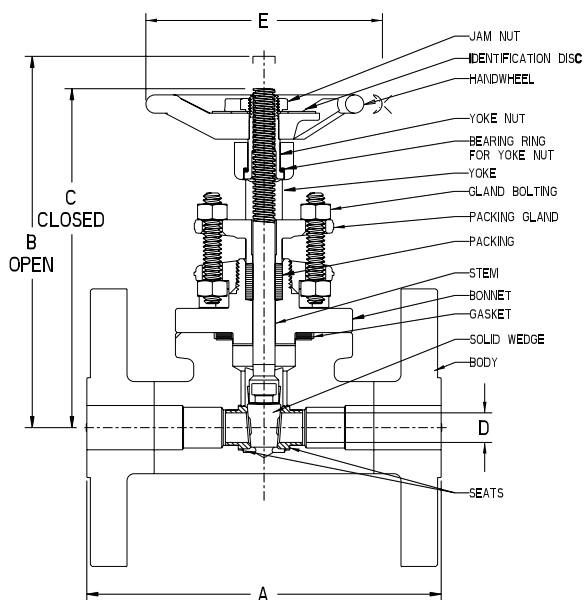
Forged Gate Valves

Class 600 Gate Valve

1 Conventional Port

2 Full Port

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34



		SERIES		BODY/BONNET	TRIM	RATING	
CONNECTION		1	2				
1/4 RF Ring Joint RJ		373	13373	A105	13% Cr	1480 PSI @ 100 F	102.1 BAR @ 38 C
		32373	33373	A350 LF2	13% Cr	1480 PSI @ 100 F	102.1 BAR @ 38 C
						1480 PSI @ -50 F	102.1 BAR @ -46 C
		378	13378	F316/F316L	316	1440 PSI @ 100 F	99.3 BAR @ 38 C
		371	13371	F11*, Cl.2	13% Cr	1500 PSI @ 100 F	103.4 BAR @ 38 C
		372	13372	F22*, Cl.3	13% Cr	1500 PSI @ 100 F	103.4 BAR @ 38 C

*F11 & F22 not available in all sizes

Dimensions

1								
SIZE		A	B	C	D	E	WEIGHT	Cv
-04	NPS ½	6.50	6.30	5.74	.50	4.00	8.6	9.6
	DN 15	165	160	146	12.7	102	3.9	
-05	NPS ¾	7.50	6.30	5.74	.50	4.00	11.8	9.7
	DN 20	191	160	146	12.7	102	5.4	
-06	NPS 1	8.50	8.37	7.43	.75	4.75	17.6	20.3
	DN 25	216	213	189	19.1	121	8.0	
-08	NPS 1½	9.50	10.12	8.71	1.25	5.75	32.0	91.6
	DN 40	241	257	221	31.8	146	14.5	
-09	NPS 2	11.50	11.12	9.40	1.50	7.00	43.2	117.6
	DN 50	292	282	239	38.1	178	19.6	
-10	NPS 2½	13.00	14.09	11.76	2.00	8.00	70.5	174
	DN 65	330	358	299	50.8	203	32.0	
-11	NPS 3	14.00	14.09	11.76	2.00	8.00	80.7	203.9
	DN 80	356	358	299	50.8	203	36.6	
-13	NPS 4	17.00	17.96	15.01	2.75	9.75	152.1	230.0
	DN 100	432	456	381	69.9	248	69.0	

A105 ONLY

2								
SIZE		A	B	C	D	E	WEIGHT	Cv
-04	NPS ½	6.50	6.30	5.74	.50	4.00	8.6	9.6
	DN 15	165	160	146	12.7	102	3.9	
-05	NPS ¾	7.50	8.37	7.44	.75	4.75	14.7	28.7
	DN 20	191	213	189	19.1	121	6.7	
-06	NPS 1	8.50	9.80	8.59	1.00	5.75	20.4	46.5
	DN 25	216	249	218	25.4	146	9.3	
-08	NPS 1½	9.50	11.12	9.40	1.50	7.00	37.0	109.6
	DN 40	241	282	239	38.1	178	16.8	
-09	NPS 2	11.50	14.09	11.76	2.00	8.00	58.8	181.0
	DN 50	292	358	299	50.8	203	26.7	

SEE PAGE 26 FOR BUTT WELD ENDS

Refer to page 8 for optional trim and service configurations.
Refer to page 113 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

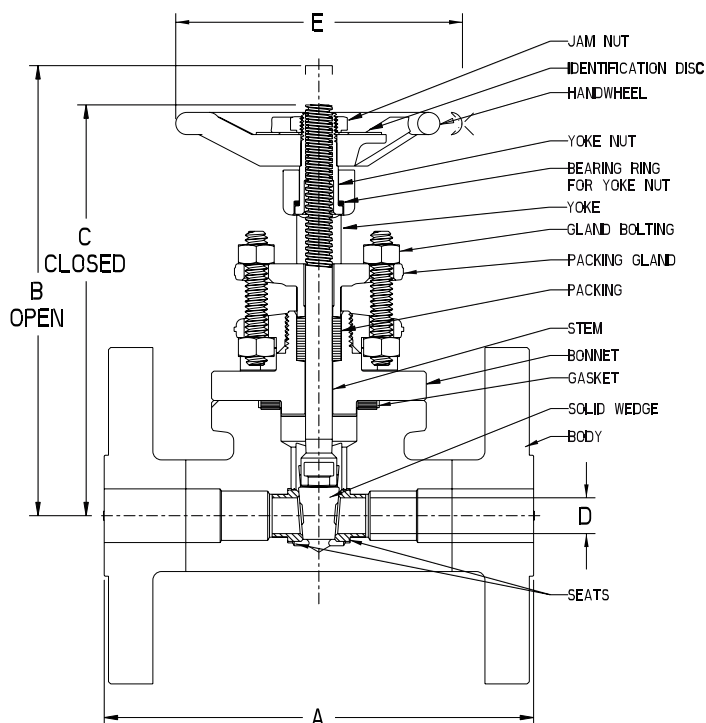
Forged Gate Valves

Class 1500 Flanged Gate Valve

1 Conventional Port

2 Full Port

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34



		SERIES		BODY/BONNET	TRIM	RATING	
CONNECTION		1	2				
1/4 RF Ring Joint RJ		15373	16373	A105	13% Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C
		35373	36373	A350 LF2	13% Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C
						3705 PSI @ -50 F	255.3 BAR @ -46 C
		15378	16378	F316/F316L	316	3600 PSI @ 100 F	248.2 BAR @ 38 C

Dimensions

1								
SIZE		A	B	C	D	E	WEIGHT	Cv
-04	NPS ½	8.50	7.51	6.90	.50	4.75	17.5	9.6
	DN 15	216	191	175	12.7	121	7.9	
-05	NPS ¾	9.00	7.51	6.90	.50	4.75	20.9	9.7
	DN 20	229	191	175	12.7	121	9.5	
-06	NPS 1	10.00	9.69	8.77	.75	7.00	34.7	20.3
	DN 25	254	246	223	19.1	178	15.7	
-08	NPS 1½	12.00	11.40	9.98	1.25	8.00	55.8	91.6
	DN 40	305	290	253	31.8	203	25.3	
-09	NPS 2	14.50	13.84	12.15	1.50	9.75	94.9	117.6
	DN 50	368	352	309	38.1	248	43.0	

2								
SIZE		A	B	C	D	E	WEIGHT	Cv
-04	NPS ½	8.50	7.51	6.90	.50	4.75	17.5	9.6
	DN 15	216	191	175	12.7	121	7.9	
-05	NPS ¾	9.00	9.69	8.78	.75	7.00	29.3	28.7
	DN 20	229	246	223	19.1	178	13.3	
-06	NPS 1	10.00	11.31	9.96	1.00	8.00	46.2	46.5
	DN 25	254	287	253	25.4	203	21.0	
-08	NPS 1½	12.00	13.84	12.15	1.50	9.75	75.0	109.6
	DN 40	305	352	309	38.1	248	34.0	
-09	NPS 2	14.50	17.15	14.82	2.00	9.75	129.4	181.0
	DN 50	368	436	376	50.8	248	58.7	

Refer to page 8 for optional trim and service configurations.

Refer to page 113 for end connections.

Refer to pages 11-12 for full materials description.

Refer to pages 116-117 for other ratings.

Forged Gate Valves-Butt Weld Ends

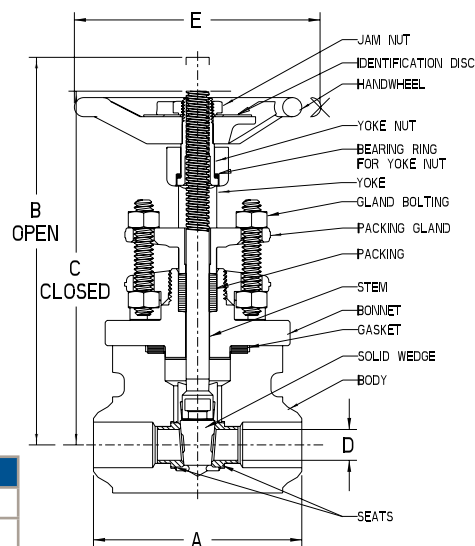
Butt Weld Class 150, 300, 600, 800 Conventional Port Gate Valve

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34

BUTT-WELDING ENDS PER ASME B16.25 – Refer to page 114

BW end-to-end dimensions for Class 800 valves are Vogt standard. ASME B16.10 has no requirements for Class 800 valves.

S40 Suffix for Schedule 40
S80 Suffix for Schedule 80
S160 Suffix for Schedule 160
Example: BW12111S40



CLASS	SERIES	BODY/BONNET	TRIM	RATING	
150	BW353	A105	13 Cr	285 PSI @ 100 F	19.6 BAR @ 38 C
300	BW363	A105	13 Cr	740 PSI @ 100 F	51.1 BAR @ 38 C
600	BW373	A105	13 Cr	1480 PSI @ 100 F	102.1 BAR @ 38 C
800	BW12111	A105	13 Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
	BW32111	A350 LF2	13 Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
				1975 PSI @ -50 F	136.2 BAR @ -46 C
	BW12401	F316/F316L	316	1920 PSI @ 100 F	132.4 BAR @ 38 C
	BW82401	F316H	316H	1920 PSI @ 100 F	132.4 BAR @ 38 C
	BW12321	F11, Cl.2(1-1/4 Cr.)	13 Cr	2000 PSI @ 100 F	137.9 BAR @ 38 C
	BW12521	F22, Cl.3(2-1/4 Cr.)	13 Cr	2000 PSI @ 100 F	137.9 BAR @ 38 C
	BW12421	F5(5 Cr.)	13 Cr	2000 PSI @ 100 F	137.9 BAR @ 38 C
	BW12921	F9(9 Cr.)	13 Cr	2000 PSI @ 100 F	137.9 BAR @ 38 C

Dimensions

SIZE			SCH 40			SCH 80			SCH 160			Cv		
			A 150	A 300	A 600	A 800	B	C	D	E	WEIGHT	SCH 40	SCH 80	SCH 160
-04	NPS	1/2	X	X			3.38	6.30	5.74	.41	4.00	5.0	9.6	9.2
	DN	15	X	X			85.9	160	146	10.4	102	2.3		
-05	NPS	3/4	X	X	X		3.38	6.30	5.74	.50	4.00	4.8	9.7	9.6
	DN	20	X	X	X		85.9	160	146	12.7	102	2.2		
-06	NPS	1	X	X	X	8.50	4.00	8.37	7.43	.75	4.75	8.4	20.3	20.1
	DN	25	X	X	X	215.9	101.6	213	189	19.1	121	3.8		
-07	NPS	1 1/4	X				4.75	10.12	8.71	1.25	5.75	16.7	80.5	
	DN	32	X				120.7	257	221	31.8	146	7.6		
-08	NPS	1 1/2	X	X		7.50	4.75	10.12	8.71	1.25	5.75	16.2	91.6	89.4
	DN	40	X	X		190.5	241.3	120.7	257	31.8	146	7.3		
-09	NPS	2	X	X	X	8.50	5.25	11.12	9.40	1.50	7.00	21.8	117.6	116.1
	DN	50	X	X	X	215.9	215.9	292.1	133.4	38.1	178	9.9		
-10	NPS	2 1/2	X	X		9.50	7.00	14.09	11.76	2.00	8.00	40.2	174	171.9
	DN	65	X	X		241.3	241.3	330.2	177.8	50.8	203	18.2		
-11	NPS	3	X	X	X	11.12		14.09	11.76	2.00	8.00	48.9	203.9	202.6
	DN	80	X	X	X	282.4	282.4	355.6		50.8	203	22.2		
-11	NPS	3	X	X			8.00	17.96	15.01	2.75	9.75	74.7	203.9	202.6
	DN	80	X	X			203.2	456	381	69.9	248	33.9		
-13	NPS	4	X	X	X	12.00	8.00	17.96	15.01	2.75	9.75	72.2	230	229
	DN	100	X	X	X	304.8	304.8	431.8	203.2	69.9	248	32.7		

A105 ONLY

Refer to page 8 for optional trim and service configurations.
Refer to page 114 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

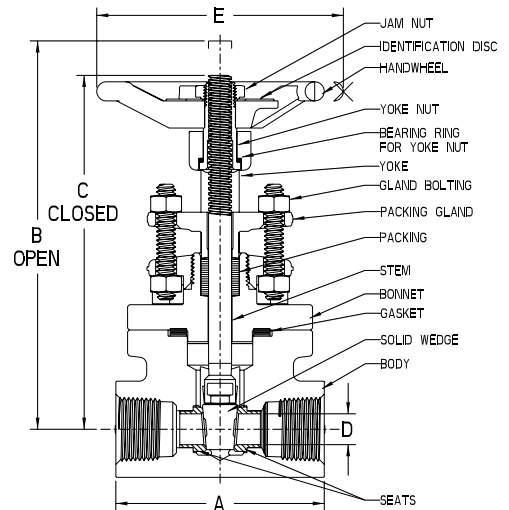
Forged Gate Valves

Class 1500 Gate Valve

1 Conventional Port

2 Full Port

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34



CONNECTION	SERIES		BODY/BONNET	TRIM	RATING	
	1	2				
Threaded Socket Weld	15111	16111	A105	13% Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C
	35111	36111	A350 LF2	13% Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C
	15401	16401	F316/F316L	316	3600 PSI @ 100 F	284.2 BAR @ 38 C
	85401	86401	F316H	316H	3705 PSI @ -50 F	255.3 BAR @ -46 C
Threaded x Socket Weld	15321	16321	F11,Cl.2	*13% Cr	3750 PSI @ 100 F	258.6 BAR @ 38 C
	15521	16521	F22,Cl.3			
Butt Weld**	15421	16421	F5			
	15921	16921	F9			

*Hardfaced Wedge/Seats ** BW end-to-end is Vogt standard and does not meet B16.10

Dimensions

Dimensions												Cv			
												SCH 40	SCH 80	SCH 160	
1	SIZE			SCH 40	SCH 80	SCH 160	A	B	C	D	E	WEIGHT	SCH 40	SCH 80	SCH 160
	-04	NPS	½	X	X		4.00	7.51	6.90	.50	4.75	.89	9.6	9.2	
		DN	15	X	X		101.6	191	175	12.7	121	4.0			
	-05	NPS	¾	X	X	X	4.00	7.51	6.90	.50	4.75	9.7	9.7	9.6	8.8
		DN	20	X	X	X	101.6	191	175	12.7	121	4.4			
	-06	NPS	1	X	X	X	4.75	9.69	8.77	.75	7.00	17.5	20.3	20.1	18.2
		DN	25	X	X	X	120.7	246	223	19.1	178	7.9			
	-07	NPS	1¼	X			5.25	11.40	9.98	1.25	8.00	27.3	80.5		
		DN	32	X			133.4	290	253	31.8	203	12.4			
	-08	NPS	1½	X	X	X	5.25	11.40	9.98	1.25	8.00	66.7	91.6	89.4	76.8
		DN	40	X	X	X	133.4	290	253	31.8	203	30.3			
	-09	NPS	2	X	X	X	7.00	13.84	12.15	1.50	9.75	45.1	117.6	116.1	102.3
DN		50	X	X	X	177.8	352	309	38.1	248	20.5				
2	-04	NPS	½	X	X		4.00	7.51	6.90	.50	4.75	17.5	9.6	9.2	
		DN	15	X	X		101.6	191	175	12.7	121	7.9			
	-05	NPS	¾	X			4.75	9.69	8.77	.75	7.00	17.9	28.7		
		DN	20	X			120.7	246	223	19.1	178	8.1			
	-06	NPS	1				5.25	11.31	9.96	1.00	8.00	28.3	46.5		
		DN	25				133.4	287	253	25.4	203	12.8			
	-07	NPS	1¼	X			5.25	11.40	9.98	1.25	8.00	27.3	80.5		
		DxAzN	32	X			133.4	290	253	31.8	203	12.4			
	-08	NPS	1½				7.00	13.84	12.15	1.50	9.75	75.0	109.6		
		DN	40				177.8	352	309	38.1	248	34.0			

S40 Suffix for Schedule 40
S80 Suffix for Schedule 80
S160 Suffix for Schedule 160
Example: BW15111S80

Refer to page 8 for optional trim and service configurations.

Refer to pages 11-12 for full materials description.

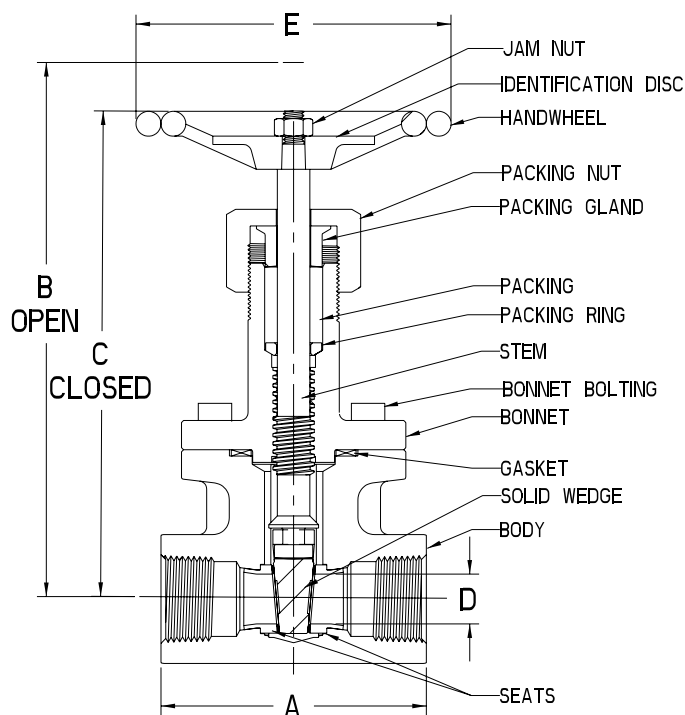
Refer to page 114 and 115 for end connections.

Refer to pages 116-117 for other ratings.

Forged Gate Valves

Class 800 Conventional Port Gate Valve

Round Bolted Bonnet
Spiral Wound Gasket
Inside Screw Stem
Screw Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34



CONNECTION	SERIES	BODY/BONNET	TRIM	RATING
Threaded	SW	12161	A105	13% Cr
Socket Weld				
Threaded/ Socket Weld				
	TSW			1975 PSI @ 100 F
				136.2 BAR @ 38 C

Dimensions

SIZE	A	B	C	D	E	WEIGHT	Cv
-04	NPS ½	3.38	6.44	5.88	.50	4.00	4.8
	DN 15	86	164	149	12.7	102	2.2
-05	NPS ¾	3.38	6.44	5.88	.50	4.00	4.7
	DN 20	86	164	149	12.7	102	2.1
-06	NPS 1	4.00	8.31	7.38	.75	4.75	7.9
	DN 25	102	211	187	19.1	121	3.6
-07	NPS 1¼	4.75	10.75	9.38	1.25	5.75	16.4
	DN 32	121	273	238	31.8	146	7.4
-08	NPS 1½	4.75	10.75	9.38	1.25	5.75	16.1
	DN 40	121	273	238	31.8	146	7.3
-09	NPS 2	5.25	12.25	10.56	1.50	7.00	23.6
	DN 50	133	311	268	38.1	178	10.7

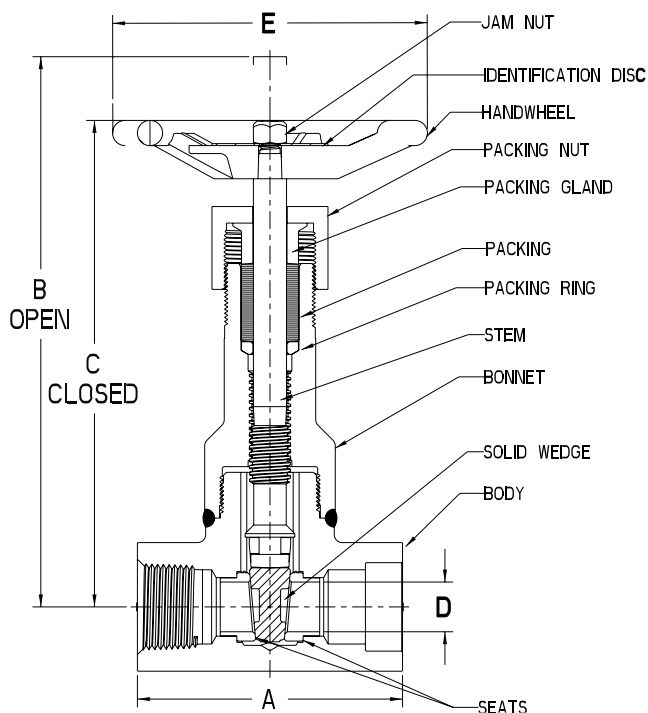
Refer to page 8 for optional trim and service configurations.
Refer to page 115 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

Forged Gate Valves

Class 800 Conventional Port Gate Valve

Welded Bonnet
Inside Screw Stem
Screw Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34



CONNECTION	SERIES	BODY/BONNET	TRIM	RATING
Threaded Socket Weld Threaded/ Socket Weld	SW TSW	2811	A105	13% Cr
				1975 PSI @ 100 F
				136.2 BAR @ 38 C

Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv
-04	NPS	½	3.38	6.62	6.00	.50	4.00	3.2	9.6
	DN	15	86	168	152	12.7	102	1.5	
-05	NPS	¾	3.38	6.62	6.00	.50	4.00	3.1	9.7
	DN	20	86	168	152	12.7	102	1.4	
-06	NPS	1	4.00	8.38	7.44	.75	4.75	6.1	20.3
	DN	25	102	213	189	19.1	121	2.8	
-07	NPS	1¼	4.75	10.81	9.38	1.25	5.75	11.6	80.5
	DN	32	121	275	238	31.8	146	5.3	
-08	NPS	1½	4.75	10.81	9.38	1.25	5.75	11.0	91.6
	DN	40	121	275	238	31.8	146	5.0	
-09	NPS	2	5.25	12.12	10.56	1.50	7.00	18.5	117.6
	DN	50	133	308	268	38.1	178	8.4	

Refer to page 8 for optional trim and service configurations.
Refer to page 115 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

Forged Gate Valves

Class 800 Gate Valve

1 Conventional Port

2 Full Port

Welded Bonnet

Outside Screw & Yoke

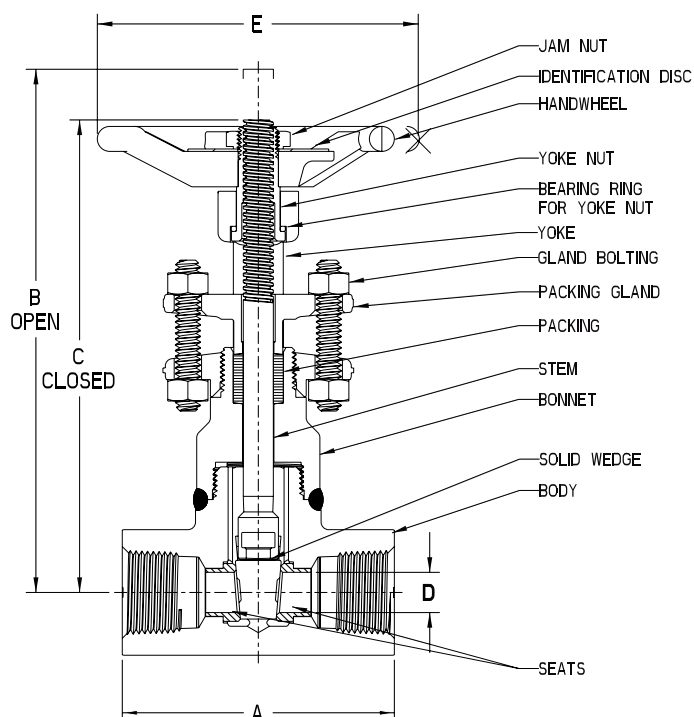
Bolted Gland

Solid Wedge

Hard Faced Seats

API 602

ASME B16.34



CONNECTION	SERIES		BODY/BONNET	TRIM	RATING	
	1	2				
Threaded Socket Weld Threaded/Socket Weld	SW TSW	2801	3801	A105	13% Cr	1975 PSI @ 100 F 136.2 BAR @ 38 C
		32801	33801	A350 LF2	13% Cr	1975 PSI @ 100 F 136.2 BAR @ 38 C
		2831	3831	F316/F316L	316	1920 PSI @ 100 F 132.4 BAR @ 38 C
		82831		F316H	316H	1920 PSI @ 100 F 132.4 BAR @ 38 C
		2851		F11,Cl.2	13% Cr	2000 PSI @ 100 F 137.9 BAR @ 38 C
		2861		F22,Cl.3		

Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv
1	-04	NPS ½	3.38	6.50	5.87	.50	4.00	3.6	9.6
	DN 15		86	165	149	12.7	102	1.6	
	-05	NPS ¾	3.38	6.50	5.87	.50	4.00	3.4	9.7
	DN 20		86	165	149	12.7	102	1.5	
	-06	NPS 1	4.00	8.38	7.43	.75	4.75	6.6	20.3
	DN 25		102	213	189	19.1	121	3.0	
	-07	NPS 1¼	4.75	10.14	8.71	1.25	5.75	11.5	80.5
	DN 32		121	258	221	31.8	146	5.2	
	-08	NPS 1½	4.75	10.14	8.71	1.25	5.75	11.1	91.6
	DN 40		121	258	221	31.8	146	5.0	
	-09	NPS 2	5.25	11.12	9.40	1.50	7.00	16.1	117.6
	DN 50		133	282	239	38.1	178	7.3	

Refer to page 8 for optional trim and service configurations.

Refer to page 114 and 115 for end connections.

SIZE			A	B	C	D	E	WEIGHT	Cv
2	-04	NPS ½	3.38	6.50	5.87	.50	4.00	3.6	9.6
	DN 15		86	165	149	12.7	102	1.6	
	-05	NPS ¾	4.0	8.38	7.43	.75	4.75	6.8	28.7
	DN 20		102	213	189	19.1	121	3.1	
	-06	NPS 1	4.75	10.13	8.59	1.00	5.75	12.4	46.5
	DN 25		121	257	218	25.4	146	5.6	
	-07	NPS 1¼	4.75	10.14	8.71	1.25	5.75	11.5	80.5
	DN 32		121	258	221	31.8	146	5.2	
	-08	NPS 1½	5.25	11.09	9.40	1.50	7.00	17.4	109.6
	DN 40		133	282	239	38.1	178	7.9	
	-09	NPS 2	7.00	14.09	11.76	2.00	9.75	32.4	181.0
	DN 50		178	358	299	50.8	248	14.7	

Refer to pages 11-12 for full materials description.

Refer to pages 116-117 for other ratings.

Forged Gate Valves

Class 1500 Gate Valve

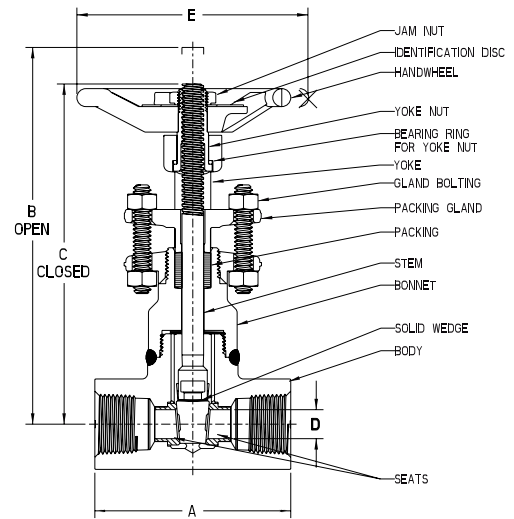
1 Conventional Port

2 Full Port

Class 1500 LTD

1 Conventional Port

Welded Bonnet
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34



		SERIES		BODY/BONNET	TRIM	RATING	
CLASS	CONNECTION	1	2				
Standard	Threaded Socket Weld Threaded/Socket Weld Butt Weld**	SW	15801	16801	A105	13% Cr	3705 PSI @ 100 F 255.3 BAR @ 38 C
			35801	36801	A350 LF2	13% Cr	3705 PSI @ 100 F 255.3 BAR @ 38 C 3705 PSI @ -50 F 255.3 BAR @ -46 C
		TSW	15831	16831	F316/F316L	316	3600 PSI @ 100 F 248.2 BAR @ 38 C
			85831	86831	F316H	316H	
		BW	15851	16851	F11, Cl.2	*13% Cr	3750 PSI @ 100 F 258.6 BAR @ 38 C
			15861	16861	F22, Cl.3		
LTD	Threaded Socket Weld Threaded/Socket Weld	SW	65703		A105	*13% Cr	3750 PSI @ 100 F 258.6 BAR @ 38 C
			65713		F11, Cl.2		
			65773		F22, Cl.3		

*Hardfaced Wedge/Seats **BW end-to-end is Vogt standard and does not meet B16.10

Dimensions

		SIZE		A	B	C	D	E	WEIGHT	Cv
1	-04	NPS	½	4.00	7.54	6.90	.50	4.75	6.7	9.6
		DN	15	102	192	175	12.7	121	3.0	
	-05	NPS	¾	4.00	7.54	6.90	.50	4.75	6.5	9.7
		DN	20	102	192	175	12.7	121	2.9	
	-06	NPS	1	4.75	9.69	8.77	.75	7.00	13.2	20.3
		DN	25	121	246	223	19.1	178	6.0	
	-07	NPS	1¼	5.25	11.40	9.98	1.25	8.00	20.5	80.5
		DN	32	133	290	253	31.8	203	9.3	
	-08	NPS	1½	5.25	11.40	9.98	1.25	8.00	20.0	91.6
		DN	40	133	290	253	31.8	203	9.1	
	-09	NPS	2	7.00	13.84	12.15	1.50	9.75	34.8	117.6
		DN	50	178	352	309	38.1	248	15.8	

S40 Suffix for Schedule 40
S80 Suffix for Schedule 80
S160 Suffix for Schedule 160
Example: BW2801S40
See page 27 for allowable schedules.

		SIZE		A	B	C	D	E	WEIGHT	Cv
2	-04	NPS	½	4.00	7.54	6.90	.50	4.75	6.7	9.6
		DN	15	102	192	175	12.7	121	3.0	
	-05	NPS	¾	4.75	9.69	8.77	.75	7.00	13.5	28.7
		DN	20	121	246	223	19.1	178	6.1	
	-06	NPS	1	5.25	11.21	9.86	1.00	8.00	21.6	46.5
		DN	25	133	285	250	25.4	203	9.8	
	-07	NPS	1¼	5.25	11.40	9.98	1.25	8.00	20.5	80.5
		DN	32	133	290	253	31.8	203	9.3	
	-08	NPS	1½	7.00	13.84	12.15	1.50	9.75	35.1	109.6
		DN	40	178	352	309	38.1	248	15.9	

Refer to page 8 for
optional trim and service
configurations.

Refer to pages 11-12 for full
materials description.

Refer to pages 114-115 for
end connections.

Refer to pages 116-117 for
other ratings.

Forged Gate Valves – Extended Body Valves

Class 800 Conventional Port Gate Valve

CONNECTION			
Extended Male End	Female End		
Butt Weld	Threaded	BT	(B)
Butt Weld	Socket Weld	BS	
Couplet	Threaded	CT	(C)
Couplet	Socket Weld	CS	
Socket Weld	Threaded	ST*	(S)
Socket Weld	Socket Weld	SS	
Threaded	Threaded	TT	(T)
Threaded	Socket Weld	TS	

SERIES	BODY/BONNET	TRIM	RATING	
1	2801*	A105	13%Cr	1975 PSI @ 100 F 136.2 BAR @ 38 C
	2831	F316/F316L	316	1920 PSI @ 100 F 132.4 BAR @ 38 C

2	2901	A105	13%Cr	1975 PSI @ 100 F 136.2 BAR @ 38 C
	2931	F316/F316L	316	1920 PSI @ 100 F 132.4 BAR @ 38 C
	2951	F11, Cl.2(1-1/4 Cr.)	13%Cr	2000 PSI @ 100 F 137.9 BAR @ 38 C
	2961	F22, Cl.3(2-1/4 Cr.)		

3	12111	A105	13%Cr	1975 PSI @ 100 F 136.2 BAR @ 38 C
	32111	A350 LF2		1975 PSI @ -50 F 136.2 BAR @ -46 C
	12401	F316/F316L	316	1920 PSI @ 100 F 132.4 BAR @ 38 C
	12321	F11, Cl.2(1-1/4 Cr.)	13%Cr	2000 PSI @ 100 F 137.9 BAR @ 38 C
	12521	F22, Cl.3(2-1/4 Cr.)		
	12421	F5(5 Cr.)		
	12921	F9(9 Cr.)		

Dimensions

*Example Series Designation: ST2801, CT2901, BT12111, etc.

SIZE			A(B)	A(C)	A(S)	A(T)	B	C(B)	C(C)	C(S)	C(T)	D	D(T)	E	F	G	H	J	K	WEIGHT	Cv	
-04	NPS	1/2	4.00	4.38	4.00	4.00	1.69	.64	.64	.64	.52	.50	.41	1.25	6.50	5.86	4.00	.81	.84	4.3	6.5	
	DN	15	102	111	102	102	43	16.3	16.3	16.3	13.2	12.7	10.4	31.8	165	149	102	20.6	21.3	2.0		
-05	NPS	3/4	4.00	4.38	4.00	4.00	1.69	.64	.64	.64	.64	.50	.47	1.25	6.50	5.86	4.00	.81	1.05	4.2	9.0	
	DN	20	102	111	102	102	43	16.3	16.3	16.3	16.3	12.7	11.9	31.8	165	149	102	20.6	26.7	1.9		
-06	NPS	1	4.38	4.75	4.38	4.38	2.00	.89	.89	.89	.89	.75	.69	1.56	8.38	7.43	4.75	1.06	1.32	7.6	27.7	
	DN	25	111	121	111	111	51	22.6	22.6	22.6	22.6	19.1	17.5	39.6	213	189	121	26.9	33.5	3.4		
-08	NPS	1 1/2	5.00	5.00	5.00	5.00	2.38	1.47	1.47	1.47	1.47	1.25	1.25	2.25	10.14	8.71	5.75	1.69	1.90	13.2	78.0	
	DN	40	127	127	127	127	60	37.3	37.3	37.3	37.3	31.8	31.8	57.2	258	221	146	42.9	48.3	6.0		
-04	NPS	1/2	7.00	7.00	7.00	7.00	1.69	.75	.75	.64	.52	.50	.41	1.56	6.50	5.86	4.00	.97	.84	5.4	9.6	2
	DN	15	178	178	178	178	43	19.1	19.1	16.3	13.2	12.7	10.4	39.6	165	149	102	24.6	21.3	2.4		
-05	NPS	3/4	7.00	7.00	7.00	7.00	1.69	.75	.75	.75	.64	.50	.47	1.56	6.50	5.86	4.00	.97	1.05	5.4	9.7	
	DN	20	178	178	178	178	43	19.1	19.1	19.1	16.3	12.7	11.9	39.6	165	149	102	24.6	26.7	2.4		
-06	NPS	1	7.50	7.50	7.50	7.50	2.00	1.00	1.00	1.00	.89	.75	.69	1.94	8.38	7.43	4.75	1.22	1.32	9.3	20.3	
	DN	25	191	191	191	191	51	25.4	25.4	25.4	22.6	19.1	17.5	49.3	213	189	121	31.0	33.5	4.2		
-08	NPS	1 1/2	8.00	8.00	8.00	8.00	2.38	1.50	1.50	1.50	1.47	1.25	1.25	2.56	10.14	8.71	5.75	1.72	1.90	16.5	78.0	
	DN	40	203	203	203	203	60	38.1	38.1	38.1	37.3	31.8	31.8	65.0	258	221	146	43.7	48.3	7.5		
-09	NPS	2	10.00	10.00	10.00	10.00	2.63	1.94	1.94	1.94	1.81	1.50	1.50	3.12	11.09	9.40	7.00	2.16	2.38	24.0	117.6	
	DN	50	254	254	254	254	67	49.3	49.3	49.3	46.0	38.1	38.1	79.2	282	239	178	54.9	60.5	10.9		
-04	NPS	1/2	7.00	7.00	4.50	4.50	1.69	.75	.75	.64	.52	.50	.41	1.56	6.29	5.73	4.00	.97	.84	6.8	9.6	3
	DN	15	178	178	114	114	43	19.1	19.1	16.3	13.2	12.7	10.4	39.6	160	146	102	24.6	21.3	3.1		
-05	NPS	3/4	7.00	7.00	4.50	4.50	1.69	.75	.75	.75	.65	.50	.47	1.56	6.29	5.73	4.00	.97	1.05	6.8	9.7	
	DN	20	178	178	114	114	43	19.1	19.1	19.1	16.5	12.7	11.9	39.6	160	146	102	24.6	26.7	3.1		
-06	NPS	1	7.50	7.50	5.25	5.25	2.10	1.00	1.00	1.00	.89	.75	.69	1.94	8.37	7.43	4.75	1.22	1.32	11.2	20.3	
	DN	25	191	191	133	133	53	25.4	25.4	25.4	22.6	19.1	17.5	49.3	213	189	121	31.0	33.5	5.1		
-08	NPS	1 1/2	8.00	8.00	6.38	6.38	2.38	1.50	1.50	1.50	1.47	1.25	1.25	2.56	10.12	8.71	5.75	1.72	1.90	20.4	78.0	
	DN	40	203	203	162	162	60	38.1	38.1	38.1	37.3	31.8	31.8	65.0	257	221	146	43.7	48.3	9.3		
-09	NPS	2	10.00	10.00	6.00	6.00	2.92	1.94	1.94	1.81	1.81	1.50	1.50	3.12	11.12	9.42	7.00	2.16	2.38	27.0	117.6	
	DN	50	254	254	152	152	74	49.3	49.3	46.0	46.0	38.1	38.1	79.2	282	239	178	54.9	60.5	12.2		

Refer to page 8 for optional trim and service configurations.

Refer to page 115 for female end connections.

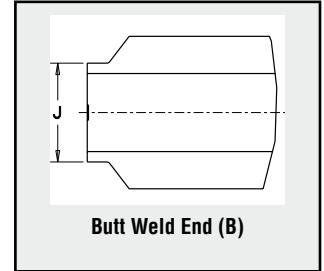
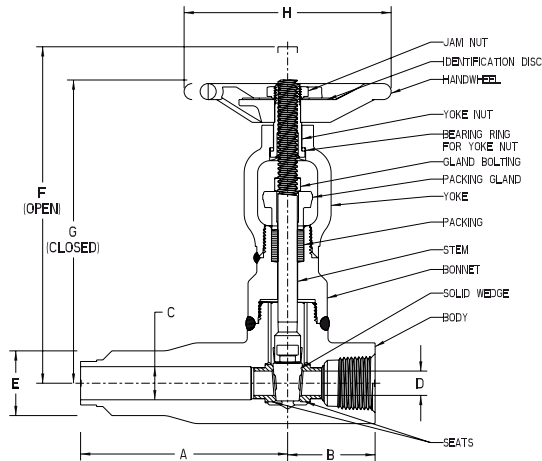
Refer to pages 11-12 for full materials description.

Refer to pages 116-117 for other ratings.

GATE Class 800

1

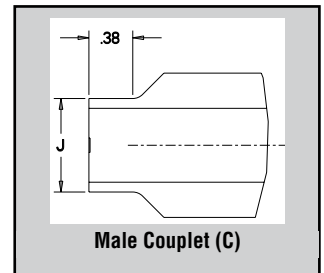
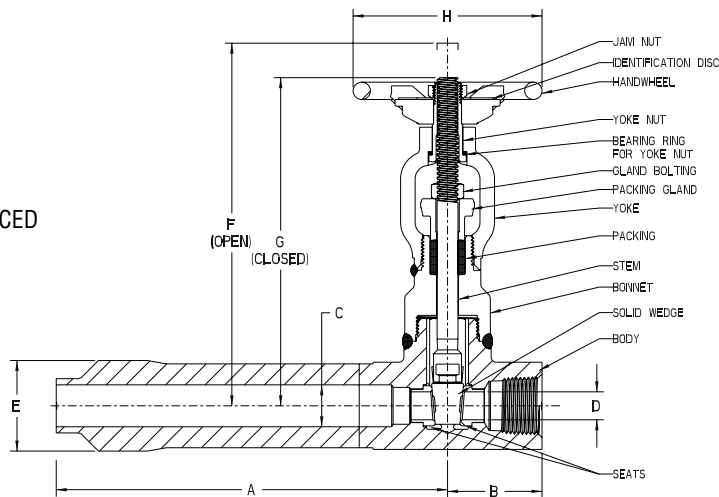
Welded Bonnet
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34
INTEGRAL FORGED BODY



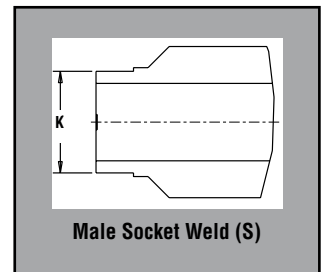
(B)

2

Welded Bonnet
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34
INTEGRALLY REINFORCED
WELD END



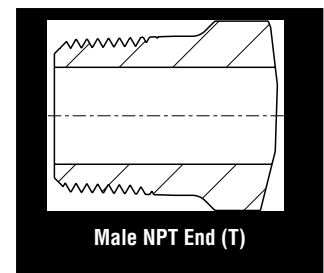
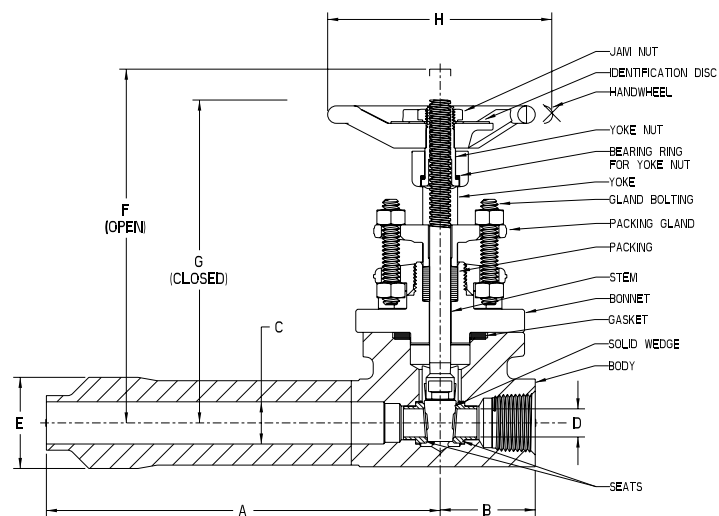
(C)



(S)

3

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34
INTEGRALLY
REINFORCED
WELD END



(T)

Forged Gate Valves – Extended Body Valves

Extended Body/Class 1500 Conventional Port Gate Valve

CONNECTION			
Extended Male End	Female End		
Butt Weld	Threaded	BT	(B)
Butt Weld	Socket Weld	BS	
Couplet	Threaded	CT	(C)
Couplet	Socket Weld	CS	
Socket Weld	Threaded	ST*	(S)
Socket Weld	Socket Weld	SS	

	SERIES	BODY/BONNET	TRIM	RATING	
1	15801*	A105	13%Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C
	15831	F316/F316L	316	3600 PSI @ 100 F	248.2 BAR @ 38 C

2	15901	A105	13%Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C
	15931	F316/F316L	316	3600 PSI @ 100 F	248.2 BAR @ 38 C
	15951	F11, Cl.2(1-1/4 Cr.)	13%Cr	3750 PSI @ 100 F	258.6 BAR @ 38 C
	15961	F22, Cl.3(2-1/4 Cr.)			

3	15111	A105	13%Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C
	35111	A350 LF2		3705 PSI @ -50 F	255.3 BAR @ -46 C
	15401	F316/F316L	316	3600 PSI @ 100 F	248.2 BAR @ 38 C
	15321	F11, Cl.2(1-1/4 Cr.)	13%Cr	3750 PSI @ 100 F	258.6 BAR @ 38 C
	15521	F22, Cl.3(2-1/4 Cr.)			
	15421	F5(5 Cr.)			
	15921	F9(9 Cr.)			

*Example Series Designation: ST15801, CT15901, BT15111, etc.

Dimensions

SIZE			A	B	C(B)	C(C)	C(S)	D	D(T)	E	F	G	H	J	K	WEIGHT	Cv	1
-04	NPS	½	4.69	2.00	.75	.75	.69	.50	.41	1.56	7.54	6.90	4.75	.81	.84	7.8	9.6	
	DN	15	119	51	19.1	19.1	17.5	12.7	10.4	39.6	192	175	121	20.6	21.3	3.5		
-05	NPS	¾	4.69	2.00	.75	.75	.75	.50	.47	1.56	7.54	6.90	4.75	.81	1.05	7.7	9.7	
	DN	20	119	51	19.1	19.1	19.1	12.7	11.9	39.6	192	175	121	20.6	26.7	3.5		
-06	NPS	1	5.37	2.38	1.00	1.00	1.12	.75	.69	2.25	9.69	8.77	7.00	1.06	1.32	15.5	20.3	
	DN	25	136	60	25.4	25.4	28.4	19.1	17.5	57.2	246	223	178	26.9	33.5	7.0		
-04	NPS	½	6.50	2.00	.75	.75	.69	.50	.41	1.56	7.54	6.90	4.75	.97	.84	9.7	9.6	2
	DN	15	165	51	19.1	19.1	17.5	12.7	10.4	39.6	192	175	121	24.6	21.3	4.4		
-05	NPS	¾	7.50	2.00	.75	.75	.75	.50	.47	1.94	7.54	6.90	4.75	.97	1.05	9.6	9.7	
	DN	20	191	51	19.1	19.1	19.1	12.7	11.9	49.3	192	175	121	24.6	26.7	4.4		
-06	NPS	1	7.50	2.38	1.00	1.00	1.12	.75	.69	1.94	9.69	8.77	7.00	1.22	1.32	17.2	20.3	
	DN	25	191	60	25.4	25.4	28.4	19.1	17.5	49.3	246	223	178	31.0	33.5	7.8		
-08	NPS	1½	10.00	2.63	1.50	1.50	1.50	1.25	1.25	3.12	11.40	9.98	8.00	1.72	1.90	30.1	91.6	
	DN	40	254	67	38.1	38.1	38.1	31.8	31.8	79.2	290	253	203	43.7	48.3	13.7		
-04	NPS	½	6.50	2.00	.75	.75	.69	.50	.41	1.56	7.51	6.90	4.75	.97	.84	10.6	9.6	3
	DN	15	165	51	19.1	19.1	17.5	12.7	10.4	39.6	191	175	121	24.6	21.3	4.8		
-05	NPS	¾	6.50	2.00	.75	.75	.75	.50	.47	1.56	7.51	6.90	4.75	.97	1.05	10.5	9.7	
	DN	20	165	51	19.1	19.1	19.1	12.7	11.9	39.6	191	175	121	24.6	26.7	4.8		
-06	NPS	1	7.50	2.38	1.00	1.00	1.12	.75	.69	2.25	9.69	8.78	7.00	1.22	1.32	20.9	20.3	
	DN	25	191	60	25.4	25.4	28.4	19.1	17.5	57.2	246	223	178	31.0	33.5	9.5		
-08	NPS	1½	10.00	2.63	1.50	1.50	1.50	1.25	1.25	3.12	11.40	9.98	8.00	1.72	1.90	36.9	91.6	
	DN	40	254	67	38.1	38.1	38.1	31.8	31.8	79.2	290	253	203	43.7	48.3	16.7		

Refer to page 8 for optional trim and service configurations.

Refer to page 115 for female end connections.

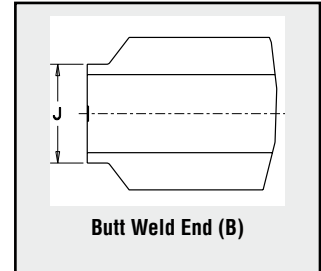
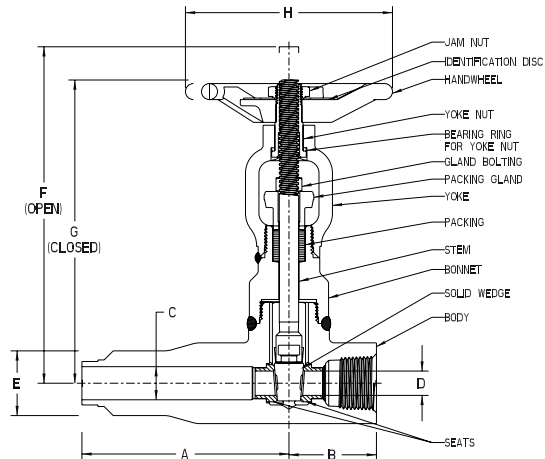
Refer to pages 11-12 for full materials description.

Refer to pages 116-117 for other ratings.

GATE Class 1500

1

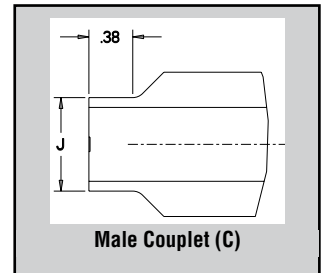
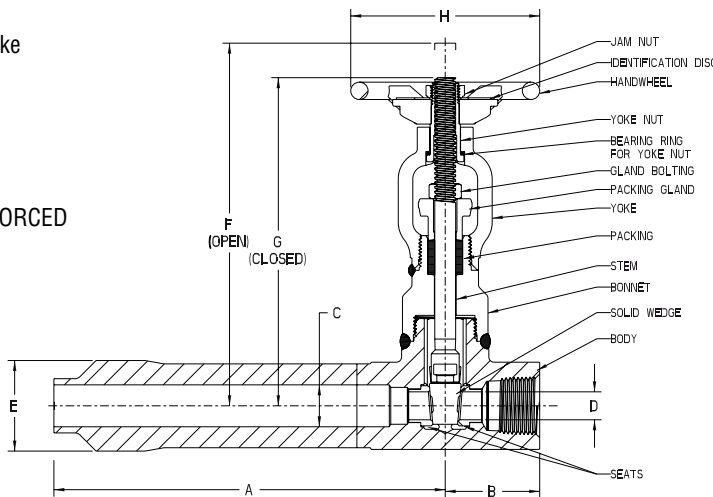
Welded Bonnet
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34
INTEGRAL FORGED BODY



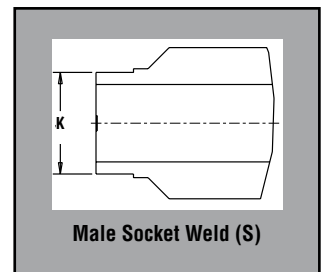
(B)

2

Welded Bonnet
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34
INTEGRALLY REINFORCED
WELD END



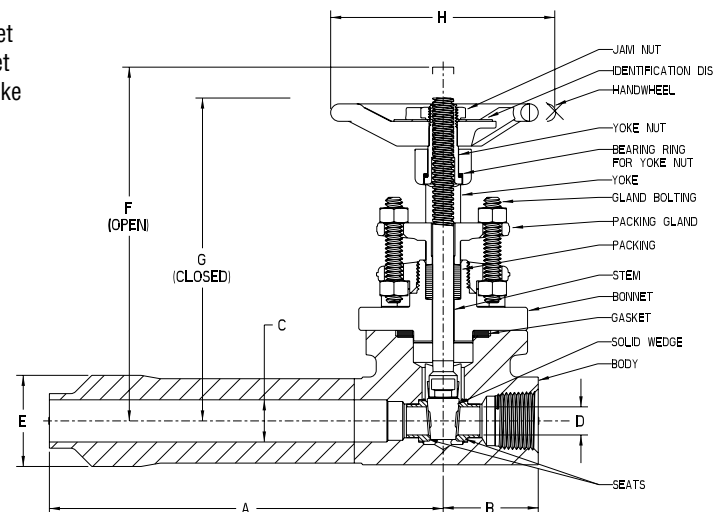
(C)



(S)

3

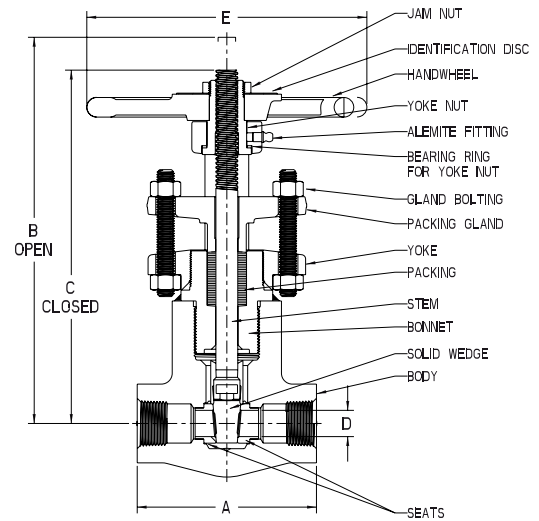
Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34
INTEGRALLY
REINFORCED
WELD END



Forged Gate Valves

Class 2500/2680 Gate Valve Full Port

Welded Bonnet
Outside Screw & Yoke
Bolted Gland
Solid Hard Faced Wedge
Hard Faced Seats
ASME B16.34 LTD. Pressure Class



CONNECTION	SERIES	BODY/BONNET	TRIM	RATING		CLASS
Threaded Threaded X Socket Weld TSW	66703	A105	13% Cr.	6250 PSI @ 100 F	430.9 BAR @ 38 C	2500 LTD
	66743	A350 LF2		6250 PSI @ -50 F	430.9 BAR @ -46 C	
	66713	F11, Cl.2(1-1/4 Cr.)		6250 PSI @ 100 F	430.9 BAR @ 38 C	
	66773	F22, Cl.3(2-1/4 Cr.)				
	66791	F91		6250 PSI @ 100 F	430.9 BAR @ 38 C	
Socket Weld	SW66703	A105	13% Cr.	6700 PSI @ 100 F	461.9 BAR @ 38 C	2680 LTD
	SW66743	A350 LF2		6700 PSI @ -50 F	461.9 BAR @ -46 C	
	SW66713	F11, Cl.2(1-1/4 Cr.)		6250 PSI @ 100 F	430.9 BAR @ 38 C	
	SW66773	F22, Cl.3(2-1/4 Cr.)				
	SW66791	F91		6700 PSI @ 100 F	461.9 BAR @ 38 C	

Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv
-04	NPS	1/2	4.00	8.84	8.28	.41	5.75	10.0	5.0
	DN	15	102	225	210	10.4	146	4.5	
-05	NPS	3/4	5.12	11.03	10.09	.75	8.00	20.7	17.5
	DN	20	130	280	256	19.1	203	9.4	
-06	NPS	1	5.12	11.03	10.09	.75	8.00	20.3	16.1
	DN	25	130	280	256	19.1	203	9.2	
-08	NPS	1 1/2	8.50	15.86	14.12	1.50	12.00	90.8	109.6
	DN	40	216	403	359	38.1	305	41.2	
-09	NPS	2	8.50	15.86	14.12	1.50	12.00	88.3	100.2
	DN	50	216	403	359	38.1	305	40.1	

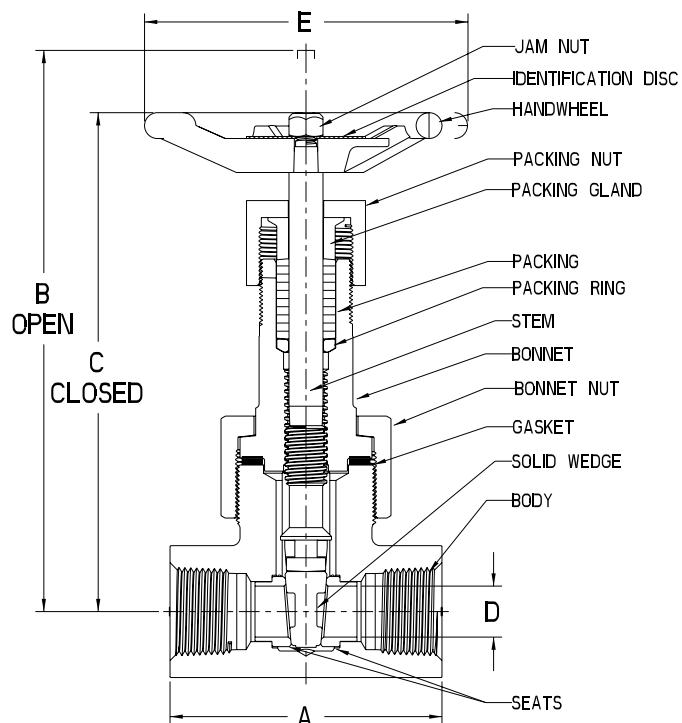
Refer to page 8 for optional trim and service configurations.
Refer to page 115 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

Forged Gate Valves

Class 800 Conventional Port Gate Valve

Union Bonnet
Spiral Wound Gasket
Inside Screw Stem
Screw Gland
Solid Wedge
Hard Faced Seats
API 602
ASME B16.34



CONNECTION	SERIES	BODY/BONNET	TRIM	RATING	
Threaded	59851	A105	13% Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
Socket Weld	59951*	F316/F316L	316	1920 PSI @ 200 F	132.4 BAR @ 38 C
Threaded/Socket Weld					

* Not for dry service

Dimensions

SIZE	A	B	C	D	E	WEIGHT	Cv	
-04	NPS ½	3.38	6.44	5.88	.50	4.00	4.8	9.6
	DN 15	86	164	149	12.7	102	2.2	
-05	NPS ¾	3.38	6.44	5.88	.50	4.00	4.7	9.7
	DN 20	86	164	149	12.7	102	2.1	
-06	NPS 1	4.00	8.31	7.38	.75	4.75	7.9	20.3
	DN 25	102	211	187	19.1	121	3.6	
-07	NPS 1¼	4.75	10.75	9.38	1.25	5.75	16.4	80.5
	DN 32	121	273	238	31.8	146	7.4	
-08	NPS 1½	4.75	10.75	9.38	1.25	5.75	16.1	91.6
	DN 40	121	273	238	31.8	146	7.3	
-09	NPS 2	5.25	12.25	10.56	1.50	7.00	23.6	117.6
	DN 50	133	311	268	38.1	178	10.7	

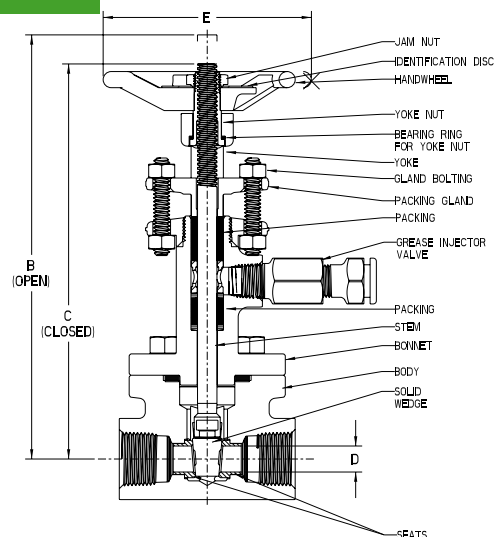
Refer to page 8 for optional trim and service configurations.
Refer to page 115 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

Forged Gate Valves – For HF Alkylation Service **Forged Gate Valves – For Emission Reduction** **Class 800 Gate Valve**

1 Conventional Port
 2 Full Port

Round Bolted Bonnet
 Spiral Wound Gasket
 Outside Screw & Yoke
 Bolted Gland
 Double Packing
 Lantern Ring
 Grease Injector
 Solid Wedge
 API 602 (12111ER & 13111ER)
 ASME B16.34



(UOP) Universal Oil Products Approved

CONNECTION	SERIES	BODY/BONNET	TRIM	SEATS	RATING	
Socket Weld	SW43211HF2	A105	Monel	Monel	1975 PSI @ 100 F	136.2 BAR @ 38 C

Vogt Alkylation valve - contains TEFLON - max temperature 500°F

CONNECTION	SERIES	BODY/BONNET	TRIM	SEATS	RATING	
Threaded	SW	42211MTG	A105	Monel	1975 PSI @ 100 F	136.2 BAR @ 38 C
Socket Weld						

Emission Reduction

CONNECTION	SERIES	BODY/BONNET	TRIM	SEATS	RATING	
Threaded	SW	12111ER	A105	13% Cr	13% CR Hardfaced	1975 PSI @ 100 F
Socket Weld						
Threaded / Socket Weld	TSW					
Threaded	SW	13111ER	A105	13% Cr	13% CR Hardfaced	1975 PSI @ 100 F
Socket Weld						
Threaded / Socket Weld	TSW					

Dimensions

SIZE	A	B	C	D	E	WEIGHT	Cv
-04	NPS ½	3.38	8.15	7.59	.50	4.00	5.9
	DN 15	86	207	193	12.7	102	2.7
-05	NPS ¾	3.38	8.15	7.59	.50	4.00	5.8
	DN 20	86	207	193	12.7	102	2.6
-06	NPS 1	4.00	10.27	9.34	.75	4.75	9.8
	DN 25	102	261	237	19.1	121	4.4
-07	NPS 1¼	4.75	12.12	10.72	1.25	5.75	17.7
	DN 40	121	308	272	31.8	146	17.6
-08	NPS 1½	4.75	12.12	10.72	1.25	5.75	8.4
	DN 40	121	308	272	31.8	146	3.8
-09	NPS 2	5.25	13.38	11.69	1.50	7.00	23.0
	DN 50	133	340	297	38.1	178	10.4

SIZE	A	B	C	D	E	WEIGHT	Cv
-04	NPS ½	3.38	8.15	7.59	.50	4.00	5.9
	DN 15	86	207	193	12.7	102	2.7
-05	NPS ¾	4.00	10.27	9.34	.75	4.75	9.9
	DN 20	102	261	237	19.1	121	4.5
-06	NPS 1	4.38	11.36	10.15	1.00	5.75	13.4
	DN 25	111	289	258	0.0	146	6.1

Refer to page 8 for optional trim and service configurations.
 Refer to page 115 for end connections.

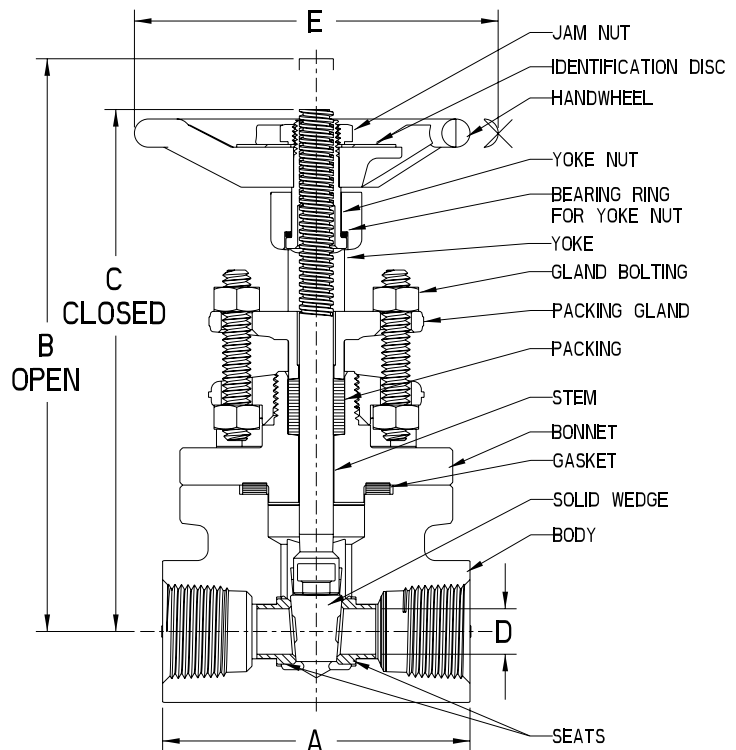
Refer to pages 11-12 for full materials description.
 Refer to pages 116-117 for other ratings.

Forged Gate Valves – For HF Alkylation Service

Class 600 Full Port Gate Valve

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
API 602
ASME B16.34

See page 20 for Class 800
UOP Approved Alkylation
Service valves.



Listed in Phillips Petroleum Company's HF Alkylation Process Design Spec. Manual

CONNECTION	SERIES	BODY/BONNET	TRIM	RATING	
Threaded	43111MMP	A105	Monel	1480 PSI @ 100 F	102.1 BAR @ 38 C

Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv
-04	NPS	½	3.38	6.30	5.75	.50	4.00	5.0	9.6
	DN	15	86	160	146	12.7	102	2.3	
-05	NPS	¾	4.0	8.37	7.43	.75	4.75	8.6	28.7
	DN	20	102	213	189	19.1	121	3.9	
-06	NPS	1	4.38	9.80	8.59	1.0	5.75	12.5	46.5
	DN	25	111	249	218	25.4	146	5.7	

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

Refer to page 115 for end connections.

Forged Gate Valves – Bellowseal

Class 800 Gate Valve

1 Conventional Port

2 Full Port

Welded Bonnet

Outside Screw & Yoke

Bolted Gland

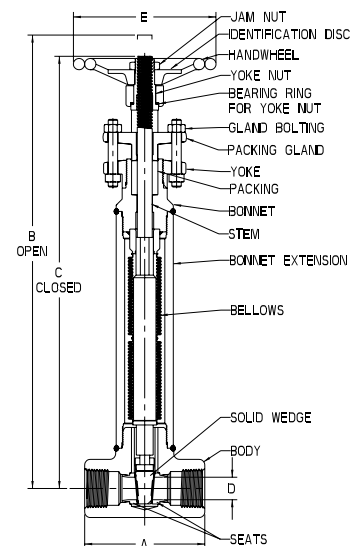
Solid Wedge

ASME B16.34

Seamless Multi-Ply Bellows 321 SS

Stem - 316 SS

Hard Faced Seats/Wedge



Bellowseal gate valves are suitable for applications requiring total containment of the flowing media frequently necessary to protect the environment and to eliminate the loss of hazardous and/or costly fluids.

The valve packing is totally isolated by the bellows from the flowing media and pressure. The packing is incorporated in the valve to serve in a "back-up" role only.

		SERIES		BODY/BONNET	TRIM	RATING	
CONNECTION		1	2				
Threaded Socket Weld Threaded/Socket Weld	SW TSW	2801B	3801B	A105	13% Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
		32801B	33801B	A350 LF2	13% Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
					13% Cr	1975 PSI @ -50 F	136.2 BAR @ -46 C
		2831B	3831B	F316/F316L	316	1920 PSI @ 100 F	132.4 BAR @ 38 C

Dimensions

SIZE				A	B	C	D	E	WEIGHT	Cv
1	-04	NPS	½	3.38	10.56	10.06	.50	4.00	8.2	9.6
		DN	15	86	268	256	12.7	102	3.7	
	-05	NPS	¾	3.38	10.56	10.06	.50	4.00	8.1	9.7
		DN	20	86	268	256	12.7	102	3.7	
	-06	NPS	1	4.00	12.88	12.12	.75	4.75	9.5	20.3
		DN	25	102	327	308	19.1	121	4.3	
	-08	NPS	1½	5.25	20.25	18.81	1.50	7.00	28.3	109.6
		DN	40	133	514	478	38.1	178	12.8	
2	-04	NPS	½	3.38	10.56	10.06	.50	4.00	4.2	9.6
		DN	15	86	268	256	12.7	102	1.9	
	-05	NPS	¾	4.00	12.88	12.12	.75	4.75	9.5	28.7
		DN	20	102	327	308	19.1	121	4.3	
	-08	NPS	1½	5.25	20.25	18.81	1.50	7.00	28.3	109.6
		DN	40	133	514	478	38.1	178	12.8	

Refer to page 8 for optional trim and service configurations.

Refer to page 115 for end connections.

Refer to pages 11-12 for full materials description.

Refer to pages 116-117 for other ratings.

Forged Gate Valves – Cryogenic Service to -325°F (-198°C)

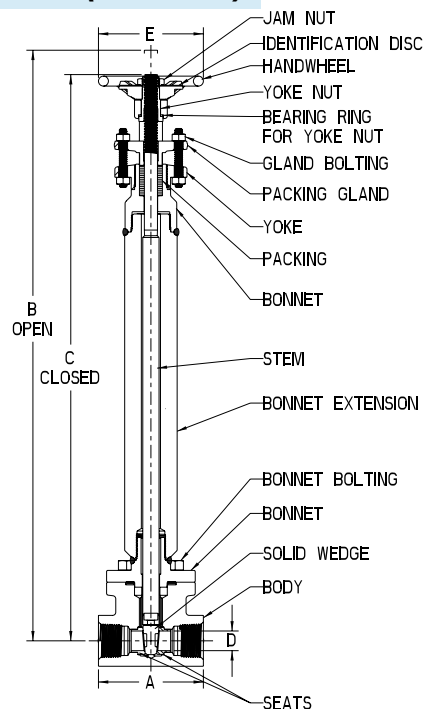
Class 800 & 1500 Gate Valve

1 Conventional Port

2 Full Port

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
Extended Bonnet
ASME B16.34
MSS SP-134

Valve contains TEFLON – Max temp of 500° F



CONNECTION		SERIES		BODY/BONNET	TRIM	RATING		
		1	2					
Threaded Socket Weld Threaded/Socket Weld	SW	12401C	13401C	F316/F316L	316	1920 PSI @ 100 F	132.4 BAR @ 38 C	Class 800
						1920 PSI @ -325 F	132.4 BAR @ -198 C	
	TSW	15401C	16401C	F316/F34L	316	3600 PSI @ 100 F	248.2 BAR @ 38 C	Class 1500
						3600 PSI @ -325 F	248.2 BAR @ -198 C	

Dimensions

Size	A	B	C	D	E	WEIGHT	Cv	
1 -04 NPS ½	3.38	18.30	17.74	.50	4.00	8.2	9.6	Class 800
DN 15	86	465	451	12.7	102	3.7	9.6	
-05 NPS ¾	3.38	18.30	17.74	.50	4.00	8.1	9.7	
DN 20	86	465	451	12.7	102	3.7	9.7	
-06 NPS 1	4.00	22.52	21.59	.75	4.75	20.4	20.3	
DN 25	102	572	548	19.1	121	9.3	20.3	
-07 NPS 1¼	4.75	27.06	25.84	1.25	5.75	40.0	80.5	
DN 32	121	687	656	31.8	146	18.1	80.5	
-08 NPS 1½	4.75	27.06	25.84	1.25	5.75	40.0	91.6	
DN 40	121	687	656	31.8	146	18.1	91.6	
-09 NPS 2	5.25	27.00	25.30	1.50	7.00	35.0	117.6	
DN 50	133	686	643	38.1	178	15.9	117.6	
2 -04 NPS ½	3.38	18.30	17.74	.50	4.00	8.2	9.6	Class 1500
DN 15	86	465	451	12.7	102	3.7	9.6	
-05 NPS ¾	4.00	22.52	21.59	.75	4.75	20.5	28.7	
DN 20	102	572	548	19.1	121	9.3	28.7	
-06 NPS 1	4.38	22.52	21.59	1.00	5.75	37.3	46.5	
DN 25	111	572	548	25.4	146	16.9	46.5	
-07 NPS 1¼	4.75	27.06	25.84	1.25	5.75	40.0	80.5	
DN 32	121	687	656	31.8	146	18.1	80.5	
-08 NPS 1½	5.25	28.21	26.52	1.50	7.0	35.0	109.6	
DN 40	133	717	674	38.1	178	15.9	109.6	
1 -04 NPS ½	4.00	20.79	20.18	.50	4.75	14.9	9.6	Class 800
DN 15	102	528	513	12.7	121	6.8	9.6	
-05 NPS ¾	4.00	20.79	20.18	.50	4.75	14.7	9.7	
DN 20	102	528	513	12.7	121	6.7	9.7	
-06 NPS 1	4.75	21.51	20.59	.75	7.0	25.0	20.3	
DN 25	121	546	523	19.1	178	11.3	20.3	
-07 NPS 1¼	5.25	26.53	25.11	1.25	8.0	39.6	80.5	
DN 32	133	674	638	31.8	203	18.0	80.5	
-08 NPS 1½	5.25	26.53	25.11	1.25	8.0	39.0	91.6	
DN 40	133	674	638	31.8	203	17.7	91.6	
-09 NPS 2	7.00	27.53	25.84	1.50	9.75	64.1	117.6	
DN 50	178	699	656	38.1	248	29.1	117.6	
2 -04 NPS ½	4.00	20.79	20.18	.50	4.75	14.9	9.6	Class 1500
DN 15	102	528	513	12.7	121	6.8	9.6	
-05 NPS ¾	4.75	21.51	20.59	.75	7.0	25.5	28.7	
DN 20	121	546	523	19.1	178	11.6	28.7	
-06 NPS 1	4.38	22.52	21.59	1.00	5.75	37.3	46.5	
DN 25	111	572	548	25.4	146	16.9	46.5	
-07 NPS 1¼	5.25	26.53	25.11	1.25	8.0	39.6	80.5	
DN 32	133	674	638	31.8	203	18.0	80.5	
-08 NPS 1½	7.00	27.53	25.84	1.50	9.75	65.0	109.6	
DN 40	178	699	656	38.1	248	29.5	109.6	

Refer to page 8 for optional trim and service configurations.
Refer to page 115 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

Forged Gate Valves – Meets API-600 Required Wall Thickness

Class 800 Gate Valve

1 Conventional Port

2 Full Port

Round Bolted Bonnet

Spiral Wound Gasket

Outside Screw & Yoke

Bolted Gland

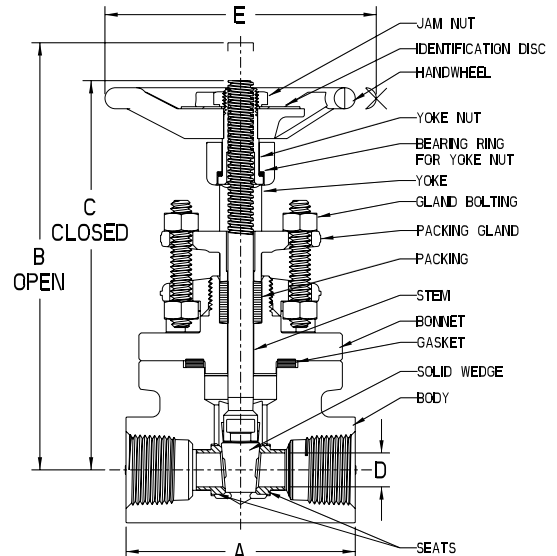
Solid Wedge

Hard Faced Seats

Meets API-600 Required Wall Thickness

API 602

ASME B16.34



CONNECTION	SERIES		BODY/BONNET	TRIM	RATING	
	1	2				
Threaded Socket Weld Threaded x Socket Weld	SW TSW	12601	13601	A105	13% Cr	1975 PSI @ 100 F 136.2 BAR @ 38 C
		12602	13602	A350 LF2	13% Cr	1975 PSI @ 100 F 136.2 BAR @ 38 C 1975 PSI @ -50 F 136.2 BAR @ -46 C
		12603	13603	F316/F316L	316	1920 PSI @ 100 F 132.4 BAR @ 38 C
		12604	13604	F11, Cl.2	*13% Cr	2000 PSI @ 100 F 137.9 BAR @ 38 C
		12605	13605	F22, Cl.3	*13% Cr	2000 PSI @ 100 F 137.9 BAR @ 38 C

*Hardfaced Wedge/Seats

Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv
1	-04	NPS ½	4.00	7.51	6.90	.50	4.75	8.9	9.6
		DN 15	101.6	191	175	12.7	121	4.0	
	-05	NPS ¾	4.00	7.51	6.90	.50	4.75	9.7	9.7
		DN 20	101.6	191	175	12.7	121	4.4	
	-06	NPS 1	4.75	9.69	8.77	.75	7.00	17.5	20.3
		DN 25	120.7	246	223	19.1	178	7.9	
	-07	NPS 1¼	5.25	11.40	9.98	1.25	8.00	27.3	80.5
		DN 32	133.4	290	253	31.8	203	12.4	
	-08	NPS 1½	5.25	11.40	9.98	1.25	8.00	66.7	91.6
		DN 40	133.4	290	253	31.8	203	30.3	
	-09	NPS 2	7.00	13.84	12.15	1.50	9.75	45.1	117.6
		DN 50	177.8	352	309	38.1	248	20.5	

2	-04	NPS ½	4.00	7.51	6.90	.50	4.75	17.5	9.6
		DN 15	101.6	191	175	12.7	121	7.9	
	-05	NPS ¾	4.75	9.69	8.77	.75	7.00	17.9	28.7
		DN 20	120.7	246	223	19.1	178	8.1	
	-06	NPS 1	5.25	11.31	9.96	1.00	8.00	28.3	46.5
		DN 25	133.4	287	253	25.4	203	12.8	
	-07	NPS 1¼	5.25	11.40	9.98	1.25	8.00	27.3	80.5
		DN 32	133.4	290	253	31.8	203	12.4	
	-08	NPS 1½	7.00	13.84	12.15	1.50	9.75	75.0	109.6
		DN 40	177.8	352	309	38.1	248	34.0	

Refer to page 8 for optional trim and service configurations.

Refer to pages 11-12 for full materials description.

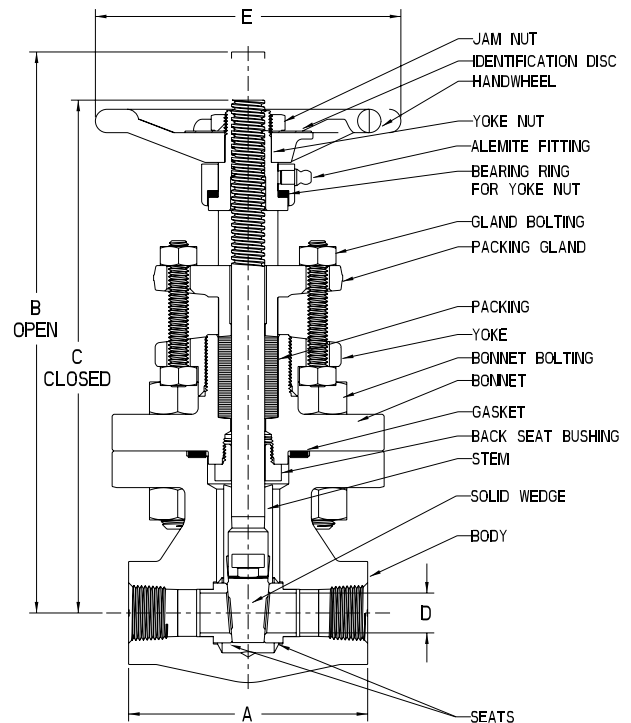
Refer to pages 114-115 for end connections.

Refer to pages 116-117 for other ratings.

Forged Gate Valves – Meets API-600 Required Wall Thickness

Class 800 Full Port Gate Valve

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
Meets API 600 required wall thickness
ASME B16.34



CONNECTION		SERIES	BODY/BONNET	TRIM	RATING	
Threaded	SW	11103	A105	13% Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
Socket Weld						

Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv
-04	NPS	½	3.62	9.52	8.78	.56	4.75	12.4	9.6
	DN	15	92	242	223	14.2	121	5.6	
-05	NPS	¾	4.50	10.56	9.65	.75	5.75	19.9	28.7
	DN	20	114	268	245	19.1	146	9.0	
-06	NPS	1	5.00	11.75	10.56	1.0	7.00	29.4	46.5
	DN	25	127	298	268	25.4	178	13.3	
-07	NPS	1¼	6.50	14.12	12.62	1.25	8.00	41.2	80.5
	DN	32	165	359	321	31.8	203	18.7	
-08	NPS	1½	7.25	16.37	14.68	1.50	9.75	63.0	109.6
	DN	40	184	416	373	38.1	248	28.6	
-09	NPS	2	9.00	19.00	16.81	2.00	9.75	90.8	181.0
	DN	50	229	483	427	50.8	248	41.2	

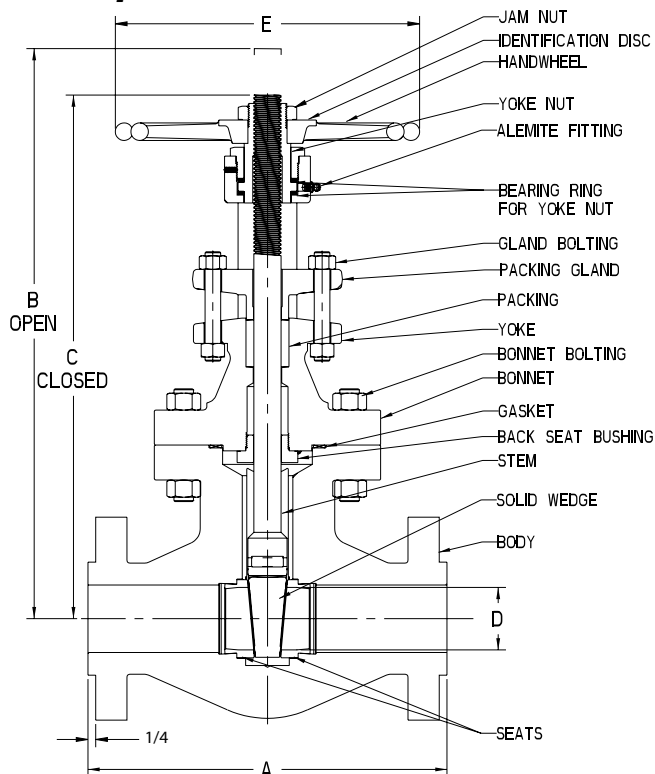
Refer to page 8 for optional trim and service configurations.
Refer to page 115 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

Forged Gate Valves – Meets API-600 Required Wall Thicknesses

Class 600 gate Valve Full Port

Round Bolted Bonnet
Spiral Wound Gasket
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
Meets API 600 required wall thickness
ASME B16.34



CONNECTION	SERIES	BODY/BONNET	TRIM	RATING
1/4 RF	11403	A105	13% Cr	1480 PSI @ 100 F 102.1 BAR @ 38 C

SIZE	A	B	C	D	E	WEIGHT	Cv
-04	6.50	10.44	9.69	.56	4.75	19.5	9.6
-05	7.50	11.31	10.38	.75	5.75	31.2	28.7
-06	8.50	12.56	11.44	1.00	7.00	45.0	46.5
-07	9.00	14.12	12.62	1.25	8.00	57.4	80.5
-08	9.50	16.38	14.69	1.50	9.75	76.2	109.6
-09	11.50	19.00	16.81	2.00	9.75	105.0	181.0

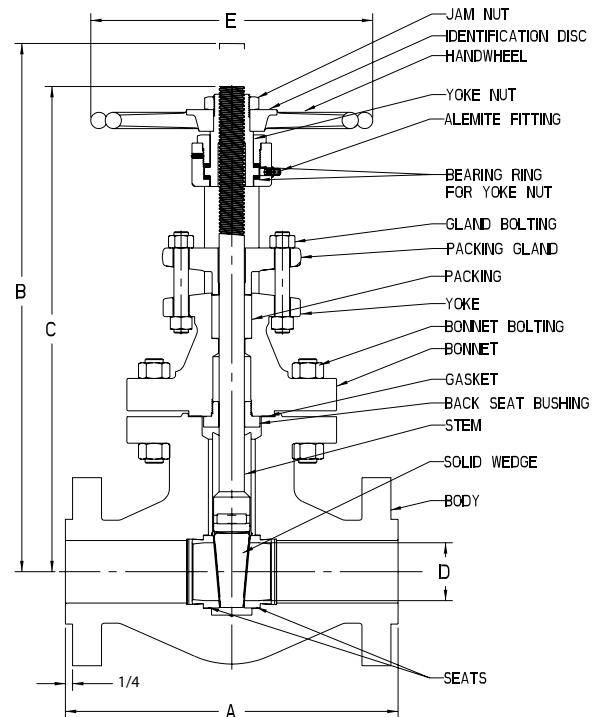
Refer to page 8 for optional trim and service configurations.
Refer to page 113 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

Forged Gate Valves – Meets API-600 Required Wall Thicknesses

Class 1500 Full Port Flanged Gate Valve

Round Bolted Bonnet
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
Meets API 600 required wall thickness
ASME B16.34



BONNET GASKET	CONNECTION	SERIES	BODY/BONNET	TRIM	RATING	
Flat Gasket Joint	1/4 RF	11603	A105	13% Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C
Ring Joint Gasket (Not illustrated)	Ring Joint (Not illustrated)	11683	A105	13% Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C

Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv
-04	NPS	½	8.50	12.12	11.38	.56	7.00	43.3	11.8
	DN	15	216	308	289	14.2	178	19.6	
-05	NPS	¾	9.00	14.00	12.94	.75	7.00	55.0	28.7
	DN	20	229	356	329	19.1	178	24.9	
-06	NPS	1	10.00	15.62	14.50	.88	8.00	76.0	32.0
	DN	25	254	397	368	22.4	203	34.5	
-07	NPS	1¼	11.00	17.75	16.44	1.12	9.75	92.0	83.2
	DN	32	279	451	418	28.4	248	41.7	
-08	NPS	1½	12.00	20.12	18.38	1.38	12.00	117.8	109.6
	DN	40	305	511	467	35.1	305	53.4	
-09	NPS	2	14.50	23.56	21.25	2.00	13.75	230.0	181.0
	DN	50	368	598	540	50.8	349	104.3	

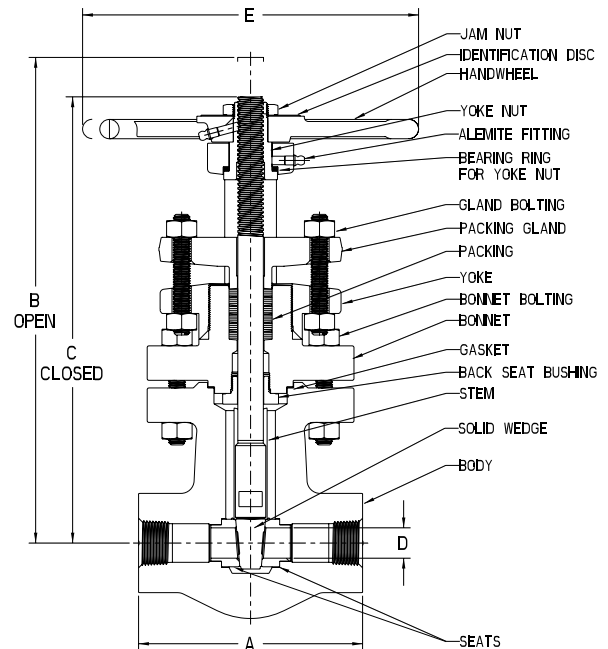
Refer to page 8 for optional trim and service configurations.
Refer to page 113 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.

Forged Gate Valves

Class 1500 Full Port Gate Valve

Round Bolted Bonnet
Outside Screw & Yoke
Bolted Gland
Solid Wedge
Hard Faced Seats
Meets API 600 required wall thickness
ASME B16.34



BONNET GASKET	CONNECTION	SERIES	BODY/BONNET	TRIM	RATING	
Flat Gasket Joint	Threaded Socket Weld SW	1033	A105	13% Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C
Ring Joint Gasket (Not illustrated)	Threaded Socket Weld SW	1043	A105	13% Cr	3705 PSI @ 100 F	255.3 BAR @ 38 C

Dimensions

SIZE			A	B	C	D	E	WEIGHT	Cv
-04	NPS	½	4.50	10.75	10.00	.56	5.75	21.9	11.8
	DN	15	114	273	254	14.2	146	9.9	
-05	NPS	¾	5.00	11.81	10.90	.75	7.00	29.9	28.7
	DN	20	127	300	277	19.1	178	13.6	
-06	NPS	1	6.50	14.06	12.94	.88	8.00	44.4	32.0
	DN	25	165	357	329	22.4	203	20.1	
-07	NPS	1¼	7.25	13.38	14.88	1.25	9.75	63.0	83.2
	DN	32	184	340	378	31.8	248	28.6	
-08	NPS	1½	9.00	18.75	17.12	1.38	9.75	100.0	109.6
	DN	40	229	476	435	35.1	248	45.4	
-09	NPS	2	9.50	21.00	18.69	2.00	12.00	116.3	181.0
	DN	50	241	533	475	50.8	305	52.8	

Refer to page 8 for optional trim and service configurations.
Refer to page 115 for end connections.

Refer to pages 11-12 for full materials description.
Refer to pages 116-117 for other ratings.