

Gate Valves – Forged Steel Bolted Bonnet

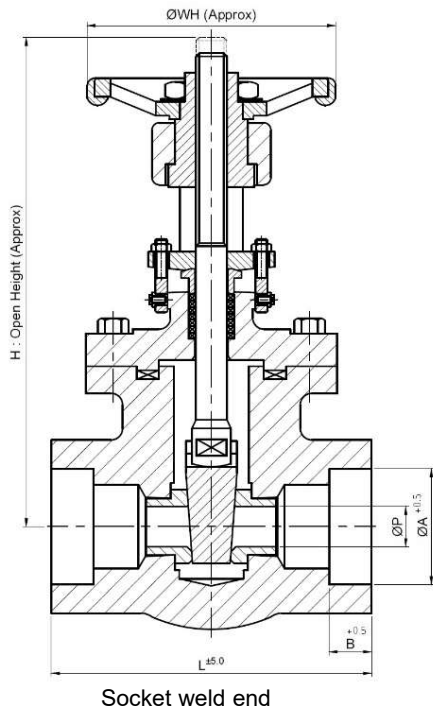
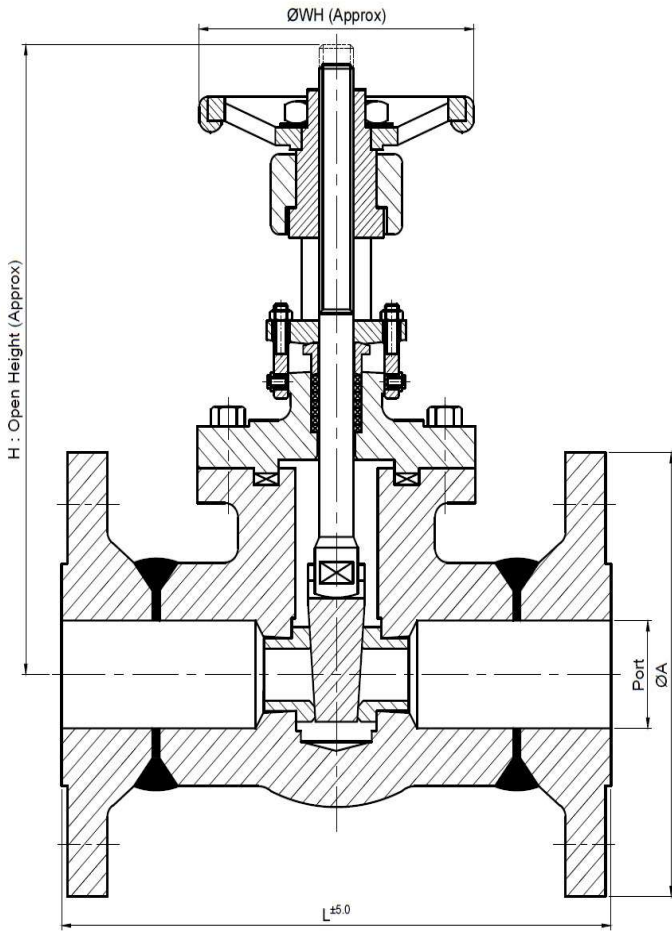


NPS 1/4" - 2" (DN 8 – DN 50), ASME Classes 800# - 2500#

Design Specification

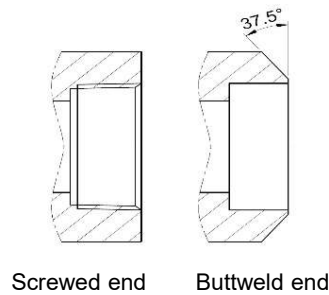
Item	Applicable Specification
Design	: API 602 / ASME 16.34 / BS 5352
Face to Face	: Manufacturing Standard / ASME B16.10
Flange End	: ASME B16.5
Butt weld End	: ASME B16.25
Screwed End	: ASME B1.20.1
Socket Weld End	: ASME B16.11
Marking	: MSS SP25
Inspection & Testing	: API 598 / BS EN 12266 Part 1

Forged Steel Gate Valve Constructions



Socket weld end

SL. NO.	DESCRIPTION	MATERIAL
1	Body	ASTM A 216 Gr. WCB
2	Bonnet	ASTM A 216 Gr. WCB
3	Wedge	ASTM A 216 Gr. WCB + 13% Cr. Facing
4	Seat Ring (seal Weld)	ASTM A 105 + H.F
5	Gasket	SPW SS316+Grafoil Filler
6	Spindle	ASTM A 276 TP 410
7	Back Seat	Integral+Hard Face
8	Gland	ASTM A 276 TP 410
9	Gland Flange	ASTM A 105
10	Stud & Nut	ASTM A 193 Gr. B7 / ASTM A 194 Gr. 2H
11	Eye Bolt & Nut	ASTM A 193 Gr. B7 / ASTM A 194 Gr. 2H
12	Gland Packing	Die-Formed Flexible Graphite Rings With Braided Graphite Top & Bottom Rings
13	Yoke Sleeve / Stem Nut	ASTM A 439 Gr. D2
14	Hand Wheel	Malleable Iron
15	Name Plate	SS 304 (Not Shown)



Screwed end

Buttweld end

API 602 Forged Steel Gate Valves

Dimension & Weight 800# -1500# Forged Steel Gate Valve

PORT	DIMENSION & WEIGHT TABLE, 800#									
	SIZE		PORT	L		Socket Weld Details		H-Open Height	WH	APPROX. WT. (kg)
	NPS	DN		FL(150#)	SW / SC / BW	OD (A)	Depth (B)			FL. / RTJ
FULL PORT	1/4"	8	8	-	80	14.20	11.1	152	88	2
	3/8"	10	9.6	-	80	17.60	11.1	152	88	2
	1/2"	15	14	108.08	90	21.80	12.7	158	88	2.5
	3/4"	20	18	117	110	27.20	4.5	196	97	3.2
	1"	25	24	127	127	33.90	16.0	225	138	6
	1.1/4"	32	30	140	127	42.70	17.5	255	138	7.1
	1.1/2"	40	36.5	165	134	48.80	19.0	290	138	8
REDUCED PORT	1/2"	15	9.6	108.08	80	21.80	12.7	152	32	2
	3/4"	20	14	117	90	27.20	4.5	158	38	3
	1"	25	18	127	110	33.90	16.0	196	48	4
	1.1/2"	40	30	165	127	48.80	19.0	255	64	8
	2"	50	36.5	178	134	61.20	22.0	290	78	8

PORT	DIMENSION & WEIGHT TABLE, 1500#									
	SIZE		PORT	L		Socket Weld Details		H-Open Height	WH	APPROX. WT. (kg)
	NPS	DN		FL(150#)	SW / SC / BW	OD (A)	Depth (B)			FL. / RTJ
FULL PORT	1/4"	8	8	-	90	14.20	11.1	153	88	2
	3/8"	10	9.6	-	90	17.60	11.1	153	88	2
	1/2"	15	14	108.08	110	21.80	12.7	190	88	4
	3/4"	20	18	117	127	27.20	4.5	220	97	6
	1"	25	24	127	127	33.90	16.0	250	138	8
	1.1/4"	32	30	140	127	42.70	17.5	282	138	10
	1.1/2"	40	36.5	165	134	48.80	19.0	290	138	11
REDUCED PORT	1/2"	15	9.6	108.08	90	21.80	12.7	152	152	2
	3/4"	20	14	117	110	27.20	4.5	190	190	4
	1"	25	18	127	127	33.90	16.0	220	220	6
	1.1/2"	40	30	165	127	48.80	19.0	282	282	10
	2"	50	36.5	178	210	61.20	22.0	345	345	20

- * All Dimension are In mm Unless Specified.
- * Flange End Valve are 150# only, For other class on request.
- * Special Material & Higher Size/Class Valves also available on request.
- L : Face To Face, FL : Flanged End, BW : Butt weld, GO : Gear Operated,
- RTJ : Ring Type Joint, H : Valve Open Height,

Common Test/Inspection Method

Test/inspection	Method	Acceptance Criteria
Visual Inspection	-	MSS SP55
Chemical Analysis	ASTM E350	Relevant ASTM
Mechanical Properties	ASTM A370	Relevant ASTM
Radiographic Inspection	ASME B16.34	ASME B16.34
Magnetic Particle Inspection	ASTM E709	ASME B16.34
Liquid Penetrant Inspection	ASTM E165	ASME B16.34
Ultrasonic Inspection	ASTM A388	ASME B16.34
Positive Material Identification	Vacuum Emission Spectrometer	Customer Specification
Pressure Testing	API 598 / BS EN 12266 Part 1	API 598 / BS EN 12266 Part 1
Dimensional Inspection		Design Standard

