

Series 52

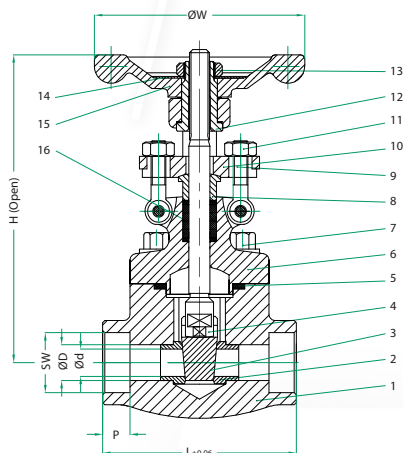
FORGED STEEL GATE VALVE



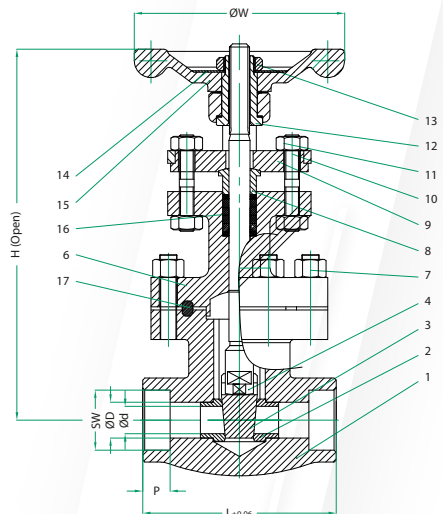
Features / Design

- 1.- Forged Steel, OS&Y Design.
- 2.- Solid Wedge & Renewable Seat Rings.
- 3.- Sizes 1/2" to 2", Class 800# to 2500#.
- 4.- Basic design API 602 & ANSI / ASME B16.34.
- 5.- Threaded ends according to ANSI / ASME B1.20.1.
- 6.- Socket Weld ends according to ANSI/ASME B16.11.
- 7.- Butt Weld ends according to ANSI B16.25.
- 8.- Flanged ends ANSI / ASME B16.5 (welded).
- 9.- Face to face dimensions acc. to MFG.
- 10.- Inspection & Testing API 598.

For ANSI / ASME 800# / 1500#



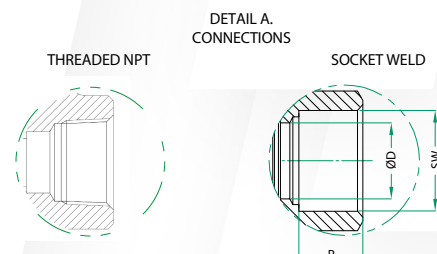
For ANSI / ASME 2500#



Material List

NO.	DESCRIPTION	MATERIAL	
		TRIM 8	TRIM 10
1	BODY	A105N	A182 F316
2	SEAT RING	A182 F6a + STL 6#	A182 F316
3	WEDGE	A182 F6a	A182 F316
4	STEM	A276 410	A276 316
5	GASKET	SS304 + GRAPHITE	SS316 + GRAPHITE
6	BONNET	A105N	A182 F316
7	BOLT	A193 B7M	A193 B8M
8	GLAND	A182 F6a	A182 F316
9	GLAND EYEBOLT	A193 B7M	A193 B8M
10	GLAND FLANGE	A105N	A182 F316
11	GLAND NUT	A194 2HM	A194 8M
12	YOKE NUT	ASTM 1035	ASTM 1035
13	HANDWHEEL NUT	A194 2HM	A194 2HM
14	NAME PLATE	STAINLESS STEEL	STAINLESS STEEL
15	HANDWHEEL	A197	A197
16	PACKING	FLEX. GRAPHITE	FLEX. GRAPHITE
17	SEAL RING	SS304	SS316

NOTE: Material list as example, TRIM 8 and 10 acc. to NACE MR0175, other materials and trims available; please contact us.



Dimensions (inches)

ASME CLASS 800#

SIZE*	L (in)	Ød (in)	ØD (in)	NPT (in)	SW (in)	P MIN (in)	H (in)	ØW (in)	CV (USgpm)	Open Torque (lb*in)	Close Torque (lb*in)	Weight (lb)
1/2"	3.110	0.406	0.591	1/2"	0.866±0.008	0.374	6.181	3.780	10.0	194.690	247.788	4.850
3/4"	3.622	0.531	0.669	3/4"	1.078±0.008	0.492	6.181	3.780	17.0	265.487	336.283	5.291
1"	4.370	0.709	0.866	1"	1.342±0.008	0.492	8.150	4.724	33.0	300.885	371.681	9.039
1 1/2"	4.724	1.142	1.378	1 1/2"	1.929±0.008	0.492	9.449	5.906	87.0	460.177	575.221	13.007
2"	5.512	1.417	1.654	2"	2.419±0.010	0.630	11.142	7.008	134.0	530.973	663.717	20.723

ASME / ANSI CLASS 1500#

SIZE	L (in)	Ød (in)	ØD (in)	NPT (in)	SW (in)	P MIN (in)	H (in)	ØW (in)	CV (USgpm)	Open Torque (lb*in)	Close Torque (lb*in)	Weight (lb)
1/2"	3.622	0.406	0.591	1/2"	0.866±0.008	0.374	6.496	3.740	10.0	247.788	309.735	4.630
3/4"	4.370	0.531	0.669	3/4"	1.078±0.008	0.492	7.953	3.528	17.0	318.584	398.230	7.716
1"	4.724	0.709	0.866	1"	1.342±0.008	0.492	8.858	5.709	33.0	389.381	486.726	12.125
1 1/2"	5.512	1.142	1.378	1 1/2"	1.929±0.008	0.492	11.220	6.496	87.0	601.770	752.212	22.046
2"	7.008	1.417	1.654	2"	2.419±0.010	0.630	11.811	7.874	200.0	778.761	973.451	30.865

NOTE:

* Please consult to us for more information, size and other dimensions.

(1) Height of the center of the port to handwheel for ASME Class 2500# please check with TFV.

(2) Handwheel diameter for ASME Class 2500# please check with supplier.

Dimensions (Millimeters)

ASME CLASS 800#

SIZE	L (mm)	Ød (mm)	ØD (mm)	H (mm)	ØW (mm)	CV (USgpm)	Torque (Nm)	Weigth (Kg)
1/2"	79	10,3	15	160	115	10	40	2,2
3/4"	92	13,5	17	165	115	17	50	2,4
1"	111	18	22	202	145	33	60	4,1
1 1/2"	120	29	35	245	165	87	85	8
2"	140	36	42	285	200	134	120	10

ASME / ANSI CLASS 1500#

SIZE	L (mm)	Ød (mm)	ØD (mm)	H (mm)	ØW (mm)	CV (USgpm)	Torque (Nm)	Weigth (Kg)
1/2"	92	10,3	15	165	115	10	50	2,5
3/4"	111	13,5	17	202	145	17	60	4,1
1"	120	18	22	225	165	33	72	5,5
1 1/2"	140	29	35	285	200	87	120	10
2"	178	36	42	300	200	134	160	14

NOTE:

* Please consult to us for more information, size and other dimensions.

(1) Height of the center of the port to handwheel for ASME Class 2500# please check with TFV.

(2) Handwheel diameter for ASME Class 2500# please check with supplier.



How to Order

SERIES 52

BODY DESIGN (SERIES)	BONNET DESIGN	DISC DESIGN	SPECIAL FEATURES	MATERIAL		ENDS	CLASS	SIZE	OPERATION
				BODY	TRIM* (Stem, Wedge, Seats)				
52 Gate Valve OS&Y API 602	B Bolted Bonnet W Welded Bonnet P Pressure Seal	S Solid Wedge	NN None ND NACE MR0103 / MR0175 & Low Fugitive Emissions NT NACE MR0103 NF NACE MR0175 NM NACE MR103 & MR0175 FA Fire Safe API 6FA FM Fire Safe API 6FA & NACE MR0103 FN Fire Safe API 6FA & NACE MR0175 CP Complete (Full) Port CM Complete (Full) Port & NACE MR0103 CN Complete (Full) Port & NACE MR0175 LF Fugitive Emissions BS Bellow Seal CY Cryogenic Service VS Vacuum Service CF FULL PORT & LFE OX Oxygen Service HD Hole in Disc HM Hole in Disc & Nace MR 0103 HN Hole in Disc & Nace MR 0175 BM Bellow Seal With Live Loads & Nace MR 0103 BN Bellow Seal With Live Loads & Nace MR 0175 BG Bellow Seal, Nace MR 0175 & Fire Safe API 6FA	01 Bronze Aluminum ASTM B148 UNS C95200 02 Bronze Aluminum ASTM B148 UNS C95300 03 Bronze Aluminum ASTM B148 UNS C95600 04 Bronze Aluminum ASTM B148 UNS C95500 05 Bronze Aluminum ASTM B148 UNS C95800 06 ASTM B62 C83600 07 ASTM B124 C61900 08 ASTM B124 C63200 19 ASTM A105/ ASTM A350 LF2 20 ASTM A105 21 ASTM A105N 22 ASTM A350 LF2 ⁽⁶⁾ 23 ASTM A350 LF ⁽⁶⁾ 24 ASTM A182-F1 25 ASTM A182-F11 CL2 ⁽⁷⁾ 26 ASTM A182-F22 CL3 ⁽⁷⁾ 27 ASTM A182 Gr F5 ⁽⁷⁾ 28 ASTM A182 Gr F9 ⁽⁶⁾ 29 ASTM A182 Gr F91 30 ASTM A182 F316 ⁽⁸⁾ 31 ASTM A182 F316L ⁽⁸⁾ 32 ASTM A182 F304 ⁽⁸⁾ 33 ASTM A182 F304L ⁽⁸⁾ 34 ASTM A182 F316/ F316L ⁽¹⁰⁾ 35 ASTM A182 F304/ F304 ⁽¹⁰⁾ 36 ASTM A182 F317 37 ASTM A182 F317L 38 ASTM A182 F347H 39 ASTM A182 F316H 40 ASTM B564 N04400 (MONEL 400)	01 OBSOLETE 02 SS304 / SS304 / SS304 03 SS310 / SS310 / SS310 04 SS410 / 13CR-H / 13CR-H 05 SS410 / HF / HF 5A SS410 / NiCr Alloy/ NiCr Alloy 06 SS410 / 13Cr / Monel 07 SS410 / 13CR / 13CR-H 08 SS410 / 13CR / HF 8A SS410 / 13CR / NiCr Alloy 09 Monel / Monel / Monel 10 SS316 / SS316 / SS316 11 Monel / Monel / HF o Monel / Monel / NiCr Alloy 12 SS316 / SS316 / HF o SS316 / SS316 / NiCr Alloy 13 Alloy 20 / Alloy 20 / Alloy 20 14 ALLOY 20 / ALLOY 20 / HF o ALLOY 20 / ALLOY 20 / NiCr Alloy 15 SS304 / HF / HF 16 SS316 / HF / HF 17 SS347 / HF / H 18 ALLOY 20 / HF / HF	FRF Flanged RF ASME B16.5/ B16.47 WRF Flanged RF ASME B16.5 (Welded Flange) WTJ Flanged RTJ ASME B16.5 (Welded Flange) RTJ Flanged RTJ ASME B16.5 (Integral Flange) THD Threaded NPT ASME B1.20.1 SWD Socket Welded ASME B16.11 BST Buttweld SCH STD ASME B16.25/ ASME B36.10 BXS Buttweld Extra Strong wall thickness ASME B16.25/ ASME B36.10 BXX Buttweld doble Extra Strong wall thickness ASME B16.25/ ASME B36.10 ⁽¹¹⁾ B10 Buttweld SCH 10 ASME B16.25/ ASME B36.10 B20 Buttweld SCH 20 ASME B16.25/ ASME B36.10 B30 Buttweld SCH 30 ASME B16.25/ ASME B36.10 B40 Buttweld SCH 40 ASME B16.25/ ASME B36.10 B60 Buttweld SCH 60 ASME B16.25/ ASME B36.10 B80 Buttweld SCH 80 ASME B16.25/ ASME B36.10 B00 Buttweld SCH 100 ASME B16.25/ ASME B36.10 B12 Buttweld SCH 120 ASME B16.25/ ASME B36.10	0 ANSI 150# 3 ANSI 300# 6 ANSI 600# 9 API 900# 8 API 800# 1 ANSI 1500# 2 ANSI 2500# 4 ANSI 4500#	0.5 1/2" 0.75 3/4" 01 1" 01.25 1 1/4" 01.5 1 1/2" 02 2"	HO Solid Handwheel Operator BS Bare Shaft EA Electric Actuator PA Pneumatic Actuator HX Extended Stem & Solid Handwheel BX Extended Stem & Bare Shaft EX Extended Stem & Electric Actuator PX Extended Stem & Pneumatic Actuator HC Handwheel which has a Locking Device HL Extended Stem & Handwheel which has a Locking Device HB Extended Bonnet & Solid Handwheel GB Extended Bonnet & GearBox Operator with Solid Handwheel BB Extended Bonnet & Bare Shaft



BODY DESIGN (SERIES)	BONNET DESIGN	DISC DESIGN	SPECIAL FEATURES	BODY	MATERIAL TRIM* (Stem, Wedge, Seats)	ENDS	CLASS	SIZE	OPERATION
52 Gate Valve OS&Y API 602	B Bolted Bonnet W Welded Bonnet P Pressure Seal	S Solid Wedge	BA Bellow Seal With Live Loads, Nace MR 0103 & Fire Safe API 6FA	41 ASTM A182 F20 (ALLOY 20)	19 Nickel alloy / Nickel alloy / Nickel alloy	B14 Buttweld SCH 140 ASME B16.25/ ASME B36.10	0 ANSI 150#	0.5 1/2"	HO Solid Handwheel Operator
				42 ASTM B564 N10276 (Hastelloy C276) ASTM A351	20 Nickel alloy / Nickel alloy / Nickel alloy+HF	B16 Buttweld SCH 160 ASME B16.25/ ASME B36.10 ⁽¹¹⁾	3 ANSI 300#	0.75 3/4"	
			YP WITH BY PASS	43 CD3MN (Duplex 2205)	21 Nickel alloy / Nickel alloy + HF / Nickel alloy +HF		6 ANSI 600#	01 1"	BS Bare Shaft
			YM BY PASS & Nace MR 0103	44 ASTM A182 F347	22 SS321 / SS321 / SS321	XSF BW SCH XS- Flanged RF ASME B16.5	9 API 900#	01.25 1 1/4"	EA Electric Actuator
			YN BY PASS & Nace MR 0175	45 ASTM A182 F51 (DUPLEX))	23 SS321 / SS321 / SS321 + HF	STF BW SCH STD- Flanged RF ASME B16.5	8 API 800#	01.5 1 1/2"	PA Pneumatic Actuator
			YG BY PASS, Nace MR 0103 & Fire Safe API 6FA	46 ASTM A182 F53 (SUPER DUPLEX 2507)	24 SS321 / SS321 + HF / SS321 + HF	XXF BW SCH XXS- Flanged RF ASME B16.5	1 ANSI 1500#	02 2"	HX Extended Stem & Solid Handwheel
			YA BY PASS, Nace MR 0175 & Fire Safe API 6FA	47 ASTM B564 N10665 (Hastelloy B2)	26 Full Bronze-Aluminum	10F BW SCH 10- Flanged RF ASME B16.5	2 ANSI 2500#		
			CB Bellow Seal	48 ASTM B564 N06600 (Inconel 600)	27 Full Bronze- Aluminum UNS C95500	20F BW SCH 20- Flanged RF ASME B16.5	4 ANSI 4500#		BX Extended Stem & Bare Shaft
			HS Wet H2S Resistant Steels (Category1) NACE MR0103	49 ASTM B564 N08800 (Inconel 800)	28 Full Cooper ASTM B62 C83600	30F BW SCH 30- Flanged RF ASME B16.5			EX Extended Stem & Electric Actuator
			LL Live Loads in Packing Gland	50 ASTM B564 N05500 (MONEL 500)	30 ALLOY 625 / ALLOY 625 / ALLOY 625	40F BW SCH 40- Flanged RF ASME B16.5			PX Extended Stem & Pneumatic Actuator
			FD Fire Safe API 6FA, NACE MR0103/ MR0175 & LOW FUGITIVE EMMISSIONS	51 ASTM A182 F44	31 HASTELLOY C276/ HASTELLOY C276 / HASTELLOY C276	60F BW SCH 60- Flanged RF ASME B16.5			HC Handwheel which has a Locking Device
			BL Bellow Seal With Live Loads	52 ASTM B381 GR 2 (TITANIUM)	32 ALLOY 825 / ALLOY 825 / ALLOY 825	80F BW SCH 80- Flanged RF ASME B16.5			HL Extended Stem & Handwheel which has a Locking Device
			HI HIC RESISTANT STEELS (CATEGORY 2)	53 ASTM A182 F55 (Super Duplex F55)	33 ALLOY 625 / ALLOY 625 / HF	00F BW SCH 100- Flanged RF ASME B16.5			HB Extended Bonnet & Solid Handwheel
			MP ISO 5210 "MOUNTING PLATE"	54 ASTM B564 N08825 (Incoloy 825)	34 HASTELLOY C276 / HF	12F BW SCH 120- Flanged RF ASME B16.5			GB Extended Bonnet & GearBox Operator with Solid Handwheel
				55 ASTM B564 N06625 (Inconel 625)	35 ALLOY 825 / HF / HF	14F BW SCH 140- Flanged RF ASME B16.5			BB Extended Bonnet & Bare Shaft
				56 ASTM B160 N02200 (Alloy 200)	36 HASTELLOY C276 / HF / HF	16F BW SCH 160- Flanged RF ASME B16.5			
				57 ASTM A182 Gr F92	37 ALLOY 825 / HF/HF	XSJ BW SCH XS- Flanged RTJ ASME B16.5			
				58 ASTM A182 F304H	38 ALLOY 2507 / ALLOY 2507 / ALLOY 2507	STJ BW SCH STD- Flanged RTJ ASME B16.5			
				59 ASTM A182 F321H	39 SS347 / SS347/ SS347	XXJ BW SCH XXS- Flanged RTJ ASME B16.5			
				60 ASTM B564 N08810 (Inconel 800H)	40 SS347 / SS347/ HF	10J BW SCH 10- Flanged RTJ ASME B16.5			
					41 SS347 / SS347 / HF				



BODY DESIGN (SERIES)		BONNET DESIGN		DISC DESIGN	SPECIAL FEATURES	BODY	MATERIAL	TRIM* (Stem, Wedge, Seats)	ENDS		CLASS		SIZE		OPERATION																			
52	Gate Valve OS&Y API 602	B	Bolted Bonnet	S	Solid Wedge				20J	BW SCH 20- Flanged RTJ ASME B16.5	0	ANSI 150#	0.5	1/2"	HO	Solid Handwheel Operator																		
																	3	ANSI 300#	0.75	3/4"														
																					6	ANSI 600#	01	1"	BS	Bare Shaft								
		9	API 900#						01.25	1 1/4"	EA	Electric Actuator																						
													8	API 800#	01.5	1 1/2"	PA	Pneumatic Actuator																
																			1	ANSI 1500#	02	2"	HX	Extended Stem & Solid Handwheel										
		2	ANSI 2500#						4	ANSI 4500#	BX	Extended Stem & Bare Shaft																						
													80J	BW SCH 80- Flanged RTJ ASME B16.5	00J	BW SCH 100- Flanged RTJ ASME B16.5	EX	Extended Stem & Electric Actuator																
																			12J	BW SCH 120- Flanged RTJ ASME B16.5	14J	BW SCH 140- Flanged RTJ ASME B16.5	PX	Extended Stem & Pneumatic Actuator										
		16J	BW SCH 160- Flanged RTJ ASME B16.5						F-S	Flanged RF ASME B16.5-SW ASME B16.11	HL	Extended Stem & Handwheel which has a Locking Device																						
													F-T	Flanged RF- Threaded	F-W	Flanged RF- weldeled	HB	Extended Bonnet & Solid Handwheel																
																			F-P	Flanged RF-Niple Ext 100 mm	S-T	SW - Threaded	S-W	SW - weldeled	S-P	SW-PUP	T-W	Threaded - weldeled	T-P	Threaded-Niple Ext	PUP	Both ends with nipple (Pups)	XSS	BW Schedule XS- Socketweld ASME B16.11
		51	ASTM B381 Gr.2/ASTM B381 Gr.2/ASTM B381 Gr.2						Trim Fully Bronze B150 C63200,	TRIM 53 (Stem in IN718, Wedge in ASTM A182 F316, Seat in STL)																								
											52	Trim Fully Bronze B150 C63200,	TRIM 53 (Stem in IN718, Wedge in ASTM A182 F316, Seat in STL)																					
														53	Trim Fully Bronze B150 C63200,	TRIM 53 (Stem in IN718, Wedge in ASTM A182 F316, Seat in STL)																		

BODY DESIGN (SERIES)	BONNET DESIGN	DISC DESIGN	SPECIAL FEATURES	BODY	MATERIAL TRIM* (Stem, Wedge, Seats)	ENDS	CLASS	SIZE	OPERATION
52 Gate Valve OS&Y API 602	B Bolted Bonnet	S Solid Wedge				20S BW Schedule 20- Socketweld ASME B16.11	0 ANSI 150#	0.5 1/2"	HO Solid Handwheel Operator
	W Welded Bonnet						3 ANSI 300#	0.75 3/4"	
	P Pressure Seal					30S BW Schedule 30- Socketweld ASME B16.11	6 ANSI 600#	01 1"	BS Bare Shaft
							9 API 900#	01.25 1 1/4"	EA Electric Actuator
						40S BW Schedule 40- Socketweld ASME B16.11	8 API 800#	01.5 1 1/2"	
							1 ANSI 1500#	02 2"	PA Pneumatic Actuator
						60S BW Schedule 60- Socketweld ASME B16.11	2 ANSI 2500#		HX Extended Stem & Solid Handwheel
							4 ANSI 4500#		
						80S BW Schedule 80- Socketweld ASME B16.11			BX Extended Stem & Bare Shaft
						00S BW Schedule 100- Socketweld ASME B16.11			EX Extended Stem & Electric Actuator
						12S BW Schedule 120- Socketweld ASME B16.11			PX Extended Stem & Pneumatic Actuator
						14S BW Schedule 140- Socketweld ASME B16.11			HC Handwheel which has a Locking Device
						16S BW Schedule 160 ⁽¹⁾ - Socketweld ASME B16.11 ¹			
						XST BW Schedule XS- Threaded NPT ASME B1.20.1			HL Extended Stem & Handwheel which has a Locking Device
						40T BW Schedule 40- Threaded NPT ASME B1.20.1			
						STT BW Schedule STD- Threaded NPT ASME B1.20.1			HB Extended Bonnet & Solid Handwheel
						XXT W Schedule XXS ⁽¹⁾ - Threaded NPT ASME B1.20.1			GB Extended Bonnet & GearBox Operator with Solid Handwheel
						BCU Buttweld Special SCH according to Customer specification ⁽⁹⁾			BB Extended Bonnet & Bare Shaft
						4ST BW Schedule 40S- Threaded NPT ASME B1.20.1			
						8ST BW Schedule 80S- Threaded NPT ASME B1.20.1			
						1ST BW Schedule 10S- Threaded NPT ASME B1.20.1			
						B8S BW Schedule 80S			
						B4S BW Schedule 40S			
						B1S BW Schedule 10S			
						B5S BW SCH 5S			

Example:

Gate Valve OS&Y API 602, Bolted Bonnet, Solid Wedge, Body ASTM A105, Trim 5, SW Ends, API Class 800#, Size 2" with Solid Handwheel

52BSNN2005SWD802HO

***NOTES:**

* If there is not your feature in this chart, please contact us to give you the suitable figure

* TRIM = Stem/ Wedge Seat / Seats.

* HF = Hard Faced, usually Stellite 6; other upon request.

* BM = Body Material.

* Please contact us for more available sizes.

* For Extended Stem, confirm us the length from center of pipeline to center of Operator (Gearbox or Handwheel)

* Flanged valves are flange welded (non integral body), available from 150# to 600# in Serie 52, For Integral Flange must be Serie 58 available from 150# to 300#.

*For Pups Ends, it is necessary to get the length and Schedule that you need in each end.

*The End to End of valves is according to TFV Standard (800# to 4500#).

*Locking Device includes a chain with padlock.

(6) Low Temperature Service.

(7) High Temperature Service.

(8) Stainless Steel.

(9) If Schedule is not according to ASME B16.25/ASME B36.10, please provide us your schedule

(10) Dual Certified Material

(11) BW XXS & 160 are welding to achieve the schedule"