

Index

Options & Accessories	182
Standards.....	182
Figure Number Matrix	183
Pressure/Temperature Ratings	183
Hydrostatic Test Pressures	183

Carbon Steel Valves

Figure	Type	
551	150# Gate Valve	184
552	300# Gate Valve	185
561	150# Globe Valve	186
562	300# Globe Valve	187
571	150# Swing Check Valve	188
572	300# Swing Check Valve	189

Stainless Steel Valves

Figure	Type	
451	150# Gate Valve	190
452	300# Gate Valve	191
461	150# Globe Valve	192
462	300# Globe Valve	193
471	150# Swing Check Valve	194
472	300# Swing Check Valve	195

Options & Accessories

FNW Valve Company offers many options and modifications for their cast steel valves. These include, but are not limited to:

- By-Passes - Primarily used to equalize pressure between the valve inlet and outlet before opening the main valve. Equalizing pressure makes opening the main valve easier, especially on valves with a high differential pressure. In high temperature applications, a by-pass allows preheating of the downstream line to lessen the shock of thermal expansion.
- Actuation & Accessories - FNW Valve can supply an assortment of actuation types and accessories including ratchets, chain wheels, square drive nuts, gear-operators, pneumatic and hydraulic cylinders and motor operators. We can also supply accessories ranging from solenoids, position switches, and positioners to network controls and valve monitors.
- Packing Options - Different applications can have different needs. FNW Valve offers packing materials for various pH and temperature requirements.
- Stem Extensions & Floor Stands - For remote applications, custom stem extensions and non-rising stem (NRS) adapters are available in carbon and stainless steel. Also available are floor stands made to order to your specifications.

Standards

FNW cast steel gate, globe and check valves are manufactured according to the following standards:

- Pressure/Temperature Rating per ANSI B16.34
- Flange Dimensions per ANSI B16.5
- Face to Face Dimensions per ANSI B16.10
- Carbon Steel Valves Designed to API 600
- Stainless Steel Valves Designed to API 603
- Pressure Tested to API 598

Figure Number Matrix

FNW 5 5 1 X			
BODY/BONNET MATERIAL	VALVE TYPE	PRESSURE CLASS	SIZE
ASTM A216 Gr. WCB = 5	OS&Y GATE = 5	150# = 1	1-1/2 = J 10 = 10
ASTM A351 Gr. CF8M = 4	GLOBE = 6	300# = 2	2 = K 12 = 12
	SWING CHECK = 7		2-1/2 = L 14 = 14
			3 = M 16 = 16
			4 = P 18 = 18
			6 = U 20 = 20
			8 = X 24 = 24

Note: All figure number combinations may not be available or are Price On Availability (POA) only. Other sizes, materials and trim types may also be available. Contact FNW with your specifications.

Pressure / Temperature Ratings

Carbon Steel Material A105, A216WCB

Temperature (°F)	Max. Working Pressure(PSI)	
	Class 150	Class 300
-20° to 100°	285	740
200°	260	675
300°	230	655
400°	200	635
500°	170	600
600°	140	550
650°	125	535
700°	110	535
750°	95	505
800°	80	410
850°	65	270
900°	50	170
950°	35	105
1000°	20	50

Stainless Steel Material A351-CF8M, A182-F316

Temperature (°F)	Max. Working Pressure(PSI)	
	Class 150	Class 300
-20° to 100°	275	720
200°	240	620
300°	215	560
400°	195	515
500°	170	480
600°	140	450
650°	125	445
700°	110	430
750°	95	425
800°	80	415
850°	65	405
900°	50	395
950°	30	385
1000°	20	365
1050°*	20	360
1100°*	20	325
1150°*	20	275
1200°*	20	205
1250°*	20	180
1300°*	20	140
1350°*	20	105
1400°*	20	75
1450°*	20	60
1500°*	10	40

- Pressures and temperatures listed are the maximum of the contained fluid. The pressures and temperatures listed are based on shell material only. Consideration must also be given to the bolting, trim, gasket and packing material. For the pressure and temperature ratings for materials not given in the tables above, and for ratings for special class valves (available on special order), see ANSI B16.34.
- A valve used under the jurisdiction of the ASTM Boiler and Pressure Vessel Code, the ANSI Code for Pressure Piping, or for Government Regulations is subject to any limitation of that code or regulation.
- Materials shall not be used beyond the maximum temperature in the rating table.

* Applies to weld end valves only. Flanged end valve ratings terminate at 1000°F (538°C).

Hydrostatic Test Pressures

Carbon Steel Valves		
Class	150#	300#
Shell	450	1125
Seat	315	815

Stainless Steel Valves		
Class	150#	300#
Shell	425	1100
Seat	305	795

Figure 451

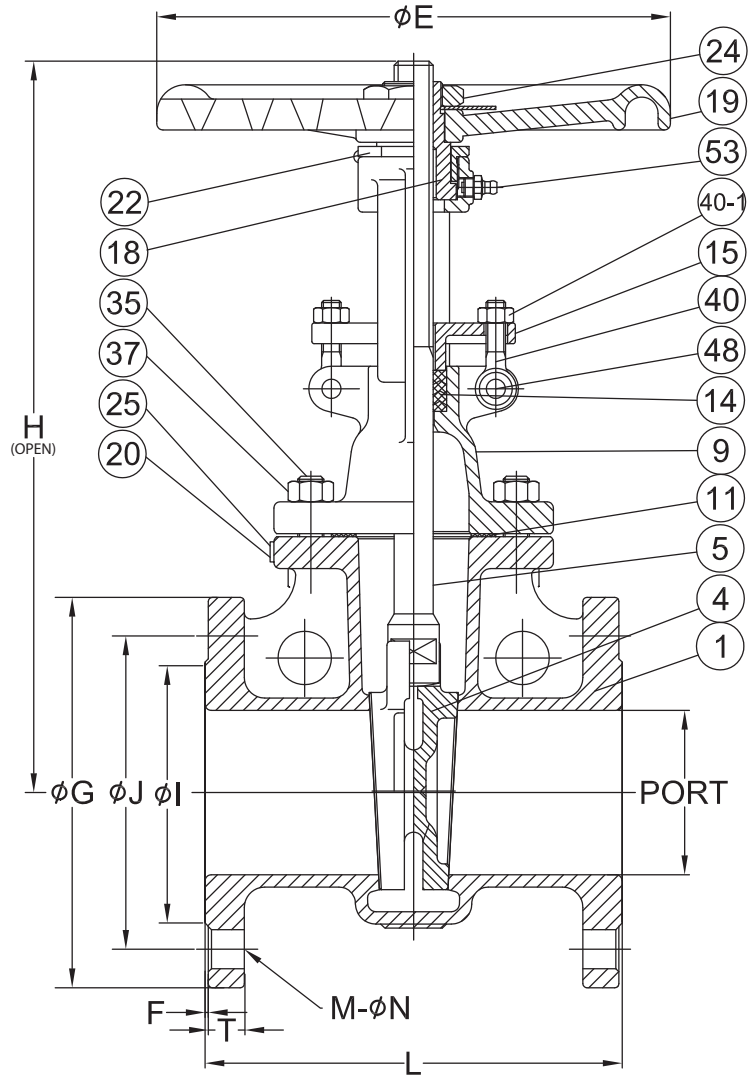
150# Stainless Steel OS&Y Gate Valve

Standard Materials

No.	Part Name	Material
1	Body	ASTM A351 Gr. CF8M
4	Disc	ASTM A351 Gr. CF8M
5	Stem	SS304
9	Bonnet	ASTM A351 Gr. CF8M
11	Gasket	PTFE
14	Stem Packing	PTFE
15	Gland	ASTM A351 Gr. CF8M
18	Yoke Sleeve	Bronze
19	Hand Wheel	ASTM A536 Gr. 65-45-15
20	Rivet	SS304
22	Stem Retaining Nut	ASTM A351 Gr. CF8
24	Hand Wheel Nut	ASTM A351 Gr. CF8
25	Name Plate	SS304
35	Bonnet Bolt	ASTM A193 Gr. B8
37	Bonnet Nut	ASTM A194 Gr. 8
40	Gland Bolt	ASTM A193 Gr. B8
40-1	Gland Nut	ASTM A194 Gr. 8
48	Gland Bolt Pin	SS304
53	Grease Fitting	ASTM A570 Gr. A + Cr Plated

NOTES:

CF8M Seat is Integral to Body
Investment Cast Body up to 8"
Design per API 603
Pressure/Temperature Rating per ANSI B16.34
Flange Dimensions per ANSI B16.5
Face to Face Dimensions per ANSI B16.10
Pressure Tested per API 598



Dimensions (inches) & Weights (lbs)

Size	2	2-1/2	3	4	6	8	10	12
Port	1.97	2.56	3.15	3.94	5.91	7.87	9.84	11.81
L	7.01	7.48	7.99	9.02	10.51	11.50	12.99	14.02
H	11.22	12.60	14.17	17.13	22.83	29.13	43.90	54.33
ØE	6.30	6.30	7.87	9.84	12.60	14.96	17.72	17.72
Flange Dimensions	F	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	ØG	5.98	7.01	7.48	9.02	10.98	13.50	15.98
	ØI	3.62	4.13	5.00	6.18	8.50	10.63	12.36
	ØJ	4.74	5.49	6.00	7.50	9.51	11.75	14.25
	T	0.62	0.69	0.75	0.94	1.00	1.19	1.25
	M	4	4	4	8	8	12	12
	ØN	0.75	0.75	0.75	0.75	0.87	0.87	0.98
Wt. (lbs)	31	37	45	81	143	194	320	430