



**NEWCO FIGURE NUMBERS**

Type	Pressure Class	End Connections	Trim Material
1 = Gate, OS&Y	1 = 150	F = Flanged	1 = CR13
2 = Globe, OS&Y	3 = 300	W = Butt Weld	2 = CR13/HF**
3 = Swing Check	6 = 600	S = Socket Weld	3 = HF/HF**
4 = Lift Check	8 = 800	T = Threaded	4 = 316
7 = Angle, OS&Y	15 = 1500	X = Special (Customer to specify)	4/2 = HF**/316
	25 = 2500		4/3 = 316/HF**
	45 = 4500		5 = NI CU (Monel***)
			5/2 = HF**/Monel***
			5/3 = Monel***/HF**
			9 = Special (Customer to specify)

**FIG. 18T-FS2-\***

BODY/BONNET MATERIAL

FS	= ASTM A105	= Forged Carbon Steel
F5	= ASTM A182, F5	= Forged Alloy Steel (5% Chrome, ½% Moly)
LF-2	= ASTM A350, LF2	= Forged Low Temperature Carbon Steel
F9	= ASTM A182, F9	= Forged Alloy Steel (9% Chrome, 1% Moly)
F11	= ASTM A182, F11	= Forged Alloy Steel (1¼% Chrome, ½% Moly) (Class 2)
F22	= ASTM A182, F22	= Forged Alloy Steel (2¼% Chrome, 1% Moly) (Class 3)
F91	= ASTM A182, F91	= Forged Alloy Steel (9% Chrome, 1 Moly, Vanadium)
SPL	= Special	(Customer to Specify)

**Note:** Trim Materials Defined on Page 4.

**\* SUFFIX LETTERS**

Y	= Y Pattern
INT	= Integral Flanged
WB	= Welded Bonnet
HP	= Horizontal Piston Check
HB	= Horizontal Ball Check
VB	= Vertical Ball Check
FP	= Full Port
RP	= Regular Port
TF	= Teflon* Insert
VT	= Viton* Insert
N1	= NACE Valve, Class I Bolting
N2	= NACE Valve, Class II Bolting
N3	= NACE Valve, Class III Bolting
MO	= Motor Operator
PO	= Pneumatic Operator
HO	= Hydraulic Operator
CR	= Cryogenic Service
OX	= Oxygen Service
CL	= Chlorine Service
GI	= Grease Injection
BS	= Bellows Seal
ST	= Socket Weld x Threaded
EB	= Extended Body

- \* = Viton and Teflon are registered trademarks of DuPont Company.
- \*\* HF = Hardfaced - AWS 5.13 Class C<sub>0</sub>C<sub>r</sub>A.
- \*\*\* = Monel is a registered trademark of International Nickel Company.

**Please order by size, figure number (which specifies type), pressure class, end connections, materials and special features, as shown above.**

For End Connections, Body Materials and Trims not listed, please specify



# MATERIALS SPECIFICATIONS

## MATERIALS

Standard stocked material in A105 with NEWCO No. 2 Trim. (API Trim No. 8)  
Bellow Seal and Extended Body Valves are available upon request.

The charts below list materials available.

F8C, F9, F347, & F347H are available upon request and factory ordered.

### MATERIALS (BODY / BONNET)

NEWCO Material Designation	Common Designation	ASTM Specification	Standard NEWCO Trim	Optional Available Trim
FS	Carbon Steel	A105	2	3, 4, 4/3, 5
LF2	Low Temp Carbon Steel	A350 Grade LF-2	4/3	4
F11	1¼ Chrome ½ Moly	A182 Grade F-11	2	4, 5
F22	2¼ Chrome 1 Moly	A182 Grade F-22	3	4, 5
F5	5 Chrome ½ Moly	A182 Grade F-5	2	4, 5
F91	F91	A182 Grade F91	3	—

### TRIM MATERIALS

NEWCO Trim No.	Seat Ring Facing	Wedge or Disc Facing	Stem	Other Trim Parts	API 602 Trim No.
1	CR13	CR13	F6a	F6a	1
2	Hardfaced	CR13	F6a	F6a	8
3	Hardfaced	Hardfaced	F6a	F6a	5
4	316	316	316	316	10
4/2	Hardfaced	316	316	316	12
4/3	Hardfaced	Hardfaced	316	316	16
5	NICU	NICU	NICU	NICU	9
5/2	Hardfaced	NICU	NICU	NICU	11
5/3	Hardfaced	Hardfaced	NICU	NICU	—
9	SPL	SPL	SPL	SPL	—

## SPECIFICATIONS

NEWCO forged steel valves comply with the following applicable specifications:

ASME	API	MSS
B16.34	598	SP-84
B16.11	602	
B1.20.1		

Note: Bolted bonnet valves are also available in welded bonnet configuration.  
Full Penetrant Welded Flanged Ends available in Class 600.

### SOCKET WELD DIMENSIONS

Tolerances  
Column A Dimensions + 010-000

Valve Size	Socket Dia. A	Min. ANSI B16.11 Socket Depth B
¼	.555	.38
⅜	.690	.38
½	.855	.38
¾	1.065	.50
1	1.330	.50
1¼	1.675	.50
1½	1.915	.50
2	2.406	.62



# GATE VALVES

## BOLTED BONNET CLASS 150-300-600-800-1500

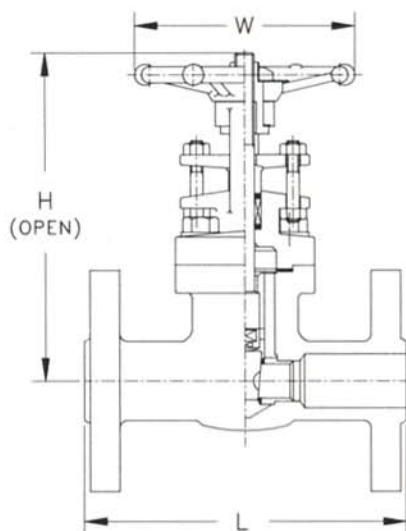


Fig. 11F-FS2-INT Class 150 (Flanged)  
 Fig. 13F-FS2-INT Class 300 (Flanged)  
 Fig. 16F-FS2-INT Class 600 (Flanged)

### FEATURES

- Spiral wound gasket of stainless steel and flexible graphite with controlled compression.
- Flexible graphite packing with braided carbon end rings.

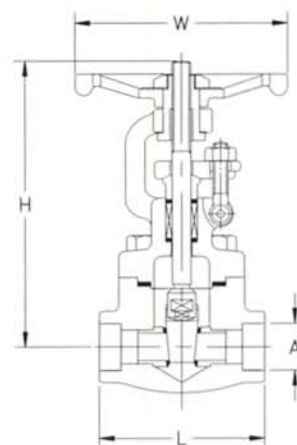


Fig. 18S-FS2 Class 800 (Socket Weld)  
 Fig. 18T-FS2 Class 800 (Threaded)

Fig. 115S-FS2 Class 1500 (Socket Weld)  
 Fig. 115T-FS2 Class 1500 (Threaded)

Also available in Class 2500

### CLASS 150-300-600 DIMENSIONS

NPS		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
L - 150 Face to Face	IN	4.25	4.62	5.0	5.5	6.5	7.0
	MM	108	117	127	140	165	178
L - 300 Face to Face	IN	5.5	6.0	6.5	7.0	7.5	8.5
	MM	140	152	165	178	190	216
L - 600 Face to Face	IN	6.5	7.5	8.5	9.0	9.5	11.5
	MM	165	190	216	229	241	292
W - Handwheel Dia.	IN	3.5	3.8	4.3	5.5	5.5	6.7
	MM	89	97	109	140	140	170
H - Height (150)	IN	7.1	7.3	8.2	8.9	9.8	11.6
	MM	179	184	207	227	248	295
H - Height (300)	IN	5.9	6.3	7.3	8.9	9.8	11.2
	MM	150	159	185	227	248	285
H - Height (600)	IN	7.8	8.1	9.3	9.7	11.5	12.8
	MM	197	205	235	247	291	325
WT - CLASS 150	LB	6.8	8.6	12.2	18.0	23.3	32.0
	KG	3.1	3.9	5.5	8.2	10.6	14.5
WT - CLASS 300	LB	7.3	10.8	14.8	21.2	29.5	36.3
	KG	3.3	4.9	6.7	9.6	13.4	16.5
WT - CLASS 600	LB	7.7	11.7	16.0	23.0	31.0	40.9
	KG	3.5	5.3	7.1	10.4	14.0	18.6

For materials and applicable specifications see page 4.

### CLASS 800 DIMENSIONS

NPS		1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
H - Height (open)	IN	4.7	4.7	5.2	5.8	7.2	8.9	9.2	10.5
	MM	119	119	132	147	183	226	234	267
W - Handwheel Dia.	IN	3.2	3.2	3.2	3.7	4.3	5.5	5.5	6.7
	MM	81	81	81	94	109	140	140	170
L - End to End	IN	2.56	2.56	3.15	3.55	4.33	5.0	5.0	5.28
	MM	65	65	80	90	110	127	127	134
WT	LB	2.0	2.0	4.0	4.6	8.4	11.3	15.5	22.9
	KG	0.9	0.9	1.8	2.1	3.8	5.1	7.0	10.4

### CLASS 1500 DIMENSIONS

NPS		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
H - Height (open)	IN	7.3	7.5	8.5	9.4	11.0	12.6
	MM	185	190	216	239	279	320
W - Handwheel Dia.	IN	4.3	4.7	5.5	5.5	6.8	7.9
	MM	109	119	140	140	173	200
L - End to End	IN	4.37	4.37	4.72	5.12	5.51	6.38
	MM	111	111	120	130	140	162
WT	LB	8.8	11.9	16.3	21.2	33.3	37.9
	KG	4.0	5.4	7.4	9.6	15.1	17.2