

# SPECIFICATIONS

## FIGURE 311A CARBON STEEL BALL VALVES



3-PC FULL PORT 1000 CWP

### FEATURES

- 1000 PSI CWP non-shock
- 150 PSI WSP
- End connections
  - Threaded
  - Socket weld
- Full port
- Blowout-proof stem
- Adjustable packing
- Investment cast body
- Stainless steel handle
- Locking lever
- RTFE seats
- Vented ball\*
- Manufactured silicone-free
- Replacement locking handle kits available
- Optional stem extension kit (uses existing valve handle) (1/4"–2")
- Optional oval handle kit (1/4"–2")



### ACCESSORIES/OPTIONS

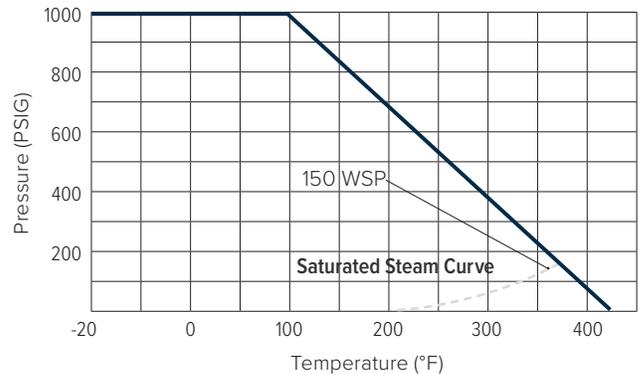


### PRODUCT SPECIFICATIONS

#### Standards

- Design: MSS SP-110
- End connections:
  - NPT - ASME B1.20.1
  - SW - ASME B16.1
- Corrosion resistance: NACE MR0103 and MR0175

\*Bi-directional service vented through stem slot



### FIGURE NUMBER MATRIX

FNW 311A	
END CONNECTION	SIZE CODE (IN.)
Threaded NPT = Blank	1/4 = B
Socket Weld = SW	3/8 = C
	1/2 = D
	3/4 = F
	1 = G
	1-1/4 = H
	1-1/2 = J
	2 = K

### HANDLE KIT CODES (ORDER SEPARATELY)

310A	
KIT TYPE	SIZE CODE (IN.)
Locking Handle = LHK	1/4–1/2 = BD
Stem Extension = SEK	3/4 = F
Oval Handle = OH	1–1-1/4 = GH
	1-1/2–2 = JK
	2-1/2–3 = LM

### REPAIR KITS (ORDER SEPARATELY)

FNW 310ARK	
SIZE CODE (IN.)	
	1/4–3/8 = BC
	1/2 = D
	3/4 = F
	1 = G
	1-1/4 = H
	1-1/2 = J
	2 = K
	2-1/2 = L
	3 = M

Note: For 4" valves, use FNW figure number 311AM.

Note: The Figure 311A uses the same accessories as the 310A.

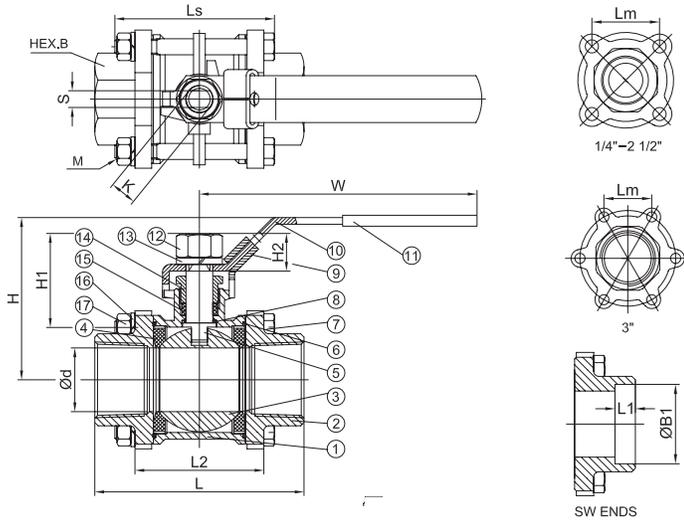
SPECIFICATIONS

**FIGURE 311A**  
CARBON STEEL BALL VALVES



3-PC FULL PORT 1000 CWP

PARTS DIAGRAM



TORQUE (IN-LBS)

Size / ΔP	150 PSIG 10 Bar	300 PSIG 20 Bar	1000 PSIG 63 Bar
1/4, 3/8	57	57	57
1/2	57	57	57
3/4	69	69	69
1	114	126	126
1-1/4	150	173	218
1-1/2	218	254	299
2	334	368	437
2-1/2	517	564	679
3	828	932	1162

DIMENSIONS (IN.)

SIZE	Ød	L	Lm	H1	H2	H	W	S	K (UNC)	Ls	L2	M (UNC)	B	L1	ØB1
1/4	0.42	2.57	1.14	1.20	0.43	2.26	3.94	0.197	5/16-18	1.98	1.46	1/4-20	0.93	0.39	0.56
3/8	0.47	2.57	1.14	1.20	0.43	2.26	3.94	0.197	5/16-18	1.98	1.46	1/4-20	0.93	0.39	0.69
1/2	0.59	2.74	1.21	1.11	0.38	2.26	3.94	0.197	5/16-18	2.13	1.63	1/4-20	1.10	0.39	0.86
3/4	0.79	3.15	1.52	1.30	0.49	2.50	5.08	0.256	3/8-16	2.44	1.82	5/16-18	1.36	0.51	1.07
1	0.98	3.54	1.76	1.61	0.62	2.97	6.14	0.314	7/16-14	2.79	2.10	5/16-18	1.65	0.51	1.34
1-1/4	1.26	4.33	2.13	1.61	0.55	3.19	6.14	0.314	7/16-14	3.37	2.68	3/8-16	2.05	0.63	1.69
1-1/2	1.50	4.72	2.42	2.12	0.89	3.70	7.19	0.394	5/8-11	3.81	3.05	3/8-16	2.30	0.63	1.93
2	1.97	5.51	2.95	2.19	0.89	4.11	7.19	0.394	5/8-11	4.36	3.59	3/8-16	2.81	0.67	2.42
2-1/2	2.50	7.28	3.62	2.69	0.93	5.16	9.92	0.472	3/4-10	5.91	4.36	9/16-12	3.41	0.67	2.91
3	2.99	8.07	2.93	2.75	0.93	5.47	9.92	0.472	3/4-10	6.50	4.93	9/16-12	3.98	0.67	3.54

STANDARD MATERIALS

Ref. No.	Description	Material	Qty
1	Body	ASTM A216 Gr. WCB Carbon Steel	1
2	End Cap	ASTM A216 Gr. WCB Carbon Steel	2
3	Ball	316SS Stainless	1
4	Seat	RTFE	2
5	Stem	316SS Stainless	1
6	Body Gasket	PTFE	2
7	Bolt Body	1/4"-2 1/2"	4
		3"	6
8	Thrust Washer	PTFE	1
9	Locking Device	304SS Stainless	1
10	Handle	304SS Stainless	1
11	Handle Sleeve	Vinyl Plastic	1
12	Stem Nut	ASTM A194-8 Stainless	1
13	Stem Washer	304SS Stainless	1
14	Gland Nut	304SS Stainless	1
15	V-Ring Packing	PTFE	1 set
16	Bolt Washer	1/4"-2"	4
		2-1/2"	8
		3"	12
17	Bolt Nut	1/4"-2"	4
		2-1/2"	8
		3"	12

CV & WEIGHT

Size (in.)	Cv	Wt (lbs)	
		NPT	SW
1/2	30	1.12	1.10
3/4	55	1.81	1.76
1	96	2.69	2.60
1-1/4	170	4.28	4.19
1-1/2	270	5.73	5.60
2	470	9.04	8.95
2-1/2	780	18.25	18.08
3	1150	25.57	25.88