

SPECIFICATIONS

FIGURE 310A

STAINLESS 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



Replacement Locking Handle Kits (1/4"–3")

Stem Extension Kits (1/4"–2")

Oval Handle Kits (1/4"–2")

PRODUCT SPECIFICATIONS

Standards

- Design: MSS SP-110
- End connections:
 - NPT - ASME B1.20.1
 - SW - ASME B16.11
- Seat/Shell test: MSS SP-110
- Corrosion resistance: NACE MRO103 and MRO175

FIGURE NUMBER MATRIX

FNW 310A		
END CODE	SIZE CODE (IN.)	
Threaded NPT (150 WSP) = Blank	1/4 = B	1-1/4 = H
Socket Weld = SW	3/8 = C	1-1/2 = J
	1/2 = D	2 = K
	3/4 = F	2-1/2 = L
	1 = G	3 = M

Note: For 4" valves, use FNW figure number 310AM.

CV & WEIGHTS

Size (in.)	CV	Wt (lbs)	
		NPT	SW
1/4	15	1.01	0.93
3/8	15	1.01	0.98
1/2	18	1.12	1.10
3/4	36	1.81	1.76
1	48	2.69	2.60
1-1/4	93	4.28	4.19
1-1/2	165	5.73	5.60
2	207	9.04	8.95
2-1/2	450	18.25	18.08
3	780	25.57	25.88

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TORQUE (IN-LBS)

Size /ΔP (in.)	150 psig	300 psig	1000 psig
	10 Bar	20 Bar	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

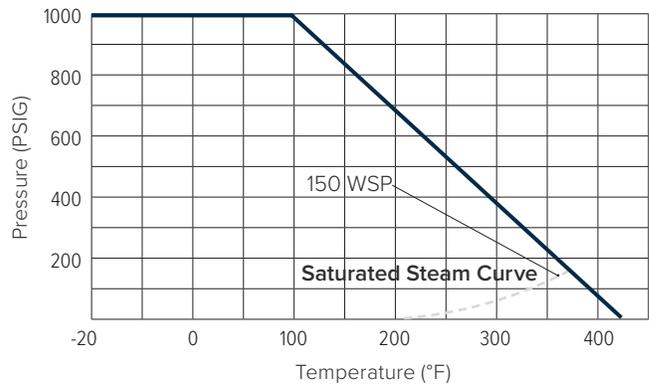
For actuator sizing, a safety factor of minimum 30% is recommended.

KIT CODES

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

REPAIR KITS

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



REFERENCE CHART

Size (in.)	Dimensions (in.)														
	ØD	L	Lm	H1	H2	H	W	S	K (UNF)	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

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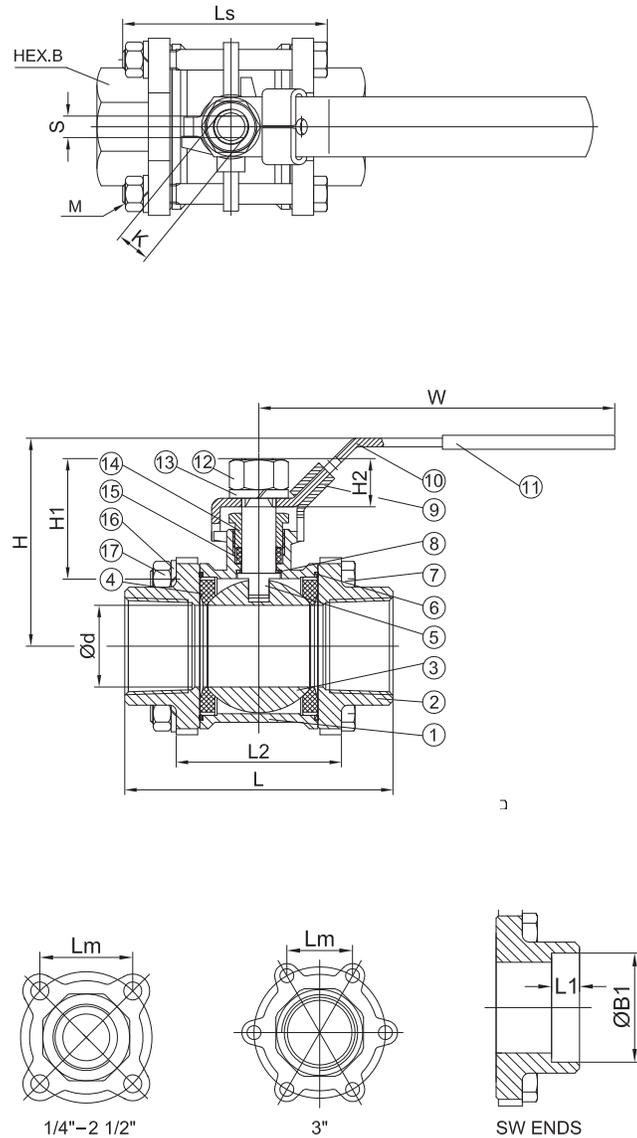
FIGURE 310A

STAINLESS STEEL BALL VALVES



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PARTS DIAGRAM



PART MATERIALS & QUANTITY

Ref #	Description	Material	Qty
1	Body	ASTM A351 Gr. CF8M Stainless	1
2	End Cap NPT SW	ASTM A351 Gr. CF8M Stainless ASTM A351 Gr. CF3M Stainless	2
3	Ball	316SS Stainless	1
4	Seat	RTFE	2
5	Stem	316SS Stainless	1
6	Body Gasket	PTFE	2
7	Body Bolt 1/4-2 1/2 3	ASTM A193-B8 Stainless	4 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	Glan Nut	304SS Stainless	1
15	V-Ring Packing	PTFE	1 Set
16	Bolt Washer 1/4-2 1/2 3	SUS304 Stainless	4 8 12
17	Bolt Nut 1/4-2 1/2 3	ASTM A194-8 Stainless	4 8 12