

SPECIFICATIONS

FIGURE 320A

STAINLESS STEEL BALL VALVES



3-PC FULL PORT 2000 CWP

FEATURES

- 2000 PSI CWP* non-shock
- Working Steam Pressure (WSP)
 - 150 PSI - Fig. 320A
 - 250 PSI - Fig. 320AC
- Full port
- Blowout-proof stem
- Live-loaded packing
- Anti-static design
- Investment cast body
- TFM (super TFE) seats
- End connections
 - Threaded
 - Socket weld
- Stainless steel handle
- Locking lever
- Tapped hole mounting pad
- Vacuum rated to 26.967" Hg (75 Torr)**
- Vented ball
- Manufactured silicone-free
- Replacement locking handle kits available (1/4"-2")
- Optional stem extension kit (uses existing valve handle) (1/4"-2")
- Optional oval handle kit (1/4"-1-1/4")



FIG. 320A

FIG. 320AC

ACCESSORIES/OPTIONS



Replacement Locking
Handle Kits (1/4"-2")

Stem Extension
Kits (1/4"-2")

Oval Handle Kits
(1/4"-1-1/4")

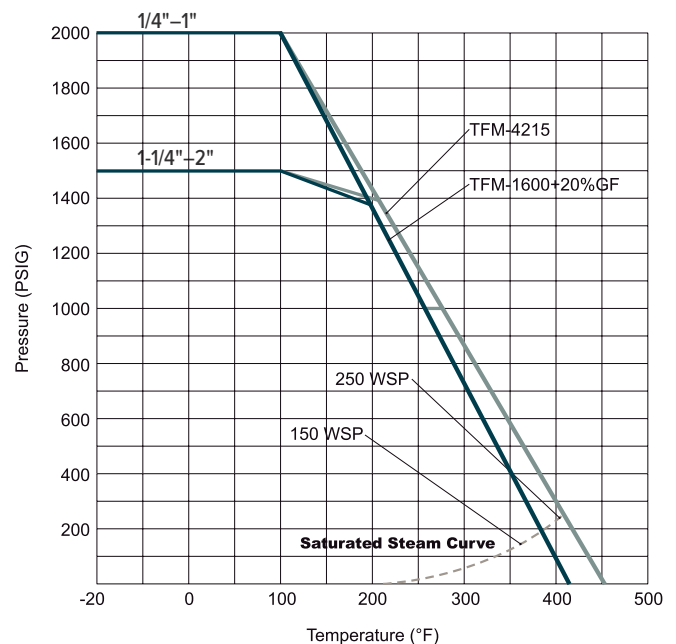
PRODUCT SPECIFICATIONS

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
- Fugitive emissions: ISO 15848-1

* 1/4"-1" - 2000 PSI CWP
1-1/4"-2" - 1500 PSI CWP

** Vacuum measurements are often made in inches of mercury below atmospheric pressure. The values calculated here assume standard atmospheric pressure of 29.92 inches of mercury.



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FIGURE 320A
STAINLESS STEEL BALL VALVES



3-PC FULL PORT 2000 CWP

FIGURE NUMBER MATRIX

FNW 320A			
SEAT CODE	END CODE	SIZE CODE (IN.)	
Standard Temp (150 WSP) = Blank	Threaded NPT = Blank	1/4 = B	1 = G
High Temp (250 WSP) = C	Socket Weld = SW	3/8 = C	1-1/4 = H
		1/2 = D	1-1/2 = J
		3/4 = F	2 = K

KIT CODES

FNW 320A	
KIT TYPE	KIT SIZE (IN.)
Locking Handle = LHK	1/4–3/4 = BF
Stem Extension = SEK	1–1-1/4 = GH
Oval Handle = OH	1-1/2–2 = JK

CV & WEIGHTS

Size (in.)	CV	Wt (lbs)	
		NPT	SW
1/4	16	1.71	1.70
3/8	23	1.66	1.65
1/2	30	5.04	4.95
3/4	55	6.93	6.93
1	96	10.10	10.10
1-1/4	170	16.74	16.74
1-1/2	270	21.82	21.82
2	460	33.46	34.06

REPAIR KITS

FNW320ARK	
SIZE CODE (IN.)	
1/4–3/8 = BC	1-1/4 = H
1/2 = D	1-1/2 = J
3/4 = F	2 = K
1 = G	

TORQUE (IN-LBS)

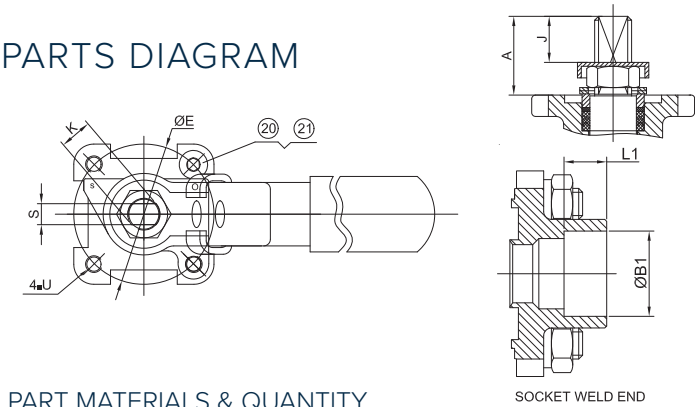
Size / ΔP	150 PSIG	700 PSIG	1500 PSIG	3000 PSIG
	10 Bar	50 Bar	100 Bar	140 Bar
1/4, 3/8	62	62	62	62
1/2	62	62	62	71
3/4	71	71	71	80
1	115	133	133	142
1-1/4	150	195	230	—
1-1/2	221	274	328	—
2	292	407	487	—

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

FIGURE 320A
STAINLESS STEEL BALL VALVES

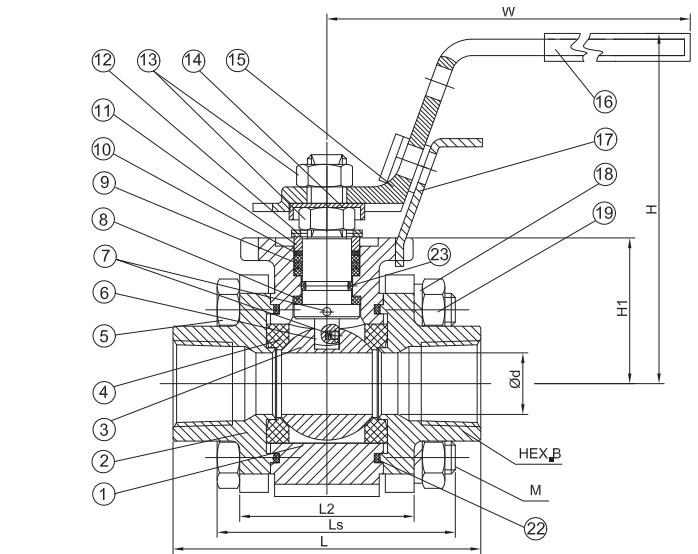


PARTS DIAGRAM



PART MATERIALS & QUANTITY

Ref #	Description		Material		Qty
			Figure 320A	Figure 320AC	
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		TFM1600+20% GF	TFM4215	2
5	Body Bolt	1/4-1-1/4 1-1/2-2	ASTM A193-B8 Stainless		4 8
6	Stem		316SS Stainless		1
7	Anti-Static Device		316SS Stainless		2
8	Thrust Washer		TFM4215		1
9	V-Ring Packing		PTFE	TFM1600	1 set
10	Bushing		50% Stainless+50% PTFE		1
11	Gland		316SS Stainless		1
12	Belleville Washer		301SS Stainless		2
13	Stem Nut		ASTM A194-8 Stainless		2



Ref #	Description		Material		Qty
			Figure 320A	Figure 320AC	
14	Stop-Lock-Cap		304SS Stainless		1
15	Handle		304SS Stainless		1
16	Handle Sleeve		Vinyl Plastic		1
17	Lock Device		304SS Stainless		1
18	Body Washer	1/4-1-1/4 1-1/2-2	304SS Stainless		4 8
18	Body Nut	1/4-1-1/4	ASTM A194-8 Stainless		4
20	Stop Bolt		ASTM A193-B8 Stainless		1
21	Stop Washer		304SS Stainless		1
22	Body Gasket		PTFE	PTFE+20% CF	2
23	O-Ring		FKM		1

Size (in.)	Dimensions (in.)																
	ØD	L	H1	H	W	ØE	S	U	A	J	K (UNF)	Ls	L2	M (UNC)	B L1	ØB1	ØB2
1/4	0.42	2.76	1.18	2.99	5.31	1.65	0.25	M5	0.68	0.41	3/8-24	2.13	1.61	1/4-20	0.93	0.43	0.55
3/8	0.50	2.76	1.18	2.99	5.31	1.65	0.25	M5	0.68	0.41	3/8-24	2.13	1.61	1/4-20	0.93	0.43	0.69
1/2	0.59	2.95	1.42	3.27	5.31	1.65	0.25	M5	0.80	0.46	3/8-24	2.44	1.83	5/16-18	1.10	0.43	0.86
3/4	0.79	3.15	1.56	3.27	5.31	1.65	0.25	M5	0.80	0.46	3/8-24	2.74	2.05	3/8-16	1.34	0.51	1.07
1	0.98	3.54	1.79	3.86	6.69	1.97	0.35	M6	0.92	0.49	9/16-18	3.18	2.36	3/8-16	1.81	0.51	1.34
1-1/4	1.25	4.33	1.97	4.06	6.69	1.97	0.35	M6	0.92	0.49	9/16-18	3.86	2.76	1/2-13	2.17	0.51	1.68
1-1/2	1.50	4.72	2.36	4.33	7.87	2.76	0.38	M8	1.18	0.59	5/8-18	4.12	3.24	1/2-13	2.24	0.51	1.91
2	1.95	5.51	2.68	4.69	7.87	2.76	0.38	M8	1.18	0.59	5/8-18	4.90	3.68	5/8-11	2.87	0.63	2.41