

## ANSI/ASME Three-Piece Ball Valves



Floating Ball  
Full Bore  
Socket Weld or Threaded End

1000 WOG: ¼" – 4"

### Applications

- Process and general industry
- For water, steam, gas, oil, and other media
- Other applications on request

### Operating Data

- Maximum allowable pressure 1220 psi (84.1 bar)
- Maximum allowable temperature 392°F (200°C)
- Pressure/Temperature ratings per ASME B16.34
- Temperature below 0°C on request

### Body Materials

- ASTM A216 WCB                      Carbon Steel
- ASTM A351 CF8M                    Type 316 Stainless Steel

### Ball Material

- ASTM A351 CF8M                    Type 316 Stainless Steel

### Seat Material

- PTFE                                      up to 320°F (160°C)

### Design

- Design and test per ASME B16.34
- Socket weld ends per ASME B16.11
- NPT pipe thread ends per ASME B1.20.1
- Full bore
- Three-piece body
- Blowout proof stem
- Locking device
- Solid ball
- Antistatic device

### Variants on request

- RPTFE or PTFE + Graphite seats up to 392°F (200°C)
- Pneumatic actuator
- Electric actuator

### Remarks

- Operating Instructions No. 8222.81
- ECOLINE-BLT 150-300 type series booklet no. 8222.51
- ECOLINE-GT type series booklet no. 7247.11
- ECOLINE-GL type series booklet no. 7247.12
- ECOLINE-SC type series booklet no. 7247.13

### On all enquiries/orders please specify

1. Valve type
2. ANSI pressure class
3. Size
4. Design pressure
5. Design temperature
6. Differential pressure-shut off
7. Flow medium
8. Material of construction
9. Variants
10. Type series booklet number
11. Valve data sheet if applicable

The valves meet the safety requirements of the Pressure Equipment Directive 97/23/EC (PED) of Annex I for Fluid Groups 1 and 2.

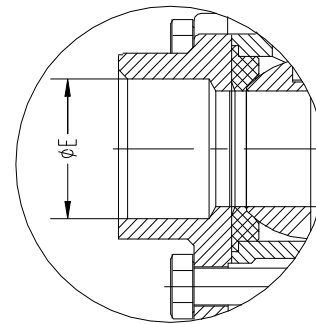
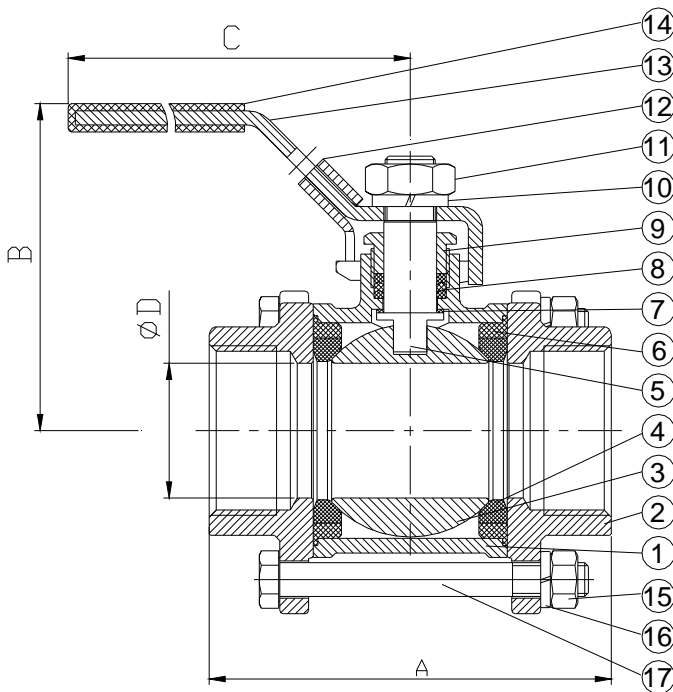
When ordering spare parts, indicate valve product code. (shown on nameplate) and serial number.



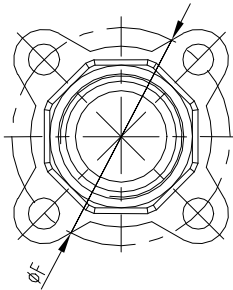
**Three-Piece Ball Valves – Type BLC 1000**

**Design Specifications**

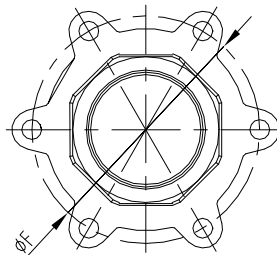
- General Valve Design : ASME B16.34
- Pressure/Temperature Rating : KSB standard
- Socket Weld Dimensions : ASME B16.11
- Pipe Thread Dimensions : ASME B1.20.1
- End-to-End Dimensions : KSB standard
- Testing : API 598



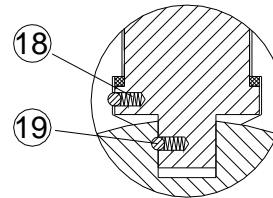
SOCKET WELD TYPE



1/4" - 2 1/2"



3" - 4"



ANTISTATIC DEVICE

**Dimensions and Data**

	NPS DN	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1-1/4 32	1-1/2 40	2 50	2-1/2 65	3 80	4 100
<b>A</b>	inch	2.28	2.28	2.48	2.87	3.35	3.78	4.49	5.28	7.09	7.87	8.98
	mm	58	58	63	73	85	96	114	134	180	200	228
<b>B</b>	inch	2.20	2.20	2.56	2.64	3.11	3.31	3.62	3.90	5.35	5.75	6.61
	mm	56	56	65	67	79	84	92	99	136	146	168
<b>C</b>	inch	4.02	4.02	4.84	4.84	6.02	6.02	7.20	7.20	9.69	9.69	19.8
	mm	102	102	123	123	153	153	183	183	246	246	503
<b>D</b>	inch	0.46	0.50	0.59	0.79	0.98	1.26	1.50	1.97	2.56	3.15	3.94
	mm	11.6	12.7	15	20	25	32	38	50	65	80	100
<b>E</b>	inch	0.56	0.69	0.85	1.07	1.33	1.68	1.92	2.41	3.03	3.54	4.55
	mm	14.1	17.6	21.7	27.1	33.8	42.6	48.7	61.1	76.9	89.8	115.5
<b>F</b>	inch	1.59	1.59	1.85	2.11	2.35	2.92	3.31	3.98	5.20	6.36	7.52
	mm	40.5	40.5	47	53.5	59.6	74.2	84	101	132	161.5	191
<b>Weight</b>	lbs	0.81	0.75	1.1	1.5	2.1	3.3	4.8	7.3	15.9	27.7	43.1
	kg	0.37	0.34	0.51	0.66	0.96	1.5	2.2	3.3	7.21	12.6	19.6
<b>Cv</b>	--	6	7	10	25	35	46	80	110	310	360	820
	ft.lb.	3	3	6	7	10	13	26	31	37	59	74
<b>Torque</b>	Nm	4	4	8	9	14	17	35	42	50	80	100

**Standard Ball Valve Materials**

Part No.	Part Name	WCB	CF8M
1	Body	A216 WCB	A351 CF8M
2	Cap	A216 WCB	A351 CF8M
3	Ball	A351 CF8M	A351 CF8M
4	Seat	PTFE	
5	Stem	316 SS	
6	Gasket	PTFE	
7	Thrust Washer	PTFE	
8	Packing	PTFE	
9	Gland	304 SS	
10	Spring Washer	304 SS	
11	Stem Nut	304 SS	
12	Locking Device	304 SS	
13	Handle	304 SS	
14	Plastic Cover	Plastic	
15	Nut	304 SS	
16	Bolt Washer	304 SS	
17	Bolt	304 SS	
18	Antistatic Spring	Stainless Steel	
19	Antistatic Ball	Stainless Steel	

**Test Requirements**

Test	Medium	1/4" - 4"	
		psi	bar
Shell	Water	1500	105
Seat	Air	85	6
Seat	Water	1100	77

Note: A216 WCB test pressures

**Pressure/Temperature Ratings**
**ASTM A216 WCB and A351 CF8M (PTFE)**

Temperature		1/4" - 1"		1 1/4" - 1 1/2"		2" - 4"	
°F	°C	psi	bar	psi	bar	psi	bar
32 to 100	0 to 38	1220	84.1	1000	69.0	725	50.0
150	66	956	65.9	784	54.1	568	39.2
200	93	681	47.0	559	38.5	406	28.0
250	121	396	27.3	325	22.4	236	16.3
300	149	112	7.7	92	6.3	67	4.6
320	160	0	0	0	0	0	0

**ASTM A216 WCB and A351 CF8M (RPTFE and PTFE + Graphite)**

Temperature		1/4" - 1"		1 1/4" - 1 1/2"		2" - 4"	
°F	°C	psi	bar	psi	bar	psi	bar
32 to 100	0 to 38	1220	84.1	1000	69.0	725	50.0
150	66	1022	70.4	838	57.8	608	41.9
200	93	816	56.2	669	46.1	485	33.4
250	121	602	41.5	494	34.1	363	25.0
300	149	389	26.8	319	22.0	231	15.9
350	177	173	11.9	144	9.9	105	7.2
392	200	0	0	0	0	0	0

Note 1. PTFE seats are limited to 320°F (160°C).  
RPTFE and PTFE + Graphite seats are limited to 392°F (200°C).

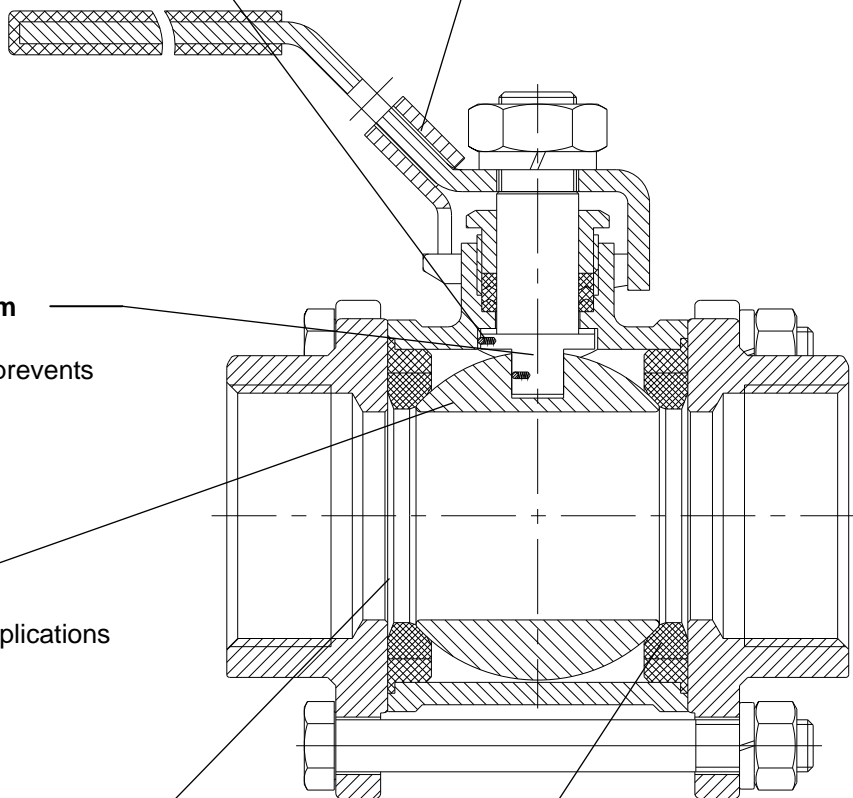
**Product features – to our customers' benefit**

**Anti-Static Connection  
Your benefit**

- Prevents buildup of static charge during operation.

**Locking Device  
Your benefit**

- Valve can be locked open or shut



**Blow-out proof stem  
Your benefit**

- Integral shoulder prevents blow-out.

**Solid Ball  
Your benefit**

- For heavy duty applications

**Full Port  
Your benefit**

- For maximum flow with minimum pressure drop

**PTFE Seats  
Your benefit**

- Resilient seats provide tight shut-off.

Subject to technical modification without prior notice

16.3.2010

8222.53-10

