

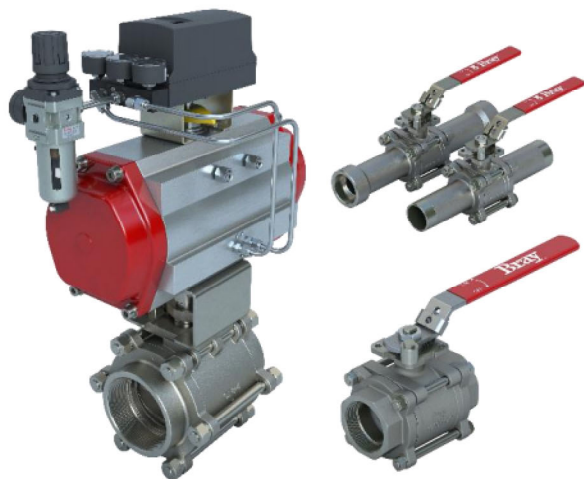
SERIES 7000 THREE PIECE FULL PORT BALL VALVE

RECOMMENDED SPECIFICATION SHEET FOR COAL MINING



DESIGNED FOR THE COAL MINING INDUSTRY

Bray's Series 7000 Three Piece Full Port Ball Valve is designed and manufactured for robust and reliable on/off service for the coal mining industry.



VALVE DETAILS

- > Bray Series 7000 or approved equal.

PRESSURE RATINGS

- > NPS ¼ - 4 | DN 8 to 100 : 1000 psi | 69 bar
 - > NPS 6 to 12 | DN 150 to 300 : 400 psi | 27.6 bar
- By End Connection:
- > NPT, SW ≤ NPS 4 | BW, Flanged 150# ≤ NPS 12

APPROVALS AND CERTIFICATIONS

- > ATEX, PE(S)R, PED
- > ANSI/NSF 61/372
- > CRN
- > SIL
- > TR CU
- > ISO 15848-1

TESTING

- > Manufactured, assembled, and tested in compliance with a written ISO 9001 quality assurance program.
- > Valve shall be shell tested to 1.5x rated pressure.
- > Valve shall be leak tightness tested to 1.1x rated pressure.

APPLICATIONS

- > Crushing & Sizing
- > Flotation
- > Conveyors
- > Dewatering
- > Clarifying & Thickening

BODY

- > Shall be three-piece, allowing body to swing-out for ease of in-line maintenance and to allow variety of end connections.
- > Shall be investment cast and solution annealed/normalized for high quality and added strength.
- > Full range of interchangeable connections.
- > ISO 5211 Top Flange integrally cast direct mounting capability to reduce package height and complexity.

BALL

- > Shall be solid metal, precision machined and mirror finished for bubble-tight shut off with less operating torque.
- > Shall have machined curvatures to reduce seat wear and provide a high cycle life.

SEAT

- > Shall have two seats, one on each side of ball, design ensures bidirectional, bubble-tight sealing while providing lowest possible torque.

STEM

- > Shall include double D connection to the ball and operator mounting. Stems are mated to ensure positive contact.
- > Shall feature anti-static grounding device, ensuring electrical continuity and eliminating possibility of static electrical charges creating sparks within the valve.

STEM SEALS

- > Shall be adjustable V-ring design with multiple layers to provide multiple seals and provide a high cycle life.
- > Shall include a thrust washer and protector to reduce torque and prevent galling.
- > Shall be live-loaded stem seals with Belleville washers (up to NPS 2 ½) considerably increase the number of cycles between maintenance adjustments.

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OPERATORS

- > Hand Wheel (Lockable Tab)
- > Gear operator
- > Double Acting & Spring Return Pneumatic Cylinder – 5 bar

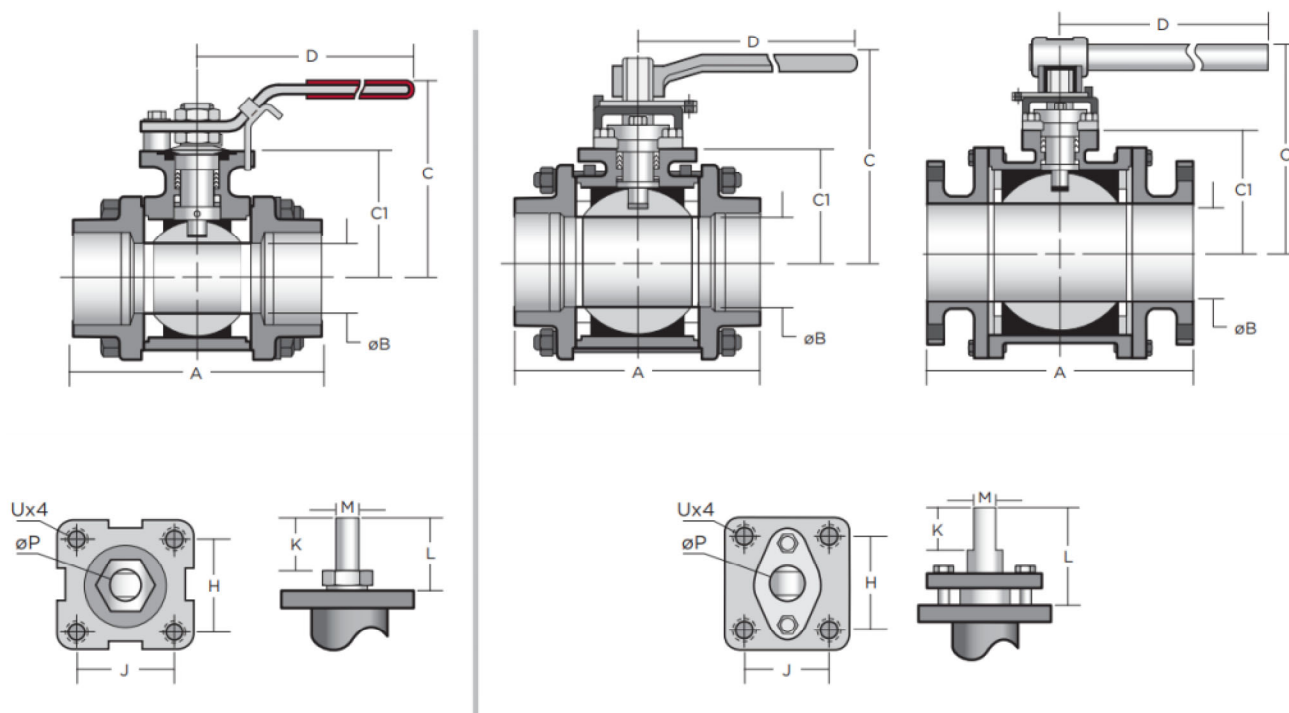
OPTIONAL

- > Deadman Handles
- > Cavity fillers for special service
- > Vented Balls
- > Chlorine Service
- > Polished Internals
- > Special Cleaning
- > Silicone Free

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DIMENSIONS AND WEIGHTS



Dimensions (mm)

DN	A				øB	C	C1	D	H	J	K	L	M	P	U (UNC)
	NPT, SW, BW	FLG	Extended SW	Extended BW											
8	72.1	—	—	—	9.5	66	39	165	29.7	29.7	8	14	6.4	9.3	10-24
10	72.1	—	—	—	12.7	66	39	165	29.7	29.7	8	14	6.4	9.3	10-24
15	72.1	111.5	254.9	229.5	15	66	39	165	29.7	29.7	8	14	6.4	9.3	10-24
20	85	147.2	264.8	236.2	20	74	42.1	165	29.7	29.7	8	14	6.4	9.3	10-24
25	92	151.7	271.9	240.7	25.4	87	52	200	35.7	35.7	11	19	8	10.9	1/4-20
32	110	—	284.8	249.8	32	92	56	200	35.7	35.7	11	19	8	10.9	1/4-20
40	123	204	299.2	261	38	105	66	250	49.5	49.5	14	23	9.5	15.7	5/16-18
50	142	229.6	317	272.6	50.8	115	75	250	49.5	49.5	14	23	9.5	15.7	5/16-18
65	184.5	—	—	304.8	65	128	86	250	72.1	72.1	17.5	29	12	19	5/16-18
80	202	256.5	—	304.8	76	163	94.5	390	90	47.6	44.5	78	17	28	1/2-13
100	230	353	—	304.8	102	180	110.5	390	90	47.6	44.5	78	17	28	1/2-13
150	457.2	394	—	—	152	310	182	1100	85.7	85.7	42	90	26	43.5	1/2-13
200	520.7	457	—	—	200	343	215	1100	85.7	85.7	42	90	26	43.5	1/2-13
250	558.8	533	—	—	250	373	253	1100	115	115	50	96	35	55	5/8-11
300	635	610	—	—	300	413	293	1100	115	115	50	96	35	55	5/8-11

Note: Flanged face-to-face dimension on sizes ¼" through 4" are manufacturer's standard; 6" through 12" meet ASME B16.10 long pattern

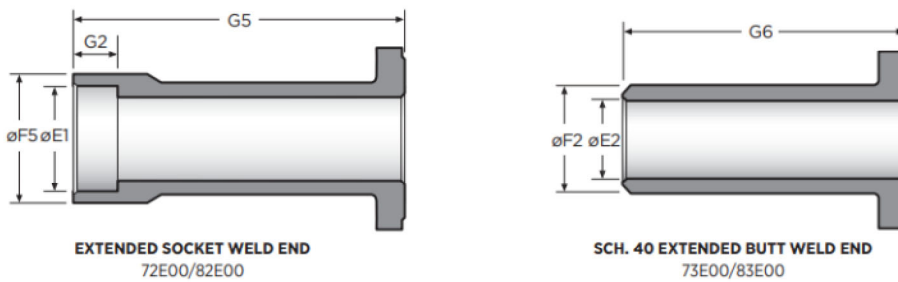
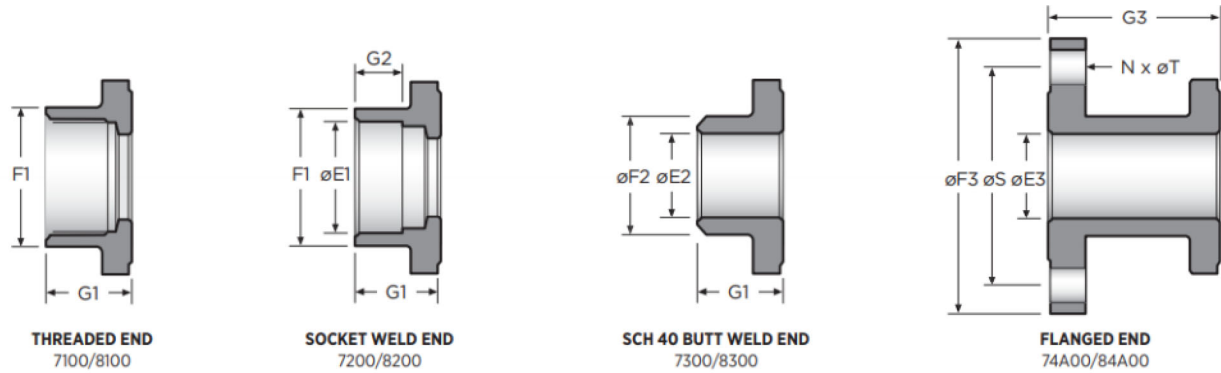
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DIMENSIONS AND WEIGHTS

The 3 piece valve is offered with a center body and a large selection of end connections. This versatile design offers easy customizing to meet most special application requirements.



Extended End Connections may be fabricated from pipe and fittings.

Note:

- > 1/4"-4" weights are based on threaded end connection.
- > 6"-12" weights are based on Class 150 flanged ends.
- > Torque values are at maximum rated pressures, clean water, RPTFE seats. Refer to Tech Bulletin 1005 for complete torque information.

Dimensions (mm)																Valve		
DN	E1	E2	E3	F1	F2	F3	F5	G1	G2	G3	G5	G6	N	S	T	Cv	Torque N m	Weight Kg
8	14	9.25	—	25	13.7	—	—	22.8	12.7	—	—	—	—	—	—	8	6.8	0.8
10	17.5	12.5	—	25	17.2	—	—	22.8	12.7	—	—	—	—	—	—	8	6.8	0.8
15	21.7	15.8	14.4	28	21.3	88.9	29	22.8	12.7	42.5	114.2	101.5	4	60.5	15.6	32	6.8	0.8
20	27.1	20.93	20	35	26.7	98.6	37	25.9	14.3	57	115.8	101.5	4	69.9	15.6	54	10.7	1.1
25	33.8	26.6	25	42	33.4	107	45	27.1	15.9	57	117.1	101.5	4	79.3	15.6	105	15.8	1.5
32	42.6	35.1	—	52	42.2	—	55	31.6	17.5	—	119	101.5	—	—	—	200	22.0	2.2
40	48.6	40.9	38	60	48.3	127	62	32.5	19.1	73	120.6	101.5	4	98.6	15.6	275	35.6	3.5
50	61.1	52.5	50.8	74	60.3	152.4	74	36.2	22.2	80	123.7	101.5	4	120.7	19.1	500	57.6	5.2
65	73.8	62.5	—	86	73	—	—	49.5	25	—	—	—	—	—	—	780	90.4	9.9
80	89.8	76	76	106	92	190.5	—	50	25	77.3	—	—	4	152.4	19.1	1,150	124.3	15.7
100	115.4	102	101.5	135	121.5	228.6	—	53	30	114.5	—	—	8	190.5	19.1	2,100	406.7	24.8
150	—	154.1	152	—	168.3	279.4	—	123.6	—	92	—	—	8	241.3	22.4	5,000	469	106
200	—	202.7	200	—	219.1	342.9	—	132.9	—	101	—	—	8	298.5	22.4	9,600	700.5	171
250	—	254.5	250	—	273.1	406.4	—	125.4	—	112.5	—	—	12	362	25.4	15,000	1,661	287
300	—	303.2	300	—	323.6	482.6	—	130.5	—	118	—	—	12	431.8	25.4	21,000	2,486	CF

For Cam Lock, Tube O.D. and Flush Bottom Tank connection dimensions and for other available end connections, please consult the factory. End connections are fully interchangeable and can be used in any combination.