

3-piece Ball Valves

BG Series

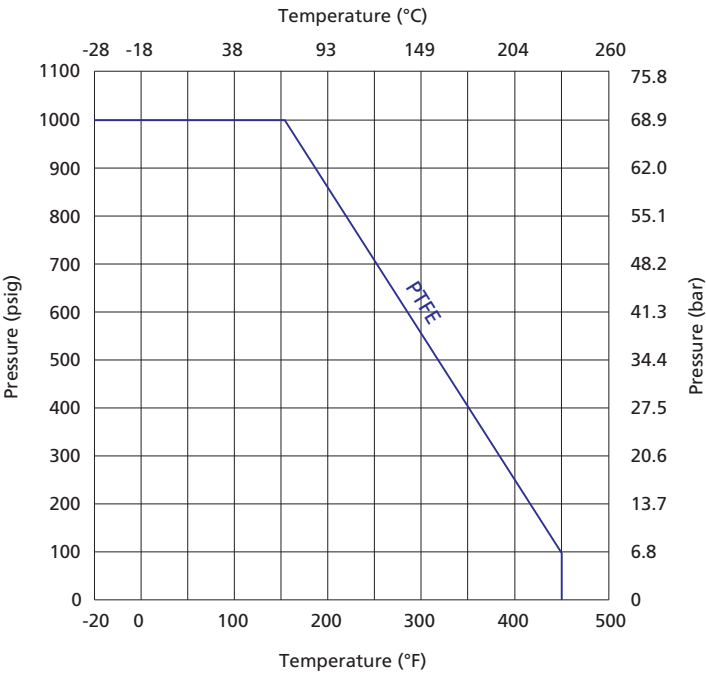
General Application

Features

- Maximum working pressure: 1000 psig (68.9 bar)
- Working temperature: -20°F to 450°F (-28°C to 232°C)
- End connections:
 - 1/8 to 3 thread
 - 1/8" to 3" pipe butt or socket weld
 - 1/4" to 2" and 6 mm to 50 mm tube butt or socket weld
 - 1/4" to 2" and 6 mm to 50 mm tube fitting
 - 1/2 to 4 flange
- Orifice sizes: 0.19" (4.8 mm) to 3" (76 mm)
- Blowout proof stem
- Leak-tight performance testing for every valve at the maximum working pressure with nitrogen

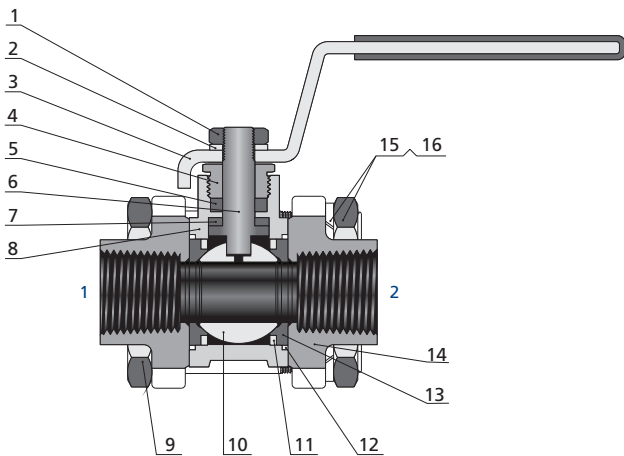


Pressure vs. Temperature

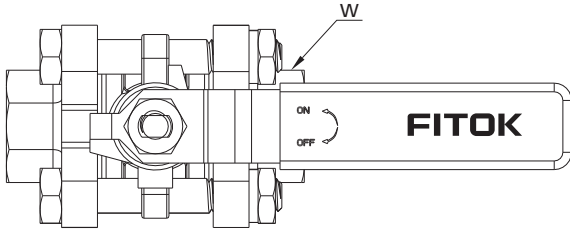
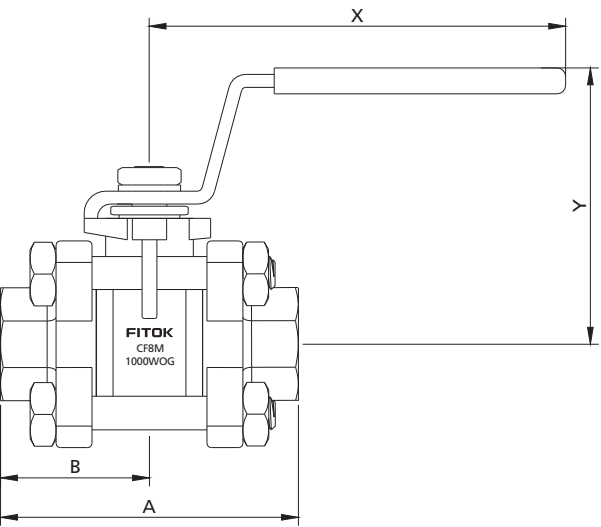


Standard Materials of Construction

Item	Component	Valve Body Material			
		CF8M/A351	CF3M/A351	CF8/A351	CF3/A351
1	Stem Nut	Gr. 8M/A194			
2	Gasket	304 SS			
3	Handle	304 SS/A240 (with vinyl sleeve)			
4	Gland	316 SS/A276 or 304 SS/A276			
5	Stem Packing	PTFE/D1710			
6	Stem	316 SS/A276 or 304 SS/A276			
7	Stem Bearing	PTFE/D1710			
8	Body	CF8M/A351	CF3M/A351	CF8/A351	CF3/A351
9	Body Bolt	Gr. 8M/A193			
10	Ball	316 SS/A276 or 304 SS/A276			
11	Support Ring	316 SS/A240 or 304 SS/A240			
12	Flange Seal	PTFE/D1710			
13	Seat	PTFE/D1710			
14	Flange	CF8M/A351	CF3M/A351	CF8/A351	CF3/A351
15	Gasket	304 SS			
16	Nut	Gr. 8M/A194			
Lubricants		Silicone-based and PTFE-based			



Dimensions



Basic Ordering Number	Connection Type and Size		Orifice in. (mm)	Cv	Dimension, in. (mm)				
	Connection 1	Connection 2			A	B	W	X	Y
BG□□-FNS2-05	1/8 Female NPT	1/8 Female NPT	0.19 (4.8)	1.2	2.05 (52.1)	1.03 (26.0)	0.63 (16.0)	2.69 (68.3)	1.46 (37.0)
BG□□-FRP2-05	1/8 Female BSPP	1/8 Female BSPP							
BG□□-PB4-05	1/4 PB	1/4 PB							
BG□□-FL4-05	1/4" FITOK	1/4" FITOK							
BG□□-ML6-05	6 mm FITOK	6 mm FITOK							
BG□□-ML8-05	8 mm FITOK	8 mm FITOK							
BG□□-FNS4-07	1/4 Female NPT	1/4 Female NPT	0.28 (7.1)	3.8	2.05 (52.1)	1.03 (26.0)			
BG□□-FRP4-07	1/4 Female BSPP	1/4 Female BSPP							
BG□□-PS4-07	1/4 PS	1/4 PS							
BG□□-PB6-07	3/8 PB	3/8 PB							
BG□□-FL6-07	3/8" FITOK	3/8" FITOK							
BG□□-ML10-07	10 mm FITOK	10 mm FITOK							
BG□□-FL8-11	1/2" FITOK	1/2" FITOK	0.42 (10.6)	7.5	4.04 (103.0)	2.02 (51.3)	0.93 (23.5)	3.94 (100.0)	2.19 (55.7)
BG□□-ML12-11	12 mm FITOK	12 mm FITOK					0.93 (23.5)		
BG□□-ML14-11	14 mm FITOK	14 mm FITOK					0.93 (23.5)		
BG□□-FNS6-13	3/8 Female NPT	3/8 Female NPT	0.50 (12.7)	11.3	2.57 (65.2)	1.28 (32.6)	0.93 (23.5)		2.19 (55.7)
BG□□-FRP6-13	3/8 Female BSPP	3/8 Female BSPP					0.93 (23.5)		
BG□□-PS6-13	3/8 PS	3/8 PS							
BG□□-PB8-13	1/2 PB	1/2 PB			0.93 (23.5)	2.19 (55.7)			
BG□□-FL10-13	5/8" FITOK	5/8" FITOK							
BG□□-ML16-13	16 mm FITOK	16 mm FITOK					0.93 (23.5)		2.19 (55.7)
BG□□-FNS8-15	1/2 Female NPT	1/2 Female NPT	0.59 (15.0)	13.0	2.74 (69.5)	1.37 (34.8)	1.06 (27.0)	2.26 (57.5)	
BG□□-FRP8-15	1/2 Female BSPP	1/2 Female BSPP							
BG□□-PS8-15	1/2 PS	1/2 PS							
BG□□-MTB22-15	22 mm MTB	22 mm MTB							
BG□□-TS12-15	3/4" TS	3/4" TS							
BG□□-MTS18-15	18 mm MTS	18 mm MTS							
BG□□-FL12-15	3/4" FITOK	3/4" FITOK							
BG□□-ML18-15	18 mm FITOK	18 mm FITOK							
BG□□-ML20-15	20 mm FITOK	20 mm FITOK							
BG□□-FNS12-20	3/4 Female NPT	3/4 Female NPT	0.79 (20.0)	50.0	3.15 (80.0)	1.57 (40.0)	1.34 (34.0)	5.18 (131.5)	2.66 (67.5)
BG□□-FRP12-20	3/4 Female BSPP	3/4 Female BSPP							

Basic Ordering Number	Connection Type and Size		Orifice in. (mm)	Cv	Dimension, in. (mm)				
	Connection 1	Connection 2			A	B	W	X	Y
BG□□-PB12-20	3/4 PB	3/4 PB	0.79 (20.0)	50.0	3.48 (88.5)	1.74 (44.3)	1.34 (34.0)	5.18 (131.5)	2.66 (67.5)
BG□□-PS12-20	3/4 PS	3/4 PS			3.15 (80.0)	1.57 (40.0)			
BG□□-TS16-20	1" TS	1" TS			3.48 (88.5)	1.74 (44.3)			
BG□□-MTB25-20	25 mm MTB	25 mm MTB			3.15 (80.0)	1.57 (40.0)			
BG□□-MTS25-20	25 mm MTS	25 mm MTS			5.12 (130.0)	2.56 (65.0)			
BG□□-FL16-20	1" FITOK	1" FITOK							
BG□□-ML22-20	22 mm FITOK	22 mm FITOK							
BG□□-ML25-20	25 mm FITOK	25 mm FITOK			5.91 (150.0)	2.95 (75.0)			
BG□□-ML28-20	28 mm FITOK	28 mm FITOK							
BG□□-FNS16-25	1 Female NPT	1 Female NPT	0.98 (25.0)	93.0	3.54 (90.0)	1.77 (45.0)	1.57 (40.0)	5.95 (151.2)	3.08 (78.2)
BG□□-FRP16-25	1 Female BSPP	1 Female BSPP							
BG□□-PS16-25	1 PS	1 PS							
BG□□-PB16-25	1 PB	1 PB			4.07 (103.3)	2.03 (51.7)			
BG□□-FL20-25	1 1/4" FITOK	1 1/4" FITOK			7.59 (193.0)	3.79 (96.3)			
BG□□-FNS20-32	1 1/4 Female NPT	1 1/4 Female NPT	1.26 (32.0)	110.0	4.33 (110.0)	2.17 (55.0)	1.94 (49.2)	6.14 (156.0)	3.19 (81.0)
BG□□-FRP20-32	1 1/4 Female BSPP	1 1/4 Female BSPP							
BG□□-PB20-32	1 1/4 PB	1 1/4 PB							
BG□□-FNS24-38	1 1/2 Female NPT	1 1/2 Female NPT	1.50 (38.0)	130.0	4.72 (120.0)	2.36 (60.0)	2.24 (57.0)	7.19 (182.5)	3.70 (94.0)
BG□□-FRP24-38	1 1/2 Female BSPP	1 1/2 Female BSPP							
BG□□-PB24-38	1 1/2 PB	1 1/2 PB							
BG□□-FNS32-50	2 Female NPT	2 Female NPT	1.97 (50.0)	270.0	5.51 (140.0)	2.75 (70.0)	2.76 (70.0)	7.19 (182.5)	4.11 (104.5)
BG□□-FRP32-50	2 Female BSPP	2 Female BSPP							
BG□□-PB32-50	2 PB	2 PB							
BG□□-FNS40-64	2 1/2 Female NPT	2 1/2 Female NPT	2.50 (63.5)	350.0	7.28 (185.0)	3.64 (92.5)	3.39 (86.0)	9.92 (252.0)	5.16 (131.0)
BG□□-FRP40-64	2 1/2 Female BSPP	2 1/2 Female BSPP							
BG□□-PB40-64	2 1/2 PB	2 1/2 PB							
BG□□-FNS48-76	3 Female NPT	3 Female NPT	2.99 (76.0)	500.0	8.07 (205.0)	4.04 (102.5)	3.98 (101.0)	9.92 (252.0)	5.47 (139.0)
BG□□-FRP48-76	3 Female BSPP	3 Female BSPP			8.66 (220.0)	4.33 (110.0)			
BG□□-PB48-76	3 PB	3 PB							

1. FITOK means FITOK double ferrule tube fittings, TS means fractional tube socket weld, MTS means metric tube socket weld, TB means fractional tube butt weld, MTB means metric tube butt weld, PS means pipe socket weld, PB means pipe butt weld.

2. Sizes and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.

3. Dimensions are shown with FITOK nuts finger-tightened. All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact the authorized representative or FITOK Group.

BGSS – FNS8 – ML18 – 15 – LSF2

Series		Body Material	Connection 1 Type		Connection 1 Size	Connection 2 Type	Connection 2 Size	Orifice Size	Locking Device	Special Application	Cleaning and Packaging	
BG	SS	CF8M	FNS	Female NPT	2 1/8"	Same as Connection 1 Specify in the same way as the connection 1 type and size		05	No	No		FC-01
	6L	CF3M	NS	Male NPT	4 1/4"			07				
	S4	CF8	FRT	Female BSPT	5 5/16"			11				
	4L	CF3	RT	Male BSPT	6 3/8" or 6 mm			13				
	904L 904L SS		FRP	Female BSPP (for RP)	8 1/2" or 8 mm			15				F2
			BP	Male BSPP (for RG)	10 mm			20				
			FMS	Female Metric Thread (for RG)	12 3/4" or 12 mm			25				
			MS	Male Metric Thread (for RG)	14 14 mm or M14 x 1.5			32				
			MTS	Metric Tube Socket	16 1" or 16 mm			38				
			TS	Fractional Tube Socket	18 18 mm			50				
			MTB	Metric Tube Butt Weld	20 1 1/4" or 20 mm or M20 x 1.5			64				
			TB	Fractional Tube Butt Weld	22 22 mm or M22 x 1.5			76				
			PS	Pipe Socket Weld	24 1 1/2" or M24 x 1.5							
			PB	Pipe Butt Weld	25 25 mm							
			FL	Fractional Tube Fitting	27 M27 x 2							
			ML	Metric Tube Fitting	28 28 mm							
			UFB	Nut + Gasket + Bulge Fractional Tube Nipple	32 2" or 32 mm							
			UMB	Nut + Gasket + Metric Tube Bulge Nipple	36 2 1/4" or M36 x 2							
			UPB	Nut + Gasket + Bulge Pipe Nipple	40 2 1/2" or M40 x 2							
			UPB	Nut + Gasket + Bulge Pipe Nipple	48 3" or M48 x 2							

Note: "Part Number Description" is used for composition rules of FITOK product model,
Not suitable for specific product part number selection, not random combinations.
If in doubt, please contact FITOK company or authorized agents.

1. Standard thread pitch for metric threads are as follows:
M10 and below: 1 mm
M12 to M24: 1.5 mm
M27 and above: 2 mm
Standard thread pitch should be ignored in the ordering number, others should be specified.

2. For oxygen or virulent medium service, contact the authorized representative or FITOK Group.

3. Cleaning and Packaging:
FC-01: Standard cleaning and packaging for general industrial procedures.
FC-02: Special cleaning and packaging for wetted system components to ensure compliance with product cleaning requirement as stated in ASTM G93 Level C.