

# Two-piece Forged Metal-seated Ball Valves

BM Series



**FITOK**

# Two-piece Forged Metal-seated Ball Valves

## BM Series

- ◎ Size: NPS 1/2 ~ NPS 2 (DN 15 ~ DN 50)
- ◎ Classes: 900 ~ 2500

## Specifications

- ◎ Design: ASME B16.34
- ◎ Testing: ASME B16.34 and API 598
- ◎ Marking: MSS-SP-25
- ◎ Socket weld ends: ASME B16.11
- ◎ Butt weld ends: ASME B16.25
- ◎ Threaded ends: ASME B1.20.1

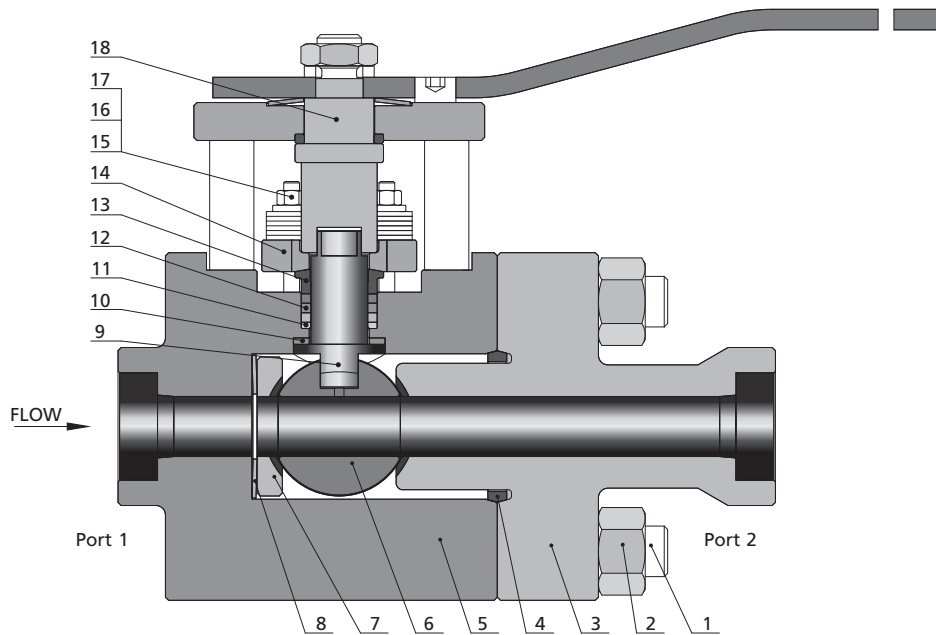
## Features

- ◎ Two-piece forged body designs
- ◎ Ball and seats mate-lapped for 100% contact ensures absolute shutoff
- ◎ Free floating ball design provides seat wear compensation
- ◎ The ball is forced to load into the seat by a high-strength Belleville spring
- ◎ Advanced HVOF custom trim coating technology with hardness in excess of 900Hv
- ◎ An advanced packing chamber design and live-loading provide long lasting, maintenancefree, stem packing tightness.
- ◎ Low operating torque
- ◎ Blowout-proof stem
- ◎ Positive handle stop

## Technical Data

Item	Connection Type	Working Temperature
1	1/2 Female NPT	-28°-232° ( -20°F-450°F )
2	Pipe Socket Weld	-28°-538° ( -20°F-1000°F )
3	Pipe Butt Weld	-28°-538° ( -20°F-1000°F )

## Standard Material of Construction



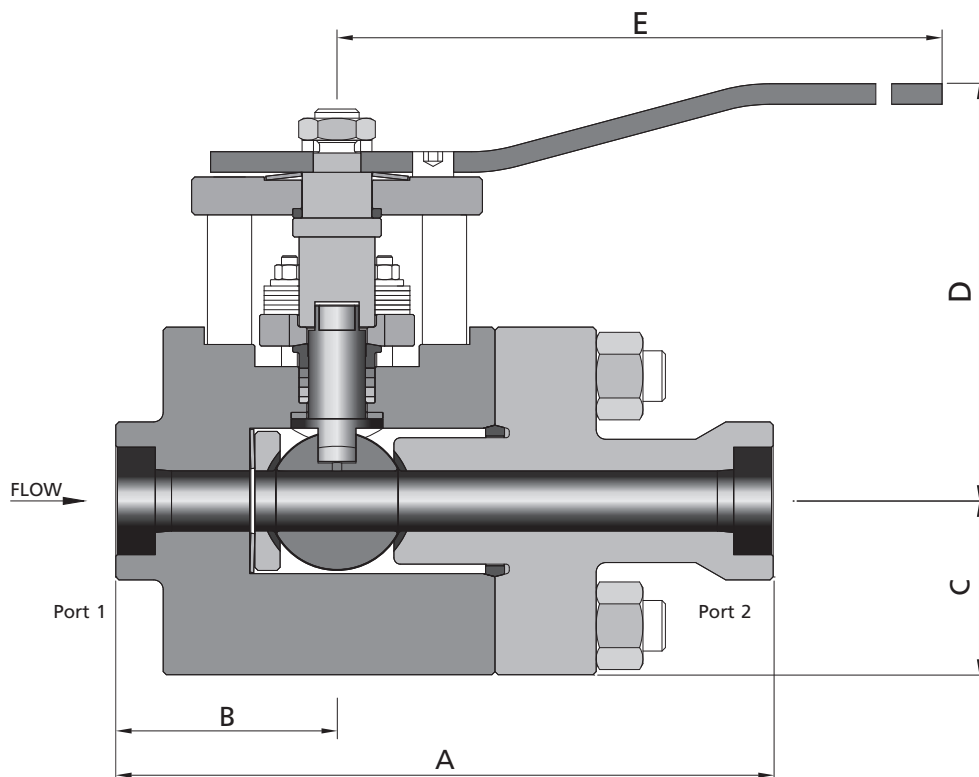
Item	Component	Valve Material			
		A105	F22	F91	F316
		Material Grade/Specification			
1	Body stud	B8M/A193	B8M/A193	B8M/A193	B8M/A193
2	Body nut	8M/A194	8M/A194	8M/A194	8M/A194
3	End cap/Integral seat	A105 (HF)	F22 (HF)	F91 (HF)	F316 (HF)
4	Body gasket	S17400/A564	S17400/A564	S17400/A564	S17400/A564
5	Body	A105	F22/A182	F91/A182	F316/A182
6	Ball	F6a (HOFV31)	F6a (HOFV31)	F6a (HOFV31)	F316 (HOFV31)
7	Seat	F22 Cl.3 (HF)	F22 Cl.3 (HF)	F22 Cl.3 (HF)	F316 (HF)
8	Belleville spring	Alloy 718	Alloy 718	Alloy 718	Alloy 718
9	Stem	S66286/A638	S66286/A638	S66286/A638	S66286/A638
10	Gland bearing	Stellite 6	Stellite 6	Stellite 6	Stellite 6
11	Gland gasket	316 SS/A276	316 SS/A276	316 SS/A276	316 SS/A276
12	Gland packing	Graphite	Graphite	Graphite	Graphite
13	Gland	F316 SS/A182	F316 SS/A182	F316 SS/A182	F316 SS/A182
14	Gland block	316 SS/A276	316 SS/A276	316 SS/A276	316 SS/A276
15	Gland bolt	B8M/A193	B8M/A193	B8M/A193	B8M/A193
16	Body nut	8M/A194	8M/A194	8M/A194	8M/A194
17	Gland load spring	S17700	S17700	S17700	S17700
18	Drive sleeve	S17400/A564	S17400/A564	S17400/A564	S17400/A564

1. Contact the authorized representative or FITOK Group for valves of other materials.

2. Surface coating materials: Ni Base Alloy-Chromium Carbide (HOFV31).

3. Surface build-up welding material: Stellite (HF).

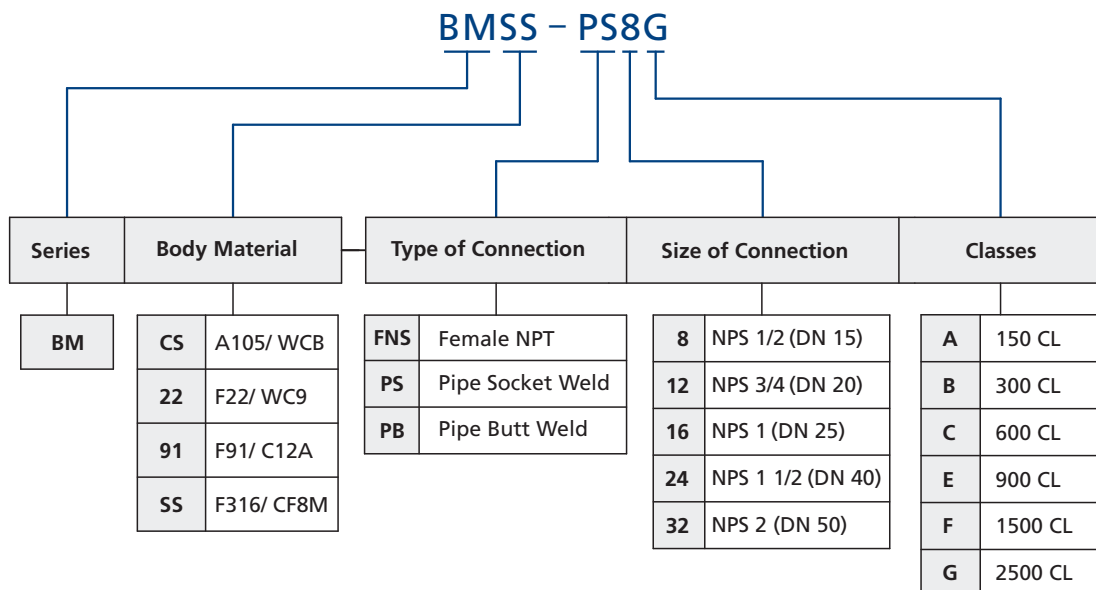
### 3 Two-piece Forged Metal-seated Ball Valves



Basic Ordering Number	Connection Type and Size		Orifice in. (mm)	Dimension, in. (mm)					Classes
	Connection 1	Connection 2		A	B	C	D	E	
BM□□-FNS8□	1/2 Female NPT	1/2 Female NPT	0.32 (8.1)	5.50 (139.7)	2.17 (55)	1.30 (33)	3.71 (94.3)	7.09 (180)	900-1500
BM□□-PS8□	1/2 PS	1/2 PS							
BM□□-PB8□	1/2 PB	1/2 PB							
BM□□-FNS12□	3/4 Female NPT	3/4 Female NPT	0.75 (19)	8.19 (208)	2.76 (70)	2.17 (55)	5.20 (132)	15.0 (381)	
BM□□-PS12□	3/4 PS	3/4 PS							
BM□□-PB12□	3/4 PB	3/4 PB							
BM□□-FNS16□	1 Female NPT	1 Female NPT							
BM□□-PS16□	1 PS	1 PS							
BM□□-PB16□	1 PB	1 PB	1.5 (38.1)	10 (254)	3.35 (85)	2.72 (69)	6.10 (155)	25.98 (660)	
BM□□-FNS24□	1 1/2 Female NPT	1 1/2 Female NPT							
BM□□-PS24□	1 1/2 PS	1 1/2 PS							
BM□□-PB24□	1 1/2 PB	1 1/2 PB							
BM□□-FNS32□	2 Female NPT	2 Female NPT							
BM□□-PS32□	2 PS	2 PS							
BM□□-PB32□	2 PB	2 PB							

Basic Ordering Number	Connection Type and Size		Orifice in. (mm)	Dimension, in. (mm)					Classes
	Connection 1	Connection 2		A	B	C	D	E	
BM□□-FNS8□	1/2 Female NPT	1/2 Female NPT	0.32 (8.1)	5.50 (139.7)	2.17 (55)	1.30 (33)	3.71 (94.3)	7.09 (180)	2500
BM□□-PS8□	1/2 PS	1/2 PS							
BM□□-PB8□	1/2 PB	1/2 PB							
BM□□-FNS12□	3/4 Female NPT	3/4 Female NPT	0.75 (19)	8.19 (208)	2.76 (70)	2.17 (55)	5.20 (132)	15.0 (381)	
BM□□-PS12□	3/4 PS	3/4 PS							
BM□□-PB12□	3/4 PB	3/4 PB							
BM□□-FNS16□	1 Female NPT	1 Female NPT							
BM□□-PS16□	1 PS	1 PS							
BM□□-PB16□	1 PB	1 PB							

## Part Number Description



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 group or authorized agent.

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