

# High Pressure Ball Valves

15B Series, 15,000 psi (1034 bar)

20B Series, 20,000 psi (1379 bar)



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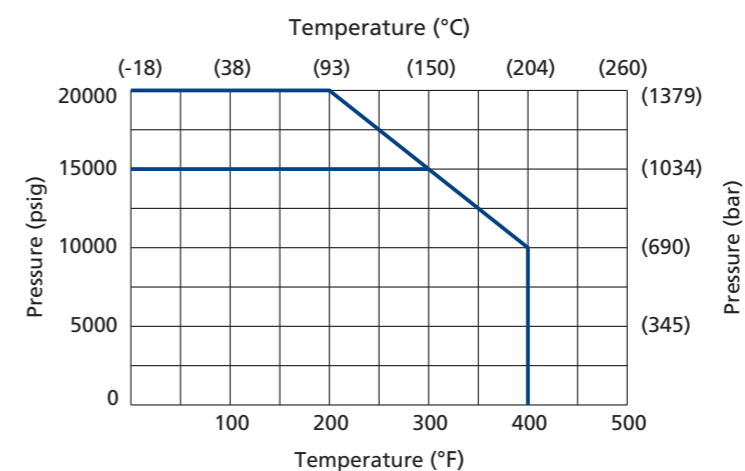
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## Features

- ⦿ One-piece, trunnion mounted style, ideal for severe duty applications.
- ⦿ Two-way and three-way valve configurations.
- ⦿ PEEK seats offer excellent resistance to chemicals, heat, and wear/abrasion.
- ⦿ Full-port flow path minimizes pressure drop.
- ⦿ 316 cold worked stainless steel construction.
- ⦿ Viton o-rings for operation from 0°F (-17.8°C) to 400°F (204°C).
- ⦿ Optional o-rings available for high-temperature applications.
- ⦿ Wide selection of tube and pipe end fittings available.
- ⦿ Electric and pneumatic actuator options. Please contact the FITOK Group for details of actuator options.

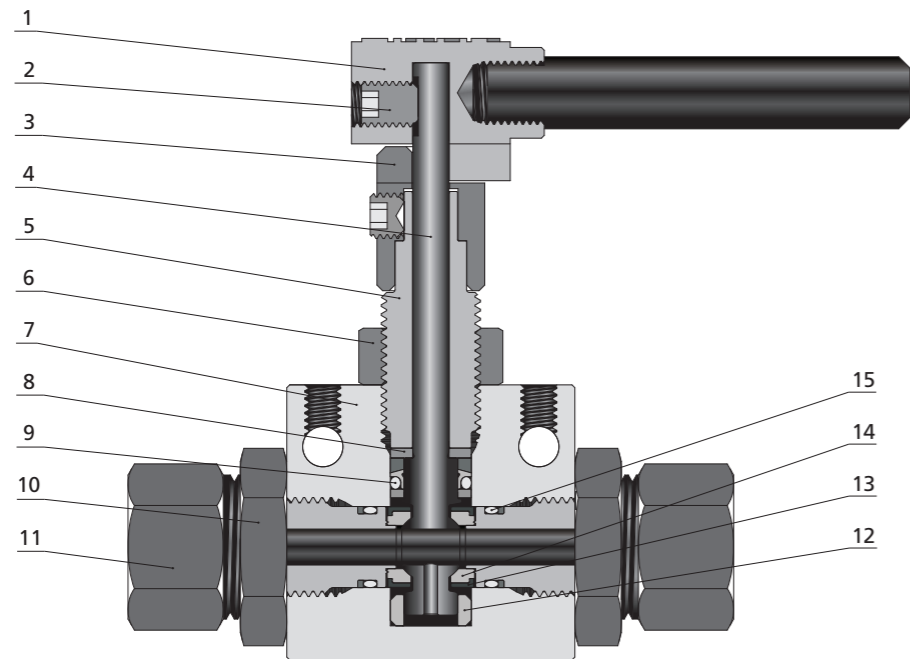
## Pressure & Temperature Curve



NOTE: Ball valves are not recommended for critical gas applications such as Hydrogen, Helium or other small molecular gases.

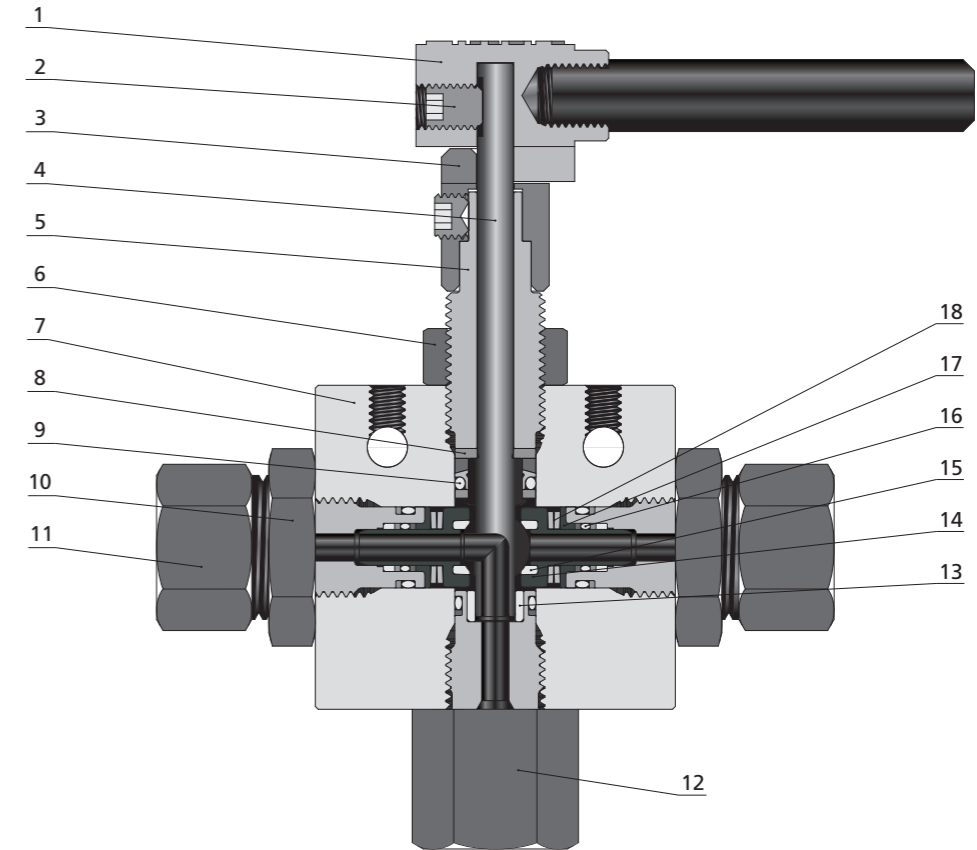
### Standard Materials of Construction

2-Way Straight Valves



Item	Component	Valve Material
1	Handle	Stainless Steel
2	Set Screw	Stainless Steel
3	Stopping Device	316 SS/A276
4	Ball Stem	316 SS/A479
5	Packing Gland	316 SS/A479
6	Locking Piece	316 SS/A276
7	Valve Body	316 SS/A479
8	Thrust Washer	C63000/B150
9	Combination Seal	Fluorocarbon FKM
10	Lock Nut	316 SS/A276
11	Seat Gland	316 SS/A479
12	Bearing	PEEK
13	Seat Retainer	316 SS/A479
14	Seat	PEEK
15	End Seal	Fluorocarbon FKM
Lubricant		Molybdenum Disulfide/Fluorinated-based

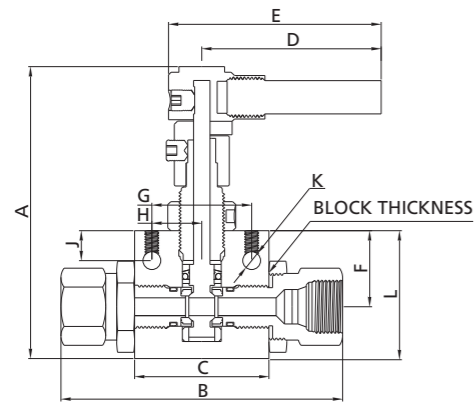
3-Way Valves



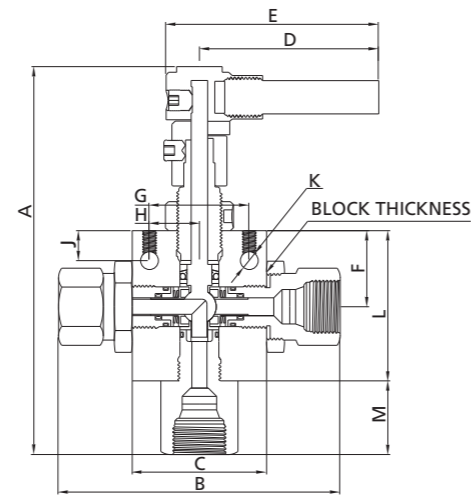
Item	Component	Valve Material
1	Handle	Stainless Steel
2	Set Screw	Stainless Steel
3	Stopping Device	316 SS/A276
4	Ball Stem	316 SS/A479
5	Packing Gland	316 SS/A479
6	Locking Piece	316 SS/A276
7	Valve Body	316 SS/A479
8	Thrust Washer	C63000/B150
9	Combination Seal	Fluorocarbon FKM
10	Lock Nut	316 SS/A276
11	Seat Gland	316 SS/A479
12	Bottom Gland	316 SS/A479
13	Bearing	C63000/B150
14	Seat Retainer	316 SS/A479
15	Seat	Carbon Filled PEEK
16	End Seal	Fluorocarbon FKM
17	Belleville Backup	316 SS/A479
18	Belleville Washers	17-7PH/A693
Lubricant		Molybdenum Disulfide/Fluorinated-based

**Dimensions**

2-Way Straight Valves



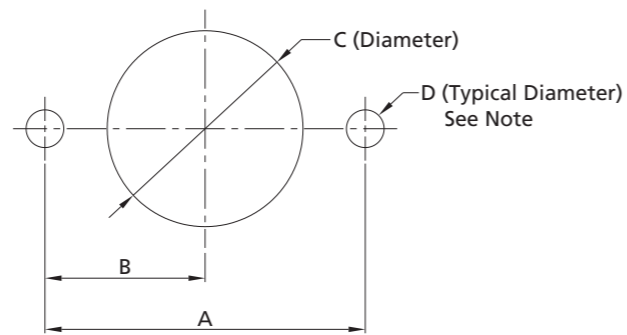
3-Way Valves



Body Style	Orifice No.	in. (mm)													Block Thickness
		A	B	C	D	E	F	G	H	J	K	L	M		
2-way	4	4.33 (109.99)	4.19 (106.49)	2 (50.8)	3.37 (85.55)	3.9 (99.02)	1.13 (28.58)	1.5 (38.1)	0.75 (19.05)	0.43 (10.92)	0.28 (7.11)	1.91 (48.41)		1 (25.4)	
	6	4.97 (126.3)	5.53 (140.41)	3 (76.2)	4.99 (126.82)	5.52 (140.32)	1.38 (34.93)	2 (50.8)	1 (25.4)	0.41 (10.31)	0.28 (7.11)	2.5 (63.5)		1.38 (34.93)	
3-way	3	5.64 (143.35)	4.72 (119.94)	2.5 (63.5)	3.37 (85.55)	3.9 (99.02)	1.13 (28.58)	1.5 (38.1)	0.75 (19.05)	0.43 (10.92)	0.28 (7.11)	2.25 (57.15)	0.97 (24.64)	1 (25.4)	
	6	6.55 (166.37)	5.74 (145.79)	3 (76.2)	4.99 (126.82)	5.52 (140.32)	1.38 (34.93)	2 (50.8)	1 (25.4)	0.41 (10.31)	0.28 (7.11)	2.88 (73.03)	1.19 (30.22)	1.38 (34.93)	

**Ball Valve Panel Mounting Dimensions**

Body Style	Orifice No.	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)
2-way	4	1.5 (38.1)	0.75 (19.05)	1.06 (26.92)	0.28 (7.11)
	6	2 (50.8)	1 (25.4)	1.5 (38.1)	0.28 (7.11)
3-way	3	1.5 (38.1)	0.75 (19.05)	1.06 (26.92)	0.28 (7.11)
	6	2 (50.8)	1 (25.4)	1.5 (38.1)	0.28 (7.11)

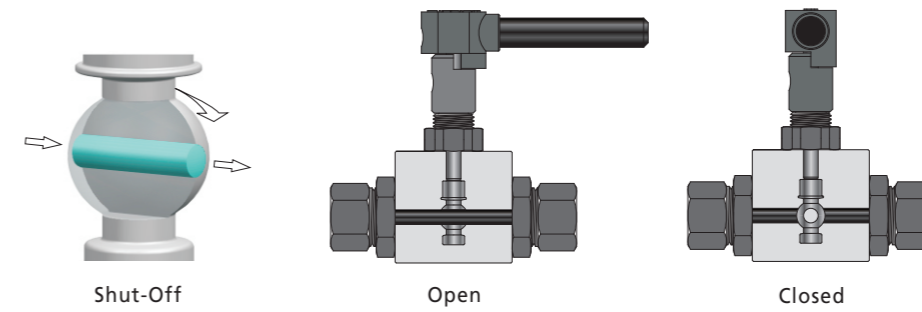


All dimensions are for reference only and are subject to change.

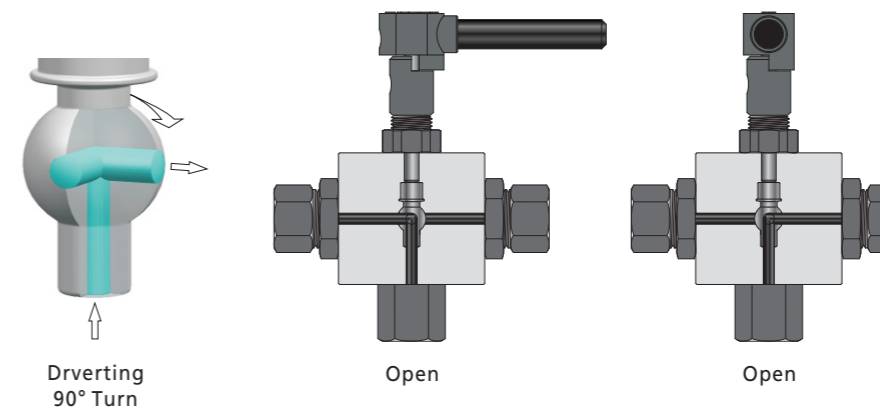
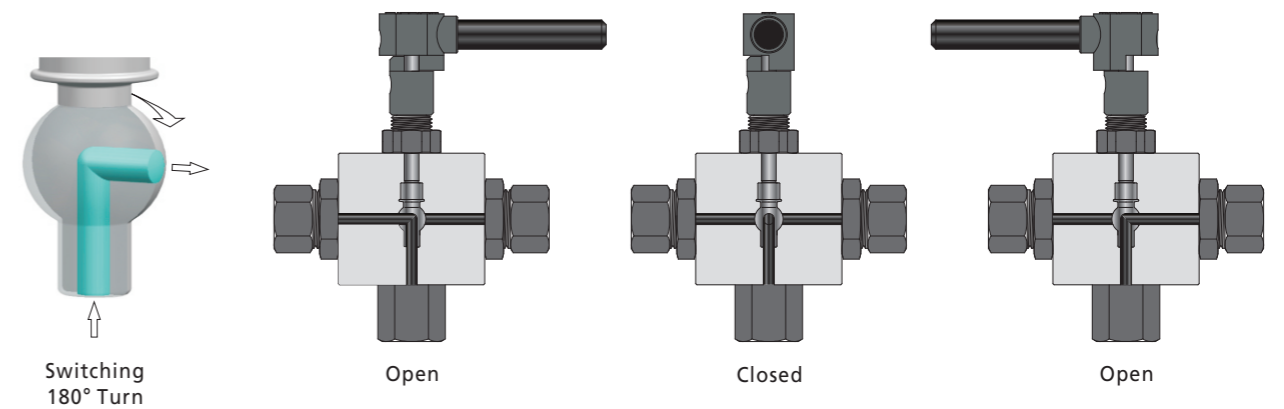
Note: Body mounting 1/4-20 thread

**Flow Configuration**

2-Way Straight Valves



3-Way Valves



Note: Maximum side connection inlet pressure 15,000 psig (1034 bar) for 3-Way Valves.

Ordering Information

Series	Body Style	Connection Type	Orifice No.	Orifice Size in. (mm)	Rated Cv	Catalog No.	Pressure/Temperature Rating psig (bar) @ Room Temperature	
15B	2-way	FH2	4	0.094 (2.39)	0.26	15BSS-FH2-1	15,000 (1034)	
		FH4		0.128 (3.25)	0.26	15BSS-FH4-1		
		FH6		0.250 (6.35)	1.51	15BSS-FH6-1		
		FH8		0.250 (6.35)	1.51	15BSS-FH8-1		
		FNS2		0.250 (6.35)	1.51	15BSS-FNS2-1		
		FNS4		0.250 (6.35)	1.51	15BSS-FNS4-1		
		FNS6	0.250 (6.35)	1.51	15BSS-FNS6-1			
		FNS8	0.250 (6.35)	1.51	15BSS-FNS8-1			
		FH8	6	0.375 (9.52)	3.51	15BSS-FH8-6-1		
		FNS4		0.375 (9.52)	3.51	15BSS-FNS4-6-1		
		FNS6		0.375 (9.52)	3.51	15BSS-FNS6-6-1		
		FNS8		0.375 (9.52)	3.51	15BSS-FNS8-6-1		
	3-way	FH2		3	0.094 (2.39)	0.13		15BSS-FH2-2 15BSS-FH2-2D
		FH4			0.128 (3.25)	0.23		15BSS-FH4-2 15BSS-FH4-2D
		FH6	0.188 (4.77)		0.50	15BSS-FH6-2 15BSS-FH6-2D		
		FH8	0.188 (4.77)		0.50	15BSS-FH8-2 15BSS-FH8-2D		
		FNS2	0.188 (4.77)	0.50	15BSS-FNS2-2 15BSS-FNS2-2D			
		FNS4	0.188 (4.77)	0.50	15BSS-FNS4-2 15BSS-FNS4-2D			
		FNS6	0.188 (4.77)	0.50	15BSS-FNS6-2 15BSS-FNS6-2D			
		FNS8	0.188 (4.77)	0.50	15BSS-FNS8-2 15BSS-FNS8-2D			
		FH8	6	0.328 (8.33)	2.10	15BSS-FH8-6-2 15BSS-FH8-6-2D		
		2FH6		0.203 (5.16)	0.81	15BSS-2FH6-6-2 15BSS-2FH6-6-2D		
		2FH9		0.312 (7.92)	1.90	15BSS-2FH9-6-2 15BSS-2FH9-6-2D		
		2FH12		0.328 (8.33)	2.10	15BSS-2FH12-6-2 15BSS-2FH12-6-2D		
		FNS4	6	0.328 (8.33)	2.10	15BSS-FNS4-6-2 15BSS-FNS4-6-2D		
		FNS6		0.328 (8.33)	2.10	15BSS-FNS6-6-2 15BSS-FNS6-6-2D		
		FNS8		0.328 (8.33)	2.10	15BSS-FNS8-6-2 15BSS-FNS8-6-2D		
		FNS8		0.328 (8.33)	2.10	15BSS-FNS8-6-2 15BSS-FNS8-6-2D		

Ordering Information(continue)

Series	Body Style	Connection Type	Orifice No.	Orifice Size in. (mm)	Rated Cv	Catalog No.	Pressure/Temperature Rating psig (bar) @ Room Temperature
20B	3-way	2FH4	3	0.109 (2.77)	0.17	20BSS-FH4-2	20,000 (1379)
						20BSS-FH4-2D	
		2FH6		0.188 (4.77)	20BSS-FH6-2		
					20BSS-FH6-2D		
		2FH9		0.188 (4.77)	20BSS-FH9-2		
					20BSS-FH9-2D		
		6FH4		0.094 (2.39)	20BSS-6FH4-2		
					20BSS-6FH4-2D		
		6FH6		0.125 (3.17)	20BSS-6FH6-2		
					20BSS-6FH6-2D		
		6FH9		0.188 (4.77)	20BSS-6FH9-2		
					20BSS-6FH9-2D		

