

AN INTRODUCTION TO BUtech BALL VALVES

BuTech ball valves are available in 2-, 3-, 4- and 5-way designs with an infinite combination of connections including male and female NPT, low-pressure compression fittings, medium- and high-pressure tube ends, medium- and high-pressure female, JIC 37° flare, SAE O-ring boss, socket-weld, butt-weld, and metric connections. They are available with special seal materials or manufactured from any machinable metal for extreme applications. They can also be fitted with pneumatic or electric actuators for remote control.

Features:

- Pressures to 20,000 PSI (1380 bar) at 72°F (22°C)
- Pressure loaded seats assure positive sealing
- Blowout-proof stem and ball provides maximum safety
- Choice of replaceable connections for installation versatility
- Straight-through flow path minimizes pressure drop
- Quarter-turn operation accommodates quick open and close needs
- Flow indicating handle indicates valve position at a glance
- Bi-directional flow capabilities

Applications:

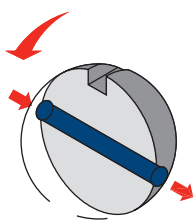
All types of instrumentation	Chemical research
Laboratories	Food processing
Refineries	Pilot plants
Hydraulic and pneumatic piping	Water blasting
Chromatography	Gas analysis
Gauge shut-off and vent	Test Stands
Control panels	Moderate vacuum systems
High purity systems	Down-hole control systems on off-shore drilling platforms

Materials of Construction:

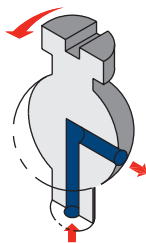
Standard materials of construction include 316 cold-worked stainless steel, 17-4PH, PEEK, Viton, virgin teflon and glass-filled teflon. These valves may also be produced in any machinable metal with special seal materials. Please consult factory.

Selecting the Proper Ball Type

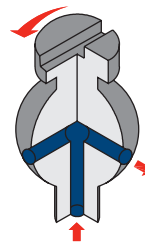
BuTech ball valves offer a variety of flow configurations. See page BV-20 for additional information.



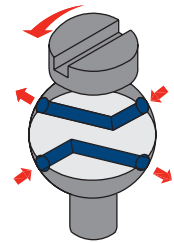
2-way



3-way & 5-way



3-way



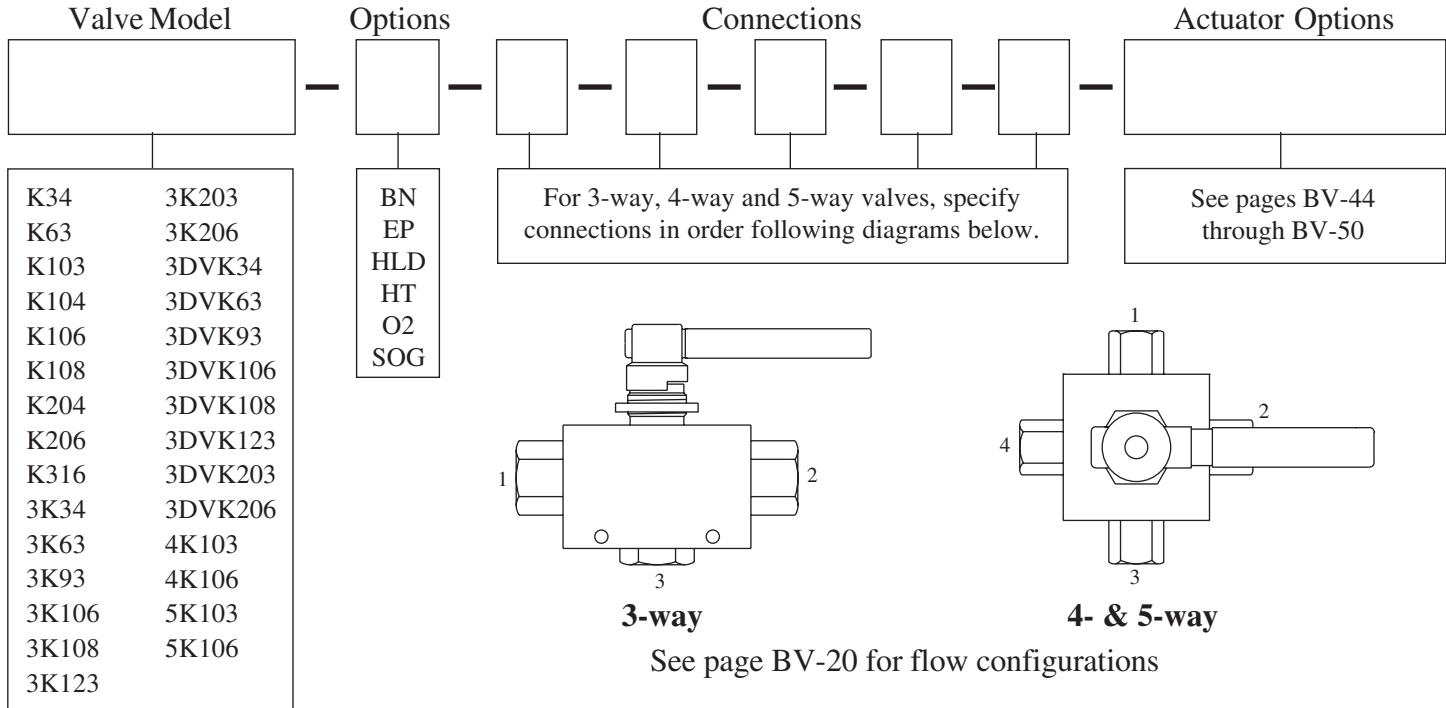
4-way

***CAUTION** The maximum allowable working pressure (MAWP) of the valve does not exceed the MAWP of the series or the selected connection, whichever is less.

All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm).



ORDERING INFORMATION



Examples:

A 2-way valve with 0.250" port, 10,000 PSI with 3/8" female NPT connections and Buna-N o-rings
K104-BN-21-21

A 2-way valve with 0.375" port, 20,000 PSI with 1/2" female NPT and 9/16" male M/P coned-and-threaded connections and double-acting pneumatic actuator
K206-22-11-RA05DA

A 3-way valve for switching service with 0.500" port, 10,000 PSI with 1/2" female NPT side connections and 3/4" male NPT bottom connection for high-temperature service
3K108-HT-22-22-55B

A 4-way valve with 0.187" port, 10,000 PSI with (2) 1/4" FNPT connections and (2) 3/8" FNPT connections
4K103-20-20-21-21

Options:

- BN** Buna-N o-rings
- EP** EPR o-rings
- HLD** Handle locking device (prevents unauthorized opening/closing of valve)
- HT** High-temperature o-rings for continuous service to 550°F (288°C)
- O2** Cleaned for oxygen service
- SOG** For Sour Gas service in accordance with NACE MR-01-75

BuTech ball valves may be manufactured from any machinable metal and fitted with special seal materials. Please consult factory for information.

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BALL VALVE LOCATOR

	Model No.	Maximum Pressure*	Port	Cv	Page
2-way Valves for On-Off Service	K34	3,000 PSI 210 bar	0.250" (6.4)	1.40	BV-4
	K316	3,000 PSI 210 bar	1.000" (25.4)	36.00	BV-5
	K63	6,000 PSI 410 bar	0.187" (4.7)	0.75	BV-6
	K103	10,000 PSI 690 bar	0.187" (4.7)	0.75	BV-8
	K104	10,000 PSI 690 bar	0.250" (6.4)	1.40	BV-10
	K106	10,000 PSI 690 bar	0.375" (9.5)	3.40	BV-12
	K108	10,000 PSI 690 bar	0.500" (12.7)	10.00	BV-14
	K204	20,000 PSI 1380 bar	0.250" (6.4)	1.40	BV-16
	K206	20,000 PSI 1380 bar	0.375" (9.5)	3.40	BV-18
3-way Valves for Switching Service	3K34	3,000 PSI 210 bar	0.250" (6.4)	1.00	BV-21
	3K63	6,000 PSI 410 bar	0.187" (4.7)	0.56	BV-22
	3K93	10,000 PSI 690 bar	0.187" (4.7)	0.56	BV-24
	3K106	10,000 PSI 690 bar	0.375" (9.5)	2.40	BV-26
	3K108	10,000 PSI 690 bar	0.500" (12.7)	5.00	BV-28
	3K123	12,000 PSI 830 bar	0.187" (4.7)	0.56	BV-30
	3K203	20,000 PSI 1380 bar	0.187" (4.7)	0.56	BV-32
	3K206	20,000 PSI 1380 bar	0.375" (9.5)	2.40	BV-34
3-way Valves for Diverting Service	3DVK34	3,000 PSI 210 bar	0.250" (6.4)	1.00	BV-21
	3DVK63	6,000 PSI 410 bar	0.187" (4.7)	0.56	BV-22
	3DVK93	10,000 PSI 690 bar	0.187" (4.7)	0.56	BV-24
	3DVK106	10,000 PSI 690 bar	0.375" (9.5)	2.40	BV-26
	3DVK108	10,000 PSI 690 bar	0.500" (12.7)	5.00	BV-28
	3DVK123	12,000 PSI 830 bar	0.187" (4.7)	0.56	BV-30
	3DVK203	20,000 PSI 1380 bar	0.187" (4.7)	0.56	BV-32
	3DVK206	20,000 PSI 1380 bar	0.375" (9.5)	2.40	BV-34
4-way & 5-way Valves	4K103	10,000 PSI 690 bar	0.187" (4.7)	0.56	BV-36
	5K103	10,000 PSI 690 bar	0.187" (4.7)	0.56	BV-40
	4K106	10,000 PSI 690 bar	0.375" (9.5)	2.40	BV-38
	5K106	10,000 PSI 690 bar	0.375" (9.5)	2.40	BV-42

NOTE: Standard operating temperature range is -20 to 400° F (-28 to 204°C). For applications requiring higher temperatures, select the **-HT** option shown on page BV-2.

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