

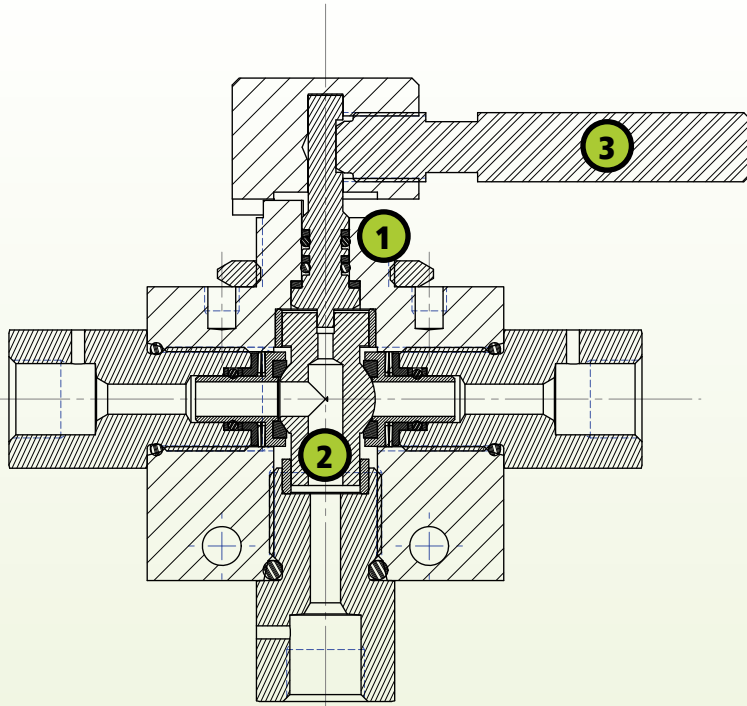
BALL VALVES

- Available in sizes 3/16", 1/4", 3/8" and 1/2"
- One piece, trunnion mounted stem design
- Full port flow path minimizes pressure drop
- PEEK seats for excellent chemical, heat & wear resistance
- Quarter turn from open to close with positive stop
- Manufactured from cold worked stainless steel
- Viton O-rings for operation from 0°F (-17.8°C) to 400°F (204°C)
- Optional O-rings available for high temperature service
- Special wetted materials available

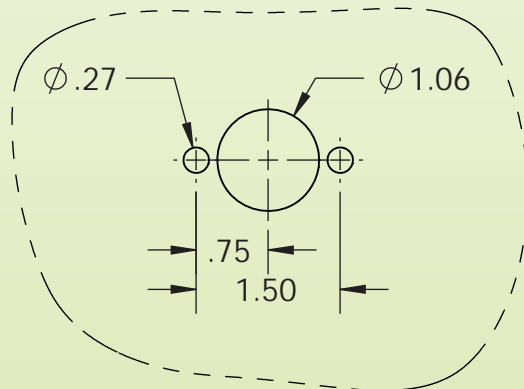


**Dimensions are subject to change and are considered reference.*

FEATURES & BENEFITS OF GPP BALL VALVES



- 1** Operator friendly & fail safe captured stem design for safety
- 2** Trunnion style ball design provides reliable operation and consistent sealing under a range of pressures and during system depressurization/repressurization
- 3** Low torque with easy ergonomic quarter turn handle



Panel Mount Hole Pattern

- Trunnion style ball valves w/positive shut-off in 10,000-15,000-20,000psi (689-1034-1379 bar)
- Designed for fully open and fully closed positions
- Flow options in On/Off (2-Way bi-directional) and Switch/Divert (3-Way w/bottom inlet)
- Coned & threaded, medium pressure, high pressure and NPT end connections
- Mounts 3 Ways:
Valve top bolt mount
Panel mount with nuts* (see diagram)
Valve body mounting holes
- Pressure/Temperature ratings from -17° F (-27° C) up to 250° F (121° C) (ASME B31.3 process piping & Chapter IX HP piping calculations)
- 316 Stainless Steel with Fluorocarbon FKM o-rings
- Available in 3 Orifice sizes:
0.188" (4.8mm)
0.250" (6.4mm)
0.375" (9.5mm)
- Available in .25" (6.35mm) to 1" (25.4mm) end connections
- All valves are water tested for minimum of 60 seconds at maximum working pressure
- Shell and seat testing insures no visible leakage



Valves not cycled for a long period of time may have a higher initial actuation torque.

BALL VALVE PART NUMBERING MATRIX

		CONNECTION VARIATIONS											
Assembly	Ports		Pressure (psi)		Size (inch)		O-Ring	Conn.	Gender	Size	Material		
ABV	2	ON / OFF	10k	10,000	3	3/16	B	BUNA	P	*	2	A4	304 ANN
	3D	3 WAY DIVERTING	15k	15,000	4	1/4	V	VITON	M	M	4	A6	316 ANN
	3S	3 WAY SWITCHING	20k	20,000	6	3/8	E	EPDM	H		6	C4	304 CW
	4	4 WAY			8	1/2	U	URAETHANE			8	blank	316 CW
	5	5 WAY									9	D4	17-4
ADBV		DOUBLE BLOCK									12	D5	15-5
		& BLEED									16	H	HASTELLOY
											24	I	INCONEL

*Gender not used for female type

PIPE FEMALE / PIPE MALE

P	FEMALE	2
PM	MALE	4
		6
		8
		12
		16
		24

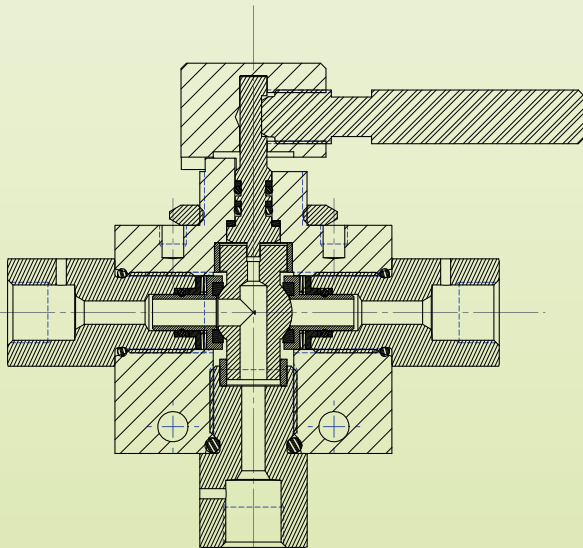
20K MALE / FEMALE

M	FEMALE	4
MM	MALE	6
		9
		12
		16

66KMALE / FEMALE

H	FEMALE	4
HM	MALE	6
		9

EXAMPLE



Part Number ABV3S-20K4V-M6:

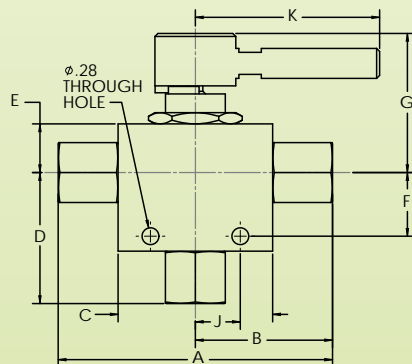
Assembly Valve

2 WAY, 1/4, 20K, BALL VALVE WITH VITON ORINGS AND 3/8 MP ADAPTORS

**Dimensions are subject to change and are considered reference.*

2-WAY BALL VALVES

SIZE (IN.)	PART NUMBER	PRESSURE RATING psi (bar)	MIN. OPENING	DIMENSIONS - INCHES (mm)									BLOCK THK.
				A	B	C	D	E	F	G	J	K	
2-WAY BALL VALVE - 3/16 NPT FEMALE													
1/4 IN	ABV2-15K3V-P4	15,000 (1034.48)	3/16 (4.70)	3.86 (98.04)	1.93 (49.02)								
3/8 IN	ABV2-15K3V-P6	15,000 (1034.5)	3/16 (4.70)	3.98 (101.09)	1.99 (50.55)								
1/2 IN	ABV2-15K3V-P8	15,000 (1034.5)	3/16 (4.70)	4.38 (111.25)	2.19 (55.63)	2.58 (65.53)	1.31 (33.27)	0.81 (20.57)	1.06 (26.92)	2.32 (58.93)	0.75 (19.05)	3.1 (78.74)	1.5 (38.10)
3/4 IN	ABV2-10K3V-P12	10,000 (689.7)	3/16 (4.70)	4.58 (116.33)	2.29 (58.17)								
1 IN	ABV2-10K3V-P16	10,000 (689.7)	3/16 (4.70)	4.28 (108.71)	2.14 (54.36)								
2-WAY BALL VALVE - 3/16 MEDIUM PRESSURE													
1/4 IN	ABV2-20K3V-M4	20,000 (1379.3)	3/16 (4.70)	3.85 (97.79)	1.925 (48.90)								
3/8 IN	ABV2-20K3V-M6	20,000 (1379.3)	3/16 (4.70)	4.19 (106.43)	2.095 (53.21)								
9/16 IN	ABV2-20K3V-M9	20,000 (1379.3)	3/16 (4.70)	4.82 (122.43)	2.41 (61.21)	2.58 (65.53)	1.31 (33.27)	0.81 (20.57)	1.06 (26.92)	2.32 (58.93)	0.75 (19.05)	3.1 (78.74)	1.5 (38.10)
3/4 IN	ABV2-20K3V-M12	20,000 (1379.3)	3/16 (4.70)	5.78 (146.81)	2.89 (73.41)								
1 IN	ABV2-20K3V-M16	20,000 (1379.3)	3/16 (4.70)	6.08 (154.43)	3.04 (77.22)								
2-WAY BALL VALVE - 3/16 HIGH PRESSURE													
1/4 IN	ABV2-20K3V-H4	20,000 (1379.3)	3/16 (4.70)	3.68 (93.47)	1.84 (46.74)								
3/8 IN	ABV2-20K3V-H6	20,000 (1379.3)	3/16 (4.70)	4.32 (109.73)	2.16 (54.86)	2.85 (72.39)	1.31 (33.27)	0.81 (20.57)	1.06 (26.92)	2.32 (58.93)	0.75 (19.05)	3.1 (78.74)	1.5 (38.10)
9/16 IN	ABV2-20K3V-H9	20,000 (1379.3)	3/16 (4.70)	4.82 (122.43)	2.41 (61.21)								



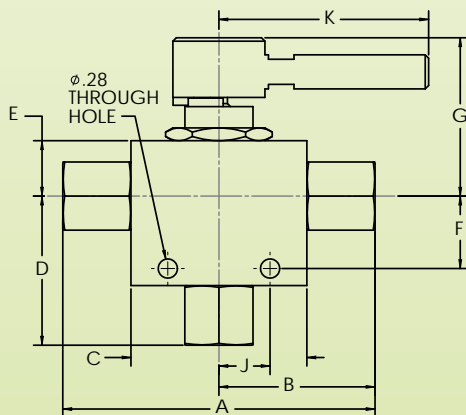
ORIFICE SIZE:	ORIFICE DESIGNATOR:
3/16" (4.76mm)	3
1/4" (6.35mm)	4
3/8" (9.53mm)	6

*Dimensions are subject to change and are considered reference.

2-WAY BALL VALVES



SIZE (IN.)	PART NUMBER	PRESSURE RATING psi (bar)	MIN. OPENING	DIMENSIONS - INCHES (mm)									BLOCK THK.	
				A	B	C	D	E	F	G	J	K		
2-WAY BALL VALVE - 1/4 NPT FEMALE														
1/4 IN	ABV2-15K4V-P4	15,000	1/4	3.96	1.98									
		(1034.5)	(6.40)	(100.58)	(50.29)									
3/8 IN	ABV2-15K4V-P6	15,000	1/4	3.96	1.98									
		(1034.5)	(6.40)	(100.58)	(50.29)									
1/2 IN	ABV2-15K4V-P8	15,000	1/4	3.96	1.98	2.58	1.31	0.81	1.06	2.32	0.75	3.1	1.5	
		(1034.5)	(6.40)	(100.58)	(50.29)	(65.53)	(33.27)	(20.57)	(26.92)	(58.93)	(19.05)	(78.74)	(38.10)	
3/4 IN	ABV2-10K4V-P12	10,000	1/4	4.82	2.41									
		(689.7)	(6.40)	(122.43)	(61.21)									
1 IN	ABV2-10K4V-P16	10,000	1/4	4.28	2.14									
		(689.7)	(6.40)	(108.71)	(54.36)									
2-WAY BALL VALVE - 1/4 MEDIUM PRESSURE														
1/4 IN	ABV2-20K4V-M4	20,000	1/4	3.38	1.69									
		(1379.3)	(6.40)	(85.85)	(42.93)									
3/8 IN	ABV2-20K4V-M6	20,000	1/4	4.58	2.29									
		(1379.3)	(6.40)	(116.33)	(58.17)									
9/16 IN	ABV2-20K4V-M9	20,000	1/4	4.64	2.32	2.58	1.31	0.81	1.06	2.32	0.75	3.1	1.5	
		(1379.3)	(6.40)	(117.86)	(58.93)	(65.53)	(33.27)	(20.57)	(26.92)	(58.93)	(19.05)	(78.74)	(38.10)	
3/4 IN	ABV2-20K4V-M12	20,000	1/4	4.82	2.41									
		(1379.3)	(6.40)	(122.43)	(61.21)									
1 IN	ABV2-20K4V-M16	20,000	1/4	4.28	2.14									
		(1379.3)	(6.40)	(108.71)	(54.36)									
2-WAY BALL VALVE - 1/4 HIGH PRESSURE														
1/4 IN	ABV2-20K4V-H4	20,000	3/16	3.68	1.84									
		(1379.3)	(4.70)	(93.47)	(46.74)									
3/8 IN	ABV2-20K4V-H6	20,000	3/16	4.32	2.16	2.85	1.31	0.81	1.06	2.32	0.75	3.1	1.5	
		(1379.3)	(4.70)	(109.73)	(54.86)	(72.39)	(33.27)	(20.57)	(26.92)	(58.93)	(19.05)	(78.74)	(38.10)	
9/16 IN	ABV2-20K4V-H9	20,000	3/16	4.82	2.41									
		(1379.3)	(4.70)	(122.43)	(61.21)									

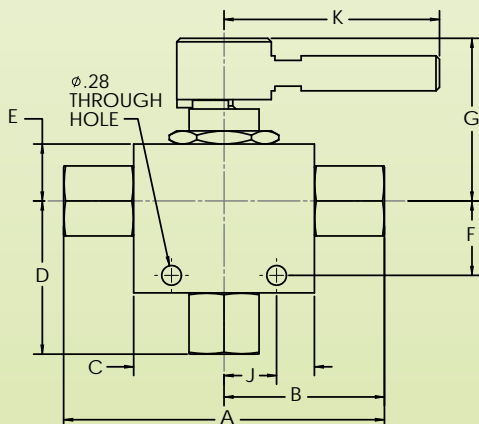


ORIFICE SIZE:	ORIFICE DESIGNATOR:
3/16" (4.76mm)	3
1/4" (6.35mm)	4
3/8" (9.53mm)	6

*Dimensions are subject to change and are considered reference.

2-WAY BALL VALVES

SIZE (IN.)	PART NUMBER	PRESSURE RATING psi (bar)	MIN. OPENING	DIMENSIONS - INCHES (mm)									BLOCK THK.
				A	B	C	D	E	F	G	J	K	
2-WAY BALL VALVE - 3/8 NPT FEMALE													
1/4 IN	ABV2-15K6V-P4	15,000	3/8	5.45	2.725								
		(1034.48)	(9.50)	(138.43)	(69.22)								
3/8 IN	ABV2-15K6V-P6	15,000	3/8	5.45	2.725								
		(1034.5)	(9.50)	(138.43)	(69.22)								
9/16 IN	ABV2-15K6V-P8	15,000	3/8	5.45	2.725	3.58	1.38	0.99	1.13	2.32	1.00	4.50	1.75
		(1034.5)	(9.50)	(138.43)	(69.22)	(90.93)	(35.05)	(25.15)	(28.58)	(58.93)	(25.40)	(114.30)	(44.45)
3/4 IN	ABV2-10K6V-P12	10,000	3/8	5.62	2.81								
		(689.7)	(9.50)	(142.75)	(71.37)								
1 IN	ABV2-10K6V-P16	10,000	3/8	6.32	3.16								
		(689.7)	(9.50)	(160.53)	(80.26)								
2-WAY BALL VALVE - 3/8 MEDIUM PRESSURE													
1/4 IN	ABV2-20K6V-M4	20,000	3/8	5.32	2.66								
		(1379.3)	(9.50)	(135.13)	(67.56)								
3/8 IN	ABV2-20K6V-M6	20,000	3/8	6.15	3.075								
		(1379.3)	(9.50)	(156.21)	(78.11)								
9/16 IN	ABV2-20K6V-M9	20,000	3/8	7.21	3.605	3.58	1.38	0.99	1.13	2.32	1.00	4.50	1.75
		(1379.3)	(9.50)	(183.13)	(91.57)	(90.93)	(35.05)	(25.15)	(28.58)	(58.93)	(25.40)	(114.30)	(44.45)
3/4 IN	ABV2-20K6V-M12	20,000	3/8	7.56	3.78								
		(1379.3)	(9.50)	(192.02)	(96.01)								
1 IN	ABV2-20K6V-M16	20,000	3/8	8.75	4.375								
		(1379.3)	(9.50)	(222.25)	(111.13)								
2-WAY BALL VALVE - 3/8 HIGH PRESSURE													
1/4 IN	ABV3S-20K6V-H4	20,000	3/16	3.68	1.84								
		(1379.3)	(4.70)	(93.47)	(46.74)								
3/8 IN	ABV3S-20K6V-H6	20,000	3/16	4.32	2.16	3.58	1.38	0.99	1.13	2.32	1.00	4.50	1.75
		(1379.3)	(4.70)	(109.73)	(54.86)	(90.93)	(35.05)	(25.15)	(28.58)	(58.93)	(25.40)	(114.30)	(44.45)
9/16 IN	ABV3S-20K6V-H9	20,000	3/16	4.82	2.41								
		(1379.3)	(4.70)	(122.43)	(61.21)								



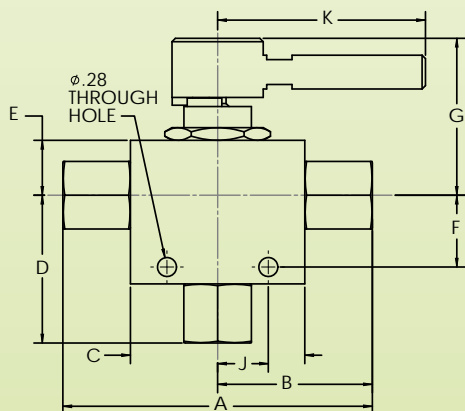
ORIFICE SIZE:	ORIFICE DESIGNATOR:
3/16" (4.76mm)	3
1/4" (6.35mm)	4
3/8" (9.53mm)	6

*Dimensions are subject to change and are considered reference.

3-WAY BALL VALVES



SIZE (IN.)	PART NUMBER	PRESSURE RATING psi (bar)	MIN. OPENING	DIMENSIONS - INCHES (mm)										BLOCK THK.
				A	B	C	D	E	F	G	J	K		
3-WAY BALL VALVE - 3/16 NPT FEMALE														
1/4 IN	ABV3S-15K3V-P4	15,000	3/16	3.86	1.93		1.91							
		(1034.48)	(4.70)	(98.04)	(49.02)		(48.51)							
3/8 IN	ABV3S-15K3V-P6	15,000	3/16	3.98	1.99		2.06							
		(1034.5)	(4.70)	(101.09)	(50.55)		(52.32)							
1/2 IN	ABV3S-15K3V-P8	15,000	3/16	4.38	2.19	2.58	2.36	0.81	1.06	2.32	0.75	3.1	1.5	
		(1034.5)	(4.70)	(111.25)	(55.63)	(65.53)	(59.94)	(20.57)	(26.92)	(58.93)	(19.05)	(78.74)	(38.10)	
3/4 IN	ABV3S-10K3V-P12	10,000	3/16	4.58	2.29		3.32							
		(689.7)	(4.70)	(116.33)	(58.17)		(84.33)							
1 IN	ABV3S-10K3V-P16	10,000	3/16	4.28	2.14		4.12							
		(689.7)	(4.70)	(108.71)	(54.36)		(104.65)							
3-WAY BALL VALVE - 3/16 MEDIUM PRESSURE														
1/4 IN	ABV3S-20K3V-M4	20,000	3/16	3.85	1.925		1.89							
		(1379.3)	(4.70)	(97.79)	(48.90)		(48.01)							
3/8 IN	ABV3S-20K3V-M6	20,000	3/16	4.19	2.095		2.18							
		(1379.3)	(4.70)	(106.43)	(53.21)		(55.37)							
9/16 IN	ABV3S-20K3V-M9	20,000	3/16	4.82	2.41	2.58	2.37	0.81	1.06	2.32	0.75	3.1	1.5	
		(1379.3)	(4.70)	(122.43)	(61.21)	(65.53)	(60.20)	(20.57)	(26.92)	(58.93)	(19.05)	(78.74)	(38.10)	
3/4 IN	ABV3S-20K3V-M12	20,000	3/16	5.78	2.89		3.31							
		(1379.3)	(4.70)	(146.81)	(73.41)		(84.07)							
1 IN	ABV3S-20K3V-M16	20,000	3/16	6.08	3.04		3.31							
		(1379.3)	(4.70)	(154.43)	(77.22)		(84.07)							
3-WAY BALL VALVE - 3/16 HIGH PRESSURE														
1/4 IN	ABV3S-20K3V-H4	20,000	3/16	3.68	1.84		1.88							
		(1379.3)	(4.70)	(93.47)	(46.74)		(47.75)							
3/8 IN	ABV3S-20K3V-H6	20,000	3/16	4.32	2.16	2.85	2.18	0.81	1.06	2.32	0.75	3.1	1.5	
		(1379.3)	(4.70)	(109.73)	(54.86)	(72.39)	(55.37)	(20.57)	(26.92)	(58.93)	(19.05)	(78.74)	(38.10)	
9/16 IN	ABV3S-20K3V-H9	20,000	3/16	4.82	2.41		2.37							
		(1379.3)	(4.70)	(122.43)	(61.21)		(60.20)							



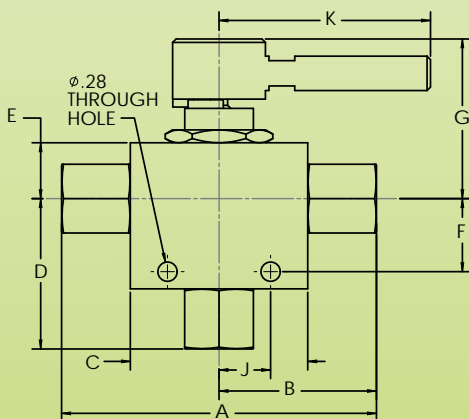
DESCRIPTION	FLOW DIRECTION			HANDLE ROTATION	DESIGNATION
ON/OFF SWITCHING SERVICE	ON	OFF	ON	180°	S
DIVERT SERVICE				90°	D

PART NUMBER EXAMPLE WITH SWITCHING DESIGNATION (S or D):
ABV3S-20K3-VM4

*Dimensions are subject to change and are considered reference.

3-WAY BALL VALVES

SIZE (IN.)	PART NUMBER	PRESSURE RATING psi (bar)	MIN. OPENING	DIMENSIONS - INCHES (mm)										BLOCK THK.
				A	B	C	D	E	F	G	J	K		
3-WAY BALL VALVE - 1/4 NPT FEMALE														
1/4 IN	ABV3S-15K4V-P4	15,000 (1034.5)	1/4 (6.40)	3.96 (100.58)	1.98 (50.29)		1.91 (48.51)							
3/8 IN	ABV3S-15K4V-P6	15,000 (1034.5)	1/4 (6.40)	3.96 (100.58)	1.98 (50.29)		2.06 (52.32)							
1/2 IN	ABV3S-15K4V-P8	15,000 (1034.5)	1/4 (6.40)	3.96 (100.58)	1.98 (50.29)	2.58 (65.53)	2.56 (65.02)	0.81 (20.57)	1.06 (26.92)	2.32 (58.93)	0.75 (19.05)	3.1 (78.74)	1.5 (38.10)	
3/4 IN	ABV3S-10K4V-P12	10,000 (689.7)	1/4 (6.40)	4.82 (122.43)	2.41 (61.21)		3.96 (100.58)							
1 IN	ABV3S-10K4V-P16	10,000 (689.7)	1/4 (6.40)	4.28 (108.71)	2.14 (54.36)		3.96 (100.58)							
3-WAY BALL VALVE - 1/4 MEDIUM PRESSURE														
1/4 IN	ABV3S-20K4V-M4	20,000 (1379.3)	1/4 (6.40)	3.38 (85.85)	1.69 (42.93)		1.89 (48.01)							
3/8 IN	ABV3S-20K4V-M6	20,000 (1379.3)	1/4 (6.40)	4.58 (116.33)	2.29 (58.17)		2.19 (55.63)							
9/16 IN	ABV3S-20K4V-M9	20,000 (1379.3)	1/4 (6.40)	4.64 (117.86)	2.32 (58.93)	2.58 (65.53)	2.37 (60.20)	0.81 (20.57)	1.06 (26.92)	2.32 (58.93)	0.75 (19.05)	3.1 (78.74)	1.5 (38.10)	
3/4 IN	ABV3S-20K4V-M12	20,000 (1379.3)	1/4 (6.40)	4.82 (122.43)	2.41 (61.21)		2.27 (57.66)							
1 IN	ABV3S-20K4V-M16	20,000 (1379.3)	1/4 (6.40)	4.28 (108.71)	2.14 (54.36)		2.52 (64.01)							
3-WAY BALL VALVE - 1/4 HIGH PRESSURE														
1/4 IN	ABV3S-20K4V-H4	20,000 (1379.3)	3/16 (4.70)	3.68 (93.47)	1.84 (46.74)		1.89 (48.01)							
3/8 IN	ABV3S-20K4V-H6	20,000 (1379.3)	3/16 (4.70)	4.32 (109.73)	2.16 (54.86)	2.85 (72.39)	2.82 (48.01)	0.81 (20.57)	1.06 (26.92)	2.32 (58.93)	0.75 (19.05)	3.1 (78.74)	1.5 (38.10)	
9/16 IN	ABV3S-20K4V-H9	20,000 (1379.3)	3/16 (4.70)	4.82 (122.43)	2.41 (61.21)		2.37 (60.20)							



DESCRIPTION	FLOW DIRECTION			HANDLE ROTATION	DESIGNATION
ON/OFF SWITCHING SERVICE	ON	OFF	ON	180°	S
DIVERT SERVICE				90°	D

PART NUMBER EXAMPLE WITH SWITCHING DESIGNATION (S or D):
ABV3S-20K3-VM4

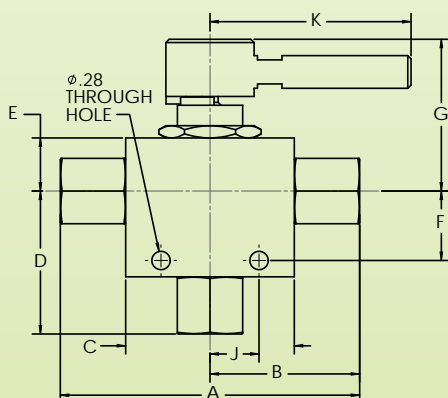
**Dimensions are subject to change and are considered reference.*

3-WAY BALL VALVES



gpphighpressure.com
(417) 673-1919

SIZE (IN.)	PART NUMBER	PRESSURE RATING psi (bar)	MIN. OPENING	DIMENSIONS - INCHES (mm)										BLOCK THK.
				A	B	C	D	E	F	G	J	K		
3-WAY BALL VALVE - 3/8 NPT FEMALE														
1/4 IN	ABV3S-15K6V-P4	15,000	3/8	5.45	2.725		2.4							
		(1034.5)	(9.50)	(138.43)	(69.22)		(60.96)							
3/8 IN	ABV3S-15K6V-P6	15,000	3/8	5.45	2.725		2.4							
		(1034.5)	(9.50)	(138.43)	(69.22)		(60.96)							
9/16 IN	ABV3S-15K6V-P8	15,000	3/8	5.45	2.725	3.58	2.4	0.99	1.13	2.32	1.00	4.50	1.75	
		(1034.5)	(9.50)	(138.43)	(69.22)	(90.93)	(60.96)	(25.15)	(28.58)	(58.93)	(25.40)	(114.30)	(44.45)	
3/4 IN	ABV3S-10K6V-P12	10,000	3/8	5.62	2.81		2.53							
		(689.7)	(9.50)	(142.75)	(71.37)		(64.26)							
1 IN	ABV3S-10K6V-P16	10,000	3/8	6.32	3.16		2.88							
		(689.7)	(9.50)	(160.53)	(80.26)		(73.15)							
3-WAY BALL VALVE - 3/8 MEDIUM PRESSURE														
1/4 IN	ABV3S-20K6V-M4	20,000	3/8	5.32	2.66		2.14							
		(1379.3)	(9.50)	(135.13)	(67.56)		(54.36)							
3/8 IN	ABV3S-20K6V-M6	20,000	3/8	6.15	3.075		2.89							
		(1379.3)	(9.50)	(156.21)	(78.11)		(73.41)							
9/16 IN	ABV3S-20K6V-M9	20,000	3/8	7.21	3.605	3.58	3.09	0.99	1.13	2.32	1.00	4.50	1.75	
		(1379.3)	(9.50)	(183.13)	(91.57)	(90.93)	(78.49)	(25.15)	(28.58)	(58.93)	(25.40)	(114.30)	(44.45)	
3/4 IN	ABV3S-20K6V-M12	20,000	3/8	7.56	3.78		3.53							
		(1379.3)	(9.50)	(192.02)	(96.01)		(89.66)							
1 IN	ABV3S-20K6V-M16	20,000	3/8	8.75	4.375		3.53							
		(1379.3)	(9.50)	(222.25)	(111.13)		(89.66)							
3-WAY BALL VALVE - 1/4 HIGH PRESSURE														
1/4 IN	ABV3S-20K6V-H4	20,000	3/16	3.68	1.84		4.1							
		(1379.3)	(4.70)	(93.47)	(46.74)		(104.14)							
3/8 IN	ABV3S-20K6V-H6	20,000	3/16	4.32	2.16	3.58	4.3	0.99	1.13	2.32	1.00	4.50	1.75	
		(1379.3)	(4.70)	(109.73)	(54.86)	(90.93)	(109.22)	(25.15)	(28.58)	(58.93)	(25.40)	(114.30)	(44.45)	
9/16 IN	ABV3S-20K6V-H9	20,000	3/16	4.82	2.41		5.2							
		(1379.3)	(4.70)	(122.43)	(61.21)		(132.08)							



DESCRIPTION	FLOW DIRECTION			HANDLE ROTATION	DESIGNATION
ON/OFF SWITCHING SERVICE	ON	OFF	ON	180°	S
DIVERT SERVICE				90°	D

PART NUMBER EXAMPLE WITH SWITCHING DESIGNATION (S or D):
ABV3S-20K3-VM4

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