

Ball Valves



ROKE
Valves and Fittings

www.chinaroke.com

Contents

One-piece Instrumentation Ball Valves

OIB Series



01

Hex Bar Stock Ball Valves

HBB Series



07

High Performance Ball Valves

HPB Series



10

Trunnion Ball Valves

TB and TBH Series



15

3-piece Ball Valves

PB Series



19

Part NO. Discription

For Example: SS-OIB-MN4-FN4-5-A

Material	Series	Inlet or Outlet	Size	Orifice	Type
SS: Stainles Steel 316	OIB Series	FN: Female Npt	2: 1/8"	2: 2.4mm	A: ANgle
S9: Stainles Steel 904L	HBB Series	MN: Male Npt	3: 3/16" or 3mm	3: 3.2mm	3W: 3-way
S4: Stainles Steel 304	HPB Series	FR: Female BSPT	4: 1/4"	4: 4.2mm	
S2: Stainles Steel 321	TB Series	MR: Male BSPT	5: 5/16"	5: 4.8mm	
M4: Monle 400	TBH Series	FT: Frantctional Tube	6: 3/8" or 6mm	7: 7.1mm	
I6: Inconle 625		MT: Metric Tube	8: 1/2" Or 8mm	9: 8.9mm	
HC: Hastelly C 276		BW: Butt Weld	10: 5/8" or 10mm	9h: 9.5mm	
B: Brass		SW: Socket Weld	12: 3/4" or 12mm	10: 10.3mm	
			16: 1" or 16mm	16: 16mm	

One-piece Instrumentation Ball Valves

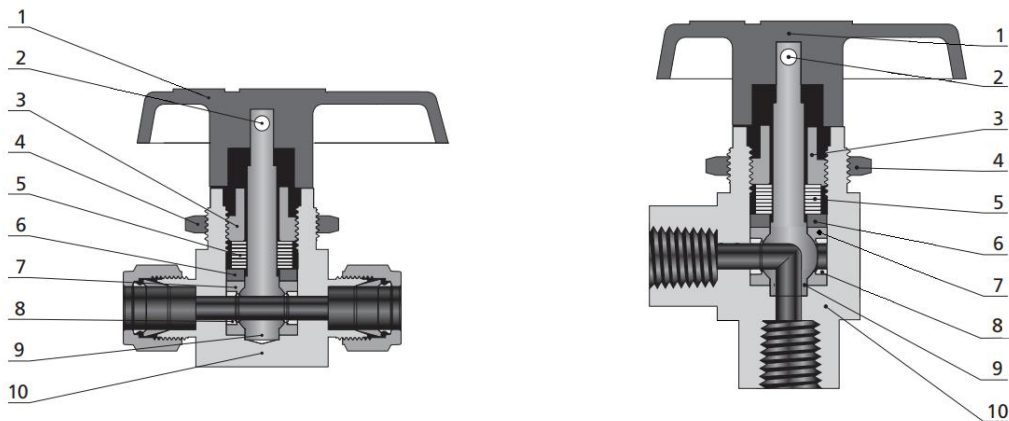
OIB Series

Features

- ⦿ One-piece body and one-piece ball stem
- ⦿ No dead zone, such as area between the ball and valve chamber
- ⦿ Full operating pressure at any port
- ⦿ Leak-tight performance testing for every valve at the maximum working pressure with nitrogen
- ⦿ In-line inspection and repair after system relieved by top entry design
- ⦿ Maximum working pressure: 3000 psig (207 bar)
- ⦿ Working temperature: -65°F to 300°F (-54°C to 148°C)



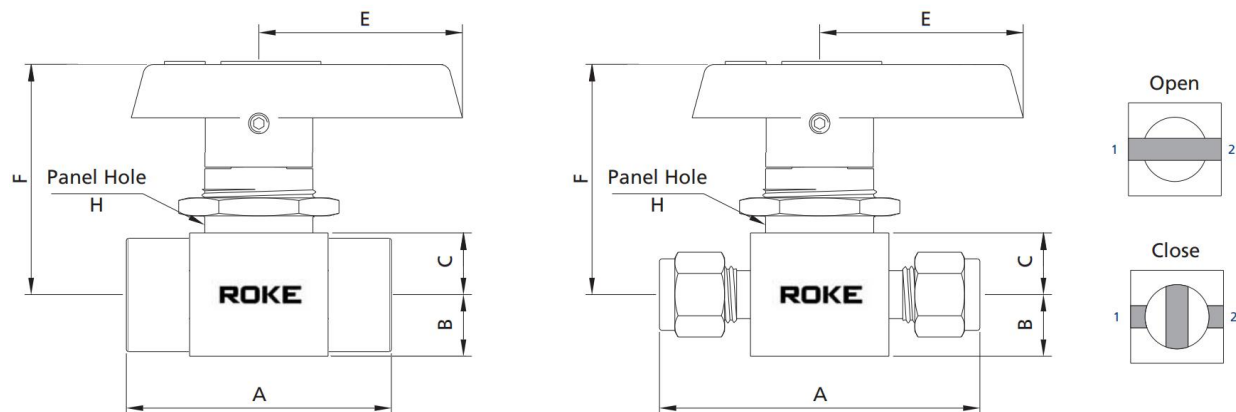
Standard Materials of Construction



Item	Component	Valve Body Material		
		Stainless Steel	Brass	Alloy 400
		Material Grade/ASTM Specification		
1	Handle	Nylon or Aluminium		
2	Set Screw	S17400 SS/A564		
3	Packing Bolt	Powdered metal 300 series SS or 316 SS/A276, A479	Brass CDA 36000/B16	Alloy R-405/B164
4	Panel Nut	Powdered metal 300 series SS /B783 or 316 SS/A276, A479	Brass CDA 36000/B16	Powdered metal 300 series SS /B783 or 316 SS/A276, A479
5	Dishing Spring	S17700/A693		
6	Gland	Powdered metal 300 series SS/B783 or 316 SS/A276	Brass CDA 36000/B16	Alloy 400/B164
7	Packing Seat	PTFE/D1710 or UHMWPE/D4020		
8	Support Ring	316 SS/A276	Brass CDA 36000/B16	Alloy 400/B164
9	Ball Stem	316 SS/A276	Brass CDA 36000/B16	Alloy 400/B164
10	Body	316 SS/A182	Brass CDA 37700/B16	Alloy 400/B164

Dimensions OIB Series

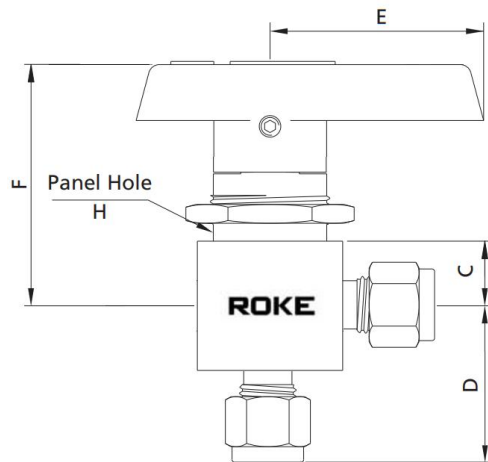
Straight



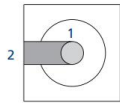
Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv		Dimension, in.(mm)					
			Straight	Angle	A	B	C	E	F	H
-OIB-FN2-3	1/8 Female NPT	0.13 (3.2)	0.50	0.30	1.63 (41.4)	0.28 (7.1)	0.34 (8.6)	1.10 (28.0)	1.43 (36.2)	0.59 (15.0)
-OIB-FN2-5		0.19 (4.8)	0.90	0.70	2.00 (50.8)	0.38 (9.7)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)
-OIB-FN4-5	1/4 Female NPT	0.19 (4.8)	0.90	0.75	2.06 (52.3)	0.38 (9.7)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)
-OIB-FN4-7		0.28 (7.1)	2.60	1.70	2.50 (63.5)	0.56 (14.2)	0.56 (14.2)	2.05 (52)	2.19 (55.5)	1.13 (28.6)
-OIB-FN6-5	3/8 Female NPT	0.28 (7.1)	2.60	1.50	2.50 (63.5)	0.56 (14.2)	0.56 (14.2)	2.05 (52)	2.19 (55.5)	1.13 (28.6)
-OIB-FN8-10	1/2 Female NPT	0.41 (10.3)	6.30	3.50	3.12 (79.2)	0.69 (17.5)	0.69 (17.5)	3.13 (79.6)	2.67 (67.7)	1.50 (38.1)
-OIB-MN2-3	1/8 Male NPT	0.13 (3.2)	0.50	0.30	1.63 (41.4)	0.28 (7.1)	0.34 (8.6)	1.10 (28.0)	1.43 (36.2)	0.59 (15.0)
-OIB-MN4-5	1/4 Male NPT	0.19 (4.8)	0.90	0.75	2.00 (50.8)	0.38 (9.7)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)
-OIB-MN6-5	3/8 Male NPT	0.28 (7.1)	2.60	1.50	2.50 (63.5)	0.56 (14.2)	0.56 (14.2)	2.05 (52)	2.19 (55.5)	1.13 (28.6)
-OIB-MN8-10	1/2 Male NPT	0.41 (10.3)	6.30	3.50	3.12 (79.2)	0.69 (17.5)	0.69 (17.5)	3.13 (79.6)	2.67 (67.7)	1.50 (38.1)
-OIB-FT2-2	1/8" Tube	0.09 (2.4)	0.20	0.15	2.01 (51.0)	0.28 (7.1)	0.34 (8.6)	1.10 (28.0)	1.43 (36.2)	0.59 (15.0)
-OIB-FT4-5	1/4" Tube	0.19 (4.8)	1.40	0.90	2.39 (60.7)	0.38 (9.7)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)
-OIB-FT6-7	3/8" Tube	0.28 (7.1)	6.00	2.0	3.05 (77.5)	0.56 (14.2)	0.56 (14.2)	2.05 (52)	2.19 (55.5)	1.13 (28.6)
-OIB-FT8-10	1/2" Tube	0.41 (10.3)	6.40	3.80	3.92 (99.6)	0.69 (17.5)	0.69 (17.5)	3.13 (79.6)	2.67 (67.7)	1.50 (38.1)
-OIB-FT12-10	3/4" Tube	0.41 (10.3)	12.0	4.60	3.92 (99.6)	0.69 (17.5)	0.69 (17.5)	3.13 (79.6)	2.67 (67.7)	1.50 (38.1)
-OIB-MT3-2	3mm Tube	0.09 (2.4)	0.20	0.15	2.01 (51.0)	0.28 (7.1)	0.34 (8.6)	1.10 (28.0)	1.43 (36.2)	0.59 (15.0)
-OIB-MT6-5	6mm Tube	0.19 (4.8)	1.40	0.90	2.39 (60.7)	0.38 (9.7)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)
-OIB-MT8-5	8mm Tube	0.19 (4.8)	1.40	0.90	2.46 (62.5)	0.38 (9.7)	0.44 (11.2)	1.64 (41.7)	1.64 (41.7)	0.78 (19.8)
-OIB-MT10-7	10mm Tube	0.28 (7.1)	6.00	2.0	3.05 (77.5)	0.56 (14.2)	0.56 (14.2)	2.05 (52)	2.19 (55.5)	1.13 (28.6)
-OIB-MT12-10	12mm Tube	0.41 (10.3)	6.40	3.80	3.92 (99.6)	0.69 (17.5)	0.69 (17.5)	3.13 (79.6)	2.67 (67.7)	1.50 (38.1)
-OIB-MT14-10	14mm Tube	0.41 (10.3)	6.40	3.80	3.92 (99.6)	0.69 (17.5)	0.69 (17.5)	3.13 (79.6)	2.67 (67.7)	1.50 (38.1)
-OIB-MT18-10	18mm Tube	0.41 (10.3)	12.0	4.60	3.92 (99.6)	0.69 (17.5)	0.69 (17.5)	3.13 (79.6)	2.67 (67.7)	1.50 (38.1)

3 Ball Valves

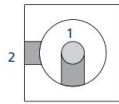
Angle



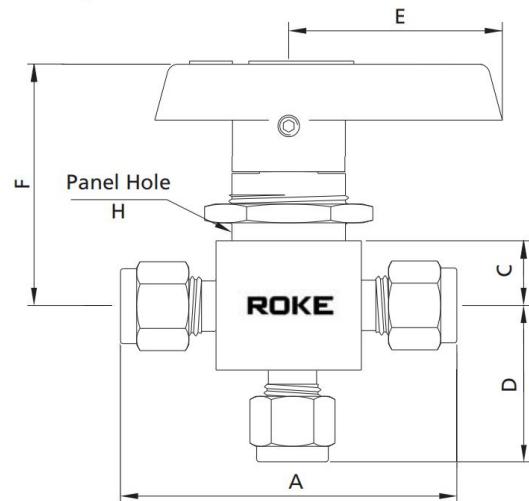
Open



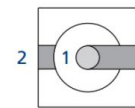
Close



3-way



3L Flow Pattern



Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv		Dimension, in.(mm)					
			Straight	Angle	A	C	D	E	F	H
-OIB-FN2-3-A	1/8 Female NPT	0.13	0.50	0.30	1.63	0.34	0.81	1.10	1.43	0.59
-OIB-FN2-3-3W		(3.2)			(41.4)	(8.6)	(20.6)	(28.0)	(36.2)	(15.0)
-OIB-FN2-5-A		0.19	0.90	0.70	2.00	0.44	1.03	1.57	1.64	0.78
-OIB-FN2-5-3W		(4.8)			(50.8)	(11.2)	(26.2)	(39.9)	(41.7)	(19.8)
-OIB-FN4-5-A	1/4 Female NPT	0.19	0.90	0.75	2.06	0.44	1.03	1.57	1.64	0.78
-OIB-FN5-5-3W		(4.8)			(52.3)	(11.2)	(26.2)	(39.9)	(41.7)	(19.8)
-OIB-FN4-7-A		0.28	2.60	1.70	2.50	0.56	1.25	2.05	2.19	1.13
-OIB-FN4-7-3W		(7.1)			(63.5)	(14.2)	(31.8)	(52)	(55.5)	(28.6)
-OIB-FN6-5-A	3/8 Female NPT	0.28	2.60	1.50	2.50	0.56	1.25	2.05	2.19	1.13
-OIB-FN6-7-3W		(7.1)			(63.5)	(14.2)	(31.8)	(52)	(55.5)	(28.6)
-OIB-FN8-10-A	1/2 Female NPT	0.41	6.30	3.50	3.12	0.69	1.56	3.13	2.67	1.50
-OIB-FN8-10-3W		(10.3)			(79.2)	(17.5)	(39.6)	(79.6)	(67.7)	(38.1)
-OIB-MN2-3-A	1/8 Male NPT	0.13	0.50	0.30	1.63	0.28	0.34	1.10	1.43	0.59
-OIB-MN2-3-3W		(3.2)			(41.4)	(7.1)	(8.6)	(28.0)	(36.2)	(15.0)
-OIB-MN4-5-A	1/4 Male NPT	0.19	0.90	0.75	2.00	0.38	0.44	1.57	1.64	0.78
-OIB-MN5-5-3W		(4.8)			(50.8)	(9.7)	(11.2)	(39.9)	(41.7)	(19.8)
-OIB-MN6-5-A	3/8 Male NPT	0.28	2.60	1.50	2.50	0.56	0.56	2.05	2.19	1.13
-OIB-MN6-7-3W		(7.1)			(63.5)	(14.2)	(14.2)	(52)	(55.5)	(28.6)
-OIB-MN8-10-A	1/2 Male NPT	0.41	6.30	3.50	3.12	0.69	0.69	3.13	2.67	1.50
-OIB-MN8-10-3W		(10.3)			(79.2)	(17.5)	(17.5)	(79.6)	(67.7)	(38.1)
-OIB-FT2-2-A	1/8" Tube	0.09	0.20	0.15	2.01	0.34	0.97	1.10	1.43	0.59
-OIB-FT2-2-3W		(2.4)			(51.0)	(8.6)	(24.6)	(28.0)	(36.2)	(15.0)
-OIB-FT4-5-A	1/4" Tube	0.19	1.40	0.90	2.39	0.44	1.29	1.57	1.64	0.78
-OIB-FT4-5-3W		(4.8)			(60.7)	(11.2)	(32.8)	(39.9)	(41.7)	(19.8)
-OIB-FT6-7-A	3/8" Tube	0.28	6.00	2.0	3.05	0.56	1.43	2.05	2.19	1.13
-OIB-FT6-7-3W		(7.1)			(77.5)	(14.2)	(36.3)	(52)	(55.5)	(28.6)
-OIB-FT8-10-A	1/2" Tube	0.41	6.40	3.80	3.92	0.69	1.74	3.13	2.67	1.50
-OIB-FT8-10-3W		(10.3)			(99.6)	(17.5)	(44.2)	(79.6)	(67.7)	(38.1)
-OIB-FT12-10-A	3/4" Tube	0.41	12.0	4.60	3.92	0.69	1.74	3.13	2.67	1.50
-OIB-FT12-10-3W		(10.3)			(99.6)	(17.5)	(44.2)	(79.6)	(67.7)	(38.1)

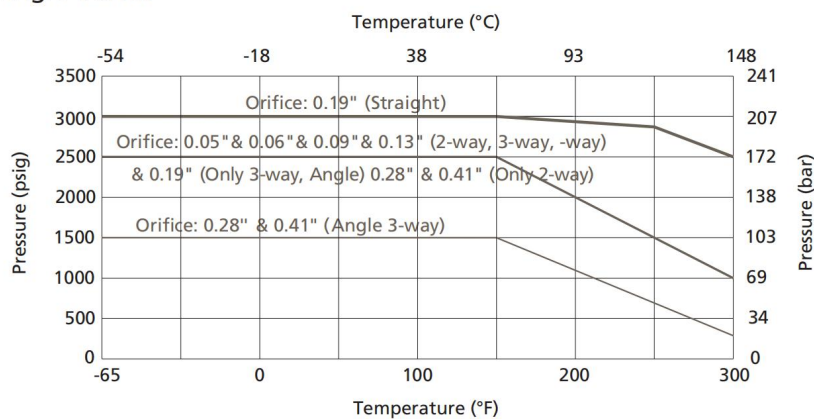
4 Ball Valves

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv		Dimension, in.(mm)					
			Straight	Angle	A	C	D	E	F	H
-OIB-MT3-2	3mm Tube	0.09 (2.4)	0.20	0.15	2.01	0.34	0.97	1.10	1.43	0.59
-OIB-MT3-2-3W					(51.0)	(8.6)	(24.6)	(28.0)	(36.2)	(15.0)
-OIB-MT6-5	6mm Tube	0.19 (4.8)	1.40	0.90	2.39	0.44	1.29	1.57	1.64	0.78
-OIB-MT6-5-3W					(60.7)	(11.2)	(32.8)	(39.9)	(41.7)	(19.8)
-OIB-MT8-5	8mm Tube	0.19 (4.8)	1.40	0.90	2.46	0.44	1.29	1.64	1.64	0.78
-OIB-MT8-5-3W					(62.5)	(11.2)	(32.8)	(41.7)	(41.7)	(19.8)
-OIB-MT10-7	10mm Tube	0.28 (7.1)	6.00	2.0	3.05	0.56	1.43	2.05	2.19	1.13
-OIB-MT10-7-3W					(77.5)	(14.2)	(36.3)	(52)	(55.5)	(28.6)
-OIB-MT12-10	12mm Tube	0.41 (10.3)	6.40	3.80	3.92	0.69	1.74	3.13	2.67	1.50
-OIB-MT12-10-3W					(99.6)	(17.5)	(44.2)	(79.6)	(67.7)	(38.1)
-OIB-MT14-10	14mm Tube	0.41 (10.3)	6.40	3.80	3.92	0.69	1.74	3.13	2.67	1.50
-OIB-MT14-10-3W					(99.6)	(17.5)	(44.2)	(79.6)	(67.7)	(38.1)
-OIB-MT18-10	18mm Tube	0.41 (10.3)	12.0	4.60	3.92	0.69	1.74	3.13	2.67	1.50
-OIB-MT18-10-3W					(99.6)	(17.5)	(44.2)	(79.6)	(67.7)	(38.1)

1. Sizes and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.
2. Dimensions are shown with ROKE nuts finger-tightened. All dimensions are for reference only and are subject to change.
3. For dimensions not shown above, please contact the authorized representative or ROKE employees.

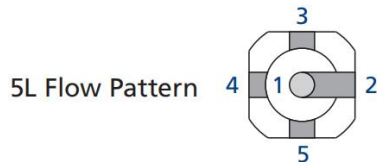
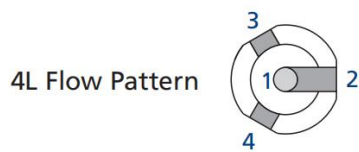
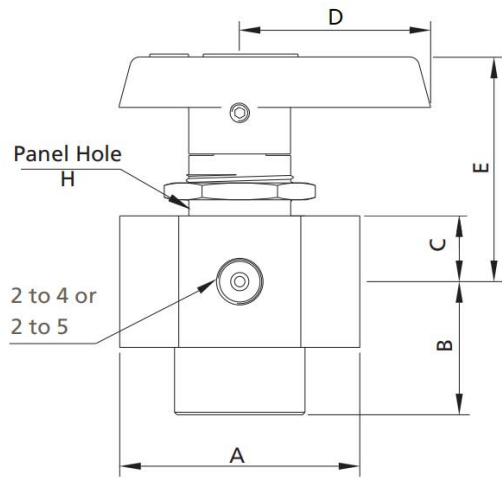
Pressure vs. Temperature

2-, 3-way, Angle Valves

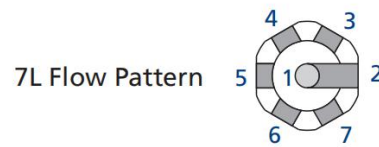
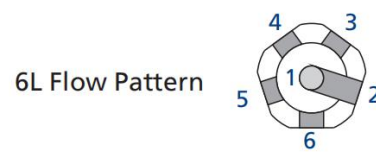
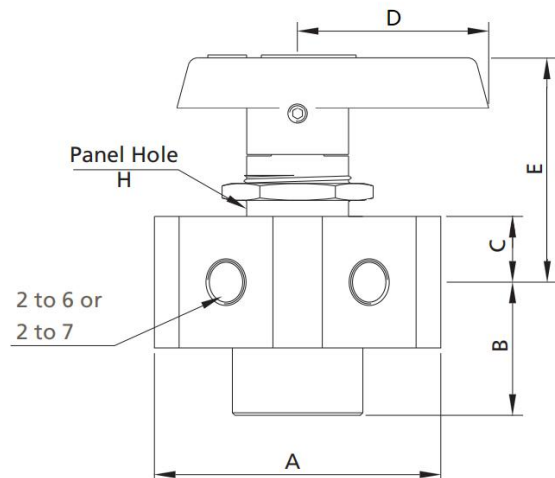


Switching Valves (4, 5, 6 and 7-way)

4, 5-way Valve



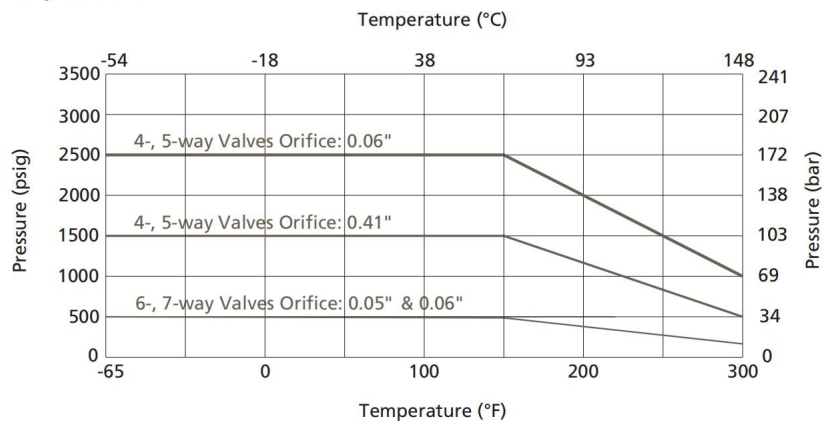
6, 7-way Valve



Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)					
				A	B	C	D	E	H
-OIB-FN2-2-4L	1/8 Female NPT	0.06	0.07	1.85	0.88	0.44	1.57	1.76	0.91
-OIB-FN2-2-5L		(1.6)		(47.0)	(22.4)	(11.2)	(39.9)	(44.6)	(23.1)
-OIB-FN8-10-4L	1/2 Female NPT	0.41	3.50	3.13	1.56	0.69	3.13	2.63	1.50
-OIB-FN8-10-5L		(10.3)		(79.5)	(39.6)	(17.5)	(79.6)	(66.7)	(38.1)
-OIB-FT2-2-4L	1/8 Tube	0.06	0.07	2.64	1.32	0.44	1.57	1.76	0.91
-OIB-FT2-2-5L		(1.6)		(67.0)	(33.5)	(11.2)	(39.9)	(44.6)	(23.1)
-OIB-FT2-1-6L	1/16 Tube	0.05	0.05	2.64	1.32	0.44	1.57	1.76	0.91
-OIB-FT2-1-7L		(1.3)		(67.0)	(33.5)	(11.2)	(39.9)	(44.6)	(23.1)
-OIB-FT2-2-6L	1/8 Tube	0.06	0.07	2.64	1.32	0.44	1.57	1.76	0.91
-OIB-FT2-2-7L		(1.6)		(67.0)	(33.5)	(11.2)	(39.9)	(44.6)	(23.1)

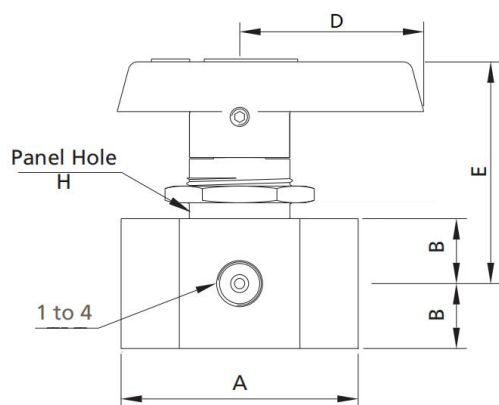
Pressure vs. Temperature

4-, 5-, 6-, 7-way Valves



Crossover Valves (4, 6-way)

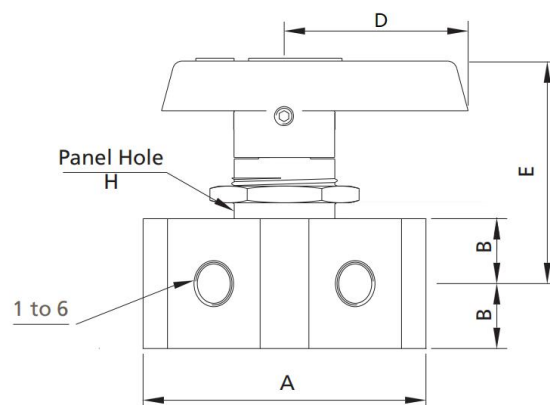
4-way Valve



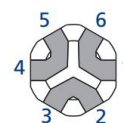
4C Flow Pattern



6-way Valve



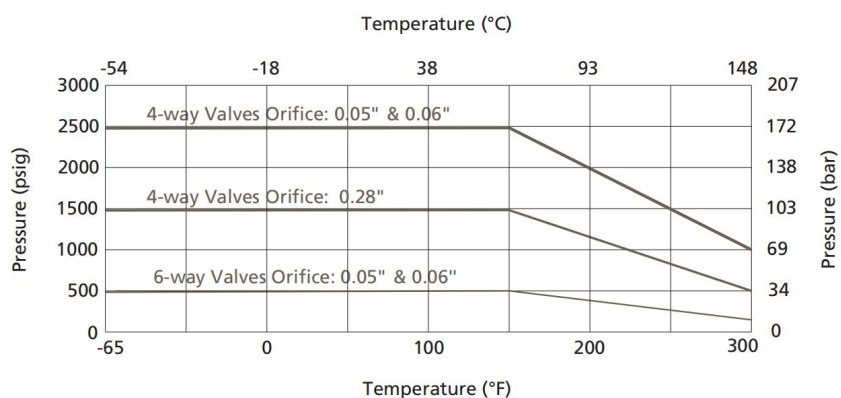
6C Flow Pattern



Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)				
				A	B	D	E	H
-OIB-FN2-2-4C	1/8 Female NPT	0.06 (1.6)	0.08	1.55 (39.4)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)
-OIB-FN8-7-4C	1/2 Female NPT	0.28 (7.1)	1.60	3.13 (79.5)	0.69 (17.5)	3.13 (79.6)	2.67 (67.7)	1.50 (38.1)
-OIB-FT1-1-4C	1/16 Tube	0.05 (1.3)	0.06	1.95 (49.6)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)
-OIB-FT2-2-4C	1/8 Tube	0.06 (1.6)	0.08	2.61 (66.3)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)
-OIB-FT1-1-6C	1/16 Tube	0.05 (1.3)	0.06	1.95 (49.6)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)
-OIB-FT2-2-6C	1/8 Tube	0.06 (1.6)	0.08	1.95 (49.6)	0.44 (11.2)	1.57 (39.9)	1.64 (41.7)	0.78 (19.8)

Pressure vs. Temperature

Crossover (4-, 6-way) Valves



Hex Bar Stock Ball Valves

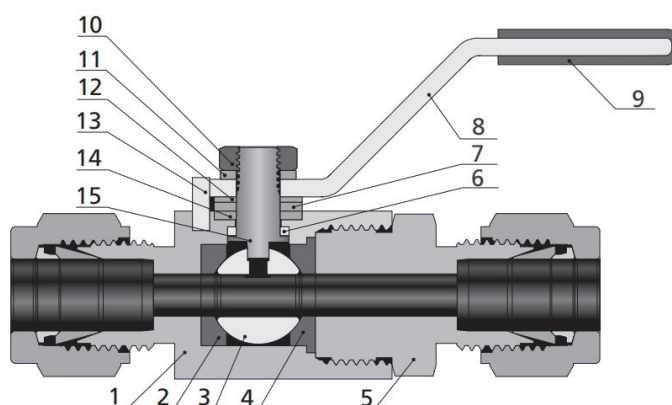
HBB Series

Features

- ⦿ Compact and economical design
- ⦿ Free floating ball design for seat wear compensation
- ⦿ Bi-directional flow
- ⦿ Low operating torque
- ⦿ Any reasonable connections available
- ⦿ Options for handle color
- ⦿ Leak-tight performance testing for every valve at the maximum working pressure with nitrogen
- ⦿ In-line inspection and repair after system relieved by top entry design
- ⦿ Maximum working pressure: 2000 psig (138 bar)
- ⦿ Working temperature: -65°F to 300°F (-54°C to 148°C)

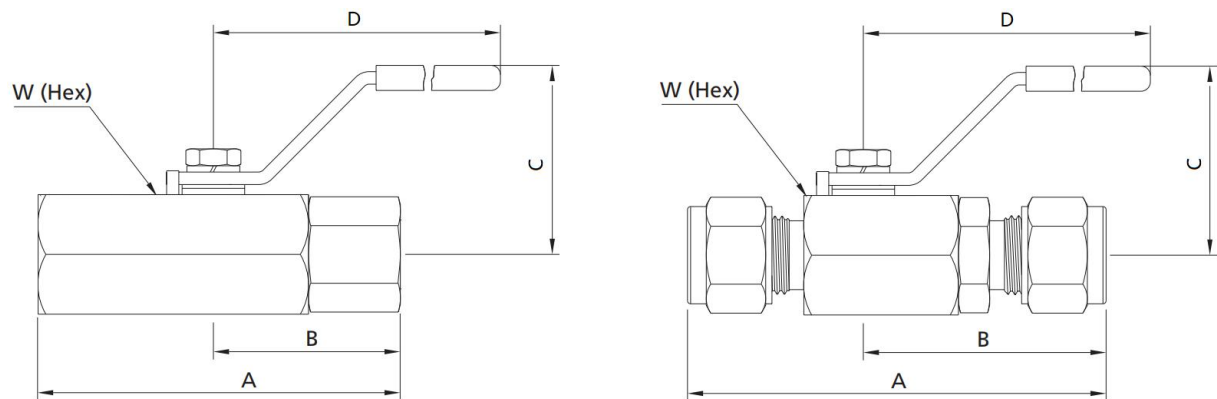


Standard Materials of Construction



Item	Component	Valve Body Material			
		316 SS	304 SS	316L SS	Brass
1	Body	316 SS/A276	304 SS/A276	316L SS/A276	Brass
2	Front Seat	PTFE/D1710			
3	Ball	316 SS/A276			
4	Back Seat	PTFE/D1710			
5	End Connector	316 SS/A276	304 SS/A276	316L SS/A276	Brass
6	Bottom Packing	PTFE/D1710			
7	Washer	316 SS/A276			
8	Handle	304 SS/A240 or Aluminium			
9	Sleeve	Vinyl			
10	Stem Nut	Stainless steel			
11	Gasket	Stainless steel			
12	Coned-disk Spring	S17700/A693			
13	Pin	Stainless steel			
14	Top Packing	PTFE/D1710			
15	Stem	316 SS/A276			

Dimensions



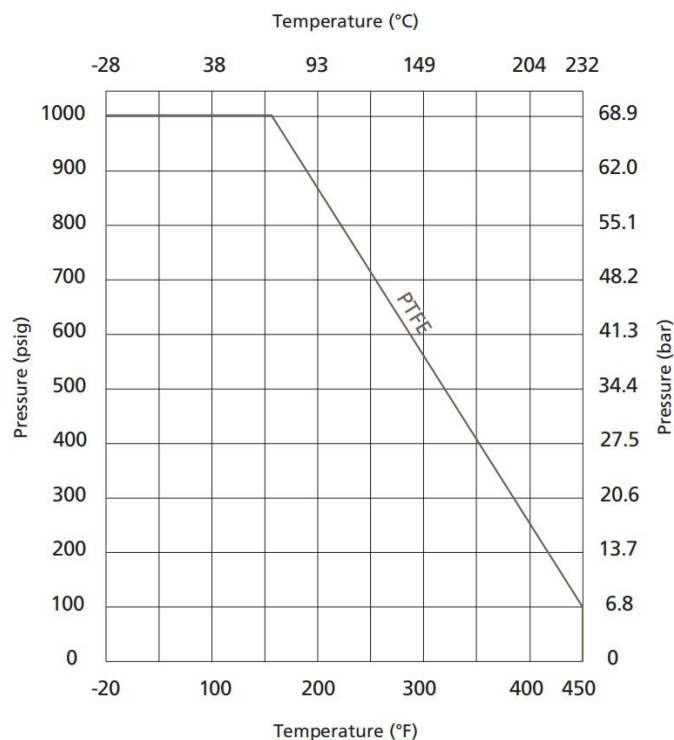
Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)				
				A	B	C	D	W
-HBB-FN2-5	1/8 Female NPT	0.19 (4.8)	1.25	1.85 (47.0)	1.08 (27.4)	2.36 (60.0)	1.18 (30.0)	0.75 (19.1)
-HBB-FN4-5	1/4 Female NPT	0.19 (4.8)	1.25	1.85 (47.0)	1.08 (27.4)	2.36 (60.0)	1.18 (30.0)	0.75 (19.1)
-HBB-FN6-7	3/8 Female NPT	0.28 (7.1)	2.50	2.03 (51.6)	1.18 (30.0)	2.36 (60.0)	1.18 (30.0)	0.87 (22.2)
-HBB-FN8-9	1/2 Female NPT	0.35 (8.9)	6.25	2.08 (53.0)	1.18 (30.0)	3.15 (80.0)	1.54 (39.0)	0.87 (22.2)
-HBB-FN12-12	3/4 Female NPT	0.47 (12.0)	12.65	2.39 (60.7)	1.20 (30.5)	3.94 (100.0)	2.03 (50.7)	1.26 (32.0)
-HBB-FN16-16	1 Female NPT	0.63 (16.0)	17.35	3.00 (76.5)	1.50 (38.1)	3.94 (100.0)	2.15 (54.8)	1.50 (38.1)
-HBB-MN4-5	1/4 Male NPT	0.19 (4.8)	1.25	1.85 (47.0)	1.08 (27.4)	2.36 (60.0)	1.18 (30.0)	0.75 (19.1)
-HBB-MN6-7	3/8 Male NPT	0.28 (7.1)	2.50	2.03 (51.6)	1.18 (30.0)	2.36 (60.0)	1.18 (30.0)	0.87 (22.2)
-HBB-MN8-9	1/2 Male NPT	0.35 (8.9)	6.25	2.08 (53.0)	1.18 (30.0)	3.15 (80.0)	1.54 (39.0)	0.87 (22.2)
-HBB-MN12-12	3/4 Male NPT	0.47 (12.0)	12.65	2.39 (60.7)	1.20 (30.5)	3.94 (100.0)	2.03 (50.7)	1.26 (32.0)
-HBB-MN16-16	1 Male NPT	0.63 (16.0)	17.35	3.00 (76.5)	1.50 (38.1)	3.94 (100.0)	2.15 (54.8)	1.50 (38.1)
-HBB-FT4-5	1/4 Tube	0.19 (4.8)	1.25	2.57 (65.2)	1.50 (38.1)	2.36 (60.0)	1.18 (30.0)	0.75 (19.1)
-HBB-FT6-7	3/8 Tube	0.28 (7.1)	2.50	2.87 (72.9)	1.68 (42.7)	2.36 (60.0)	1.18 (30.0)	0.87 (22.2)
-HBB-FT8-9	1/2 Tube	0.35 (8.9)	6.25	3.15 (80.0)	1.83 (46.5)	3.15 (80.0)	1.54 (39.0)	0.87 (22.2)
-HBB-FT12-12	3/4 Tube	0.47 (12.0)	12.65	3.50 (88.9)	2.00 (50.8)	3.94 (100.0)	2.03 (50.7)	1.26 (32.0)
-HBB-FT16-16	1 Tube	0.63 (16.0)	17.35	4.31 (109.5)	2.42 (61.5)	3.94 (100.0)	2.15 (54.8)	1.50 (38.1)

9 Ball Valves

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)				
				A	B	C	D	W
-HBB-MT6-5	6mm Tube	0.19 (4.8)	1.25	2.57 (65.2)	1.50 (38.1)	2.36 (60.0)	1.18 (30.0)	0.75 (19.1)
-HBB-MT8-5	8mm Tube	0.19 (4.8)	1.25	2.63 (66.8)	1.53 (38.8)	2.36 (60.0)	1.18 (30.0)	0.75 (19.1)
-HBB-MT10-7	10mm Tube	0.28 (7.1)	2.50	2.87 (72.9)	1.68 (42.7)	2.36 (60.0)	1.18 (30.0)	0.87 (22.2)
-HBB-MT12-9	12mm Tube	0.35 (8.9)	6.25	3.15 (80.0)	1.83 (46.5)	3.15 (80.0)	1.54 (39.0)	0.87 (22.2)
-HBB-MT14-9	14mm Tube	0.35 (8.9)	6.25	3.24 (82.2)	1.87 (47.5)	3.15 (80.0)	1.54 (39.0)	0.87 (22.2)
-HBB-MT16-12	16mm Tube	0.47 (12.0)	12.65	3.50 (88.9)	2.00 (50.8)	3.94 (100.0)	2.03 (50.7)	1.26 (32.0)
-HBB-MT18-12	18mm Tube	0.47 (12.0)	12.65	3.50 (88.9)	2.00 (50.8)	3.94 (100.0)	2.03 (50.7)	1.26 (32.0)
-HBB-MT22-16	22mm Tube	0.63 (16.0)	17.35	3.96 (100.6)	2.24 (57.1)	3.94 (100.0)	2.15 (54.8)	1.50 (38.1)
-HBB-MT25-16	25mm Tube	0.63 (16.0)	17.35	4.31 (109.5)	2.42 (61.5)	3.94 (100.0)	2.15 (54.8)	1.50 (38.1)

1. Sizes and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.
2. Dimensions are shown with ROKE nuts finger-tightened. All dimensions are for reference only and are subject to change.
3. For dimensions not shown above, please contact the authorized representative or ROKE employees.

Pressure vs. Temperature



High Performance Ball Valves

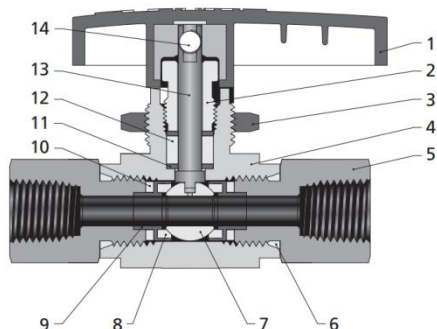
HBB Series

Features

- ⦿ Bi-directional flow for straight valves
- ⦿ Low operating torque
- ⦿ Leak-tight performance testing for every valve at the maximum working pressure with nitrogen
- ⦿ Positive handle stop
- ⦿ Handle as flow direction indicator
- ⦿ Options for handle color
- ⦿ The inlet of 3-way valves and angle pattern valves should be only from the bottom.
- ⦿ Maximum working pressure: 6000 psig (414 bar)
- ⦿ Working temperature: -65 F to 450 F (-54 C to 232 C)

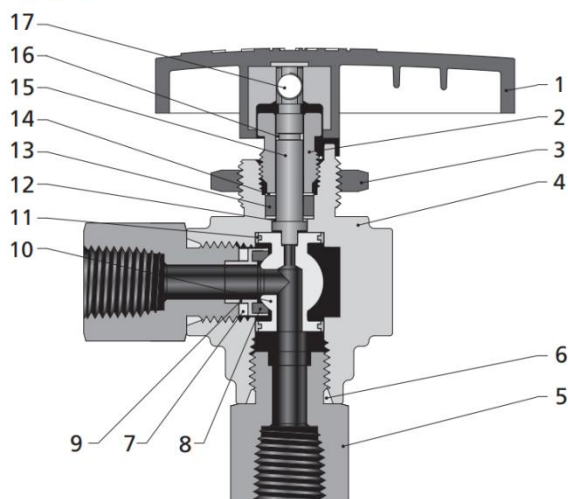


Straight

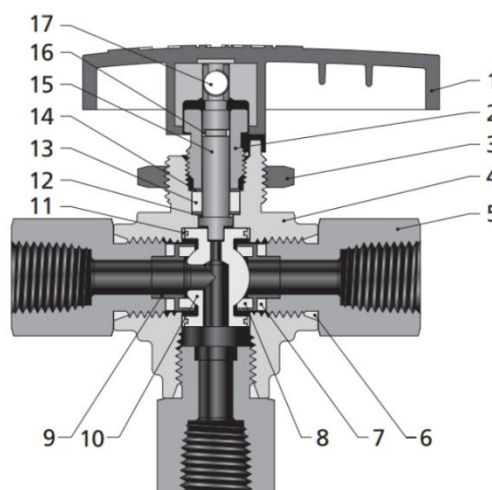


Item	Component	Valve Body Material	
		Stainless steel	Brass
1	Handle	Nylon or Aluminium	
2	Packing Nut	316 SS/A276	C34000/B453
3	Panel Nut	316 SS/A276	C36000/B16
4	Body	CF8M/A351	C37700/B283
5	End Connector	316 SS/A479	C36000/B16
6	Connector O-ring	PTFE	
7	Ball	316 SS/A479	
8	Seat	PTFE or PCTFE or PEEK	
9	Seat Retainer	316 SS/A276	C36000/B16
10	Seat Packing	PTFE	
11	Stem Washer	316/A276	
12	Stem Packing	PTFE or Fluorocarbon FKM or Neoprene or Buna N	
13	Stem	316 SS/A276	
14	Set Screw	Stainless steel	

Angle



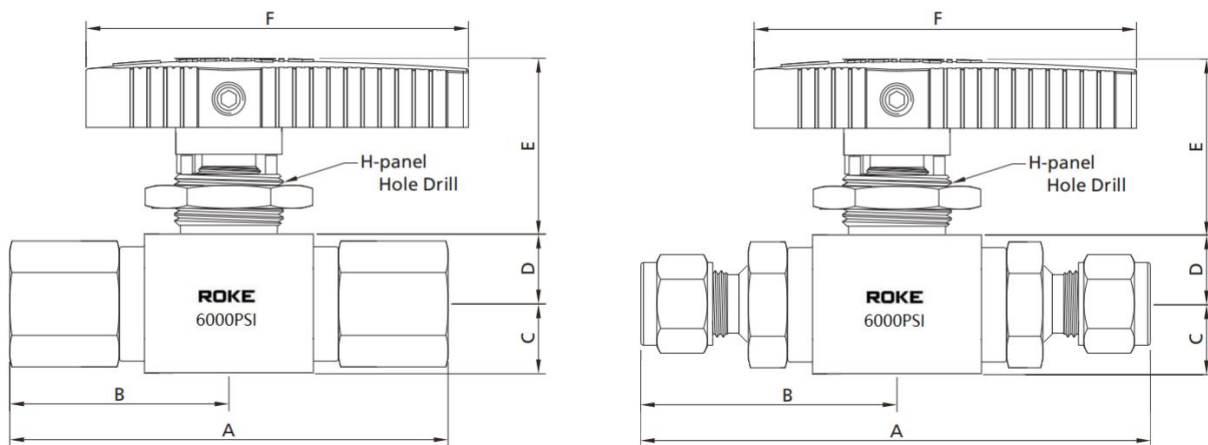
3-way



11 Ball Valves

Item	Component	Valve Body Material	
		Stainless Steel	Brass
1	Handle	Nylon or Aluminium	
2	Packing Nut	316 SS/A276	C34000/B453
3	Panel Nut	316 SS/A276	C36000/B16
4	Body	CF8M/A351	C37700/B283
5	End Connector	316 SS/A479	C36000/B16
6	Connector O-ring	PTFE	
7	Seat Packing	PTFE	
8	Seat	PTFE or PCTFE or PEEK	
9	Seat Retainer	316 SS/A276	C36000/B16
10	Ball	316 SS/A479	
11	Trunnion Bearing	PEEK	
12	Stem Back-up Ring	PEEK	
13	Stem Packing	PTFE or Fluorocarbon FKM or Neoprene or Buna N	
14	Stem Washer	316 SS/A276	
15	Stem	316 SS/A276	
16	Stem Bearing	PTFE	
17	Set Screw	Stainless steel	

Straight



Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)						
				A	B	C	D	E	F	H
-HPB-FN2-4	1/8 Female NPT	0.17 (4.2)	0.93	2.14 (54.4)	1.07 (27.2)	0.36 (9.2)	0.33 (8.5)	0.79 (20.0)	1.97 (50.0)	0.58 (14.7)
-HPB-FN4-6	1/4 Female NPT	0.25 (6.4)	2.34	3.02 (76.8)	1.51 (38.4)	0.48 (12.2)	0.48 (12.2)	1.24 (31.5)	2.64 (67.0)	0.77 (19.6)
-HPB-FN6-10	3/8 Female NPT	0.41 (10.3)	6.42	3.90 (99.0)	1.95 (49.5)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-FN8-10	1/2 Female NPT	0.41 (10.3)	6.42	4.30 (109.2)	2.15 (54.6)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-FN12-10	3/4 Female NPT	0.41 (10.3)	6.42	4.44 (112.8)	2.22 (56.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)

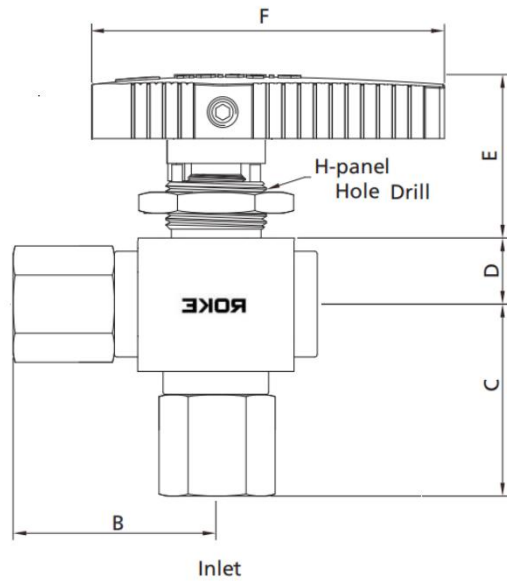
12 Ball Valves

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)						
				A	B	C	D	E	F	H
-HPB-MN2-4	1/8 Male NPT	0.17 (4.2)	0.93	2.36 (60.0)	1.18 (30.0)	0.36 (9.2)	0.33 (8.5)	0.79 (20.0)	1.97 (50.0)	0.58 (14.7)
-HPB-MN4-6	1/4 Male NPT	0.25 (6.4)	2.34	3.24 (82.2)	1.62 (41.1)	0.48 (12.2)	0.48 (12.2)	1.24 (31.5)	2.64 (67.0)	0.77 (19.6)
-HPB-MN6-6	3/8 Male NPT	0.25 (6.4)	2.34	3.24 (82.2)	1.62 (41.1)	0.48 (12.2)	0.48 (12.2)	1.24 (31.5)	2.64 (67.0)	0.77 (19.6)
-HPB-MN8-10	1/2 Male NPT	0.41 (10.3)	6.42	4.44 (112.8)	2.22 (56.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-MN12-10	3/4 Male NPT	0.41 (10.3)	6.42	4.44 (112.8)	2.22 (56.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-FT2-2	1/8 Tube	0.09 (2.4)	0.21	2.72 (69.0)	1.36 (34.5)	0.36 (9.2)	0.33 (8.5)	0.79 (20.0)	1.97 (50.0)	0.58 (14.7)
-HPB-FT4-4	1/4 Tube	0.17 (4.2)	0.93	3.48 (88.4)	1.74 (44.2)	0.36 (9.2)	0.33 (8.5)	0.79 (20.0)	1.97 (50.0)	0.58 (14.7)
-HPB-FT6-6	3/8 Tube	0.25 (6.4)	2.34	3.60 (91.4)	1.80 (45.7)	0.48 (12.2)	0.48 (12.2)	1.24 (31.5)	2.64 (67.0)	0.77 (19.6)
-HPB-FT8-10	1/2 Tube	0.41 (10.3)	6.42	4.68 (118.8)	2.34 (59.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-FT12-10	3/4 Tube	0.41 (10.3)	6.42	4.68 (118.8)	2.34 (59.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-MT2-2	3mm Tube	0.09 (2.4)	0.21	2.72 (69.0)	1.36 (34.5)	0.36 (9.2)	0.33 (8.5)	0.79 (20.0)	1.97 (50.0)	0.58 (14.7)
-HPB-MT6-4	6mm Tube	0.17 (4.2)	0.93	3.48 (88.4)	1.74 (44.2)	0.36 (9.2)	0.33 (8.5)	0.79 (20.0)	1.97 (50.0)	0.58 (14.7)
-HPB-MT8-4	8mm Tube	0.25 (6.4)	2.34	3.56 (90.4)	1.78 (45.2)	0.48 (12.2)	0.48 (12.2)	1.24 (31.5)	2.64 (67.0)	0.77 (19.6)
-HPB-MT10-6	10mm Tube	0.25 (6.4)	2.34	3.60 (91.4)	1.80 (45.7)	0.48 (12.2)	0.48 (12.2)	1.24 (31.5)	2.64 (67.0)	0.77 (19.6)
-HPB-MT12-9h	12mm Tube	0.37 (9.5)	5.57	4.68 (118.8)	2.34 (59.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-MT14-10	14mm Tube	0.41 (10.3)	6.42	4.68 (118.8)	2.34 (59.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-MT18-10	18mm Tube	0.41 (10.3)	6.42	4.68 (118.8)	2.34 (59.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)

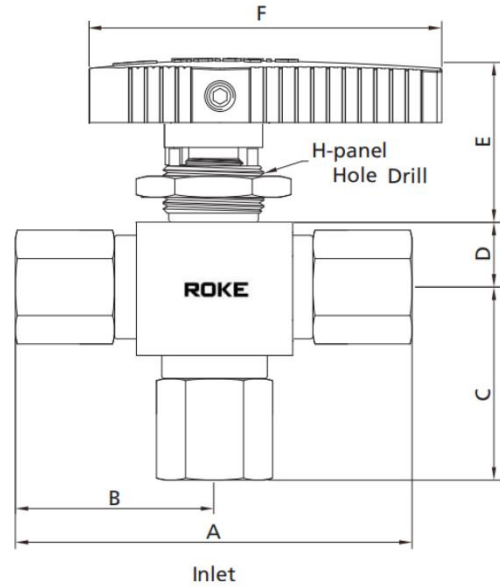
1. Sizes and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.
2. Dimensions are shown with ROKE nuts finger-tightened. All dimensions are for reference only and are subject to change.
3. For dimensions not shown above, please contact the authorized representative or ROKE employees.

13 Ball Valves

Angle



3-way



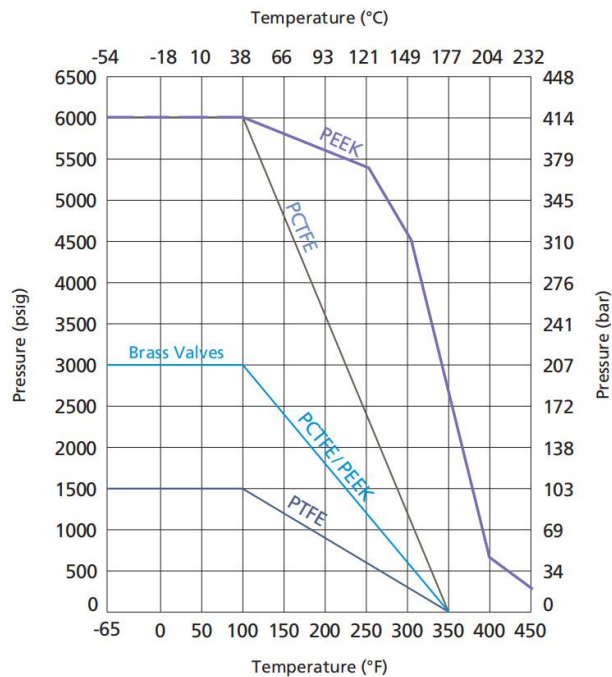
Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)						
				A	B	C	D	E	F	H
-HPB-FN2-3-A	1/8 Female NPT	0.12	0.28	2.14	1.07	1.12	0.33	0.94	1.97	0.58
-HPB-FN2-3-3W		(3.0)		(54.4)	(27.2)	(28.5)	(8.5)	(23.9)	(50.0)	(14.7)
-HPB-FN4-5-A	1/4 Female NPT	0.19	0.70	3.02	1.51	1.65	0.48	1.24	2.64	0.77
-HPB-FN4-5-3W		(4.7)		(76.8)	(38.4)	(41.9)	(12.2)	(31.5)	(67.0)	(19.6)
-HPB-FN6-9h-A	3/8 Female NPT	0.39	3.48	3.90	1.95	2.29	0.71	1.54	3.78	0.90
-HPB-FN6-9h-3W		(9.5)		(99.0)	(49.5)	(58.2)	(18.0)	(39.0)	(96.0)	(22.9)
-HPB-FN8-9h-A	1/2 Female NPT	0.39	3.48	4.30	2.15	0.75	0.71	1.54	3.78	0.90
-HPB-FN8-9h-3W		(9.5)		(109.2)	(54.6)	(19.1)	(18.0)	(39.0)	(96.0)	(22.9)
-HPB-FN12-9h-A	3/4 Female NPT	0.39	3.48	4.44	2.22	0.75	0.71	1.54	3.78	0.90
-HPB-FN12-9h-3W		(9.5)		(112.8)	(56.4)	(19.1)	(18.0)	(39.0)	(96.0)	(22.9)
-HPB-MN2-4-A	1/8 Male NPT	0.12	0.28	2.14	1.07	1.12	0.33	0.94	1.97	0.58
-HPB-MN2-4-3W		(3.0)		(54.4)	(27.2)	(28.5)	(8.5)	(23.9)	(50.0)	(14.7)
-HPB-MN4-6-A	1/4 Male NPT	0.19	0.70	3.24	1.62	1.12	0.33	0.94	1.97	0.58
-HPB-MN4-6-3W		(4.7)		(82.2)	(41.1)	(28.5)	(8.5)	(23.9)	(50.0)	(14.7)
-HPB-MN6-10-A	3/8 Male NPT	0.25	2.34	3.24	1.62	0.48	0.48	1.24	2.64	0.77
-HPB-MN6-10-3W		(6.4)		(82.2)	(41.1)	(12.2)	(12.2)	(25.0)	(67.0)	(19.6)
-HPB-MN8-10-A	1/2 Male NPT	0.41	6.42	4.44	2.22	0.75	0.71	1.54	3.78	0.90
-HPB-MN8-10-3W		(10.3)		(112.8)	(56.4)	(19.1)	(18.0)	(39.0)	(96.0)	(22.9)
-HPB-MN12-10-A	3/4 Male NPT	0.41	6.42	4.44	2.22	0.75	0.71	1.54	3.78	0.90
-HPB-MN12-10-SW		(10.3)		(112.8)	(56.4)	(19.1)	(18.0)	(39.0)	(96.0)	(22.9)
-HPB-FT2-2-A	1/8 Tube	0.09	0.21	2.72	1.36	0.36	0.33	0.79	1.97	0.58
-HPB-FT2-2-3W		(2.4)		(69.0)	(34.5)	(9.2)	(8.5)	(20.0)	(50.0)	(14.7)
-HPB-FT4-4-A	1/4 Tube	0.17	0.93	3.48	1.74	0.36	0.33	0.79	1.97	0.58
-HPB-FT4-4-3W		(4.2)		(88.4)	(44.2)	(9.2)	(8.5)	(20.0)	(50.0)	(14.7)
-HPB-FT6-6-A	3/8 Tube	0.25	2.34	3.60	1.80	0.48	0.48	1.24	2.64	0.77
-HPB-FT6-6--3W		(6.4)		(91.4)	(45.7)	(12.2)	(12.2)	(31.5)	(67.0)	(19.6)
-HPB-FT8-10-A	1/2 Tube	0.41	6.42	4.68	2.34	0.75	0.71	1.54	3.78	0.90
-HPB-FT8-10-3W		(10.3)		(118.8)	(59.4)	(19.1)	(18.0)	(39.0)	(96.0)	(22.9)
-HPB-FT12-10-A	3/4 Tube	0.41	6.42	4.68	2.34	0.75	0.71	1.54	3.78	0.90
-HPB-FT12-10-3W		(10.3)		(118.8)	(59.4)	(19.1)	(18.0)	(39.0)	(96.0)	(22.9)

14 Ball Valves

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)						
				A	B	C	D	E	F	H
-HPB-MT3-2-A	3mm Tube	0.09 (2.4)	0.21	2.72 (69.0)	1.36 (34.5)	0.36 (9.2)	0.33 (8.5)	0.79 (20.0)	1.97 (50.0)	0.58 (14.7)
-HPB-MT3-2-3W										
-HPB-MT6-4-A	6mm Tube	0.17 (4.2)	0.93	3.48 (88.4)	1.74 (44.2)	0.36 (9.2)	0.33 (8.5)	0.79 (20.0)	1.97 (50.0)	0.58 (14.7)
-HPB-MT6-4-3W										
-HPB-MT8-4-A	8mm Tube	0.25 (6.4)	2.34	3.56 (90.4)	1.78 (45.2)	0.48 (12.2)	0.48 (12.2)	1.24 (31.5)	2.64 (67.0)	0.77 (19.6)
-HPB-MT8-4-3W										
-HPB-MT10-6-A	10mm Tube	0.25 (6.4)	2.34	3.60 (91.4)	1.80 (45.7)	0.48 (12.2)	0.48 (12.2)	1.24 (31.5)	2.64 (67.0)	0.77 (19.6)
-HPB-MT10-6-3W										
-HPB-MT12-9h-A	12mm Tube	0.37 (9.5)	5.57	4.68 (118.8)	2.34 (59.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-MT12-9h-3W										
-HPB-MT14-10-A	14mm Tube	0.41 (10.3)	6.42	4.68 (118.8)	2.34 (59.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-MT14-10-3W										
-HPB-MT18-10-A	18mm Tube	0.41 (10.3)	6.42	4.68 (118.8)	2.34 (59.4)	0.75 (19.1)	0.71 (18.0)	1.54 (39.0)	3.78 (96.0)	0.90 (22.9)
-HPB-MT18-10-3W										

1. Sizes and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.
2. Dimensions are shown with ROKE nuts finger-tightened. All dimensions are for reference only and are subject to change.
3. For dimensions not shown above, please contact the authorized representative or ROKE employees.

Pressure vs. Temperature



Temperature Ranges

Packing Materials	Temperature Range °F (°C)
PTFE	-65 to 450 (-54 to 232)
Buna-N	-40 to 250 (-40 to 121)
Fluorocarbon FKM	-15 to 450 (-26 to 232)
Neoprene	-40 to 250 (-40 to 121)

Trunnion Ball Valves

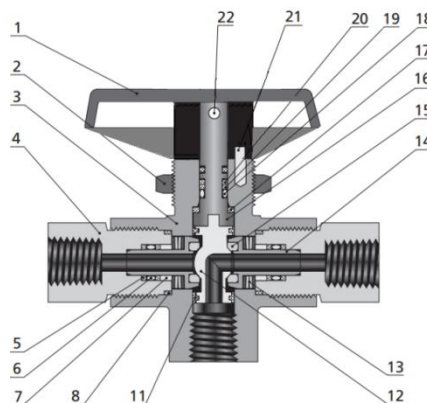
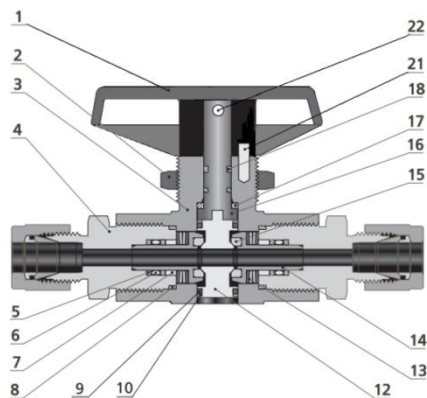
TBV and TBVH Series

Features

- ⦿ Fixed ball with double sealing
- ⦿ Automatic compensation of seat sealing
- ⦿ Low operating torque
- ⦿ Handle as indicator of flow direction
- ⦿ Positive handle stop
- ⦿ Handle color options are available
- ⦿ Compact maximum-flow design
- ⦿ Trunnion-style ball: Prevents ball blowout.
- ⦿ 2-or 3-way flow patterns
- ⦿ Spring-load seats: Provide leak tight integrity in both low and high-pressure systems, reduce seat wear from pressure surges.
- ⦿ Leak-tight performance testing for every valve at the maximum working pressure with nitrogen
- ⦿ TBV Maximum working pressure: 6000 psig (413 bar)
TBVH Maximum working pressure: 10000 psig (689 bar)
- ⦿ Working temperature: 0°F to 450°F (-18°C to 232°C)

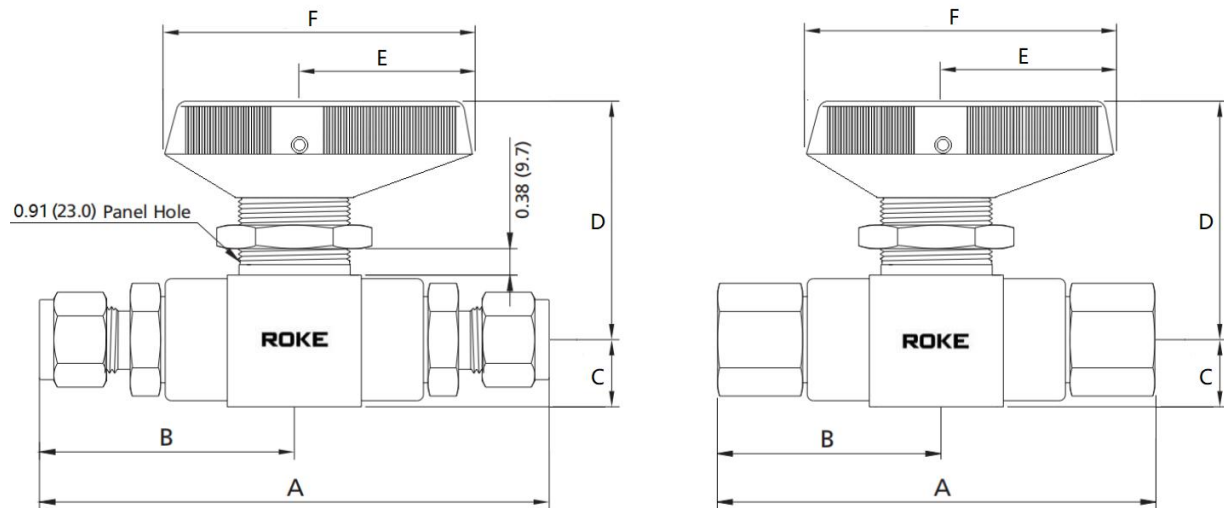


Standard Materials of Construction



Item	Component	Valve Body Material	
		316 Stainless Steel	
		2-way	3-way
		Material Grade/ASTM Specification	
1	Handle	Nylon or Aluminium	
2	Panel Nut	316 SS/B783	
3	Body	316 SS/A479	316 SS/A182
4	End Connector	316 SS/A479	
5	Seat Retainer Backup Ring	Reinforced PTFE	
6	Seat Retainer O-ring	Fluorocarbon FKM	
7	Seat Retainer Guide	316 SS/A276	
8	End Connector Seal	PTFE/D1710	
9	Trunnion O-ring	Fluorocarbon FKM	——
10	Trunnion Backup Ring	Reinforced PTFE	——
11	Trunnion Bearing	——	PEEK
12	Ball	316 SS/A276	S21800/A276
13	Seat Spring	Alloy X-750/AMS 5542	
14	Seat Retainer	316 SS/A276	
15	Seat	PTFE or PEEK or PCTFE	
16	Stem	316 SS/A276	
17	Stem Washer	Reinforced PTFE	PEEK
18	Stem O-ring	Fluorocarbon FKM	
19	Secondary Stem Backup Ring	——	PTFE/D710
20	Primary Stem Backup Ring	——	PEEK
21	Pin	Stainless Steel	
22	Set Screw	Stainless Steel	

2-way Valves



TB Series-6000PSI

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)					
				A	B	C	D	E	F
-TB-FN2-5	1/8 Female NPT	0.19 (4.8)	1.2	2.94 (74.7)	1.47 (37.3)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FN4-5	1/4 Female NPT	0.19 (4.8)	1.2	2.94 (74.7)	1.47 (37.3)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FN6-7	3/8 Female NPT	0.19 (4.8)	1.2	3.93 (99.8)	1.97 (49.9)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FN8-9	1/2 Female NPT	0.19 (4.8)	1.2	4.25 (108)	2.13 (54.0)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FT4-5	1/4 Tube	0.19 (4.8)	1.2	4.09 (103.8)	2.04 (51.9)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FT6-5	3/8 Tube	0.19 (4.8)	1.2	4.25 (108)	2.13 (54.0)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FT8-5	1/2 Tube	0.19 (4.8)	1.2	4.60 (116.8)	2.30 (58.4)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-MT4-5	6mm Tube	0.19 (4.8)	1.2	4.09 (103.8)	2.04 (51.9)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-MT8-5	8mm Tube	0.19 (4.8)	1.2	4.14 (105.2)	2.07 (52.6)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-MT10-5	10mm Tube	0.19 (4.8)	1.2	4.25 (108)	2.13 (54.0)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-MT12-5	12mm Tube	0.19 (4.8)	1.2	4.60 (116.8)	2.30 (58.4)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)

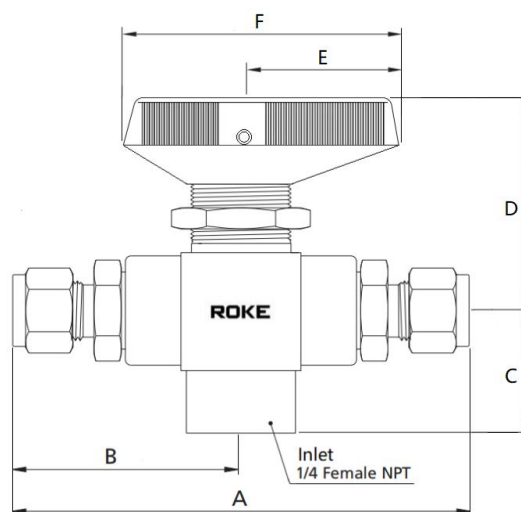
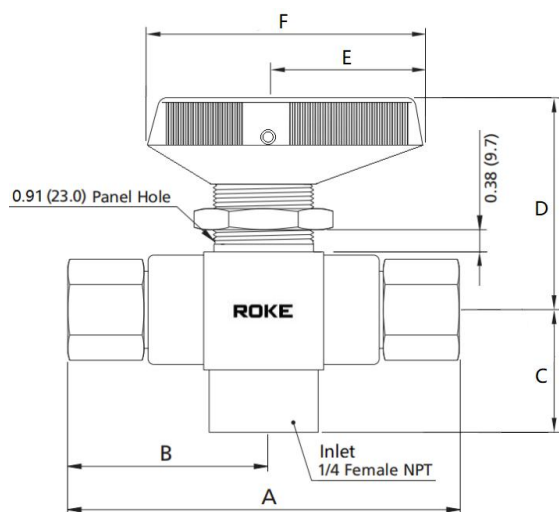
TBVH Series-10000PSI

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)					
				A	B	C	D	E	F
-TBH-FN2-5	1/8 Female NPT	0.19 (4.8)	1.2	2.94 (74.7)	1.47 (37.3)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-FN4-5	1/4 Female NPT	0.19 (4.8)	1.2	3.93 (99.8)	1.96 (44.9)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-FN8-9	1/2 Female NPT	0.19 (4.8)	1.2	4.25 (108)	2.13 (54.0)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)

17 Ball Valves

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)					
				A	B	C	D	E	F
-TBH-FT4-5	1/4 Tube	0.19 (4.8)	1.2	4.09 (103.8)	2.04 (51.9)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-FT6-5	3/8 Tube	0.19 (4.8)	1.2	4.25 (108)	2.13 (54.0)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-FT8-5	1/2 Tube	0.19 (4.8)	1.2	4.60 (116.8)	2.30 (58.4)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-MT4-5	6mm Tube	0.19 (4.8)	1.2	4.09 (103.8)	2.04 (51.9)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-MT8-5	8mm Tube	0.19 (4.8)	1.2	4.14 (105.2)	2.07 (52.6)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-MT10-5	10mm Tube	0.19 (4.8)	1.2	4.25 (108)	2.13 (54.0)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-MT12-5	12mm Tube	0.19 (4.8)	1.2	4.60 (116.8)	2.30 (58.4)	0.50 (12.7)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)

3-way Valves



TVB Series-6000PSI

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)					
				A	B	C	D	E	F
-TB-FN2-5-3W	1/8 Female NPT	0.19 (4.8)	0.75	2.94 (74.7)	1.47 (37.3)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FN4-5-3W	1/4 Female NPT	0.19 (4.8)	0.75	2.94 (74.7)	1.47 (37.3)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FN6-7-3W	3/8 Female NPT	0.19 (4.8)	0.75	3.93 (99.8)	1.97 (49.9)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FN8-9-3W	1/2 Female NPT	0.19 (4.8)	0.75	4.25 (108)	2.13 (54.0)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FT4-5-3W	1/4 Tube	0.19 (4.8)	0.75	4.09 (103.8)	2.04 (51.9)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FT6-5-3W	3/8 Tube	0.19 (4.8)	0.75	4.25 (108)	2.13 (54.0)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-FT8-5-3W	1/2 Tube	0.19 (4.8)	0.75	4.60 (116.8)	2.30 (58.4)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-MT4-5-3W	6mm Tube	0.19 (4.8)	0.75	4.09 (103.8)	2.04 (51.9)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-MT8-5	8mm Tube	0.19 (4.8)	0.75	4.14 (105.2)	2.07 (52.6)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-MT10-5	10mm Tube	0.19 (4.8)	0.75	4.25 (108)	2.13 (54.0)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TB-MT12-5	12mm Tube	0.19 (4.8)	0.75	4.60 (116.8)	2.30 (58.4)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)

ROKE

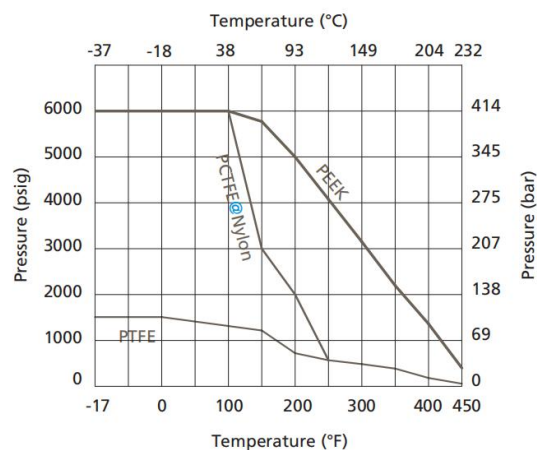
TBH Series-10000PSI

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)					
				A	B	C	D	E	F
-TBH-FN2-5-3W	1/8 Female NPT	0.19 (4.8)	0.75	2.94 (74.7)	1.47 (37.3)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-FN4-5-3W	1/4 Female NPT	0.19 (4.8)	0.75	2.94 (74.7)	1.47 (37.3)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-FN8-9-3W	1/2 Female NPT	0.19 (4.8)	0.75	4.25 (108)	2.13 (54.0)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-FT4-5-3W	1/4 Tube	0.19 (4.8)	0.75	4.09 (103.8)	2.04 (51.9)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-FT6-5-3W	3/8 Tube	0.19 (4.8)	0.75	4.25 (108)	2.13 (54.0)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-FT8-5-3W	1/2 Tube	0.19 (4.8)	0.75	4.60 (116.8)	2.30 (58.4)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-MT4-5-3W	6mm Tube	0.19 (4.8)	0.75	4.09 (103.8)	2.04 (51.9)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-MT8-5-3W	8mm Tube	0.19 (4.8)	0.75	4.14 (105.2)	2.07 (52.6)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-MT10-5-3W	10mm Tube	0.19 (4.8)	0.75	4.25 (108)	2.13 (54.0)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)
-TBH-MT12-5-3W	12mm Tube	0.19 (4.8)	0.75	4.60 (116.8)	2.30 (58.4)	1.06 (26.9)	1.88 (47.7)	1.57 (40.0)	2.56 (65.0)

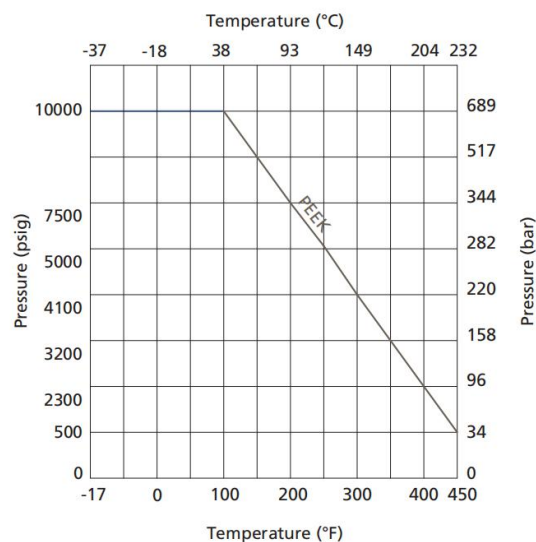
1. Sizes and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.
2. Dimensions are shown with ROKE nuts finger-tightened. All dimensions are for reference only and are subject to change.
3. For dimensions not shown above, please contact the authorized representative or ROKE employees.

Pressure vs. Temperature

TBV Series



TBVH Series



TB & TBH Series Seal Kits

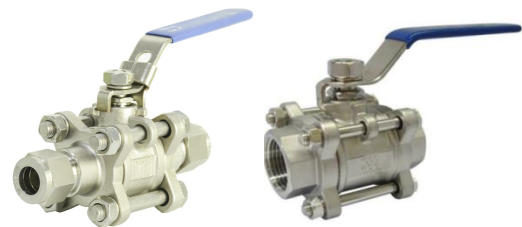
1. Seal kits contain components of the same material as original valve. See standard material of construction.
2. To complete the ordering number, please add SK for seal kits. Example: TBSS-FN4-5-3W-SK

3-piece Ball Valves

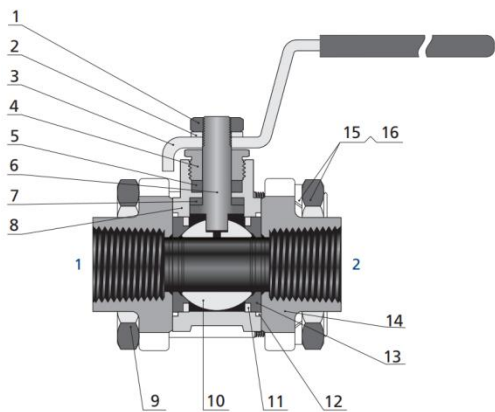
PB Series

Features

- Casting valve bady
- Full orifice design
- Leak-tight performance testing for every valve at the maximum working pressure with nitrogen
- Maximum working pressure: 1000 psig (68.9 bar)
- Working temperature: -20°F to 450°F (-28°C to 232°C)

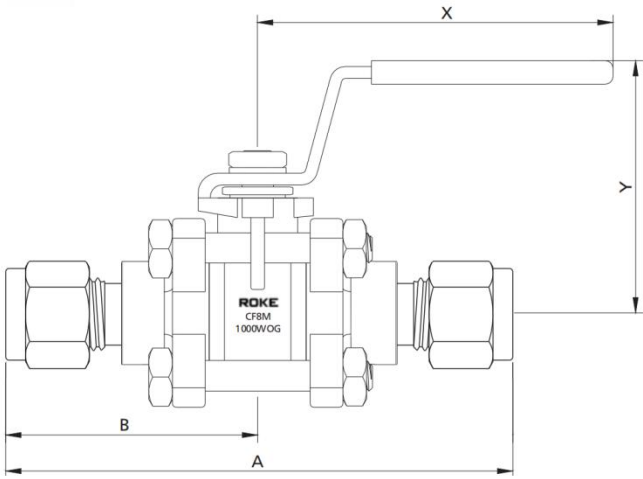
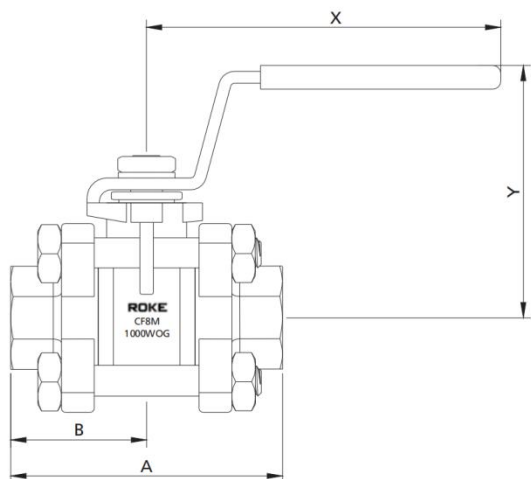


Standard Materials of Construction



Item	Component	Valve Body Material
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	316 SS/A276 or 304 SS/A276
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	316 SS/A276 or 304 SS/A276
15	Gasket	304 SS
16	Nut	Gr. 8M/A194

Dimensions



20 Ball Valves

Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Cv	Dimension, in.(mm)			
				A	B	X	Y
-PB-FN2-5	1/8 Female NPT	0.19 (4.8)	1.20	2.05 (52.0)	1.03 (26.0)	2.69 (68.3)	1.46 (37.0)
-PB-FN4-7	1/4 Female NPT	0.28 (7.1)	3.80	2.63 (66.8)	1.31 (33.4)	2.69 (68.3)	1.46 (37.0)
-PB-FN6-13	3/8 Female NPT	0.50 (12.7)	11.3	2.57 (65.2)	1.28 (32.6)	3.94 (100.0)	2.19 (55.7)
-PB-FN8-15	1/2 Female NPT	0.59 (15.0)	13.0	2.74 (69.6)	1.37 (34.8)	3.94 (100.0)	2.19 (55.7)
-PB-FN12-202	3/4 Female NPT	0.79 (20.0)	50.0	3.15 (80.0)	1.57 (40.0)	5.18 (131.5)	2.66 (67.5)
-PB-FN16-25	1 Female NPT	0.98 (25.0)	93.0	3.00 (76.5)	1.50 (38.1)	5.95 (151.2)	3.08 (78.2)
-PB-FN20-20	1 1/4 Female NPT	1.26 (32.0)	110	4.33 (110.0)	2.17 (55.0)	6.14 (156.0)	3.19 (81.0)
-PB-FN24-24	1 1/2 Female NPT	1.50 (38.1)	130	4.72 (120.0)	2.36 (60.0)	7.19 (182.5)	3.70 (94.0)
-PB-FN32-32	2 Female NPT	1.97 (50.0)	270	5.51 (140.0)	2.75 (70.0)	7.19 (182.5)	4.11 (104.5)
-PB-FN40-63	2 1/2 Female NPT	2.50 (63.5)	350	7.28 (185.0)	3.64 (92.5)	9.92 (252.0)	5.16 (131.0)
-PB-FN50-76	3 Female NPT	2.99 (76.0)	500	8.07 (205.0)	4.04 (102.5)	9.92 (252.0)	5.47 (139.0)
-PB-FT4-5	1/4 Tube	0.19 (4.8)	1.25	2.63 (66.8)	1.31 (33.4)	2.69 (68.3)	1.46 (37.0)
-PB-FT6-7	3/8 Tube	0.28 (7.1)	2.50	2.63 (66.8)	1.31 (33.4)	2.69 (68.3)	1.46 (37.0)
-PB-FT8-10	1/2 Tube	0.41 (10.5)	7.40	4.04 (103)	2.02 (51.3)	3.94 (100.0)	2.19 (55.7)
-PB-FT12-15	3/4 Tube	0.59 (15.0)	13.0	4.33 (110)	2.17 (55.0)	3.94 (100.0)	2.19 (55.7)
-PB-FT16-20	1 Tube	0.79 (20.0)	50.0	5.12 (130.0)	2.56 (65.0)	5.18 (131.5)	2.66 (67.5)
-PB-MT6-5	6mm Tube	0.19 (4.8)	1.25	2.63 (66.8)	1.31 (33.4)	2.69 (68.3)	1.46 (37.0)
-PB-MT8-5	8mm Tube	0.19 (4.8)	1.25	2.63 (66.8)	1.31 (33.4)	2.69 (68.3)	1.46 (37.0)
-PB-MT10-7	10mm Tube	0.28 (7.1)	2.50	2.63 (66.8)	1.31 (33.4)	2.69 (68.3)	1.46 (37.0)
-PB-MT12-10	12mm Tube	0.41 (10.5)	7.40	4.04 (103)	2.02 (51.3)	3.94 (100.0)	2.19 (55.7)
-PB-MT14-10	14mm Tube	0.41 (10.5)	7.40	4.04 (103)	2.02 (51.3)	3.94 (100.0)	2.19 (55.7)
-PB-MT16-10	16mm Tube	0.41 (10.5)	7.40	4.04 (106)	2.02 (51.3)	3.94 (100.0)	2.19 (55.7)
-PB-MT18-15	18mm Tube	0.59 (15.0)	13.0	4.33 (110)	2.17 (55.0)	3.94 (100.0)	2.19 (55.7)
-PB-MT20-15	20mm Tube	0.59 (15.0)	13.0	4.56 (116)	2.28 (58.0)	3.94 (100.0)	2.19 (55.7)
-PB-MT25-20	25mm Tube	0.79 (20.0)	50.0	5.12 (130.0)	2.56 (65.0)	5.18 (131.5)	2.66 (67.5)

1. Sizes and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.
2. Dimensions are shown with ROKE nuts finger-tightened. All dimensions are for reference only and are subject to change.
3. For dimensions not shown above, please contact the authorized representative or ROKE employees.

Nantong ROKE Fluid Equipment Co.,LTD

ROKE Factory

Pingchao Town, Tongzhou Area
Nantong City, Jiangsu Province, China
Tel :86-513-86751377
Fax:86-513-86752577

ROKE Office

Room 1108 .Building B. Jianghaicaifudasha
No.817.Jianghai Avenue.Gangzha Area
Nantong City, Jiangsu Province, China
Tel: 86-513-85400443
Fax:86-513-85400444
Web:www.chinaroke.com
E-mail:sales01@ntroke.com

ROKE
Valves and Fittings

www.chinaroke.com