

Product Features

- Bi-directional flow (fully opened or fully closed)
- Directional handle indicating on-off position
- Allow for panel mounting
- Single piece ball stem to eliminate backlash
- One piece body to eliminate multiple seal points
- Unique, top-loaded capsule packing allows reliable switching
- Tested for use with oxygen

Typical Applications

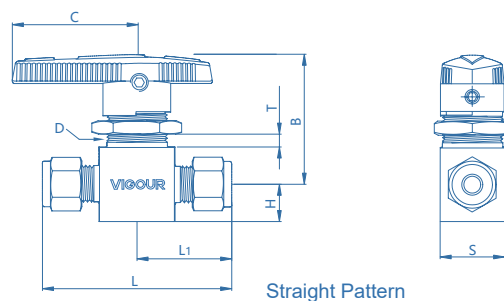
- Calibration Systems
- Laboratory Pressure Control
- High Pressure Sampling Systems
- Service & Test Equipment



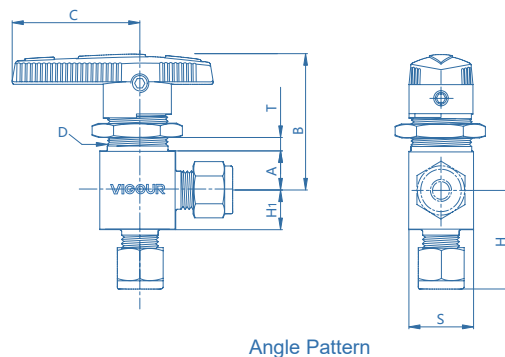
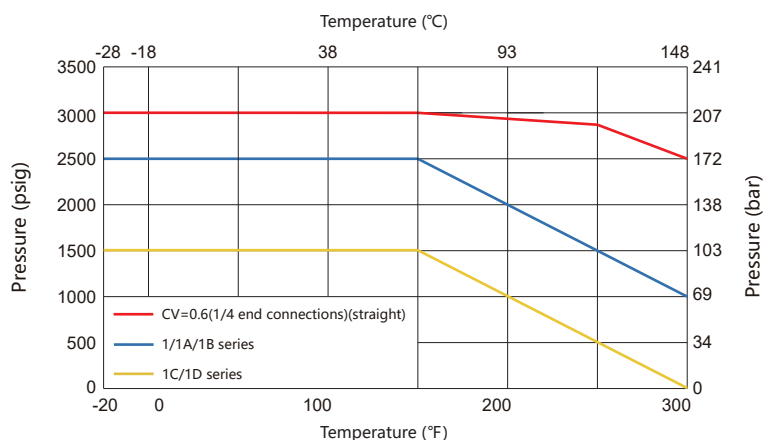
Technical Data

Type:	Ball valve
Pressure Rating:	max. 206 bar
Materials	
Body:	316
seat:	PTFE
Temperature range:	-54°C to 148°C
Leak rate:	0.1std cc/min@1000psig(69bar)N ₂
Orifice:	Φ2.4~10.3 mm(according to end connections)

Schematic Drawing



Pressure vs. Temperature



Ball Valves

VBV1 Series

Dimensions

End Connections		Cv		Ordering Number	Orifice in.	Dimensions, in.(mm)										
Inlet/Outlet	Size	Cv	Angl			L	L1	H1	A	H	C	T	D	B	S	
Fractional tube fittings	1/16 in.	0.10	—	SS-VBV1-01-01	0.052 (1.32)	1.68 (42.7)	0.84 (21.3)	—	0.34 (8.6)	0.28 (7.1)	1.12 (28.4)	1/4 (6.4)	19/32 (15.1)	1.36 (34.5)	0.58 (14.7)	
	1/8 in.	0.20	0.15	SS-VBV1-02-02	0.093 (2.36)	2.01 (51.1)	1.01 (25.7)	0.97 (24.6)								
	1/4 in.	0.60	0.35	SS-VBV1A-04-04	0.125 (3.18)	2.21 (56.1)	1.10 (27.9)	1.07 (27.2)								
		2.4	0.90	SS-VBV1B-04-04	0.187 (4.75)	2.36 (59.9)	1.18 (30)	1.17 (29.7)	0.44 (11.2)	0.38 (9.7)	1.53 (38.9)	3/16 (4.8)	25/32 (19.8)	1.56 (39.6)	0.78 (19.8)	
	3/8 in.	1.5	0.90	SS-VBV1B-06-06	0.187 (4.75)	2.58 (65.5)	1.29 (32.8)									
		6.0	2.0	SS-VBV1C-06-06	0.281 (7.14)	3.05 (77.5)	1.52 (38.6)	1.43 (36.3)	0.56 (14.2)		2.00 (50.8)	3/8 (9.5)	1-1/8 (28.6)	2.07 (52.6)	1.12 (28.4)	
	1/2 in.	6.3	4.6	SS-VBV1D-08-08	0.406	3.92 (99.6)	1.96 (49.8)	1.74 (44.2)	0.69 (17.5)		3.00 (76.2)		1-1/2 (38.1)	2.43 (61.7)	1.5 (38.1)	
	3/4 in.	6.4	3.8	SS-VBV1D-12-12	0.406											
Metric tube fittings	3mm	0.20	0.15	SS-VBV1-3M-3M	0.093 (2.36)	2.01 (51.1)	1.01 (25.7)	0.97 (24.6)	0.34 (8.6)	0.28 (7.1)	1.12 (28.4)	1/4 (6.4)	19/32 (15.1)	1.38 (34.5)	0.58 (14.7)	
	6mm	0.60	0.35	SS-VBV1A-6M-6M	0.125 (3.18)	2.21 (56.1)	1.10 (27.9)	0.97 (24.6)								
		2.4	0.90	SS-VBV1B-6M-6M	0.187 (4.75)	2.39 (60.7)	1.20 (30.5)	1.17 (29.7)	0.44 (11.2)	0.38 (9.7)	1.53 (38.9)	3/16 (4.8)	25/32 (19.8)	1.56 (39.6)	0.78 (19.8)	
	8mm	1.5	0.90	SS-VBV1B-8M-8M	0.187 (4.75)	2.46 (62.5)	1.23 (31.2)	1.2 (30.5)								
	10mm	6.0	2.0	SS-VBV1C-10M-10M	0.281 (7.14)	3.07 (78.0)	1.53 (38.9)	1.43 (36.9)	0.56 (14.2)		2.00 (50.8)	3/8 (9.5)	1-1/8 (28.6)	2.07 (52.6)	1.12 (28.4)	
	12mm	12	4.6	SS-VBV1D-12M-12M	0.406 (10.3)	3.92 (99.6)	1.96 (49.8)	1.74 (44.2)	0.69 (17.5)		3.00 (76.2)		1-1/2 (38.1)	2.43 (61.7)	1.50 (38.1)	
Female NPT	1/8 in.	0.50	0.30	SS-VBV1A-F2-F2	0.125 (3.18)	1.62 (41.1)	0.81 (20.6)		0.34 (8.6)	0.28 (9.7)	1.12 (28.4)	1/4 (6.4)	19/32 (15.1)	1.36 (34.5)	0.58 (14.7)	
		1.2	0.70	SS-VBV1B-F2-F2	0.187 (4.75)	2.00 (50.8)	1.00 (25.4)		0.44 (11.2)	0.38 (9.7)	1.53 (38.9)	3/16 (4.8)	25/32 (19.8)	1.56 (39.6)	0.78 (19.8)	
	1/4 in.	0.90	0.75	SS-VBV1B-F4-F4	0.187 (4.75)	2.06 (52.3)	1.03 (26.2)									
		3.0	1.7	SS-VBV1C-F4-F4	0.281 (7.14)	2.50 (63.5)	1.25 (31.8)		0.56 (14.2)		2.00 (50.8)	3/8 (9.5)	1-1/8 (28.6)	2.07 (52.6)	1.12 (28.4)	
	3/8 in.	2.6	1.5	SS-VBV1D-F6-F6									1.56 (39.6)			
	1/2 in.	6.3	3.5	SS-VBV1D-F8-F8	0.406 (10.3)	3.12 (79.2)	1.56 (39.6)		0.69 (17.5)		3.00 (76.2)					

Dimensions shown with tube fitting unts finger-tight.

Ordering Information

SS - VBV1 - 04-04 - A

Material

SS: 316

Series

VBV1: see above table

VBV1A: see above table

VBV1B: see above table

VBV1C: see above table

VBV1D: see above table

Option

None: Straight pattern

A: Angle pattern

End Connections

Fractional tube fittings: see above table

Metric tube fittings: see above table

Female NPT: see above table