BMT

Forged High Pressure Ball Valves

SUPERLOK®

Forged High Pressure Ball Valves

SBVF360 Series

Features

- Compact design
- Low operating torques
- Panel mountable
- Floating ball design
- Two-way and Three way types
- Handle direction indicates flow direction

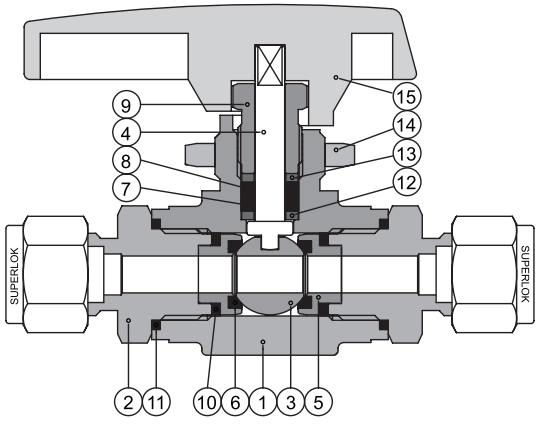
Specifications

Temperature Ratings	316 Stainless Steel	: -65 to 1200°F (-53 to 648°C)
	PCTFE	: -65 to 200°F (-53 to 93°C)
	PTFE	: -65 to 350°F (-53 to 177°C)
	PEEK	: -65 to 450°F (-53 to 232°C)
	NBR	: -40 to 250°F (-40 to 120°C)
	VITON	: -15 to 450°F (-26 to 232°C)
Orifice Size	0.086 to 0.406 in. (2.2 to 10.3mm)	
Flow Coefficients (Cv)	0.18 to 6.42	
End Connection Size	1/8 to 3/4 in. , 3mm to 16mm	
Pressure Ratings at 100°F(37°C)	316 Stainless Steel	: 6000 psig (413 bar)
	BRASS	: 3000 psig (207 bar)

Testing

- Each and every valve is tested with nitrogen at 1000psig (69bar).
- Valve have max allowable leak rate of 0.1 cm3/min.
- Shell testing is performed on demand.

Materials of Construction

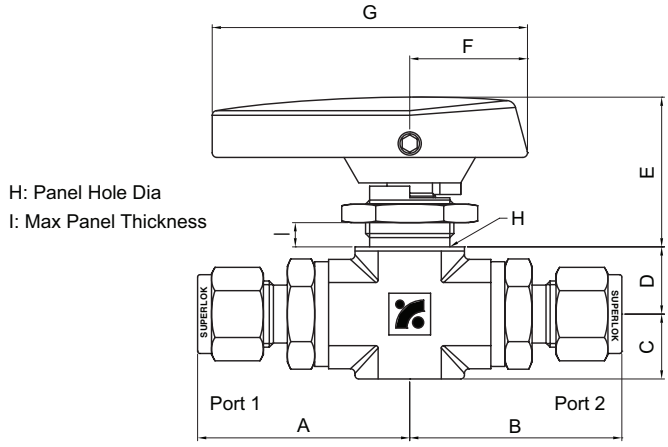


Component		Material Grade / ASTM Specification	
		Stainless Steel	Brass
*1	Body	ASTM A182-F316	ASTM B283
*2	End Connector	ASTM A276-316	ASTM B16
*3	Ball	ASTM A276-316	
*4	Stem	ASTM A276-316	
*5	Seal Retainer	ASTM A276-316	
*6	Seat	Standard PCTFE (PTFE,PEEK)	
*7	Lower Packing	PTFE	
*8	Upper Packing	PTFE	
9	Packing Bolt	ASTM A276-316	
*10	O - Ring	VITON	
*11	Connector Seal	PTFE	
*12	Thrust Washer	PEEK	
13	Stem Washer	ASTM A276-316	
14	Panel Nut	ASTM A276-316	
15	Handle	Aluminum	

* Wetted components

- Components can limit the pressure and temperature ranges of the valve. Please consult BMT (SUPERLOK) sales representative for your specific application.

Table of Dimensions



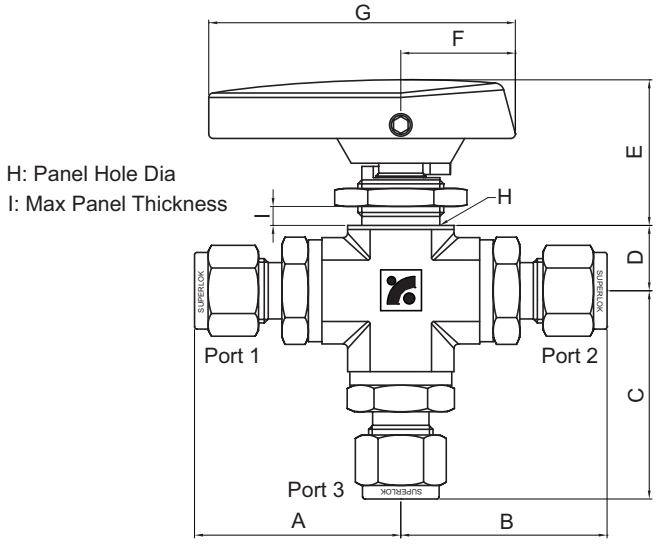
Two - Way Type

SBVF Series

Part No.		Orifice In.(mm)	Cv	End Connections Port1 / Port2	Dimensions								
					A	B	C	D	E	F	G	H	I
SBVF 3601	S2	0.093(2.4)	0.21	1/8" SUPERLOK	34.5	34.5	10.0	10.5	23.5	18.0	47.0	16.3	3.3
	S4	0.165(4.2)	0.93	1/4" SUPERLOK	37.6	37.6							
	S3M	0.086(2.2)	0.18	3mm SUPERLOK	34.8	34.8							
	M2N	0.165(4.2)	0.93	1/8" MALE NPT	29.9	29.9							
	M4N	0.165(4.2)	0.93	1/4" MALE NPT	34.3	34.3							
	F2N	0.165(4.2)	0.93	1/8" FEMALE NPT	27.2	27.2							
SBVF 3602	S4	0.189(4.8)	1.04	1/4" SUPERLOK	44.2	44.2	14.0	14.5	32.3	25.4	68.0	19.6	6.4
	S6	0.250(6.4)	2.34	3/8" SUPERLOK	45.8	45.8							
	S6M	0.189(4.8)	1.04	6mm SUPERLOK	44.5	44.5							
	S8M	0.250(6.4)	2.34	8mm SUPERLOK	45.2	45.2							
	S10M	0.250(6.4)	2.34	10mm SUPERLOK	46.0	46.0							
	M4N	0.250(6.4)	2.34	1/4" MALE NPT	41.1	41.1							
	M6N	0.250(6.4)	2.34	3/8" MALE NPT	41.1	41.1							
	F4N	0.250(6.4)	2.34	1/4" FEMALE NPT	38.4	38.4							
SBVF 3603	S8	0.406(10.3)	6.42	1/2" SUPERLOK	59.4	59.4	17.5	19.3	41.1	27.7	74.2	22.9	9.7
	S12	0.406(10.3)	6.42	3/4" SUPERLOK	59.2	59.2							
	S12M	0.375(9.5)	5.57	12mm SUPERLOK	59.2	59.2							
	S16M	0.406(10.3)	6.42	16mm SUPERLOK	59.2	59.2							
	M8N	0.406(10.3)	6.42	1/2" MALE NPT	56.4	56.4							
	F6N	0.406(10.3)	6.42	3/8" FEMALE NPT	49.5	49.5							
	F8N	0.406(10.3)	6.42	1/2" FEMALE NPT	54.6	54.6							

- Dimensions and Drawings are for reference only and are subject to change without prior notice.
- Unless otherwise specified, all dimensions are in millimeters.
- Sizes, pressure classes, and end connections not listed are available upon request.
- Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

Table of Dimensions



Pressure Ratings with port3 as inlet :
Please see Specifications of page 2

Pressure Rating with port 1 or port 2 as inlet :
150 psig (10bar) at 100°F(37°C)

SBVF 3 Series

Part No.		Orifice In.(mm)	Cv	End Connections Port1 / Port2 / Port3	Dimensions								
					A	B	C	D	E	F	G	H	I
SBVF 36013	S2	0.093(2.4)	0.21	1/8" SUPERLOK	34.5	34.5	36.5	10.5	23.5	18.0	47.0	16.3	3.3
	S4	0.165(4.2)	0.63	1/4" SUPERLOK	37.6	37.6	39.6						
	S3M	0.086(2.2)	0.18	3mm SUPERLOK	34.8	34.8	36.8						
	M2N	0.165(4.2)	0.63	1/8" MALE NPT	29.9	29.9	31.9						
	M4N	0.165(4.2)	0.63	1/4" MALE NPT	34.3	34.3	36.3						
	F2N	0.165(4.2)	0.63	1/8" FEMALE NPT	27.2	27.2	29.2						
SBVF 36023	S4	0.189(4.8)	0.70	1/4" SUPERLOK	44.2	44.2	47.7	14.5	32.3	25.4	68.0	19.6	6.4
	S6	0.250(6.4)	0.87	3/8" SUPERLOK	45.8	45.8	49.3						
	S6M	0.189(4.8)	0.70	6mm SUPERLOK	44.5	44.5	48.0						
	S8M	0.250(6.4)	0.87	8mm SUPERLOK	45.2	45.2	48.7						
	S10M	0.250(6.4)	0.87	10mm SUPERLOK	46.0	46.0	49.5						
	M4N	0.250(6.4)	0.87	1/4" MALE NPT	41.1	41.1	44.6						
	M6N	0.250(6.4)	0.87	3/8" MALE NPT	41.1	41.1	44.6						
	F4N	0.250(6.4)	0.87	1/4" FEMALE NPT	38.4	38.4	41.9						
SBVF 36033	S8	0.406(10.3)	3.62	1/2" SUPERLOK	59.4	59.4	68.1	19.3	41.1	27.7	74.2	22.9	9.7
	S12	0.406(10.3)	3.62	3/4" SUPERLOK	59.2	59.2	67.9						
	S12M	0.375(9.5)	3.46	12mm SUPERLOK	59.2	59.2	67.9						
	S16M	0.406(10.3)	3.62	16mm SUPERLOK	59.2	59.2	67.9						
	M8N	0.406(10.3)	3.62	1/2" MALE NPT	56.4	56.4	65.1						
	F6N	0.406(10.3)	3.62	3/8" FEMALE NPT	49.5	49.5	58.2						
	F8N	0.406(10.3)	3.62	1/2" FEMALE NPT	54.6	54.6	63.3						

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- Sizes, pressure classes, and end connections not listed are available upon request.
- Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

Technical Data

Flow Rate with 1000psig (69bar) Inlet Pressure

Two - Way

Cv	Pressure Drop ΔP, psig (bar)			Pressure Drop ΔP, psig (bar)		
	10 (0.7)	50 (3.5)	100 (6.9)	10 (0.7)	50 (3.5)	100 (6.9)
	Water Flow @ 60°F (16°C), gpm (m^3/hr)			Air Flow @ 60°F (16°C), scfm (m^3/hr)		
0.93	2.9 (0.7)	6.6 (1.5)	9.3 (2.1)	92.4 (156.2)	200.3 (338.3)	272.0 (458.9)
2.34	7.4 (1.7)	16.5 (3.8)	23.4 (5.3)	231.7 (391.5)	494.2 (834.7)	657.0 (1107.9)
6.42	20.3 (4.6)	45.4 (10.3)	64.2 (14.6)	637.1 (1076.8)	1373.6 (2320.3)	1852.3 (3124.8)

Three - Way

Cv	Pressure Drop ΔP, psig (bar)			Pressure Drop ΔP, psig (bar)		
	10 (0.7)	50 (3.5)	100 (6.9)	10 (0.7)	50 (3.5)	100 (6.9)
	Water Flow @ 60°F (16°C), gpm (m^3/hr)			Air Flow @ 60°F (16°C), scfm (m^3/hr)		
0.63	2.0 (0.5)	4.5 (1.0)	6.3 (1.4)	62.7 (106.0)	137.1 (231.7)	188.4 (317.9)
0.87	2.8 (0.6)	6.2 (1.4)	8.7 (2.0)	86.7 (146.6)	190.5 (321.8)	263.2 (444.4)
3.62	11.5 (2.6)	25.6 (5.9)	36.2 (8.2)	360.6 (609.5)	789.7 (1343.5)	1087.4 (1836.6)

Ordering Information

Example 1 :

SBVF3602	-	M6N	-	S6	-	PE	-	B
1		2 3		2 3		4		5

Example 2 :

		Port 1		Port 2		Port 3	
SBVF36023	-	S4	-	S6	-	F4N	
1		2 3		2 3		2 3	

1. Valve Series

Two - Way
- □ **SBVF3601**
- □ **SBVF3602**
- □ **SBVF3603**

Three - Way
- □ **SBVF36013**
- □ **SBVF36023**
- □ **SBVF36033**

2. Port Type

- □ **S** = SUPERLOK Tube Fitting
- □ **M** = Male Pipe Thread
- □ **F** = Female Pipe Thread

3. Port Size

Tube O.D Designator

Tube O.D (inch)	1/16	1/8	1/4	3/8	1/2	3/4
Designator	1	2	4	6	8	12
Tube O.D (mm)	3	6	8	10	12	16
Designator	3M	6M	8M	10M	12M	16M

Pipe Thread Designator

Size (inch)	1/8	1/4	3/8	1/2	3/4
Screwed NPT	2N	4N	6N	8N	12N
Screwed BSPT	2R	4R	6R	8R	12R

4. Seat Material

- □ ***(Blank)*** = PCTFE
- □ **PE** = PEEK
- □ **PT**= PTFE

5. Body Material

- □ ***(Blank)*** = 316 Stainless Steel
- □ **B** = Brass

※ For special sizes and configurations, please consult BMT (SUPERLOK) sales representative.

BMT Co., Ltd.

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Fittings & Valves

INDUSTRIAL

- Instrumentation Tube Fittings
- i-Fitting®
- Ball/Plug Valves
- Double Block & Bleed Valves
- Manifold/Gauge Valves
- Globe/Needle Valves
- Cryogenic Valves
- Check/Relief/Excess Flow Valves
- High Pressure Valves

ULTRA HIGH PURITY

- Weld & Metal Face Seal Fittings
- Bend Fittings
- Diaphragm Valves
- Bellows Valves
- Check Valves
- Clean Ball Valves
- Regulators

Electric & Energy

PRODUCT & SOLUTION

- Compact Switchboard
- Motor Control Center (MCC)
- Smart Distribution Board
- Energy Management System (EMS)

COMPONENTS (BMT PATENTED)

- *MCBS* (Molded Case Busbar System)
- *MCPD* (Molded Case Power Distributor)
- *Smart-eye* (AC/DC Meter)