HSME®
Valves & Fittings

VPG Series Purge Valves

Working Pressure: 4000 psig (275 bar)

Catalog No.VPG-1
Jan. 2015

Design

- Valve is designed to seal with the ball.
- The spring eliminates rattling of the ball when the valve is in open positon.
- Drainage through the vent hole constructed on the cap.
- The knurled cap is permanently assembled to the valve body to prevent accidental cap disassembly.

Operation

- On first makeup, 1/4 turn of cap with a wrench from finger-tight position obtains a leak tight closure.
- Loosen the cap to bleed, vent or drain fluids from a variety of systems and instruments.
- On subsequent makeups, snug with a wrench for valve closure.
- Valve vent hole should be directed away from the valve operator for safety.
- While valve is in the open position, media may flow through the cap thread due to no thread seal provided. Operator must protect themselves from exposure to system fluids.

Materials of Construction

Parts	Valve Body Materials	
	SS316	Brass
	Grade/ASTM Standard	
Cap	SS316/A479, A276	Brass/B16, JIS H3250
Body		
Ball	SS316/A276, Optional PTFE	
Spring	SS302/A313	

Optional PTFE ball

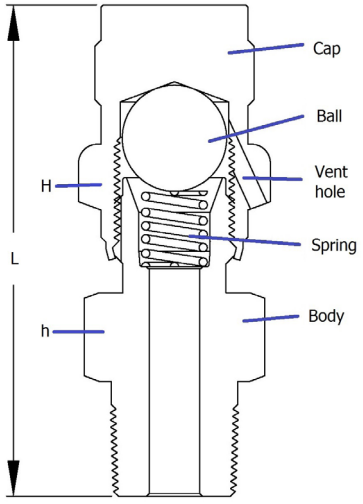
The PTFE ball reduces the pressure and temperature rating to;

- 200 psig (13.7 bar) at 100 °F (37° C).
- Max. Temp. 350 °F (176 °C).

PTFE ball requires finger-tight for valve closure. No wrench is required.

Pressure – Temperature Ratings

ASME Class	1660	N/A
Material	SS316	Brass
Material Group	2.2	N/A
Temperature, °F (°C)	Working Pressure, psig (bar)	
- 65 to 100 (-53 to 37)	4000 (275)	3000 (206)
150 (65)	3720 (256)	2800 (192)
200 (93)	3440 (237)	2600 (179)
300 (148)	3105 (213)	2210 (152)
350 (176)	2975 (204)	1480 (101)
400 (204)	2850 (196)	740 (50.9)
450 (232)	2750 (189)	-
500 (260)	2650 (182)	-
600 (315)	2500 (172)	-



Ordering Information and Dimensions

Complete Ordering Number		Inlet End Connection	Dimensions, mm (in.)		
			L	h	H
VPG-	A2T-SS	1/8 in. OD M Tube Fitting	45.2 (1.78)	1/2	5/8
	A4T-SS	1/4 in. OD M Tube Fitting	47.8 (1.88)	1/2	
	A6T-SS	3/8 in. OD M Tube Fitting	50.0 (1.97)	5/8	
	A8T-SS	1/2 in. OD M Tube Fitting	54.1 (2.13)	13/16	
	A6M-SS	6mm OD M Tube Fitting	47.8 (1.88)	14 mm	
	A8M-SS	8mm OD M Tube Fitting	49.3 (1.94)	15 mm	
	A4TA-SS	1/4 in. OD Tube Adapter	46.0 (1.81)	1/2	
	A6TA-SS	3/8 in. OD Tube Adapter	47.8 (1.88)	1/2	
	A8TA-SS	1/2 in. OD Tube Adapter	53.1 (2.09)	9/16	
	F2N-SS	1/8 in. Female NPT	38.1 (1.5)	9/16	
	F4N-SS	1/4 in. Female NPT	42.9 (1.69)	3/4	
	F6N-SS	3/8 in. Female NPT	44.5 (1.75)	7/8	
	F8N-SS	1/2 in. Female NPT	48.8 (1.92)	1 1/16	
	M2N-SS	1/8 in. Male NPT	39.6 (1.56)	1/2	
	M4N-SS	1/4 in. Male NPT	44.5 (1.75)	9/16	
	M6N-SS	3/8 in. Male NPT	45.2 (1.78)	11/16	
	M8N-SS	1/2 in. Male NPT	51.6 (2.03)	7/8	

Dimensions shown are reference only, subject to change.

How to order

To order, select an applicable valve ordering number. VPG-A2T-SS
To order brass valve, replace "**SS**" with "**B**" in the ordering number VPG-A2T-**B**
To order valve with optional PTFE ball, insert "**TE**" in the valve ordering number. VPG-2AT-**TE**-B

Factory Test

Every valve is tested with nitrogen @ 68 bar (1000 psi) for leakage at the seat to a maximum leak rate of 0.1 std cm^3/min. The valve with PTFE ball is tested at 0.69 bar (10 psi) for leakage at the seat to a maximum leak rate of 0.1 std cm^3/min.

Safe Valve Selection

The selection of a valve for any application or system must be considered to ensure safe performance. Valve rating, valve function, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. HSME Corporation accepts no liability for any improper selection, compatibility, installation, operation or maintenance.

HSME®
Valves & Fittings

VBL Series Bleed Valves

Working Pressure: 10 000 psig (689 bar)

Catalog No.VBL-1
Feb. 2015

Design

- Applicable to gas and liquid.
- Designed to vent system fluid to atmosphere from instrument devices such as manifold and gauge valves.
- Venting through vent tube constructed on the body.
- Back stop screw (with hollow hex 2.5mm) locks up stem in shut-off position. Fully loosen the screw to open the valve, and then unthread the stem.

Operation

- Stem hex allows the valve operation by hex. wrench.
- Optional bar handle allows the valve operation manually with no tool.
- Valve vent tube should be directed away from the valve operator for safety.
- While valve is in the open position, fluid may flow through the stem thread due to no stem thread packing. Operator must protect themselves from exposure to system fluids.

Materials of Construction

Components	Valve Body Materials	
	SS316	Steel
	Grade / ASTM Standard	
Stem	SS316 / A276, A479	
Body	SS316/A 276	S20C-S45C/ JIS G4051
Back Stop Screw	SS316 / A276	
Vent Tube	SS316 / A269	

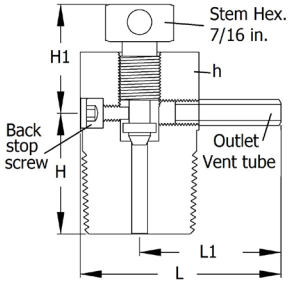
Lubricant: Molybdenum disulfide-based

- Carbon steel body is plated with white zinc for corrosion resistance.

Pressure – Temperature Ratings

Temp. °F (°C)	SS316	Steel
-65 to 100 (-53 to 37)	10 000 (689)	10 000 (689)
200 (93)	9290 (640)	9110 (627)
300 (148)	8390 (578)	8860 (610)
400 (204)	7705 (530)	8555 (589)
450 (232)	7435 (512)	8315 (572)
500 (260)	7165 (493)	-
600 (315)	6770 (466)	-
700 (371)	6480 (446)	-
800 (426)	6230 (429)	-
850 (454)	6085 (419)	-

- Min. temperature rating of steel valve: -20 °F (-28 °C).



Ordering Information and Dimensions

Complete Ordering Number		Inlet End Connection	Dimensions, mm (in.) L	L1	H	H1	h
VBL-	M2N-SS	1/8 in. Male NPT	34.0 (1.34)	23.9 (0.94)	19.1 (0.75)	20.6 (0.81)	5/8
	M4N-SS	1/4 in. Male NPT					
	M6N-SS	3/8 in. Male NPT	37.3 (1.47)	26.2 (1.03)	22.4 (0.88)		7/8
	M8N-SS	1/2 in. Male NPT					

Dimensions shown are for reference only and subject to change.

- Valve orifice: 3.2 mm (0.125 in.); Cv 0.25.
- Vent tube OD: 3/16 in. (4.7 mm).

Options

SS316 bar handle

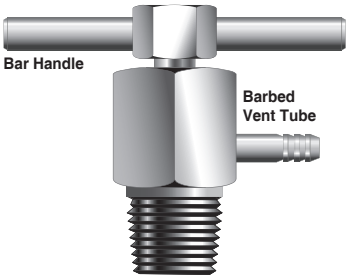
50mm (2 in.) long bar handle allows the valve actuation with no tool.

- Ordering designator: **SH**

Barbed vent tube

3/16 in. OD barbed tube allows soft plastic or rubber hose connection at the valve outlet for containment of vented fluid.

- Ordering designator: **HA3**



How to order

To order, select an applicable valve ordering number. VBL-M2N-SS
To order carbon steel valve, replace "**SS**" with "**C**" in the ordering number. VBL-M2N-**C**
To order valve with optional 3/8 in. OD barbed vent tube, insert "**HA3**". VBL-M2N-**HA3**-C
To order valve with optional SS316 bar handle, insert "**SH**" in the valve ordering number. VBL-M2N-HA3-**SH**-C

Factory Test

Every valve is tested with nitrogen @ 68 bar (1000 psi) for leakage at the seat to a maximum leak rate of 0.1 std cm^3/min.

Safe Valve Selection

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