

Bleed Valves—Special Alloy Materials

BV Series

Swagelok bleed valves can be used on instrumentation devices such as multivalve manifolds or gauge valves to vent signal line pressure to atmosphere before removal of an instrument or to assist in calibration of control devices.



Features

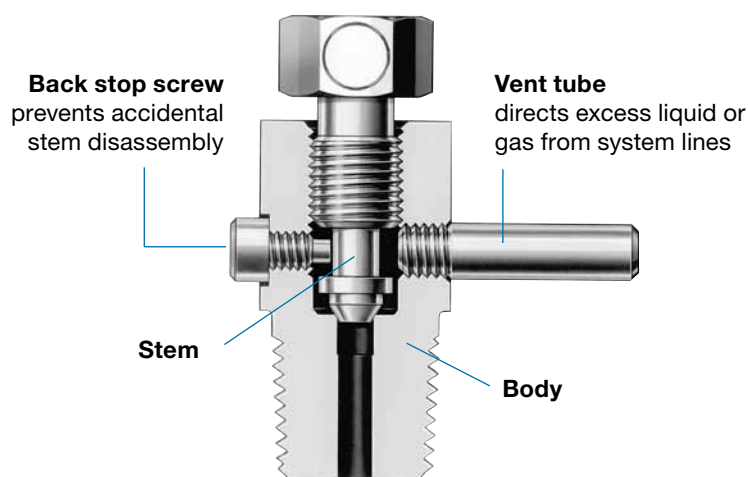
- Alloy 625, alloy 825, or Alloy 2507 super duplex stainless steel materials
- Working pressures up to 10 000 psig (689 bar)
- Temperatures up to 850°F (454°C)
- Compact for convenient installation
- Male NPT end connections
- Orifice of 0.125 in. (3.2 mm); flow coefficient (C_v) of 0.25

⚠ When installing a Swagelok bleed valve, position the vent tube to direct system fluid away from operating personnel. Always open bleed valves slowly. These valves contain no packing, so some fluid weepage will occur when the valves are opened. Operating personnel must protect themselves from exposure to system fluids.

Materials of Construction

Component	Valve Body Materials		
	Alloy 625	Alloy 825	Alloy 2507
	Material Grade/ASTM Specification		
<i>Stem</i>	<i>Alloy 625/ B446</i>	<i>Alloy 825/ B425</i>	<i>Alloy 2507/ A479</i>
<i>Body</i>			
<i>Back stop screw</i>			
<i>Vent tube</i>	<i>Alloy 625/ B444 or B704</i>		
<i>Lubricant</i>	<i>Nickel antiseize, hydrocarbon carrier</i>		

Wetted components listed in *italics*.



Pressure-Temperature Ratings

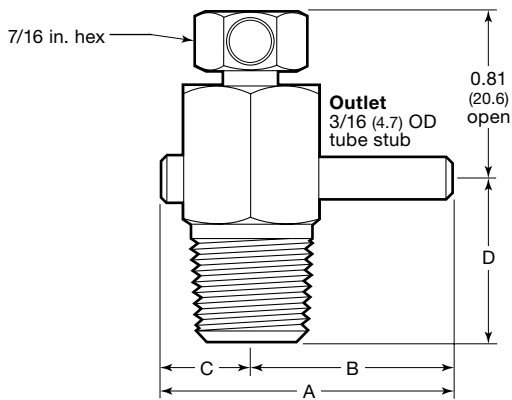
Material	Alloy 625	Alloy 825	Alloy 2507
Temperature, °F (°C)	Working Pressure, psig (bar)		
-65 (-53) to 100 (37)	10 000 (689)	10 000 (689)	10 000 (689) ^②
200 (93)	10 000 (689)	9 185 (632)	9 970 (686)
300 (148)	10 000 (689)	8 710 (600)	9 425 (649)
400 (204)	9 795 (674)	8 325 (573)	9 095 (626)
450 (232)	9 695 (667)	8 135 (560)	9 015 (621) ^①
500 (260)	9 590 (660)	7 940 (547)	—
600 (315)	9 445 (650)	7 640 (526)	—
650 (343)	9 360 (644)	7 510 (517)	—
700 (371)	9 270 (638)	7 425 (511)	—
750 (398)	9 185 (632)	7 380 (508)	—
800 (426)	9 095 (626)	7 295 (502)	—
850 (454)	9 010 (620)	7 295 (502)	—

^① Alloy 2507 has a maximum pressure temperature rating of 8965 psig (618 bar) at 482°F (250°C).

^② Alloy 2507 has a minimum use low temperature rating of -50°F (-46°C)

Dimensions

Dimensions, in inches (millimeters), are for reference only and are subject to change.



Inlet End Connection		Basic Ordering Number	Dimensions, in. (mm)			
Type	Size		A	B	C	D
Male NPT	1/4 in.	-BVM4	1.34 (34.0)	0.94 (23.9)	0.41 (10.4)	0.75 (19.1)
	3/8 in.	-BVM6	1.47 (37.3)	1.03 (26.2)	0.44 (11.2)	0.88 (22.4)
	1/2 in.	-BVM8				

Ordering Information

Select a basic ordering number. Add a material designator from the table below to the basic ordering number.

Example: **625-BVM4**

Material	Designator
Alloy 625	625
Alloy 825	825
Alloy 2507	2507

⚠ To increase service life, ensure proper valve performance, and prevent leakage, apply only as much torque as is required to achieve positive shutoff.

Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

Caution: Do not mix or interchange parts with those of other manufacturers.

Testing

Every Swagelok bleed valve is factory tested with nitrogen at 1000 psig (69 bar). Seats have a maximum allowable leak rate of 0.1 std cm³/min. Shell testing is performed to a requirement of no detectable leakage with a liquid leak detector.

Cleaning and Packaging

Every Swagelok bleed valve is cleaned and packaged in accordance with Swagelok *Standard Cleaning and Packaging (SC-10)*, MS-06-62.

Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit swagelok.com or contact your authorized Swagelok representative.