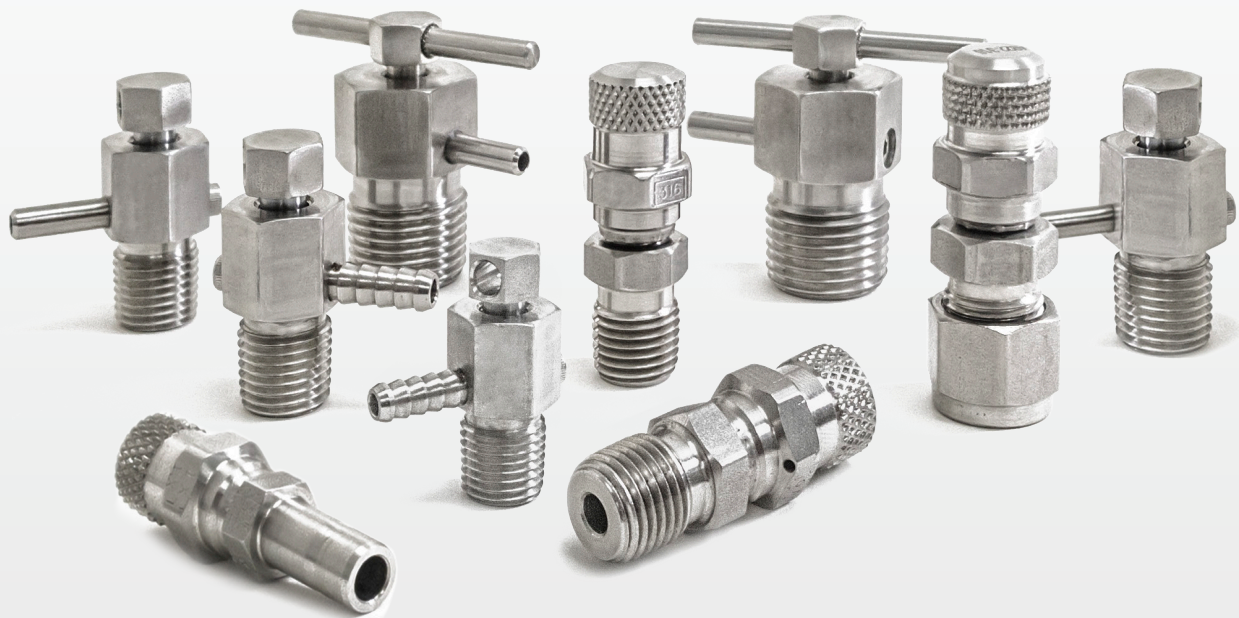




# Bleed Valves & Purge Valves



## BV Series & 4900 Series

- ✓ Bleed valves up to 10,000 psig (689 bar)
- ✓ NPT, BSPT and SAE end connections
- ✓ 316 SS and Alloy 400
- ✓ Purge valves up to 6000 psig (413bar)
- ✓ Wide range of shapes and end connection types and sizes
- ✓ 316 SS and Brass





At SSP, we are proud to be an American manufacturing success story.

**100% of our products are made in America.** All of our manufacturing is performed in our 165,000 sq. ft. facility located near Cleveland, Ohio. Our facility is the largest vertically integrated, single-site operation in the industry. In addition to manufacturing and assembly, we have closed die forging, tool & die design, product engineering and testing operations under the same roof with customer service and management.

**Made in America is good business.** Not only do we make everything in America, we use American suppliers too. Buying American allows us to have better quality control and a more reliable supply chain. We can work more closely within our walls and with our suppliers to improve quality, reduce costs, and shorten lead times, which means faster service and better products for you.

**Support where it counts.** SSP products and services are supported by more than 4000 people and 350 distributor locations around the globe. For a distributor near you, contact SSP Customer Service or visit [www.mySSP.com/distributors](http://www.mySSP.com/distributors).

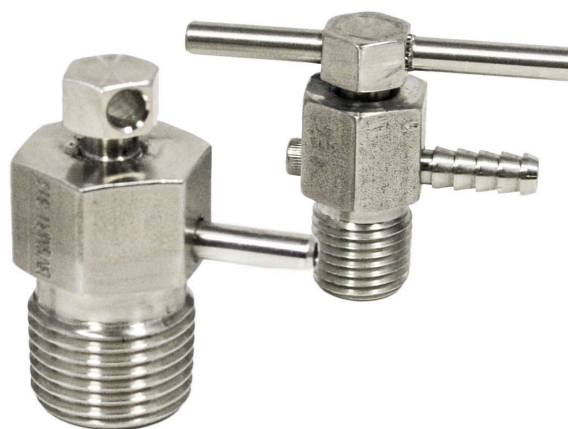
**SSP** *Industry Standard Products*  
*Made Better*

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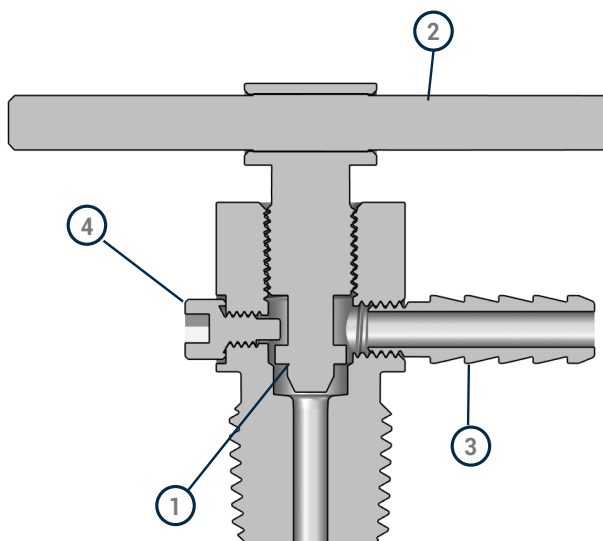
# BV Series Bleed Valves

Compact, convenient and 100% factory tested, SSP bleed valves are used to vent signal line pressure before the removal of an instrument or calibration of a instrument or other device. SSP bleed valves are for systems up to 10,000 psig (689 bar) and temperatures up to 850°F (454°C). They are available in 316 SS and Alloy 400 with male NPT, SAE and BSPT ends from 1/8 through 1/2 in.



## Features

- 1 **Metal to Metal Seal**
  - Allows temperatures from -65 o 850°F
- 2 **Optional Tee-Bar Handle**
  - 316 SS
- 3 **Outlet Options**
  - Tube Stub
  - Hose Barb
  - No Tube Stub
- 4 **Backstop Screw**
  - Prevents blowout or unintentional removal of the valve stem



Warning! Bleed valves do not have stem packing. Therefore, operators may be exposed to system media that can escape during operation. Operators should open valves slowly with the vent port directed away from personnel and take appropriate precautions to protect themselves from system fluids.

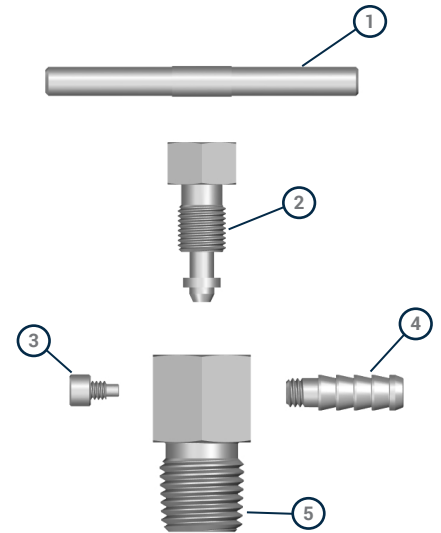
# Technical Information

## Materials of Construction

ID	Component	Stainless Steel	Alloy 400
1	Handle	316 SS / A479	316 SS / A479
2*	Stem	Chrome Plated 316 SS / A276	Chrome Plated Alloy 400 / B164
3*	Back Stop Screw	300 Series / A479	Alloy 400 / B164
4*	Vent Tube	316 SS / A269	Alloy 400 / B165
5*	Body <sup>2</sup>	316 SS / A479	Alloy 400 / B164
	Lubricant	Fluorocarbon-based lubricant with Tungsten Disulfide	

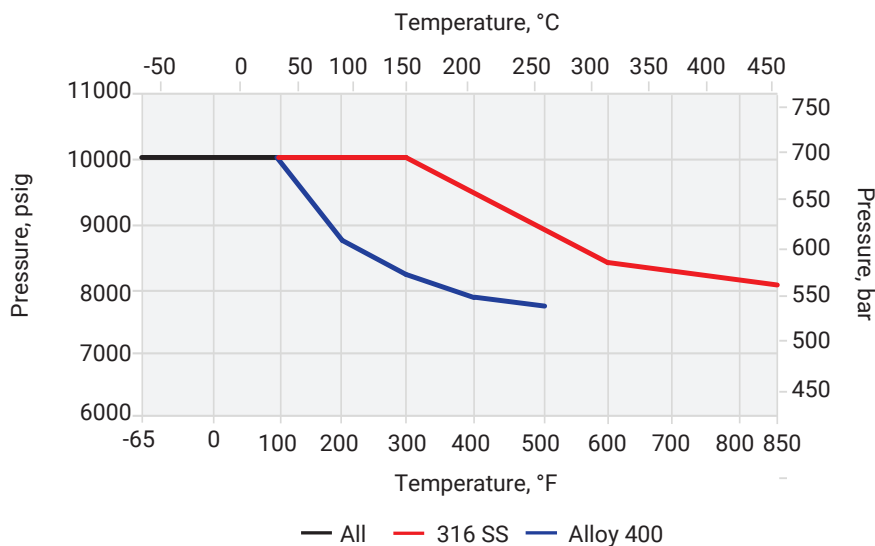
\*Wetted components

<sup>1</sup>Male SAE fitting bodies have FKM o-rings.



Optional tee handle and barbed outlet shown.

## Pressure - Temperature



### Pressure Temperature Limitations

#### Alloy 400 Bodies

- Maximum Temperature 500° F (260° C)

#### SAE Ended Valves

- Max. Allowable Pressure 4568 psig (315 bar)
- Maximum Temperature 450° (232° C)

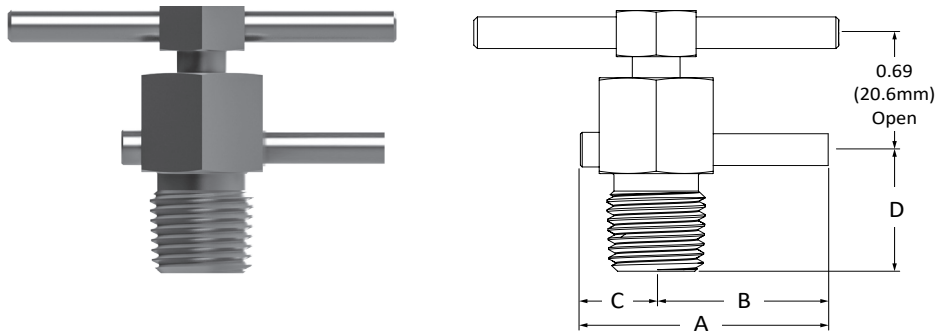
# Ordering Information

## Ordering Instructions

**Ordering BV Series valves requires the following steps:**

- ① Locate the Basic Part Number from the Part Number and Dimensions table below.
- ② Add the designators for options listed on page 6 in alphabetical order.

**NOTE:** The Part Number and Dimensions Tables contain the most popular part numbers. Valves can be configured with different end connection types and sizes. For valves with other requirements contact your local SSP Distributor or SSP Customer Service.



## Part Numbers and Dimensions

End Connections		Basic Part Number	Cv	Dimensions, in. (mm)			
Type	Size			A	B	C	D
MALE NPT	1/8	BV2PM	0.25	1.34 (34.0)	0.94 (23.9)	0.41 (10.4)	0.71 (19.1)
	1/4	BV4PM		1.34 (34.0)	0.94 (23.9)	0.41 (10.4)	0.71 (19.1)
	3/8	BV6PM		1.47 (37.3)	1.03 (26.2)	0.44 (11.2)	0.88 (22.4)
	1/2	BV8PM		1.47 (37.3)	1.03 (26.2)	0.44 (11.2)	0.92 (22.4)
MALE SAE	7/16-20	BV4MST		1.34 (34.0)	0.94 (23.9)	0.41 (10.4)	0.69 (17.5)
	3/4-16	BV8MST		1.47 (37.3)	1.03 (26.2)	0.44 (11.2)	0.64 (16.0)
MALE ISO/ BSPT	1/4	BV4MRT		1.34 (34.0)	0.94 (23.9)	0.41 (10.4)	0.71 (19.1)
	1/2	BV8MRT		1.47 (37.3)	1.03 (26.2)	0.44 (11.2)	0.92 (23.4)

# Options & Accessories

## Body Materials

Select the body material for your application then add the designator after the end connection designator. *Example: BV8PM-M*

Material	Designator
316 SS	-316
Alloy 400	-M
Alloy C-276*	-HC

\* Contact SSP Customer Service for availability.

## Vent Options

Select the vent option for your application and add the designator after the material designator. *Example: BV8PM-316-C3*

Material	Designator
No Vent Tube	-NVT
Tube Stub	Blank
Hose Barb	-C3

## Stainless Steel Handles

Stainless steel tee-bar handles can be specified by adding -TBH to the part number.

*Example: BV8PM-316-TBH*

## Option Designators

- Add option designators after end connection & material designators in alphabetical order.

*Example: BV8PM-316-C3-TBH*

## SSP Lifetime Limited Warranty

SSP valves are backed by the SSP Lifetime Limited Warranty. This warranty is available from your local distributor or at [www.mySSP.com](http://www.mySSP.com).

Duolok®, Unilok®, Griplik® and TruFit® are registered trademarks of SSP Fittings Corp.

## Special Cleaning

BV Series valves are available cleaned in compliance with ASTM G93 Level C and CGA G-4.1, *Cleaning Methods and Cleanliness Levels for Material and Equipment Used in Oxygen-Enriched Environments*. To specify, add -XP98 to the part number.

*Example: BV8PM-316-XP98*

For more information about other types of special cleaning, please contact your local SSP distributor or SSP Customer Service.

## Testing

SSP bleed valves are tested using 1000 psig (69 bar) Nitrogen to have a maximum leak rate across the seat of 0.1 std cm<sup>3</sup>/min. and no detectable shell leakage when tested using a liquid leak detector.

## Important Information

IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE PERSONAL INJURY AND PROPERTY DAMAGE. It is the sole responsibility of the system designers and users to properly select and use products for their specific applications. This document has been provided to users with technical expertise as a reference for further investigation to determine specific product needs relative to their design requirements.

# 4900 Series Purge Valves

SSP 4900 Series Purge Valves are used for relief, bleeding or draining of instrument and process lines. One-quarter turn with a wrench achieves shut off up to 6000 psig (413 bar). Knurled caps allow easy operation in low pressure applications. In addition to standard shapes, purge valves can be created from any instrumentation tube end fitting. This provides great flexibility in body shapes and end connections.



## General Specification

Feature	316 SS	Brass
Maximum Working Pressure	6000 psig (413 bar)	3000 psig (206 bar)
Temperature Range	-65 to 600°F	-65 to 400°F
<b>Materials</b>		
Body	316 SS	Brass
Ball	316 SS, PTFE (Optional)	
<b>End Connections</b>		
Types	Duolok, Griplok and Unilok Tube and tube adapters, NPT, and SAE pipe ends	
Sizes	1/8 to 3/4 in.	1/8 to 3/4 in.

## Features

### 1 Knurled Stainless Steel or Brass Cap

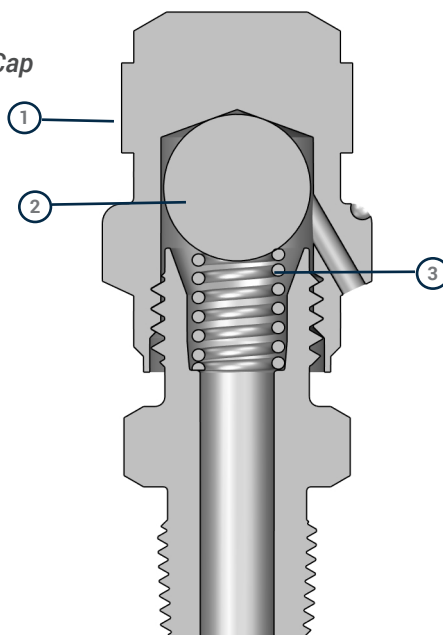
- Fast opening and closing
- ¼-turn from finger tight achieves shut off
- Low operating torque

### 2 Ball Poppet

- Minimizes sticking
- Reliable resealing
- Optional PTFE ball

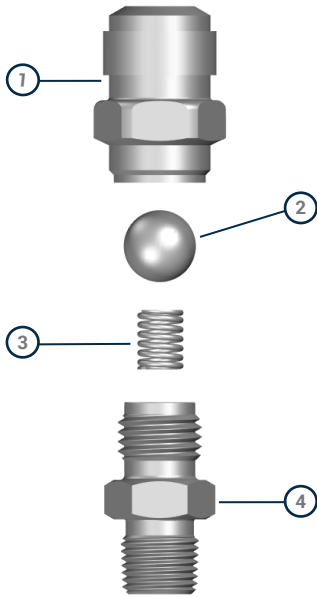
### 3 Poppet Spring

- Secures ball poppet against the cap when purging
- Prevents ball or seat damage



**⚠ Warning!** Operator should take appropriate precautions to protect themselves from system fluids that will escape during operation. The direction of the vent changes as the cap rotates. Operators should open valves slowly and ensure that system fluids are directed away from personnel.

# Technical Information



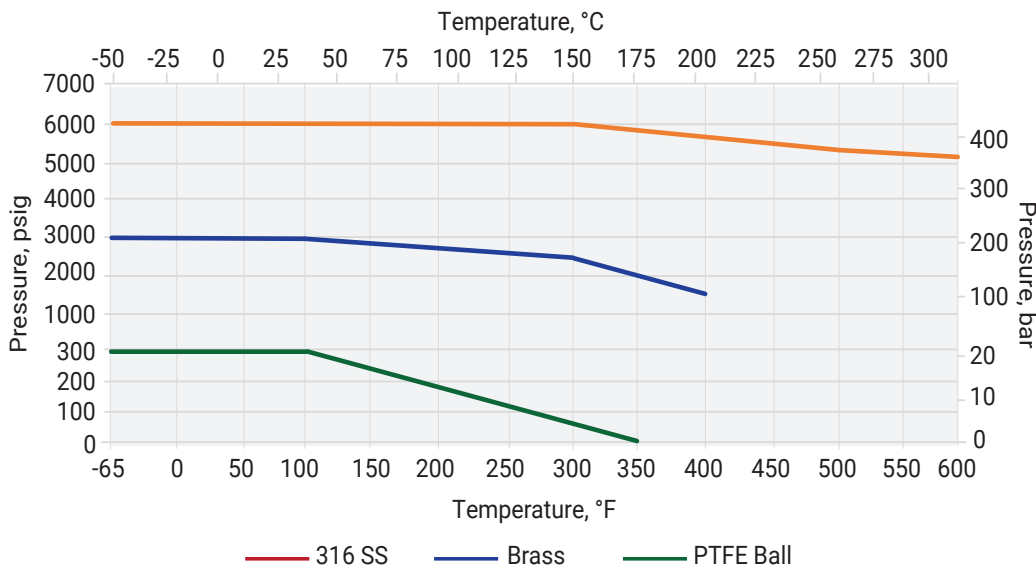
## Materials of Construction

ID	Component	316 SS	Brass
1*	Cap	316 SS / A479	Brass / B16
2*	Ball	316 SS / A276	316 SS / A276
3*	Spring	302 SS / A313	302 SS / A313
4*	Body <sup>1</sup>	316 SS / A479	Brass / B16
	Lubricant	Molybdenum disulfide-based paste	

<sup>1</sup>Male SAE bodies have an Fluorocarbon FKM O-ring.

\*Wetted components

## Pressure - Temperature



### Pressure Temperature Limitations

SAE Ended Valves

- Maximum Temperature 450° (232° C)
- Max. Allowable Pressure 4568 psig (315 bar)

Note that TE are derated based on turing



# Ordering Information

## Ordering Instructions

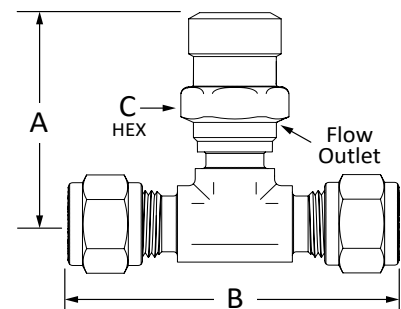
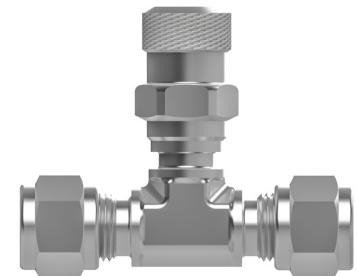
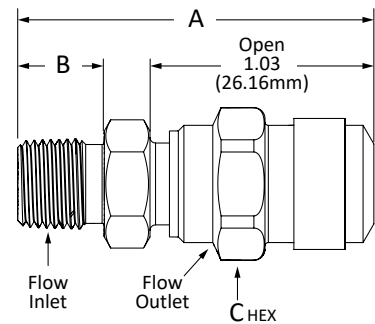
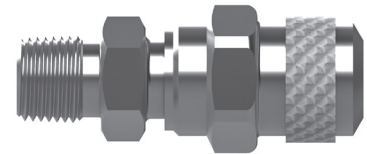
### Ordering 4900 Series valves requires the following steps:

- ① Locate the Basic Part Number from the Part Number and Dimensions table below.
- ② Add the designators for options from page 10.

**NOTE:** The Part Number and Dimensions Tables contain the most popular part numbers. Valves can be configured with different end connection types and sizes. For valves with other requirements contact your local SSP Distributor or SSP Customer Service.

## Part Numbers and Dimensions

End Connections		Cv	Basic Part Number	Dimensions, in. (mm)		
Type	Size			A	B	C
Fractional Tube Fitting	1/8	0.08	4902	1.86 (46.74)	0.60 (14.99)	5/8
	1/4		4912	1.95 (49.28)	0.70 (17.53)	5/8
	3/8		4922	2.03 (51.56)	0.76 (19.05)	5/8
	1/2		4932	2.15 (55.63)	0.90 (22.35)	5/8
Female NPT	1/8		4910	1.57 (39.62)	0.54 (13.46)	5/8
	1/4		4920	1.75 (44.45)	0.72 (18.29)	5/8
	3/8		4930	1.82 (46.01)	0.79 (19.81)	5/8
	1/2		4940	2.01 (50.29)	0.98 (24.64)	5/8
Male NPT	1/8		4906	1.63 (41.15)	0.39 (9.65)	5/8
	1/4		4916	1.83 (45.97)	0.57 (14.22)	5/8
	3/8		4926	1.85 (46.74)	0.57 (14.22)	5/8
	1/2		4936	2.10 (53.09)	0.76 (19.05)	5/8
Fractional Tube Adapter	1/8		4952	1.79 (45.47)	0.53 (13.46)	5/8
	1/4		4954	1.88 (47.50)	0.62 (16.00)	5/8
	3/8		4956	1.94 (49.28)	0.70 (17.53)	5/8
	1/2		4958	2.16 (54.61)	0.96 (23.11)	5/8
SAE Straight Thread	9/16-18	4926ST	1.74 (43.9)	0.39 (9.9)	5/8	
	3/4-14	4928ST	1.82 (46.2)	0.44 (11.2)	5/8	
<b>Purge Tees</b>						
Fractional Tube Fitting	1/4	0.08	4912T	1.40 (35.6)	2.13 (55.9)	5/8
	3/8		4922T	1.48 (35.6)	2.40 (55.9)	5/8
	1/2		4932T	1.59 (40.4)	2.83 (71.9)	5/8
	3/4		4942T	1.77 (45.0)	3.13 (79.5)	5/8



# Options & Accessories

## Body Materials

Select the body material for your application, then add the designator after the end connection designator.

Example: 4912-B

Material	Designator
316 SS	-316
Brass	-B

## Tube Fitting End Connections

SSP offers three tube fitting designs. Duolok two-ferrule tube fittings are standard. To select a different design, select the designator from the table below, then add it to the part number.

Example: 4912-316-U for Unilok tube ends.

Design	Description	Designator
Duolok (Standard)	2-Ferrule	Blank
Unilok	1-Ferrule	U
Griplok	2-Ferrule	G

## PTFE Ball Material

316 SS poppet balls are standard. To order PTFE balls, add -TFE to the part number.

Example: 4912-316-TFE

## Testing

SSP purge valves are tested using 1000 psig (69 bar) Nitrogen to have a maximum leak rate across the seat of 0.1 std cm<sup>3</sup>/min. and no detectable shell leakage when tested using a liquid leak detector.

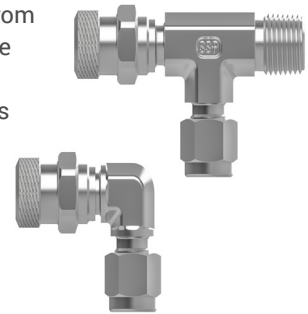
## SSP Lifetime Limited Warranty

SSP valves are backed by the SSP Limited Lifetime Warranty.

This warranty is available from your local distributor or at [www.mySSP.com](http://www.mySSP.com).

## Special Purge Valve Configurations

Purge valves can be created from any fitting with one 1/4 in. tube fitting end. The illustrations show purge valves created from a male run tee and a union elbow. For more information, please contact your local SSP Authorized Distributor or SSP Customer Service.



## Special Cleaning

4900 Series valves are available cleaned in compliance with ASTM G93 Level C and CGA G-4.1, *Cleaning Methods and Cleanliness Levels for Material and Equipment Used in Oxygen-Enriched Environments*. To specify special cleaning, add -XP98 to the part number.

Example: 4912-316-XP98

## Important Information

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# More SSP Products



## Tube Fittings

*Duolok® and Griplok® (two-ferrule) and Unilok® (single-ferrule) tube fittings ensure leak-tight installation when intermixed with Swagelok®, Hoke® Gyrolok®, and Parker® CPI™ fittings, provided they are used in accordance with SSP Fittings' published installation and service recommendations.*



## Valves

*The SSP valve offering includes ball, check, metering, needle, toggle, plug, bleed, and purge valves for pressures up to 10,000 psig.*



## Quick Connects

*SSP offers single-end shutoff, double-end shut off, and full-flow quick connects for instrumentation and process applications.*



## Pipe Fittings

*TruFit and TruFit 10K pipe fittings are available in a wide range of weld, threaded and flared connections.*



## Filters

*SSP in-line and tee-type filters trap particles to clean sample fluids and protect sensitive process and analytical instrumentation components and equipment.*



## Tools & Accessories

*SSP TurnPro professional hand tools, power tools and installation training make quality tube system installation faster and easier.*



# SSP

Founded 1926

Privately owned, third generation business

Modern single-site vertically integrated manufacturing facility

DFARS-compliant raw material

ISO 9001 quality management system

Lifetime Limited Warranty



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