

# Sample and Bleed Valves

## Application

The Pure-Flo product line of Sample and Bleed Valves provides compact and economical means to extract process samples and bleed off excess condensate while maintaining product sterility.

## Benefits

Stagnant fluid inherent to the take-off leg of a conventional diaphragm or ball valve sample valve is eliminated in the Pure-Flo Sample Valve. By providing a stainless steel metal to metal shut off directly at the Tri-Clamp®, the typical take-off leg is eliminated.

Pure-Flo Sample and Bleed Valves are available in Sample, Zero Static Sample, and Bleed, and with a number of standard and optional features to best suit your system design.

Sample and Bleed Valves are manufactured from 316L stainless steel and utilize a thermoplastic handwheel so that they can withstand typical cleaning and sterilization protocols, including autoclaving.

The relatively simple design utilizing “off the shelf” o-ring seals allows for easy replacement of sealing components.

The Sample Valve handle and stem are designed to provide smooth operation and limited wear on the internal components.

The Zero Static Sample Valve can be installed directly in line and allows a sample to be taken or condensate to be drained without the typical hold up volume or contact surfaces inherent to branch valve assemblies.

The Bleed valve is a simple but effective design for providing a quick and easy way to asperate or drain a system. These are often used for filter housings, bubble traps, and small tanks. An optional weld end allows the bleed valve to become an integral part of any assembly.

All product contact materials are FDA compliant.



## Standard Features

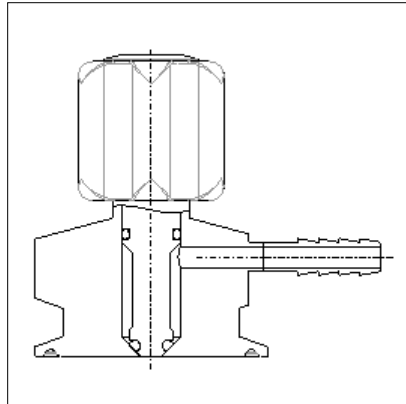
- Body Material: 316L
- O-Ring/Seal Material: EPDM FDA compliant, USP Class VI
- Handwheel Material: Polyphenylsulfone
- Standard Interior Surface Finish: 11 $\mu$ in (0,3 $\mu$ m) Ra
- Electropolish: Interior and Exterior
- Inlet End Connection: Tri-Clamp®
- Outlet End Connection: Tri-Clamp®, Butt weld, Hose Barb
- Maximum Temperature/Pressure: 275°F (135°C) 100 psi (7,0 bar)
- Autoclavable

## Available Options

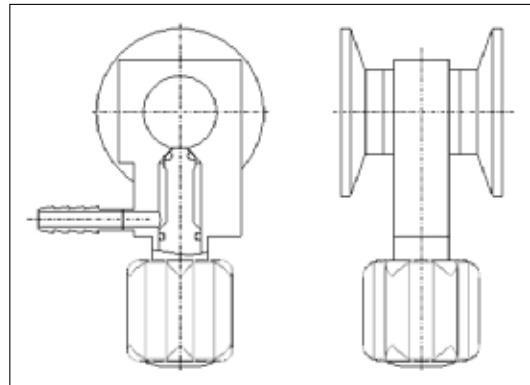
- Body Material: 1.4435, AL6XN, C276, C22
- O-Ring Seal Material: Viton - FDA compliant, Viton - FDA compliant and USP Class VI
- End Connections: ISO/DIN
- Outlet Option: 2nd outlet, steaming port
- Operation: Toggle style handle available on sample valve and zerostatic sample valve
- Other options available upon request

## Sample Valves

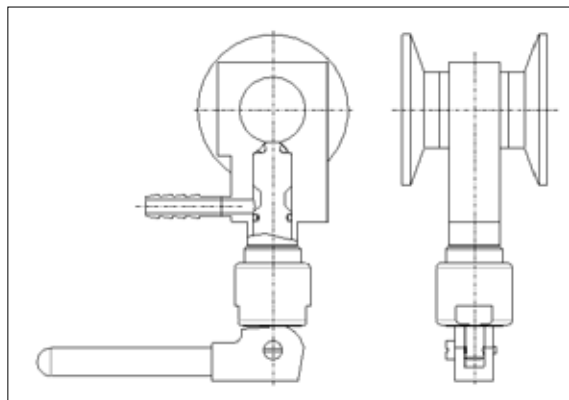
Sample Valve



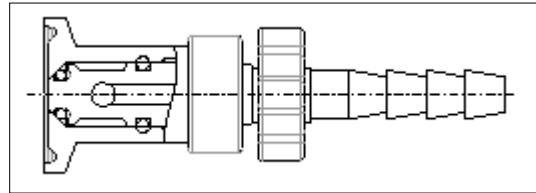
Zero Static Sample Valve



Toggle Style Operation



## Bleed Valve



Drawing is an example of a customer specific sample valve drawing

## Sample valve configurations

### Standard configuration

SV – W – 1 – 419 - .38 – X41 – EPDM

Code	SV	W	1	419	.38	X41	EPDM
Description	Valve type	Material	Inlet size	Inlet end connection	Outlet size	Outlet end connection	O-ring type

### Special configuration

SV-WD-.5-419-34-.25-X19S1-34-VIT-SPEC:2nd Outlet 0.25"-PER DRAWING:K18000-MAX FERR:3%

Code	SV	WD	.5	419	34	.25	X19S1
Description	Valve type	Material	Inlet size	Inlet end connection	Special inlet Tri-clamp	Outlet size	Outlet end connection

34	VIT	SPEC: 2nd Outlet 0.25"	Per Drawing: K18000	MAX FERR:3%
Special outlet Tri-clamp	O-ring type	Special outlet configurations	Special	Controlled ferrite

## Options

### Valve Type (Block valve)

Code	Description	Inlet/run sizes	End Connections	Outlet sizes	End Connections
SV	Sample valve	1/4 - 4.0"	TC / BW / SPEC	1/8 – 1/2	TC / BW / HB / SPEC
ZSS	Zerostatic sample valve	1/4 - 4.0"	TC / BW / SPEC	1/8 – 1/2	TC / BW / HB / SPEC
BV	Bleed valve	1/4 - 4.0"	TC / BW / SPEC	1/8 – 3/8	HB ONLY
SV-TSH	Toggle sample valve	1/4 - 4.0"	TC / BW / SPEC	1/8 – 1/2	TC / BW / HB / SPEC
ZSS-TSH	Toggle zerostatic sample valve	1/4 - 4.0"	TC / BW / SPEC	1/8 – 1/2	TC / BW / HB / SPEC
SPEC	Special sample valve	1/4 - 4.0"	TC / BW / SPEC	1/8 – 1/2	TC / BW / HB / SPEC

## Model Codes

### Valve Type

Code	Description
SV	Sample valve
ZSS	Zerostatic sample valve
BV	Bleed valve
SPEC	Special

### Operation option

Code	Description
TSH	Toggle style handle

### Material

Code	Description
W	316L SS
WD	1.4435 SS
WA	AL-6XN
WC6	Hastelloy c-276
WC2	Hastelloy c-22
OTH	Other material

### Inlet/run size

Code	Description
0.25	1/4" (DN06)
0.38	3/8" (DN10)
0.5	1/2" (DN15)
0.75	3/4" (DN20)
1.0	1" (DN25)
1.5	1 1/2" (DN40)
2.0	2" (DN50)
2.5	2 1/2" (DN65)
3.0	3" (DN80)
4.0	4" (DN100)

### Inlet/run end connection

Code	Description
419S2	Tri-Clamp 14 Gauge
419	Tri-Clamp 16 Gauge
419S	Tri-Clamp 18 Gauge
419S1	Tri-Clamp 20 Gauge
429	Buttweld 14 Gauge
428	Buttweld 16 Gauge
423	Buttweld 18 Gauge
424	Buttweld 20 Gauge
SPEC	Special

### Outlet size

Code	Description
0.13	1/8" (DN04)
0.25	1/4" (DN06)
0.38	3/8" (DN10)
0.5	1/2" (DN15)

### Outlet end connection

Code	Description
X19	Tri-Clamp 16 Gauge
X19S	Tri-Clamp 18 Gauge
X19S1	Tri-Clamp 20 Gauge
X28	Buttweld 16 Gauge
X23	Buttweld 18 Gauge
X24	Buttweld 20 Gauge
X40	Hosebarb 16 Gauge
X41	Hosebarb 18 Gauge
SPEC	Special

### O-ring type

Code	Description
EPDM	EPDM o-ring (FDA & USP CLASS VI)
VIT	Viton o-ring (FDA)
VITUSP	Viton o-ring (FDA & USP CLASS VI)

### Special inlet tri-clamp diameter

Code	Description
25	25mm Tri-clamp
34	34mm Tri-clamp
50.5	50.5mm Tri-clamp

### Special outlet tri-clamp diameter

Code	Description
25	25mm Tri-clamp
34	34mm Tri-clamp
50.5	50.5mm Tri-clamp

### Special outlet configuration

Code	Description
Spec	Special (text box)

### Special tagging

Code	Description
RTAG	STN STL round tag
STAG	STN STL square tag
SPEC	Special tag
CHAIN	STN STL chain
TIE	Plastic tie wrap
WIRE	STN STL wire

## Figure Number Cross Reference

### Bleed Valve

PFCA Part Number	Old Figure Number	New Figure Number	Description
S100855	BV-BL-HB-BL-01	-	BLEED VLV ASSY, BL X .125, BL X HB, 11 PG A 316L/EPDM
S101490	BV-NPT-HB-02-02	-	BLEED VLV ASSY, .250 X .250, MNPT X HB, 11 PG A 316L/EPDM
S100856	BV-BL-HB-BL-02	-	BLEED VLV ASSY, BL X .250, BL X HB, 11 PG A 316L/EPDM
S100824	BV-TC-HB-04-01	BV-W-.5-419-.13-X41-EPDM	BLEED VLV ASSY, .500 X .125, TC X HB, 11 PG A 316L/EPDM
S100825	BV-TC-HB-04-02	BV-W-.5-419-.25-X41-EPDM	BLEED VLV ASSY, .500 X .250, TC X HB, 11 PG A 316L/EPDM
S100826	BV-TC-HB-12-01	BV-W-1.5-419-.13-X41-EPDM	BLEED VLV ASSY, 1.50 X .125, TC X HB, 11 PG A 316L/EPDM
S100827	BV-TC-HB-12-02	BV-W-1.5-419-.25-X41-EPDM	BLEED VLV ASSY, 1.50 X .250, TC X HB, 11 PG A 316L/EPDM
S100828	BV-TC-HB-16-02	BV-W-2-419-.25-X41-EPDM	BLEED VLV ASSY, 2.00 X .250, TC X HB, 11 PG A 316L/EPDM

### Bleed Valve with Viton O-Rings

PFCA Part Number	Old Figure Number	New Figure Number	Description
S102585	-	BV-W-.5-419-.25-X41-VIT	BLEED VLV ASSY, .500 X .250, TC X HB, 11 PG A 316L/VITON

### Sample Valve

PFCA Part Number	Old Figure Number	New Figure Number	Description
S101848	SV-TC-HB-04-01	SV-W-.5-419-.13-X41-EPDM	SAMPLE VLV ASSY, .500 X .125, TC X HB, 11 PG A 316L/EPDM
S100829	SV-TC-HB-04-02	SV-W-.5-419-.25-X41-EPDM	SAMPLE VLV ASSY, .500 X .250, TC X HB, 11 PG A 316L/EPDM
S100831	SV-TC-HB-04-03	SV-W-.5-419-.38-X41-EPDM	SAMPLE VLV ASSY, .500 X .375, TC X HB, 11 PG A 316L/EPDM
S101612	SV-TC-HB-04-04	SV-W-.5-419-.5-X40-EPDM	SAMPLE VLV ASSY, .500 X .500, TC X HB, 11 PG A 316L/EPDM
S101849	SV-TC-HB-12-01	SV-W-1.5-419-.13-X41-EPDM	SAMPLE VLV ASSY, 1.50 X .110, TC X HB, 11 PG A 316L/EPDM
S100832	SV-TC-HB-12-02	SV-W-1.5-419-.25-X41-EPDM	SAMPLE VLV ASSY, 1.50 X .250, TC X HB, 11 PG A 316L/EPDM
S102228	-	-	SAMPLE VLV ASSY, 1.50 X .250, TC X 45HB, 15 PG A 316L/EPDM
S100833	SV-TC-HB-12-03	SV-W-1.5-419-.38-X41-EPDM	SAMPLE VLV ASSY, 1.50 X .375, TC X HB, 11 PG A 316L/EPDM
S100834	SV-TC-HB-12-04	SV-W-1.5-419-.5-X40-EPDM	SAMPLE VLV ASSY, 1.50 X .500, TC X HB, 11 PG A 316L/EPDM
S100835	SV-TC-HB-16-02	SV-W-2-419-.25-X41-EPDM	SAMPLE VLV ASSY, 2.00 X .250, TC X HB, 11 PG A 316L/EPDM
S100836	SV-TC-HB-32-02	SV-W-4-419S2-.25-X41-EPDM	SAMPLE VLV ASSY, 4.00 X .250, TC X HB, 11 PG A 316L/EPDM
S100837	SV-TC-TC-04-02	SV-W-.5-419-.25-X19S1-EPDM	SAMPLE VLV ASSY, .500 X .250, TC X TC, 11 PG A 316L/EPDM
S100838	SV-TC-TC-04-04	SV-W-.5-419-.5-X19-EPDM	SAMPLE VLV ASSY, .500 X .500, TC X TC, 11 PG A 316L/EPDM
S100839	SV-TC-TC-12-02	SV-W-1.5-419-.25-X19S1-EPDM	SAMPLE VLV ASSY, 1.50 X .250, TC X TC, 11 PG A 316L/EPDM
S100840	SV-TC-TC-12-04	SV-W-1.5-419-.5-X19-EPDM	SAMPLE VLV ASSY, 1.50 X .500, TC X TC, 11 PG A 316L/EPDM
S101487	SV-BL-HB-BL-02	-	SAMPLE VLV ASSY, BL X .250, BL X HB, 11 PG A 316L/EPDM
S102180	-	-	SAMPLE VLV ASSY, BL X .250, BL X WE, ACT, 11 A 316L/EPDM
S102181	-	-	SAMPLE VLV ASSY, .500 X .500, TC X TC, ACT, 11 A 316L/EPDM

## Figure Number Cross Reference

### Sample Valve with Viton O-Rings

PFCA Part Number	Old Figure Number	New Figure Number	Description
S102582	-	SV-W-.5-419-.25-X41-VIT	SAMPLE VLV ASSY, .500 X .250, TC X HB, 11 PG A 316L/VITON
S102583	-	SV-W-.5-419-.5-X19-VIT	SAMPLE VLV ASSY, .500 X .500, TC X TC, 11 PG A 316L/VITON
S102584	-	SV-W-1.5-419-.25-X41-VIT	SAMPLE VLV ASSY, 1.50 X .250, TC X HB, 11 PG A 316L/VITON
S102586	-	SV-W-.5-419-.25-X19S1-VIT	SAMPLE VLV ASSY, .500 X .250, TC X TC, 11 PG A 316L/VITON

### Zero Static Sample Valve

PFCA Part Number	Old Figure Number	New Figure Number	Description
S100842	ZSS-TC-HB-02-02	ZSS-W-.25-419S1-.25-X41-EPDM	SAMPLE VLV ZS ASSY, .250 X .250, TC X HB, 11 PG A 316L/EPDM
S100843	ZSS-TC-HB-04-02	ZSS-W-.5-419-.25-X41-EPDM	SAMPLE VLV ZS ASSY, .500 X .250, TC X HB, 11 PG A 316L/EPDM
S100844	ZSS-TC-HB-04-03	ZSS-W-.5-419-.38-X41-EPDM	SAMPLE VLV ZS ASSY, .500 X .375, TC X HB, 11 PG A 316L/EPDM
S100841	ZSS-TC-WE-06-02	ZSS-W-.75-419-.25-X24-EPDM	SAMPLE VLV ZS ASSY, .750 X .250, TC X WE, 11 PG A 316L/EPDM
S100845	ZSS-TC-HB-06-02	ZSS-W-.75-419-.25-X41-EPDM	SAMPLE VLV ZS ASSY, .750 X .250, TC X HB, 11 PG A 316L/EPDM
S100846	ZSS-TC-HB-06-04	ZSS-W-.75-419-.5-X40-EPDM	SAMPLE VLV ZS ASSY, .750 X .500, TC X HB, 11 PG A 316L/EPDM
S100847	ZSS-TC-HB-08-02	ZSS-W-1-419-.25-X41-EPDM	SAMPLE VLV ZS ASSY, 1.00 X .250, TC X HB, 11 PG A 316L/EPDM
S101499	ZSS-TC-HB-08-04	ZSS-W-1-419-.5-X40-EPDM	SAMPLE VLV ZS ASSY, 1.00 X .500, TC X HB, 11 PG A 316L/EPDM
S100848	ZSS-TC-HB-12-02	ZSS-W-1.5-419-.25-X41-EPDM	SAMPLE VLV ZS ASSY, 1.50 X .250, TC X HB, 11 PG A 316L/EPDM
S101500	ZSS-TC-HB-12-04	ZSS-W-1.5-419-.5-X40-EPDM	SAMPLE VLV ZS ASSY, 1.50 X .500, TC X HB, 11 PG A 316L/EPDM
S100849	ZSS-TC-HB-16-02	ZSS-W-2-419-.25-X41-EPDM	SAMPLE VLV ZS ASSY, 2.00 X .250, TC X HB, 11 PG A 316L/EPDM
S101545	ZSS-TC-TC-04-04	ZSS-W-.5-419-.5-X19-EPDM	SAMPLE VLV ZS ASSY, .500 X .500, TC X TC, 11 PG A 316L/EPDM

### Toggle Sample Valve

PFCA Part Number	Old Figure Number	New Figure Number	Description
S100852	TSV-TC-HB-04-04	SV-TSH-W-.5-419-.5-X40-EPDM	SAMPLE VLV TOG ASSY, .500 X .500, TC X HB, 11 PG A 316L/EPDM
S100850	TSV-TC-HB-04-02	SV-TSH-W-.5-419-.25-X41-EPDM	SAMPLE VLV TOG ASSY, .500 X .250, TC X HB, 11 PG A 316L/EPDM
S100851	TSV-TC-HB-04-03	SV-TSH-W-.5-419-.38-X41-EPDM	SAMPLE VLV TOG ASSY, .500 X .375, TC X HB, 11 PG A 316L/EPDM

### Angle Bleed Valve

PFCA Part Number	Old Figure Number	Elogia Figure Number	Description
S100819	ABV-BL-HB-BL-02	OBSOLETE	BLEED VLV ANGL ASSY, BL X .250, BL X HB 11 PG A 316L/EPDM
S100821	ABV-TC-HB-04-04	OBSOLETE	BLEED VLV ANGL ASSY, .500 X .500, TC X HB, 11 PG A 316L/EPDM
S100815	ABV-TC-HB-04-02	OBSOLETE	BLEED VLV ANGL ASSY, .500 X .250, TC X HB, 11 PG A 316L/EPDM
S101758	ABV-TC-HB-04-03	OBSOLETE	BLEED VLV ANGL ASSY, .500 X .375, TC X HB, 11 PG A 316L/EPDM
S100820	ABV-TC-TC-04-02	OBSOLETE	BLEED VLV ANGL ASSY, .500 X .250, TC X TC, 11 PG A 316L/EPDM
S100816	ABV-TC-HB-12-02	OBSOLETE	BLEED VLV ANGL ASSY, 1.50 X .250, TC X HB, 11 PG A 316L/EPDM
S101759	ABV-TC-HB-12-03	OBSOLETE	BLEED VLV ANGL ASSY, 1.50 X .375, TC X HB, 11 PG A 316L/EPDM
S100817	ABV-TC-HB-16-02	OBSOLETE	BLEED VLV ANGL ASSY, 2.00 X .250, TC X HB, 11 PG A 316L/EPDM
S100818	ABV-TC-HB-24-02	OBSOLETE	BLEED VLV ANGL ASSY, 3.00 X .250, TC X HB, 11 PG A 316L/EPDM
S102362	-	OBSOLETE	BLEED VLV ANGL ASSY, .500 X .250 X .250, TC X HB X HB, 11 PG A 316L/EPDM