

# Biotechnic Aseptic Sampling Valves

**VPAK SERIES  
VPA SERIES**

## **APPLICATIONS**

Bioreactors/Fermentors  
Sterile Holding  
Blood/Plasma Processing  
WFI Storage  
Media Preparation

## **FEATURES**

Radial Diaphragm  
*Flush Mounted*  
*CIP/SIP*  
Easy Disassembly Design  
Fully Autoclavable

## **BENEFITS**

*No Dead Legs or Bacteria Traps*  
Easy to Install and Maintain  
No Readjusting of Diaphragm



**Biotechnic**  
SANITARY PROCESS COMPONENTS

# Series VPAK

# Biotechnic Aseptic Sampling Valves

Manual  
VPAK  
sample  
valve



Pneumatic  
actuated VPAK  
sample valve  
with steam port



Toggle style  
VPAK sample  
valve



VPAK Sample  
valve with  
hose barb

## PORTS

Product Inlet: 1/4"  
Sample Outlet: 1/4"  
Steam Inlet: 1/4"

## CONNECTIONS

Tri Clamp  
Butt Weld  
Hose Barb

## VALVE BODY MATERIAL

316L from Bar Stock

## DIAPHRAGM MATERIAL

White Silicone or PTFE  
FDA & USP 23 Class VI compliant

## PRODUCT CONTROL SURFACE FINISH

Meets BPE-1997 SFV6 surface requirements for mechanically polished and electropolished (MP/EP) valves, 20  $\mu$ -in / 0.8  $\mu$ -m Ra.

## ACTUATOR

Manual or Pneumatic (NC) –  
Both feature leak indicators.

Proximity switch available on  
Pneumatic actuator.

## MATERIALS

- 1 AISI 316L Valve Body
- 2 AISI 316L Valve Head
- 3 AISI 316L Stem
- 4 Silicone or PTFE Diaphragm
- 5 AISI 304 Spring
- 6 Autoclavable PTFE Knob

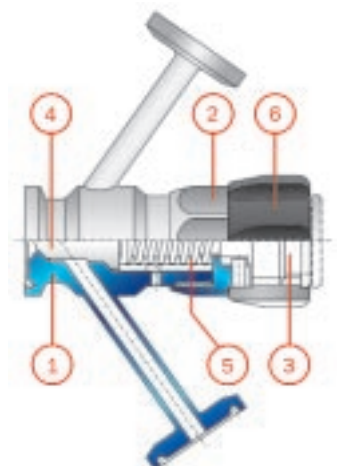
## MAX WORKING CONDITIONS

Pressure: 10 bar (145 Psi)

Temperature:  
–30°C up to +150°C  
(–22°F up to +304°F)

Flow rate:  
106 US gal/hr at 29 psi

Diaphragm: Silicone or PTFE





# Biotechnic Aseptic Sampling Valves

## Series VPA

### PORTS

Product Inlet: 1/2"  
Sample Outlet: 1/2"  
Steam Inlet: 1/2"

### CONNECTIONS

Tri Clamp  
Butt Weld  
Hose Barb

### VALVE BODY MATERIAL

316L from Bar Stock

### DIAPHRAGM MATERIAL

White Silicone or PTFE  
FDA & USP 23 Class VI compliant

### PRODUCT CONTROL

#### SURFACE FINISH

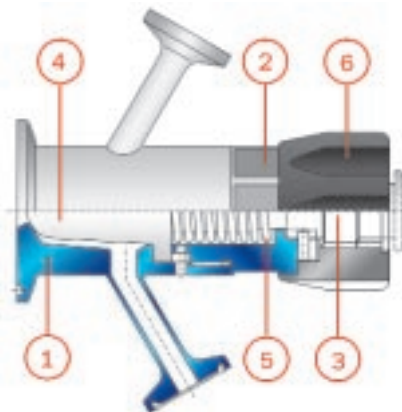
Meets BPE-1997 SFV6 surface requirements for mechanically polished and electropolished (MP/EP) valves, 20  $\mu$ -in / 0.8  $\mu$ -m Ra.

### ACTUATOR

Manual or Pneumatic (NC) –  
Both feature leak indicators.  
Proximity switch available on  
Pneumatic actuator.

### MATERIALS

- 1 AISI 316L Valve Body
- 2 AISI 316L Valve Head
- 3 AISI 316L Stem
- 4 Silicone or PTFE Diaphragm
- 5 AISI 304 Spring
- 6 Autoclavable PTFE Knob



Actuated VPA  
sample valve



Manual  
VPA sample  
valve with  
steam port

### MAX WORKING CONDITIONS

Pressure: 8 bar (116 Psi)

Temperature:  
-30°C up to +150°C  
(-22°F up to +302°F)

Flow rate:  
317 US gal/hr at 29 psi

Diaphragm: Silicone or PTFE



# Biotechnic Aseptic Sampling Valves

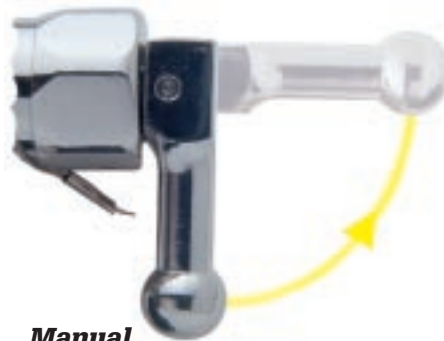
Aseptic Sampling Valve shown  
in an Inline Sampling configuration.



## VALVE ACTUATION



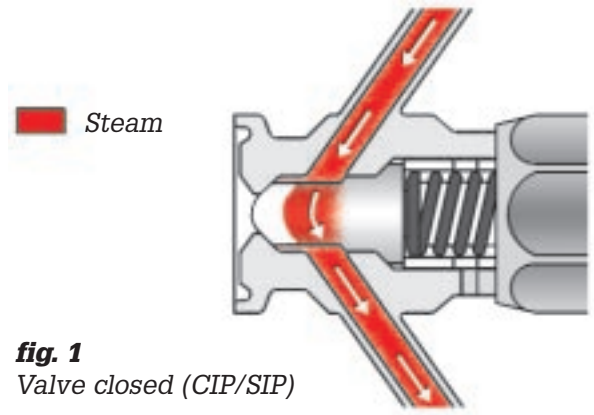
**Manual**  
Adjustable autoclavable  
PTFE knob with position  
indicator



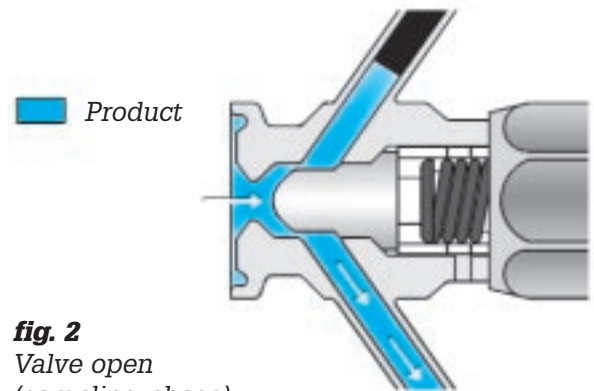
**Manual**  
Stainless steel toggle lever



**Pneumatic**  
Stainless steel pneumatic  
actuator (NC)



**fig. 1**  
Valve closed (CIP/SIP)



**fig. 2**  
Valve open  
(sampling phase)

## DOCUMENTATION/TRACEABILITY

All valves are fully traceable for validation processes.  
All valves are accompanied by material test certificates,  
and FDA/USP 23 Class VI regulations compliance certificates.



# Biotechnic Aseptic Sampling Valves

## IMPORTANT!

For reliable performance there must be a safety margin between the spring load of the diaphragm and the maximum pressure in the system.

Please indicate the maximum pressure of your applications when ordering.



**Silicone  
Diaphragm**

*USP 23 Class VI PTFE  
and silicone diaphragms.*

**PTFE Diaphragm**



*VPA Sample  
Valve with  
optional  
Flush Mount  
Tank Flange*

*The VPA Sample  
Valve with  
optional Flush  
Mount Tank  
Flange offers  
a smooth,  
zero dead leg  
connection to  
your tank.*



*Flush Mount Flange is optional for both  
VPA and VPAK valves*

# How to Order the Biotechnic Aseptic Sampling Valves

Body Style/Size <b>BLOCK A</b>	Body Material <b>BLOCK BA</b>	Sample Inlet Connection <b>BLOCK BB</b>	Sample Outlet Connection <b>BLOCK BC</b>
Steam Inlet Connection <b>BLOCK BD</b>	Product Contact Surface Finish <b>BLOCK BE</b>	Diaphragm <b>BLOCK C</b>	Actuator <b>BLOCK D</b>

## BIOTECHNIC FIGURE NUMBER CODES

### BODY STYLE/SIZE (Block A)

Code	Description
<b>VPAK</b>	1/4"
<b>VPA</b>	1/2"

### BODY MATERIAL (Block BA)

Code	Description
<b>SS</b>	ASTM 316L

### SAMPLE INLET CONNECTION (Block BB)

Code	Description
<b>ETC</b>	Tri Clamp O.D. Tubing
<b>ESD</b>	O.D. Tubing 16 Gauge

### SAMPLE OUTLET CONNECTION (Block BC)

Code	Description
<b>UTC</b>	Tri Clamp O.D. Tubing
<b>USD</b>	O.D. Tubing 16 Gauge
<b>UPG</b>	Hose Barb

### STEAM INLET CONNECTION (Block BD)

Code	Description
<b>SK2</b>	Tri Clamp O.D. Tubing
<b>SK3</b>	O.D. Tubing 16 Gauge

### PRODUCT CONTACT SURFACE (Block BE)

Code	Description
<b>8</b>	20–25 microinch Ra (180 Grit)
<b>9</b>	15–20 microinch Ra (240 Grit) E.P.

### DIAPHRAGM (Block C)

Code	Description
<b>S</b>	Silicone
<b>T</b>	PTFE

### ACTUATOR (Block D)

Code	Description
<b>M</b>	Manual
<b>P</b>	Pneumatic (NC)
<b>P1</b>	Pneumatic w/Proximity Switch

In the interests of development and improvement of the product, we reserve the right to change the specifications.

*Please contact us for information on the  
Flush Mount Tank Flange or see our web site.*

**Biotechnic**  
SANITARY PROCESS COMPONENTS

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