

Cast Body, 2-Way Diaphragm Valve

Manual or Pneumatically Actuated Cast Body 2-way Valves

Steriflow Food and Beverage cast body 2-way valves offer an economical alternative to forged body valves when customer process requirements or specifications allow. Steriflow Food and Beverage's manufacturing, assembling and documentation practices remain the same whether the valve is made from 316L cast or forged material.

Specifications and Features

Available Sizes:

» Standard Valve: 1-1/2", 2", 3", 4"

Connection Type:

» Standard Valve: Tri-clamp, Extended Tube End

Materials:

» Standard: Cast 316L, ASTM A351 CF3M

Surface Finish:

- » Wetted Interior:
 - 32 Ra μin (0,81 Ra μm)
 - 32 Ra µin (0,81 Ra µm) Electropolish optional
- » Exterior:
 - Standard: As cast
 - Optional: Electropolished



Applications

Single Valve Manual on/off or Air Actuated Flow Control of Food, Beverage, Health, Beauty and other sanitary processes.

Sanitary diaphragm valves are found in many Food and Beverage applications. In part, due to their exceptional ability to move the flow of viscous, paste, powder and bulk materials that other valves in its class struggle to achieve. Sanitary diaphragm valves are the best choice for this type of application instead of using a sanitary butterfly or ball valve that can cause wall hanging and blockage when certain types of materials are encountered.



Bonnet/Actuator Specifications

Manual Bonnet Assembly:

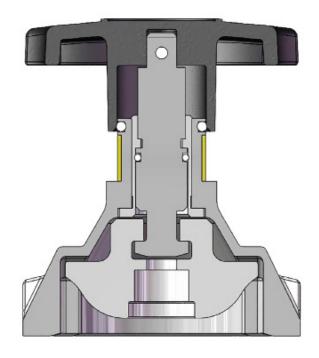
- » Available for sizes: 1-1/2" 4" (DN40 DN100)
- » Closing Stop: adjustable
- » Bright visual position indicator
- » Options: contact factory for proximity switches, locking devices and stroke limiter

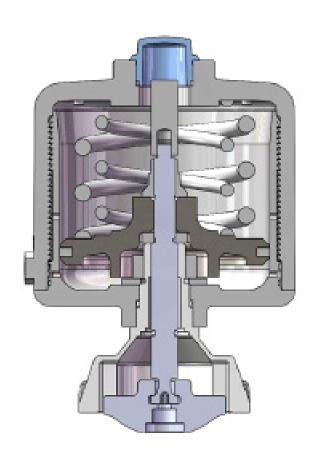
Bonnet Materials:

- » Bonnet: electropolished Stainless Steel
- » Compressor: Stainless Steel
- » Insert: brass
- » Thrust Washer: PTFE
- » Compressor Pin: Stainless Steel
- » Indicator: Polyolefin
- » Stem: Stainless Steel
- » Handwheel: PPS (1/4" 2") (DN8 DN50); Stainless Steel (2-1/2" - 4") (DN65 - DN100)

Air Actuated Bonnets:

- » Available for sizes: 1-1/2" 2" (DN40 DN50) standard
- » Air Actuator Materials: Polyamide, Stainless Steel, Stainless Steel base standard for all configurations
- » Actuator Seal: Actuator springs and seals can be replaced without exposing process
- » Orientation: Swivel feature allows 360° orientation of air inlet
- » Air Connections: NPT Stainless Steel base standard for all configurations
- » Function: Change from Normally Open or Normally Closed by inverting the actuator housing
- » Control System Interface: Available with optional switch packages for on/off control or with positioners for flow control and modulation





ORDERING SCHEMATIC (CAST BODY, 2-WAY DIAPHRAGM VALVE)

MODEL	TYPE	SIZE	CONNECTION	FINISH	ACTUATION	DIAPHRAGM	ACCESSORIES
SFB	1	8	2	3	1	1	

1	TYPE		
1	Cast Body 2-way		

2	SIZE
7	1-1/2"
8	2"
Α	3"
В	4"

3	CONNECTION		
1	OD Tube		
2	Clamp		
3	OD Tube x clamp		
Z	Non-standard		

4	INTERNAL SURFACE FINISH		
3	32Ra µin (0,81 Ra µm)		
4	32Ra µin (0,81 Ra µm) ЕР		
Z	Non-standard, consult factory		

5	ACTUATION		
1	Manual		
2	Manual Vented		
3	21/2" - 4", and Compact Actuator, Spring to Close		
4	2 1/2" - 4", and Compact Actuator, Spring to Open		
5	Eclipse Actuator, Double Acting (1 1/2" - 2" standard		
6	Eclipse Actuator, Spring to Close (1 1/2" - 2" standard		
7	Eclipse Actuator, Spring to Open (1 1/2" - 2" standard)		

6	DIAPHRAGM		
1	EPDM		
2	TFM/EPDM		
Z	Non-standard		

7	ACCESSORIES		
1	Switch 2 Position		
2	Positioner 4-20 mA		
Z	Non-standard, consult factory		

Please Contact Factory regarding dimensional drawings. All queries are welcome.



SANITARY DIAPHRAGM VALVES

Manual or Air Actuated Forged 2-way, Ported and Tandem valves. Barstock Zero Static T-Block, Point of Use T-Block, Divert Tank Bottom and Custom Block Body valves

FEATURES

- » Body & Trim Material: traceable ASME and DIN grade of 316L and Super-Austenitic Stainless Steel and Super Alloys readily available
- » Size Range: 1/4" 4" (DN8 DN100)
- » Manual or Air Actuated
- » Surface Finish:
 - Wetted Interior: ASME BBE SF5 20 Ra μin (0.5 Ra μm). Electropolish standard, SF4 and better finish available
 - Exterior: See individual model specifications
- » Diaphragm: All FDA, FDA/USP <88>, <87> Class VI, ADI-TSE Free
 - · TFM/EPDM Backer
 - EPDM Peroxide Cured

DOCUMENTATION

A Certificate of Compliance is available at no charge when requested at time of order. The "Unicert" is a chargeable document. If needed, a "Unicert" must be requested at time of order.

CERTIFICATION

» CRN No.: 0C22893.5





VALVE TYPE BY APPLICATION



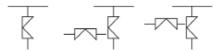
» Ported



» Tandem Access



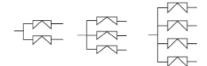
» Zero Static T-Block



» Zero Static POU

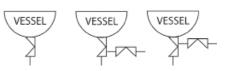


» Divert Block



» Custom Blocks

» Tank Bottom



GENERAL VALVE SPECIFICATIONS*

Line Size: 1/4" - 4" (DN8 - DN100)

End Connections: ASME BPE, DIN, ISO, Contact Factory

- » Tri-Clamp
- » Tube Weld End

Body Materials

- » Forgings: EN 10272:2000 GR 1.4435 316L standard
- » Bar Stock: ASME SA479 316L (UNS 31603) standard; EN 10272:2000 GR 1.4435, AL-6XN°, Hastelloy° C-22 and others readily available options

Diaphragm Material/Max Temperature: all diaphragms are FDA, USP <88> Class VI and <87> compliant and ADI-free

- » TFM/EPDM Backer / -14°F to 266°F (-26°C to 130°C) \leq 300°F (150°C) at 50 psig (3,45 barg) max during SIP
- » EPDM Peroxide Cured / -14°F to 266°F (-26°C to 130°C) ≤300°F (150°C) at 50 psig (3,45 barg) max during SIP

Surface Finish: see individual valve specifications

Pressure at Maximum Temperature: 50 psig @ 300°F (3,45 barg @ 150°C)

Maximum Operating Pressure:

- » 1/4" 1": 200 psi @ 100°F (13,8 bar @ 38°C)
- » 1-1/2" 2": 175 psi @ 100°F (12,1 bar @ 38°C)
- » 2-1/2" 4": 150 psi @ 100°F (10,3 bar @ 38°C)

Seat Leakage: ANSI FCI Class VI

FLOW COEFFICIENT CV (KV)

CONNECTION SIZE	VALVE DESCRIPTION	FLOW COEFFICIENT	
1/4" - 1/2"	Compact valve/ weir	1.16 (1,0)	
1/2"		5.2 (4,5)	
3/4"		8.7 (7,52)	
1"	Any standard forged, barstock or cast body valve with catalog standard weir	13.9 (12,02)	
1-1/2"		34.8 (30,1)	
2"		59.7 (51,6)	
3"		185 (160)	
4"		272 (235)	

BONNET/ACTUATOR SPECIFICATIONS*

Manual Bonnet Assembly:

- » Available for valve sizes: 1/2" 4" (DN15 DN100)
- » Closing Stop: Adjustable
- » Bright visual position indicator
- » Options: Contact factory for proximity switches, locking devices and stroke limiter

Bonnet Materials

- » Bonnet: Electropolished Stainless Steel
- » Compressor: Stainless Steel
- » Insert: Brass
- » Thrust Washer: PTFE
- » Compressor Pin: Stainless Steel
- » Indicator: Polyolefin
- » Bushing: Brass
- » Stem: Stainless Steel
- » Handwheel: PPS (1/4" 2"); Stainless Steel (2-1/2" 4")

Air Actuated Bonnets:

- » Available for sizes: 1/2" 2" (DN15 DN50) standard;3" & 4" (DN80 & DN100) optional
- » Air Actuator Materials: Polyamide, Stainless Steel, Stainless Steel base standard for all configurations
- » Actuator Seal: Actuator springs and seals can be replaced without exposing process
- » Orientation: Swivel feature allows 360° orientation of air inlet
- » Air Connections: NPT Stainless Steel base standard for all configurations
- » Function: Change from Normally Open or Normally Closed by inverting the actuator housing
- » Control System Interface: Available with optional switch packages for on/off control or with positioners for flow control and modulation
- * Most valves meet all of these general features and specifications. However, sizes may vary depending upon product selected. See individual product page for specific details about each model.

