



Pure-Flo® & EnviZion® High Purity Diaphragm Valves

Product Selection Guide



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Product Details

Pneumatic Actuators

	 P	 P	 P	 P	 P	 E
Type	Advantage 2.1 Actuator	Advantage Compact Stainless	Advantage Actuator Series 33	Advantage Actuator Series 47	Dia-Flo Actuator	EnviZion Actuator
Size Range						
BP - 0.25-0.5 (DN6-15)		•				
BT - 0.25-0.5 (DN6-15)	•					
0.5" (DN15)	•	•			•	•
0.75" (DN20)	•	•			•	•
1" (DN25)	•	•			•	•
1.5 (DN32/40)	•	•			•	•
2" (DN50)	•	•			•	•
2.5" (DN65)			•	•	•	
3" (DN80)			•	•	•	
4" (DN100)			•	•	•	
Material	Bonnet: 316 Stainless Steel Actuator: Glass reinforced polyethersulfone (PES)	316 Stainless Steel	Bonnet: Nylon coated ductile iron (4 inch); Stainless Steel (3 inch); Actuator: Vinyl-Ester Thermoset	Bonnet: Nylon coated ductile iron Actuator: Vinyl-Ester Thermoset	Bonnet: Ductile iron Actuator: Aluminum	316 Stainless Steel
Maximum Service Pressure	150 psig 10.34 bar	150 psig 10.34 bar	150 psig 10.34 bar	150 psig 10.34 bar	See Dia-Flo Catalog	150 psig 10.34 bar
Maximum Service Temperature	300°F (149°C)	300°F (149°C)	300°F (149°C)	300°F (149°C)	See Dia-Flo Catalog	See page D-9
Autoclavable	Yes	Yes	No	No	No	Yes
Sealed Option	Yes	Yes	Yes	Yes	Yes	Yes

Advantage[®] 2.1 Actuator

P The Advantage 2.1 actuator is the latest evolution in performance of the time-tested Advantage actuator series, the mainstay of the bioprocessing industry for the past 20 years. The Advantage 2.1 has an innovative patent pending compressor attachment method that allows for interchangeability between PTFE and elastomer diaphragms without actuator disassembly.



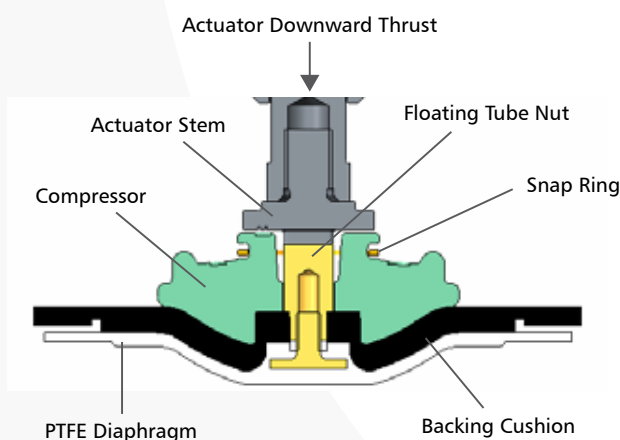
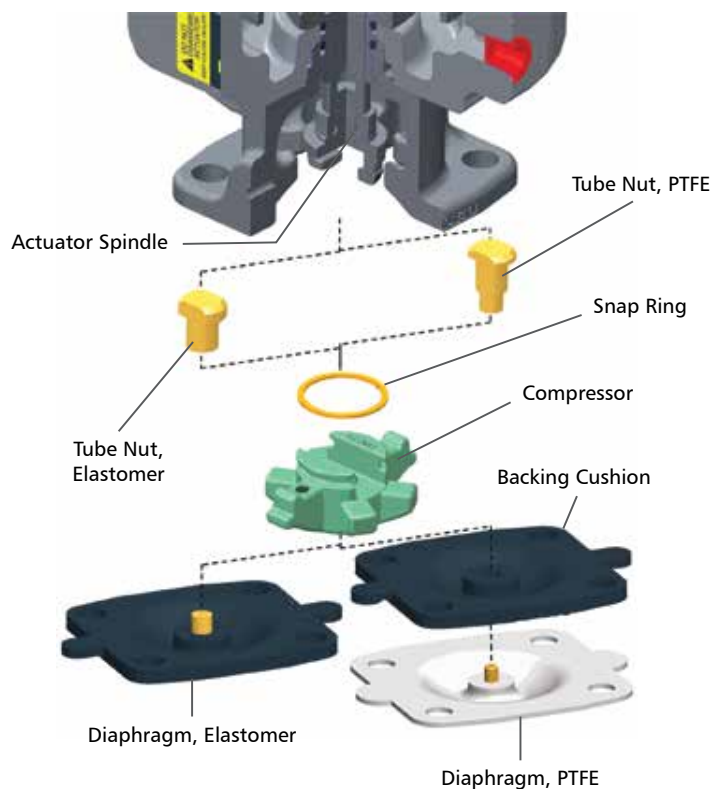
Type: Diaphragm Actuator
Size Range: 0.5–2" (DN15–DN50)
Operating Modes: Fail close, fail open, double acting
Max Service Pressure: 10.3 bar (150 psig)
See sizing charts on pages G3–G5 for exact shutoff pressures
Max Service Temperature: 300°F (150°C)
Max Actuator Chamber Pressure: 6.2 bar (90 psig)
Corrosion Resistance: Resists alcohol, chloride and most caustic washdowns
Autoclavable¹

¹ Steam at 257°F (125°C) for 25 minutes.

Diaphragm Compressor Attachment

Advantage 2.1 and ACS feature a modular compressor design for quick changeover between PTFE and elastomer diaphragms. No actuator disassembly is required for diaphragm type changes. The modular design is compatible with all Pure-Flo diaphragm types.

The modular compressor design features a stainless steel compressor and tube. The key to the modular system is a robust stainless steel tube nut that allows compressor float, ensuring even distribution of actuation closing forces. This concept minimizes diaphragm point loading. Diaphragm change over kits will be available.



Note: Patent Pending Compressor Design

Series 33 Advantage[®] Actuator

P The Series 33 Advantage Actuators extend the size range of the Advantage Actuator product line to 3" and 4" valves. The Series 33 Advantage Actuators have been introduced to further reduce the dimensional envelope and weight for installations in the Pharmaceutical/ Bioprocessing industries. The Series 33 4" Spring to Close actuator is 25% smaller in diameter, has 22% reduction in height and offers a 32% reduction in weight than a comparable 4" Series 47 actuator.

Type: Series 33 Advantage Actuator

Size Range: 3–4" (DN80–DN100)

Operating Modes:

Fail Close*, Fail Open, Double Acting

Max Service Pressure/Temperature:

150 psig (10.34 bar)

300°F (149°C)

External Temperature Limitations:

150°F (66°C)

Actuator Cover Material:
Vinyl-Ester Thermoset
(FDA compliant)

Bonnet Material:
Nylon coated ductile iron
(4 inch); Stainless Steel (3 inch)

Corrosion Resistance:
Resists alcohol, chloride and
most caustic washdowns.
For specific chemical resistance, consult factory.

Standard Features:

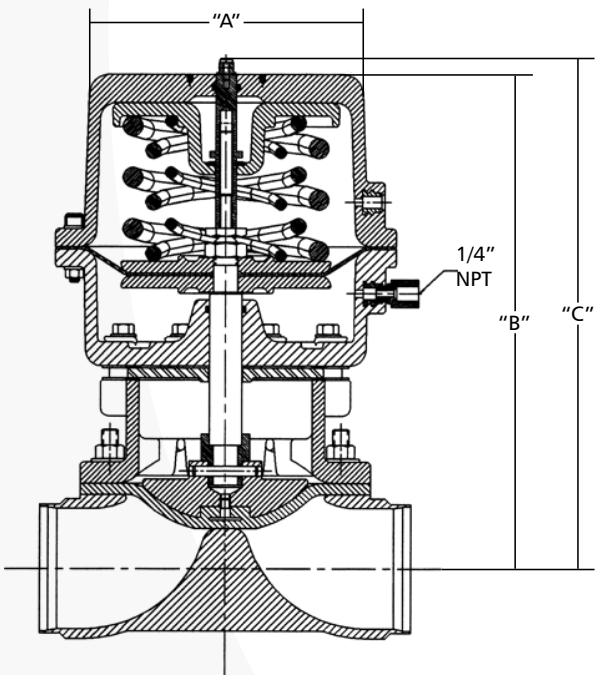
- Visual position indicator
- O-ring seals
- Switch mounting bolt pattern

Optional Features:

- Hygienic internals
- Solenoids available

*Springs self-contained (Fail close only)

Note: See page G-3 - G-5 for actuator sizing.



Dimensions & Actuator Weights (less body)

Valve Size		A		B		C		Double Acting		Fail Open		Fail Close			
												60#		90#	
Inch	DN	Inch	mm	Inch	mm	Inch	mm	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.
3.00	80	7.95	201,9	14.2	360,7	16.41	416,8	39.00	17,69	42.30	19,19	54.20	24,59	58.00	26,31
4.00	100	7.95	201,9	15.82	401,8	18.00	452,2	44.00	19,96	47.30	21,46	59.20	26,85	63.00	28,58

Series 47 Advantage® Actuator

P The Series 47 Advantage Actuators extend the size range of the Advantage Actuator product line to 3" and 4" valves. Similar to the smaller valve sized Advantage Actuators, the 3–4" series 47 (DN80–DN100) actuator is also diaphragm driven, o-ring furnished and available in three modes of operation. The actuator design features the same dimensional envelope regardless of operation mode.

Type: Series 47 Advantage Actuator
 Size Range: 3–4" (DN80–DN100)
 Operating Modes:
 Fail Close*, Fail Open, Double Acting
 Max Service Pressure/Temperature:
 150 psig (10.34 bar)
 300°F (149°C)
 External Temperature Limitations:
 150°F (66°C)

Actuator Cover Material:
 Vinyl-Ester Thermoset (FDA compliant)
 Bonnet Material:
 Nylon coated ductile iron

Corrosion Resistance:
 Resists alcohol, chloride and most caustic washdowns.
 For specific chemical resistance, consult factory.

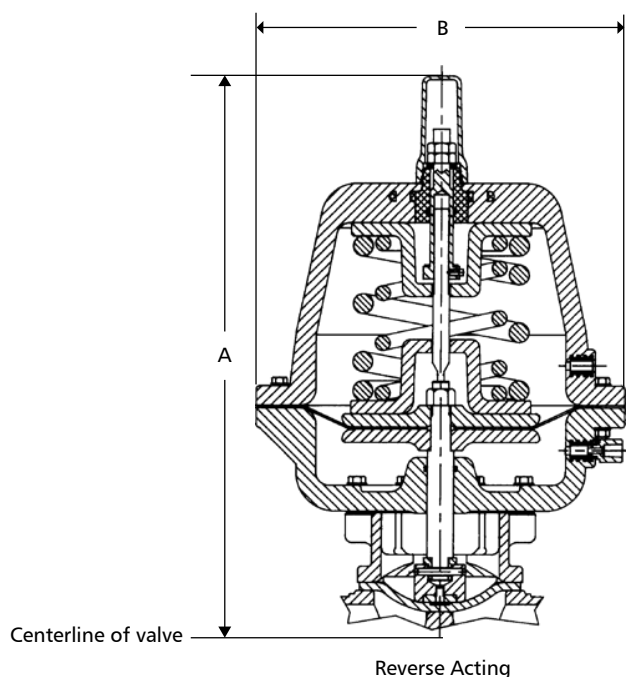
Standard Features:

- Visual position indicator
- O-ring seals
- Adjustable Opening Stop (AOS)
- Adjustable Travel Stop (ATS)
- Switch mounting bolt pattern

Optional Features:

- Hygienic internals
- Solenoids available

*Springs self-contained (Fail close only)
 Note: See page G3-G-5 for actuator sizing.



Dimensions & Actuator Weights (includes body)

Valve Size		A		B		Actuator Weights (includes body)					
						Double Acting		Fail Open		Fail Close	
Inch	DN	Inch	mm	Inch	mm	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.
3.00	80	21.28	540,5	14.00	356	72.09	32,70	75.39	34,20	107.49	48,76
4.00	100	22.90	581,7	14.00	356	82.50	37,42	85.80	38,92	117.50	53,30

Dia-Flo® Actuator

P The Dia-Flo actuator, diaphragm driven and pneumatically operated, is a process proven actuator suitable for both the Pure-Flo and Dia-Flo product lines. The Dia-Flo actuator is recommended as an alternative to the Advantage Actuator for applications in which the line pressure or available plant air pressure is not within the advantage actuator parameters.

Type: Dia-Flo

Size Range:

Available in seven interchangeable sizes and can be readily mounted to any size valve with the proper size bonnet. See Dia-Flo catalog DV for actuator sizing

Actuator Materials:

Aluminum

Ductile iron - optional

Corrosion Resistant Coatings:

White epoxy

PVDF

Nylon

Bonnet Materials:

Ductile iron

Stainless steel – optional

Actuator Air Pressure:

5.9 bar (85 psi) max

Options:

- Adjustable opening stop
- Adjustable travel stop¹
- Hygienic internals
- Visual position indicator
- Wrench or handwheel operated
- Manual overrides
- Solenoids available

¹Adjustable travel stop is standard on all fail close actuators (except 3212)

Dualrange® Control Valve

The Dualrange control valve is the first diaphragm valve designed expressly for control work. Available in 1–6" sizes, it combines all the advantages of ITT weir-type diaphragm valves with greatly improved throttling characteristics. The Dualrange utilizes the Dia-Flo actuator and has greater rangeability than other diaphragm valves, due to the dual nested compressors unique to Pure-Flo. Refer to the Dia-Flo catalog DV at www.engvalves.com for more information.



Advantage® 2.1, Series 33, Series 47 Actuator Sizing - Fail Close

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Fail Close Actuators - Air-To-Open, Spring-To-Close (Reverse Acting)																		
	Actuator and Spring Package	Maximum Line Pressure (psig)																Air pressure required to open for full stroke at 0 psi line pressure
		Valve Size																
		100 % ΔP								0% ΔP								
		BT²	0.5"	0.75"	1"	1.5"	2"	3"	4"	BT²	0.5"	0.75"	1"	1.5"	2"	3"	4"	
Elastomer Diaphragm	A203/B203 60#	150								150								55
	A204/B204 90#	150								150								75
	A205/B205 60#		110								90							50
	A206/B206 90#		150								150							90
	A208/B208 60#			100								60						45
	A208/B208 60#				70								40					60
	A209/B209 90#			150	150							120	85					90
	A216/B216 60#					100								65				50
	A216/B216 60#						70								30			60
	A217/B217 90#					150	150							130	75			90
	A233 60#							95	70							60	35	62
	A234 90#							150	110							92	50	85
	A247 60#							150								92		57
	A247 60#								119								59	60
A248 80#								150								150	76	
A248 80#									150								93	82
PTFE Diaphragm¹	A203/B203 60#	70								55								55
	A204/B204 90#	150								125								75
	A206/B206 90#		150								150							90
	A208/B208 60#		150	140							100	70						60
	A208/B208 60#				100								35					70
	A209/B209 90#			150	150							80	80					90
	A216/B216 60#					125								70				50
	A216/B216 60#						60								45			60
	A217/B217 90#					150	150							125	70			90
	A233 60#							50	30							20	15	62
	A234 90#							105	60							45	30	85
	A247 60#							133								68		61
	A247 60#								70								41	62
	A248 80#							150								114		82
A248 80#								150								70	90	

Fail Close Actuators - Air-To-Open, Spring-To-Close (Reverse Acting)																		
	Actuator and Spring Package	Maximum Line Pressure (bar)															Air pressure required to open for full stroke at 0 bar line pressure	
		Valve Size																
		100 % ΔP							0% ΔP									
		BT²	DN15	DN20	DN25	DN40	DN50	DN80	DN100	BT²	DN15	DN20	DN25	DN40	DN50	DN80	DN100	
Elastomer Diaphragm	A203/B203 60#	10,34								10,34							3,79	
	A204/B204 90#	10,34								10,34							5,17	
	A205/B205 60#		7,58								6,21						3,45	
	A206/B206 90#		10,34								10,34						6,21	
	A208/B208 60#			6,89								4,14					3,10	
	A208/B208 60#				4,83								2,75				4,14	
	A209/B209 90#			10,34	10,34							8,27	5,86				6,21	
	A216/B216 60#					6,89								4,48			3,45	
	A216/B216 60#						4,83								2,07		4,14	
	A217/B217 90#					10,34	10,34							8,96	5,17		6,21	
	A233 60#							6,55	4,83							4,14	2,41	4,28
	A234 90#							10,34	7,59							6,34	3,45	5,86
	A247 60#							10,34								6,34		3,93
	A247 60#								8,20								4,07	4,14
PTFE Diaphragm¹	A248 80#							10,34								10,34		5,24
	A248 80#								10,34								6,41	5,65
	A203/B203 60#	4,83								3,79								3,79
	A204/B204 90#	10,34								8,62								5,17
	A206/B206 90#		10,34								10,34							6,21
	A208/B208 60#		10,34	9,65							6,89	4,83						4,14
	A208/B208 60#				6,89								2,41					4,83
	A209/B209 90#			10,34	10,34							5,52	5,52					6,21
	A216/B216 60#					8,62								4,83				3,45
	A216/B216 60#						4,14								3,10			4,14
	A217/B217 90#					10,34	10,34							8,82	4,83			6,21
	A233 60#							3,45	2,07							1,38	1,03	4,28
	A234 90#							7,24	4,14							3,10	2,07	5,86
	A247 60#							9,17	4,83							4,69		4,21
	A247 60#																2,83	4,27
	A248 80#							10,34								7,86		5,65
	A248 80#								10,34								4,83	6,21

¹ The exposure of the diaphragm to steam may increase the air requirements to close by as much as 30%.

² Bio-Tek includes size 0.25" (DN8), 0.375" (DN10), and 0.5" (DN15).

Note: Values are also valid for the Advantage 2.0

Advantage® 2.1, Series 33, Series 47

Actuator Sizing - Fail Open

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Fail Open Actuators - Air-To-Close, Spring-To-Open (Direct Acting)																						
	Air Pressure Required to Close (psig)																					
	Size	Bio-Tek ²		0.5"		0.75"		1"		1.5"		2"		3"		4"		3"		4"		
	Actuator	A103/B103		A105/B105		A108/B108		A108/B108		A116/B116		A116/B116		A133		A133		A147		A147		
	Line Pressure	% ΔP																				
Elastomer Diaphragm	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0
	20	38	40	38	45	38	55	49	50	36	40	40	45	44	46	48	55	32	37	30	40	40
	40	40	42	40	50	42	60	52	61	38	44	45	50	50	58	55	69	41	44	36	47	47
	60	42	44	44	55	46	65	57	71	42	48	50	60	55	66	64	85	42	49	42	56	56
	80	46	48	48	60	50	70	61	80	44	52	56	70	61	76	72	90	44	56	48	66	66
	100	48	52	50	65	52	75	67	90	48	56	60	75	66	90	80	-	52	65	53	79	79
PTFE Diaphragm ¹	125	52	56	54	70	60	85	73	-	50	60	64	80	78	-	90	-	63	73	59	90	90
	150	56	60	58	75	68	-	81	-	52	65	68	-	81	-	-	-	71	83	65	-	-
	20	42	50	46	66	55	55	50	55	45	52	48	50	64	60	78	80	36	53	46	48	48
	40	44	52	50	68	58	60	55	60	50	56	50	60	68	78	84	90	44	60	52	66	66
	60	48	56	52	72	60	65	60	65	55	60	56	70	74	88	90	-	51	75	56	74	74
	80	52	60	56	76	65	70	65	70	60	64	64	80	78	-	-	-	55	85	62	81	81
	100	54	65	60	82	68	75	70	80	64	68	70	90	84	-	-	-	57	-	70	90	90
	125	58	70	64	86	74	80	75	-	68	72	76	-	90	-	-	-	59	-	79	-	-
	150	62	75	68	-	80	85	80	-	72	76	82	-	-	-	-	-	63	-	83	-	-

Fail Open Actuators - Air-To-Close, Spring-To-Open (Direct Acting)																					
	Air Pressure Required to Close (bar)																				
	Size	Bio-Tek ²		DN15		DN20		DN25		DN40		DN50		DN80		DN100		DN80		DN100	
	Actuator	A103/B103		A105/B105		A108/B108		A108/B108		A116/B116		A116/B116		A133		A133		A147		A147	
	Line Pressure	% ΔP																			
Elastomer Diaphragm	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	
	1,38	2,62	2,76	2,62	3,10	2,62	3,79	3,31	3,44	2,48	2,76	2,76	3,10	3,03	3,17	3,31	3,79	2,21	2,55	2,07	2,76
	2,76	2,76	2,90	2,21	3,45	2,70	4,14	3,58	4,20	2,62	3,03	3,10	3,45	3,45	4,00	3,79	4,76	2,83	3,03	2,48	3,24
	4,14	2,90	3,03	3,03	3,79	3,17	4,48	3,93	4,90	2,90	3,31	3,45	4,14	3,79	4,55	4,41	5,86	2,90	3,38	2,90	3,86
	5,52	3,17	3,31	3,31	4,14	3,45	4,83	4,20	5,57	3,03	3,56	3,86	4,83	4,21	5,24	4,97	6,21	3,03	3,86	3,31	4,55
	6,89	3,31	3,59	3,45	4,48	3,59	5,17	4,62	6,21	3,31	3,86	4,14	5,17	4,55	6,21	5,52	-	3,59	4,48	3,65	5,45
	8,62	3,59	3,86	3,72	4,83	4,14	5,86	5,03	-	3,45	4,13	4,41	5,52	5,38	-	6,21	-	4,34	5,03	4,07	6,21
	10,34	3,86	4,14	4,00	5,17	4,70	-	5,59	-	3,59	4,48	4,69	-	5,59	-	-	-	4,90	5,72	4,48	-
PTFE Diaphragm ¹	1,38	2,90	3,45	3,17	4,55	3,79	3,79	3,45	3,79	3,10	3,59	3,31	3,45	4,41	4,14	5,38	5,52	2,48	3,65	3,17	3,31
	2,76	3,03	3,59	3,45	4,70	4,00	4,14	3,79	4,14	3,45	3,86	3,45	4,14	4,69	5,38	5,79	6,21	3,03	4,14	3,59	4,55
	4,14	3,31	3,86	3,59	4,97	4,14	4,48	4,14	4,48	3,79	4,14	3,86	4,83	5,10	6,07	6,21	-	3,52	5,17	3,86	5,10
	5,52	3,59	4,14	3,86	5,24	4,48	4,83	4,48	4,83	4,14	4,41	4,41	5,52	5,38	-	-	-	3,79	5,86	4,27	5,58
	6,89	3,72	4,48	4,14	5,65	4,69	5,17	4,83	5,52	4,41	4,69	4,83	6,21	5,79	-	-	-	3,93	-	4,83	6,21
	8,62	4,00	4,83	4,41	5,93	5,10	5,52	5,17	-	4,69	4,97	5,24	-	6,21	-	-	-	4,07	-	5,45	-
	10,34	4,27	5,17	4,70	-	5,52	5,86	5,52	-	4,96	5,24	5,65	-	-	-	-	-	4,34	-	5,72	-

¹ The exposure of the diaphragm to steam may increase the air requirements to close by as much as 30%.

² Bio-Tek includes size 0.25" (DN8), 0.375" (DN10), and 0.5" (DN15).

Note: Values are also valid for the Advantage 2.0

Advantage® 2.1, Series 33, Series 47 Actuator Sizing - Double Acting

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Double Acting Actuators - Air-To-Close, Air-To-Open																						
	Air Pressure Required to Close (psig)																					
	Size	Bio-Tek ²		0.5"		0.75"		1"		1.5"		2"		3"		4"		3"		4"		
	Actuator	A303/B303		A305/B305		A308/B308		A308/B308		A316/B316		A316/B316		A333		A333		A347		A147		
	Line Pressure	% ΔP																				
Elastomer Diaphragm	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0
	20	22	26	24	30	18	25	31	32	16	20	22	40	18	24	16	25	11	14	9	25	
	40	24	28	26	35	20	30	34	43	20	25	26	45	26	29	24	38	17	21	15	30	
	60	26	30	28	40	24	35	39	53	24	30	30	50	32	38	30	55	22	28	22	46	
	80	28	32	32	45	26	40	44	62	28	35	35	55	38	48	38	68	23	35	27	60	
	100	30	34	34	50	30	50	50	72	32	40	40	60	42	58	48	84	26	43	32	68	
PTFE Diaphragm ¹	125	32	38	38	55	34	55	55	89	36	45	45	70	52	68	58	-	34	53	40	76	
	150	34	44	42	60	38	60	63	-	40	50	50	80	57	80	68	-	37	61	49	88	
	20	34	36	34	36	28	30	25	35	25	34	35	40	38	38	42	44	19	33	31	37	
	40	36	40	36	40	34	35	35	40	30	38	40	50	41	49	50	60	21	40	35	53	
	60	40	44	40	46	38	40	45	50	35	42	50	60	47	58	56	74	29	46	44	59	
	80	42	46	42	50	40	45	50	55	40	46	55	70	53	67	65	90	32	51	49	65	
	100	44	52	44	54	42	50	55	60	45	50	60	80	58	78	73	-	35	58	54	77	
	125	46	56	46	58	44	55	60	70	50	55	64	90	64	90	82	-	42	68	62	-	
150	48	62	48	62	46	60	65	80	55	62	68	-	69	-	90	-	45	78	68	-		

Double Acting Actuators - Air-To-Close, Air-To-Open																						
	Air Pressure Required to Close (bar)																					
	Size	Bio-Tek ²		DN15		DN20		DN25		DN40		DN50		DN80		DN100		DN80		DN100		
	Actuator	A303/B303		A305/B305		A308/B308		A308/B308		A316/B316		A316/B316		A333		A333		A347		A147		
	Line Pressure	% ΔP																				
Elastomer Diaphragm	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0
	1,38	1,51	1,79	1,65	2,07	1,24	1,72	2,14	2,21	1,10	1,38	1,52	2,76	1,24	1,66	1,10	1,72	0,76	0,79	0,62	1,72	
	2,76	1,65	1,93	1,79	2,41	1,38	2,07	2,34	2,97	1,38	1,72	1,79	3,10	1,79	2,00	1,66	2,62	1,17	1,45	1,03	2,07	
	4,14	1,79	2,07	1,93	2,75	1,65	2,41	2,69	3,66	1,65	2,07	2,07	3,45	2,21	2,62	2,07	3,79	1,52	1,93	1,52	3,17	
	5,52	1,93	2,21	2,21	3,10	1,79	2,76	3,03	4,27	1,93	2,41	2,41	3,79	2,62	3,31	2,62	4,69	1,59	2,41	1,86	4,14	
	6,89	2,07	2,34	2,34	3,45	2,07	3,45	3,45	4,96	2,21	2,76	2,76	4,14	2,90	4,00	3,31	5,79	1,79	2,96	2,21	4,69	
	8,62	2,21	2,62	2,62	3,79	2,34	3,79	3,79	6,14	2,48	3,10	3,10	4,83	3,59	4,69	4,00	-	2,34	3,65	2,76	5,24	
PTFE Diaphragm ¹	10,34	2,34	3,03	2,90	4,14	2,62	4,14	4,34	-	2,76	3,45	3,45	5,52	3,93	5,52	4,69	-	2,55	4,21	3,38	6,07	
	1,38	2,34	2,48	2,34	2,48	1,93	2,07	1,72	2,41	1,72	2,34	2,41	2,76	2,62	2,62	2,90	3,03	1,31	2,28	2,14	2,55	
	2,76	2,45	2,76	2,76	2,48	2,34	2,41	2,41	2,76	2,07	2,62	2,76	3,45	2,83	3,38	3,45	4,14	1,45	2,76	2,41	3,66	
	4,14	2,76	3,03	2,76	3,17	2,62	2,76	3,10	3,45	2,41	2,90	3,45	4,14	3,24	4,00	3,86	5,10	2,00	3,17	3,03	4,07	
	5,52	2,90	3,17	2,90	3,45	2,76	3,10	3,45	3,79	2,76	3,17	3,79	4,83	3,66	4,62	4,48	6,21	2,21	3,52	3,38	4,48	
	6,89	3,03	3,57	3,03	3,72	2,90	3,45	3,79	4,14	3,10	3,45	4,14	5,52	4,00	5,38	5,03	-	2,41	4,00	3,72	5,31	
	8,62	3,17	3,86	3,17	4,00	3,03	3,79	4,14	4,83	3,45	3,79	4,41	6,21	4,41	6,21	5,66	-	2,90	4,69	4,28	-	
	10,34	3,31	4,27	3,31	4,28	3,17	4,14	4,48	5,52	3,79	4,28	4,69	-	4,76	-	6,21	-	3,10	5,38	4,69	-	

¹ The exposure of the diaphragm to steam may increase the air requirements to close by as much as 30%.

² Bio-Tek includes size 0.25" (DN8), 0.375" (DN10), and 0.5" (DN15).

Note: Values are also valid for the Advantage 2.0

Actuator Chamber Volume

P Advantage 2.1, Series 33, Series 47 Actuators

Valve Size		Upper Chamber		Lower Chamber	
Inch	DN	in ³	cm ³	in ³	cm ³
0.25, 0.375, 0.5 ¹	6, 10, 15 ¹	2.62	43	2.26	37
0.5	15	5.49	90	4.27	70
0.75	20	12.51	205	7.63	125
1	25	12.08	198	9.15	150
1.5	40	71.00	1163	34.78	570
2	50	71.00	1163	38.75	635
3 (33)	80	160.35	2628	81.50	1336
4 (33)	100	160.35	2628	81.50	1336
3 (47)	80	463.80	7600	250.20	4100
4 (47)	100	463.80	7600	250.20	4100

¹ Bio-Tek sizes

P Advantage Compact Stainless (ACS) Actuator

Valve Size		Fail Close		Fail Open		Double Acting		Double Acting	
		Lower Chamber		Upper Chamber		Lower Chamber		Upper Chamber	
Inch	DN	in ³	cm ³	in ³	cm ³	in ³	cm ³	in ³	cm ³
0.25, .31, 0.375, 0.5 ¹	6, 8, 10, 15 ¹	1.08	17,7	1.6	26,2	1.48	24,2	1.6	26,2
0.50	15	3.0	49,2	5.2	84,5	1.9	31,9	5.0	82,5
0.75	20	5.9	97,3	10.9	178,1	6.4	104,6	9.2	151,2
1.00	25	6.8	111,1	10.9	177,9	7.3	119,0	9.2	151,1
1.50	40	18.6	305,0	59.6	977,1	18.6	305,0	62.3	1020,9
2.00	50	22.0	361,3	59.6	977,1	23.4	384,3	62.1	1018,3

¹ Bio-Pure sizes

P EnviZion Actuator

Valve Size		Fail Close		Fail Open		Double Acting		Double Acting	
		Lower Chamber		Upper Chamber		Lower Chamber		Upper Chamber	
Inch	DN	in ³	cm ³	in ³	cm ³	in ³	cm ³	in ³	cm ³
0.50	15	5.7	93,4	5.9	96,7	5.7	93,4	5.1	83,6
0.75	20	9.8	160,6	11.5	188,5	9.8	160,6	9.6	157,3
1.00	25	9.8	160,6	11.5	188,5	9.8	160,6	9.6	157,3
1.50	40	26.4	432,6	71.0	1163,5	26.4	432,6	62.1	1017,6
2.00	50	31.0	508,0	71.0	1163,5	31.0	508,0	62.1	1017,6



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