

Straight Way Diaphragm Valve



U Type welded Diaphragm Valve



Pneumatic diaphragm valve with controller



U Type Clamped Diaphragm Valve



T Type Diaphragm Valve



Forged Diaphragm Valves



L Type Diaphragm Valve



Forged Diaphragm Valve



Pneumatic block membrane valve



Synopsis

©The sanitary diaphragm valve is remotely controlled by the driving actuator or manually operated by a handle. It has the advantages of simple structure, beautiful appearance, quick disassembly, flexible operation, less fluid resistance, and reliable application, etc.



Description

© Manual diaphragm valve is consisted of handle, diaphragm, bonnet, screws and valve body. Actuated diaphragm valve is consisted with an actuator and the manual diaphragm valve. Manual handles are available in plastic grade and stainless steel grade. The driving actuator has different types: normally closed type, normally open type and electrical type. The pneumatic actuators are available with plastic, aluminum or stainless steel grade. The electrical actuator is available in plastic grade. Both manual operated and actuated driving type can ensure the use in hygienic or corrosive environmental conditions. Manual diaphragm valve is a valve with extremely small dead angle, and throttling is valve body can achieve function, and also can realize high flow and wide range of uses. The actuator features a compact and high pressure sterilization design. The actuators are optionally available with travel limiters and position feedback sensors.



Working principle

◎The sanitary diaphragm valve separates the inner wall of the upper and lower valve body of the diaphragm, so that the valve stem, valve disc and other parts above the diaphragm are not corroded by the medium, the structure of packing seat assures there is no-medium leakage. It not only ensures the purity of the working medium in the pipeline, but also prevents the medium from the working parts in the pipeline. In a diaphragm valve, since the working medium is only in contact with the diaphragm and the valve body, both of which are the food grade FDA approved. The valve can ideally control a variety of working mediums, especially those with chemical corrosion working medium. The diaphragm valve body and gasket with the tight fit to provide the valve body seal and seat seal to ensure the pipeline inside and outside environment completely isolated. ◎The diaphragm provides the valve body seal and seat seal. There is no path inside to the outside environment, so the valve is suitable for aseptic processes.

◎When the valve is closed, the pressure pad supporting the diaphragm moves toward the sealing surface on the valve body. As the pressure pad moves, the diaphragm bends. It is forced towards the seat area in the center of the valve body. Thus closing the fluid path to the valve body. ◎ The interrelationship between the valve body and the pressure pad prevents extrusion of the diaphragm. ◎ The regular state is closed, at this time the diaphragm is close to the inner cavity of the valve body, closing the path of the pipeline. ◎Through the handwheel or drive actuator to drive the valve stem upward movement, the spherical diaphragm upward bending, so that the valve to form a conduction state, you can realize the purpose of cleaning and opening. The diaphragm separates the inner cavity of the lower valve body and the inner cavity of the upper bonnet, so that the stem, spool and other parts located on the upper part of the diaphragm are not subject to corrosion of the medium, eliminating the need for packing and sealing structure, and will not produce media leakage. Optimized valve body design, so that the cleaning fluid is completely drained, will not form a stagnant phenomenon.



Features

- ◎The diaphragm provides the valve body seal and seat seal. There is no path inside to the outside environment, so the valve is suitable for aseptic processes.
- ◎When the valve is closed, the pressure pad supporting the diaphragm moves toward the sealing surface on the valve body. As the pressure pad moves, the diaphragm bends and is forced against the lake seat area in the center of the valve body therefore closing the fluid path to the valve body.
- ◎The interrelationship between the valve body and the pressure pad prevents extrusion of the diaphragm.
- ◎Unique seal design, no dead angles
- ◎Absolutely sterile, no blind corner.
- ◎Stainless steel bonnet with sanitary internals
- ◎100% hydraulic tested / 100% inspected
- ◎Gentle material handling
- ◎Diaphragm 300000 times test
- ◎Diaphragm perfect match the valve body design
- ◎Valve operation more safe and efficient
- ◎ The inner surface is RA0.4, which fully conforms to the pharmaceutical grade
- ◎Excellent for flow control, Straight through flow path
- ◎Easy disassembly, easy maintenance, easy to clean, CIP
- ◎Low turbulence, Minimal back pressure
- ◎ Unique sealing structure, eliminate the sanitary blind corner. Easy to clean the sterilization process and Contamination free.

Valve body surface treatment

Allocation to the standard ASME BPE Table SF-6
Mechanically Polished

ASME BPE Code	Ra Average		Ra Max	
	u-Inch	µm	u-Inch	µm
SFV3	25	0.625	30	0.75
SFV2	20	0.5	25	0.625
SFV1	15	0.375	20	0.5

Mechanically polished and electro polished

SFV6	20	0.5	25	0.625
SFV5	15	0.375	20	0.5
SFV4	10	0.25	15	0.375



Technical design Specification

- ◎Max. working pressure: 10 Bar
- ◎Temperature range: -10° ~ +120°C or higher upon request
- ◎ Sizes available: 1" to 6" ◎ End connection: Clamp, Weld, Flange, Thread ◎ Body material: AISI 316L
- ◎Body structure: 2 way, 3-way, Casting Tee type,U type,Forged Tee type, with draining port, Non dead leg diaphragm block valves
- ◎Seal material: single diaphragm EPDM,EPDM+PTFE bounded membrane , EPDM/PTFE 2pieces membrane
- ◎ Operation: plastic or stainless hand wheel,Pneumatic plastic actuator,Pneumatic stainless steel actuator, Electric actuator
- ◎Surface treatment: Ra 0.4 ~ 0.8µm
- ◎Standards: 3A, SMS, DIN, ISO

- ◎The valve body is available in casting and forging, which is suitable for the different needs of domestic and foreign customers.
- ◎ Product specifications are complete, from DN10-DN80 any specifications can be selected.Imported material diaphragm, good corrosion resistance, in line with the U.S. FDA food-grade requirements, and through the SGS test qualified.
- ◎The cam around the valve body and the corresponding position of the diaphragm raised rib bite sealing, to ensure that the diaphragm in the open or closed state can be tightly sealed with the valve body, to achieve "zero" residue, easy to clean, in line with the EHEDG design standards.
- ◎The handwheel can be adjusted to achieve over-seat closure protection by adjusting the limit nut, which ensures that the diaphragm has a predetermined closing pressure, optimizes the safety of the sealing function, and prolongs the service life of the diaphragm.The red switching display between the handwheel and the top cover allows visual inspection of the valve's opening and closing status and range.



Application

- Diaphragm valves, manually or pneumatically operated, are specifically designed for use in sanitary and aseptic processes in the medical and pharmaceutical industries. Very good performance in controlling the flow rate of the small flow piping line. The valves are suitable for applying in high flow rate, high corrosivity, high viscosity fluid.
- Diaphragm valves, manually or pneumatically operated, are specialized for hygienic and aseptic processes in the pharmaceutical industry.
- The valve is well suited for fluid control and switching tasks
- This diaphragm valve is easier to clean than other valve designs, handles particulate materials well, and has less cavitation in flow control applications.
- Aseptic diaphragm valves are widely used in food and biopharmaceuticals as well as semiconductor ultrapure industry, microelectronics industry, fine chemical industry. Aseptic diaphragm valves are ideal for applications where bacteria growth is prevented and where cleaning and sterilizing properties are important. Statically sealed diaphragm valves are more hygienic and durable because the sealing components are non-abrasive and the valve structure has no dead space.



INTRODUCE THE SELF-DRAINING FUNCTION

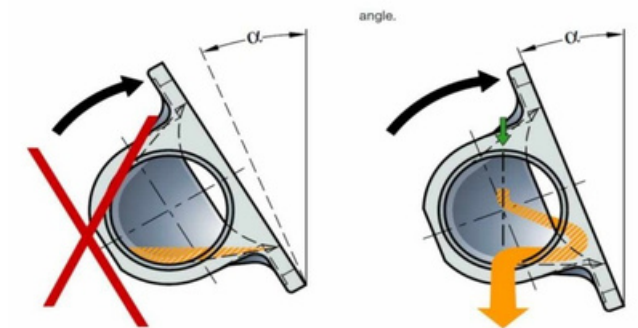
Aseptic diaphragm valves have excellent self-draining performance and can maintain excellent self-draining capabilities in both horizontal and vertical installations. Utilizing the self-draining characteristics of valves requires the cooperation of pipeline designers and users. There are some factors affecting self-drainage mainly include the following aspects:

Valve sizes and pipe specifications
Internal surface finish and treatment (Ra)
Empty direction
Surface tension and viscosity of the medium.

INSTALLATION SUGGESTION

- For optimal self-venting, we recommend that diaphragm valves installed on long pipelines have a 2% tilt, which ensures that the entire system is fully self-venting.

DN Size		α	DN Size		α
1/4" - 1/2"	DN6-DN10	25	1.5"	DN40	27.5
3/4"	DN15	28	2"	DN50	27.5
1"	DN20	42.5	2.5"	DN65	20
1"	DN25	35	3"	DN80	14
1.25"	DN32	30	4"	DN100	23.5



VALVE BODY OPTIONS



Valve Body Form	Cast	Forge	Malleable Block
Two-way valve	○	○	○
T-valve	○	○	
Tandem valve	○	○	
Multi-Channel Valves			○



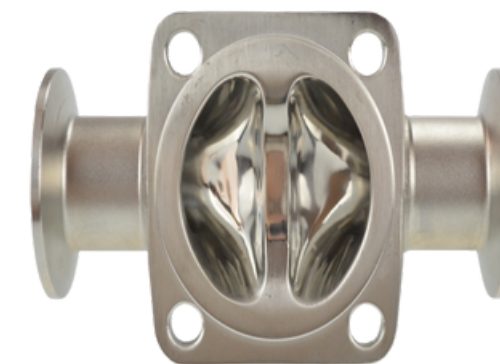
Typology	Cast (CF3M 316L)	Forge (1.4435 316L)
Makings	CF3M (316L)	1.4435 (316L)
Ferrite	< 15%	< 0.5%
Sulphur Content	< 0.04%	0.005 - 0.017%

FORGING BODY

© Forging valve body gross or through a piece of stainless steel ingot, in the forging process, with the provision of forging high temperature, through the extrusion of the gross bad shape change, through the forging of the valve body after a higher density, more uniform structure, no sand holes as well as other impurities. And then through the machining center for its high- precision processing.

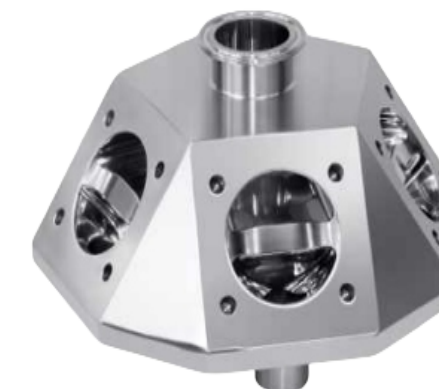
CASTING BODY

© Casting valve body is made by molding a paraffin wax model, and the paraffin wax model is infiltrated into the ceramic to form a solid layer of ceramic on the surface of the wax mold of the whole valve body. After melting off the wax mold, then injected into the melted stainless steel solution, after cooling down the ceramic knocked off the exterior, the blank valve body is molded. The dimensions of the casting are very accurate and the appearance is smooth and neat.

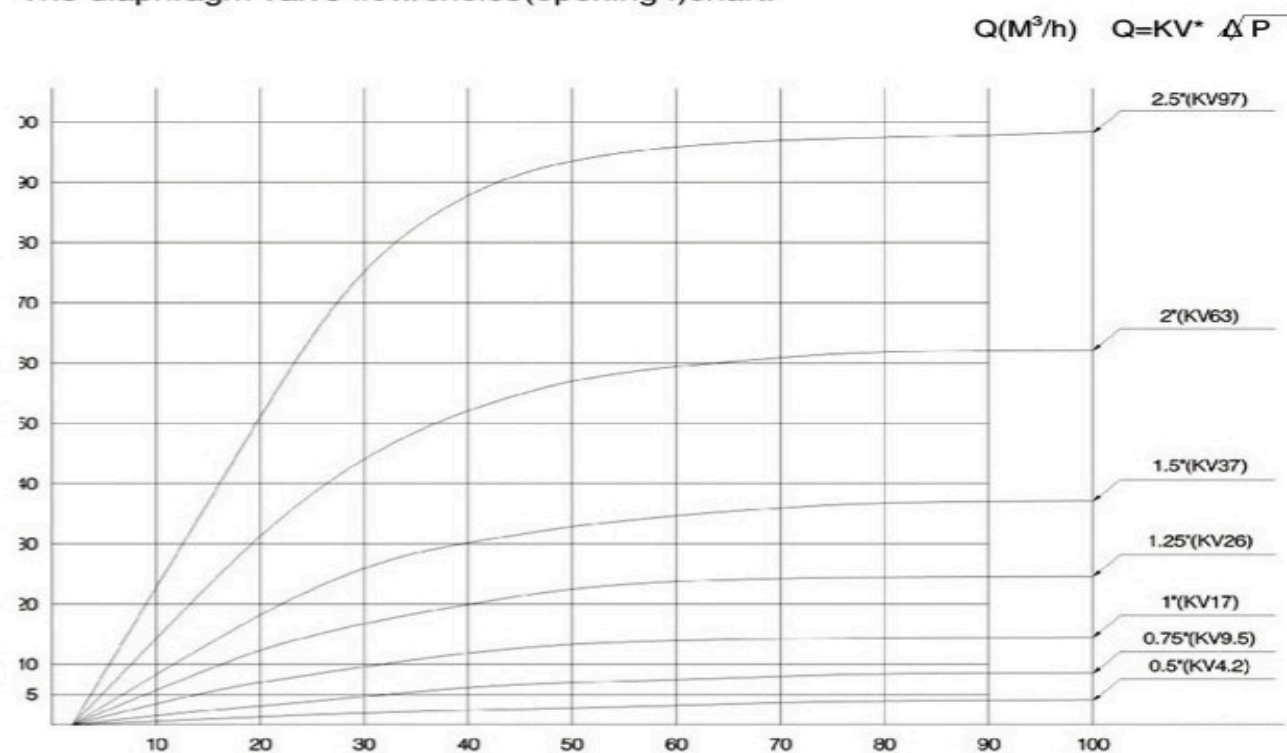


ROUND STEEL BODY

© The round steel valve body is made of ultra- pure material, which is directly cut into pieces by CNC cutting equipment and then processed with high precision by CNC 5-axis machining center.



The diaphragm valve flow/choice(opening f)chart.



© The KV value is a technical parameter used to define the flow rate of the valve. This data describes the flux of the valve for water from 5C to 30C at a differential pressure of 1 bar. The KV value indicates the KV value of the valve at 100% opening.



Diaphragm

© Unlike conventional diaphragm valve bodies, aseptic diaphragm valve bodies have a sealing protrusion that snaps tightly onto the inside diameter, which reduces the annular gap between the diaphragm and the valve body. This feature of the diaphragm valve makes it particularly suitable for aseptic processes.



Diaphragm Material

© Diaphragms are available in EPDM soft elastomers and TFM hard elastomers, with single and double diaphragm options. The double diaphragm design allows the two diaphragms to work independently of each other, which reduces tension caused by different thermal properties. Each application has different operating conditions and therefore different diaphragm requirements. In order to select the best diaphragm for your application, the following factors need to be considered: operating pressure, application temperature, and process fluid. EPDM is suitable for the majority of applications, with some high temperature applications requiring the use of TFM diaphragms.

- © Concave composite diaphragm for steam. Smaller gas permeability.
- © Special sealing profile seals outward to the underside of the diaphragm. Smaller gas permeability.
- © Standard: SMS, DIN, 3A, ISO, RJT and so on
- © In addition to the valve body, the diaphragm is the only part in direct contact with the medium, diaphragm valve is to rely on the diaphragm to isolate the medium and the implementation of the structure and the external air. The diaphragm is also a moving part, the diaphragm moves up and down by the diaphragm valve to realize the control and cut-off of the medium flow.

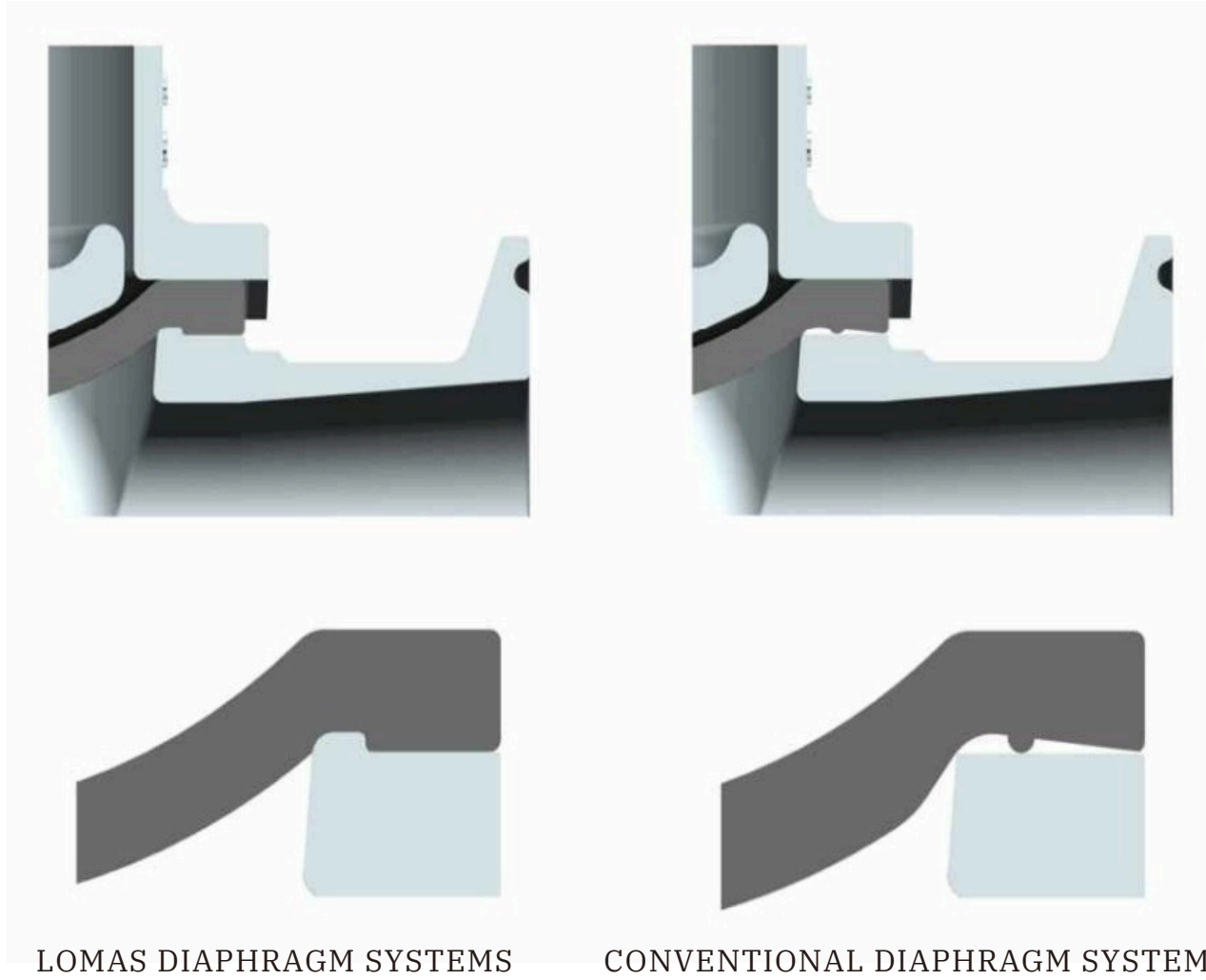
© The diaphragm according to their own testing methods and standards and third-party rigorous testing specifications under the development and testing over the years, these tests are simulated on-site real working conditions. For example, diaphragms are tested in automated saturated steam closed- loop systems, which affects the shape of the diaphragm, the material composition, the design of the two bodies, the actuator and the valve assembly. All diaphragms of different materials are common when installed to the same specifications. Even if the actuator is changed, there is no need to change the diaphragm.



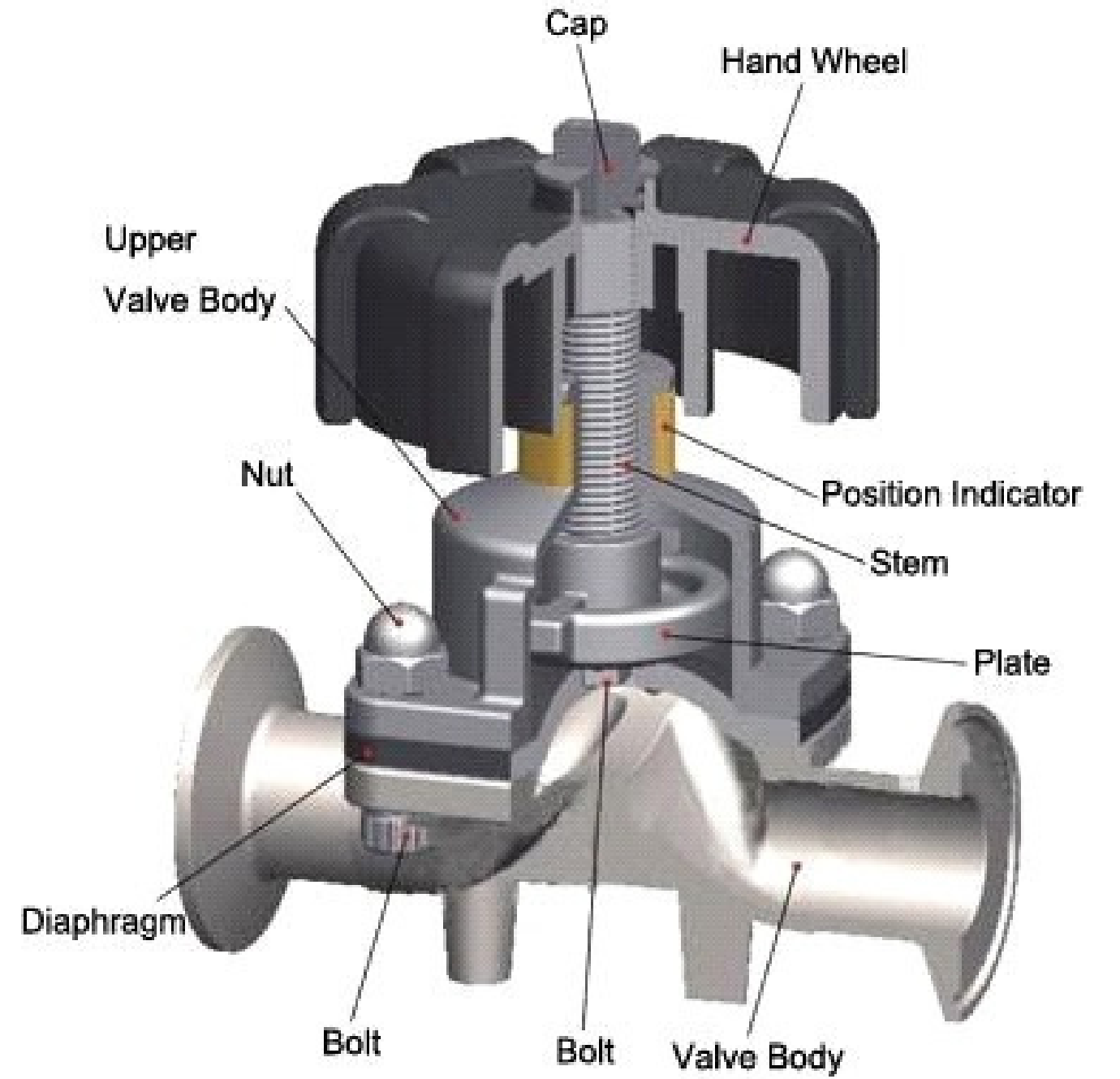
Interface Caliber		DN10-DN50	DN65-DN80	
Working Environment	EPDM	Work Pressure	10 bar	8 bar
		Fluid Medium	-10°C/130°C, 14°F/212°F	
		Steam Sterilization	150°C, 302°F max 60 min	
	EPDM + TFM	Work Pressure	6 bar, 87 psi	5 bar, 72 psi
		Fluid Medium	-10°C/150°C, 14°F/212°F	
		Steam Sterilization	150°C, 302°F max	
Control Pressure	Normally Closed (NC)		5-6 bar, 72-87 psi	5-7 bar, 72-101 psi
	Normally Open (NO)		5.5 bar, 79 psi	
	Double Action (DA)		5.5 bar, 79 psi	
Pneumatic Interface		G1/8"	G1/4"	

Long-term use of EPDM and TFM diaphragms at these temperatures will reduce diaphragm life. Therefore, maintenance intervals should be adjusted as appropriate. TFM diaphragms can also be used for steam shutoff, but this will result in reduced service life and maintenance intervals should be adjusted as appropriate.

DIAPHRAGM SYSTEM ADVANTAGE



DIAPHRAGM VALVE SECTIONAL DRAWING

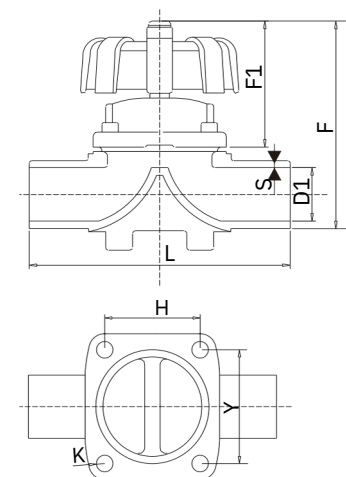


OPTIONS



Straight Way Diaphragm Valve

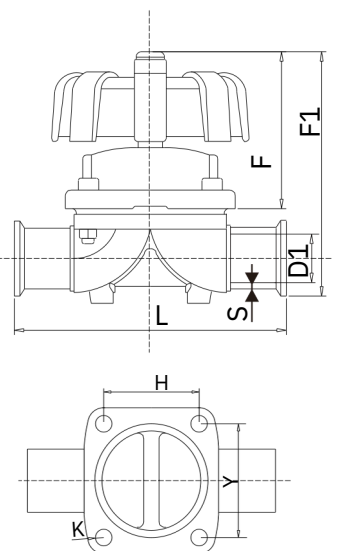
DIN JN-DV-23 1001



SIZE	L	F	F1	D1	H	Y	K	S
DN6	72	80	55	68	21	21	4	1.5
DN8	72	80	55	10	21	21	4	1.5
DN10	72	80	55	13	21	21	4	1.5
DN15	106	126	80	16	36	19	5	1.5
DN20	125	144	110	22	48	43.5	8	1.5
DN25	126	144	110	29	48	43.5	8	1.5
DN32	161	164	120	35	70	43.5	8	1.5
DN40	162	164	120	49	70	43.5	8	1.5
DN50	193	182	125	59	85	56.5	10	2.0
DN65	220	200	165	72	105	70.5	12	2.0
DN70	256	251	180	85	126	83.5	14	2.0
DN80	256	251	180	98	126	97	14	2.0
DN100	350	370	230	125	Φ194×8		14	2.0
DN125	350	370	230	125	Φ194×8		14	2.0

Straight Way Diaphragm Valve

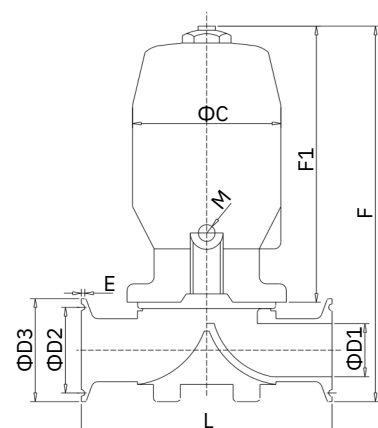
DIN JN-DV-23 1002



SIZE	L	F	F1	D1	D3	H	Y	K	S
DN6	72	80	55	68	25.2	21	21	4	1.5
DN8	72	80	55	10	25.2	21	21	4	1.5
DN10	72	80	55	13	25.2	21	21	4	1.5
DN15	106	126	80	16	25.2	36	19	5	1.5
DN20	125	144	110	22	50.5	48	43.5	8	1.5
DN25	126	144	110	29	50.5	48	43.5	8	1.5
DN32	161	164	120	35	50.5	70	43.5	8	1.5
DN40	162	164	120	49	50.5	70	43.5	8	1.5
DN50	193	182	125	59	64	85	56.5	10	2.0
DN65	220	200	165	72	77.5	105	70.5	12	2.0
DN70	256	251	180	85	91	126	83.5	14	2.0
DN80	256	251	180	98	106	126	97	14	2.0
DN100	350	370	230	125	119	Φ194×8		14	2.0
DN125	350	370	230	155	155	Φ194×8		14	2.0

Pneumatic Diaphragm Valve

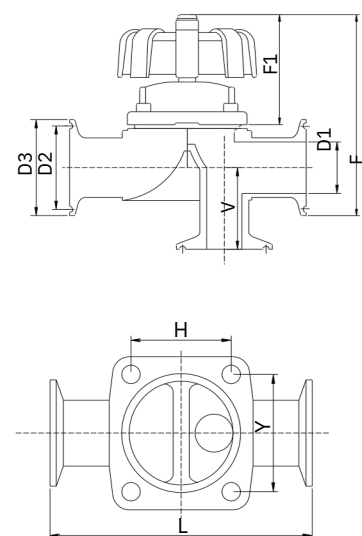
JN-DV-23 1003



Size	L	F	F1	D1	C	D2	D3
DN6	72	98	75	6	41	19	25.2
DN8	72	98	75	8	41	19	25.2
DN10	72	98	75	10	41	19	25.2
DN15	106	140	140	13	61	19	25.2
DN20	125	174	174	16	72	43.5	50.5
DN25	126	174	174	22	72	43.5	50.5
DN32	161	224	224	29	92	43.5	50.5
DN40	162	224	224	35	92	43.5	50.5
DN50	193	254	254	49	112	56.5	64
DN65	220	278	278	59	138	70.5	77.5
DN70	256	380	380	72	190	83.5	91
DN80	256	395	395	85	190	97	106
DN100	350	450	450	98	250	110	119
DN125	350	460	460	125	250	146	155

L Type Diaphragm Valve

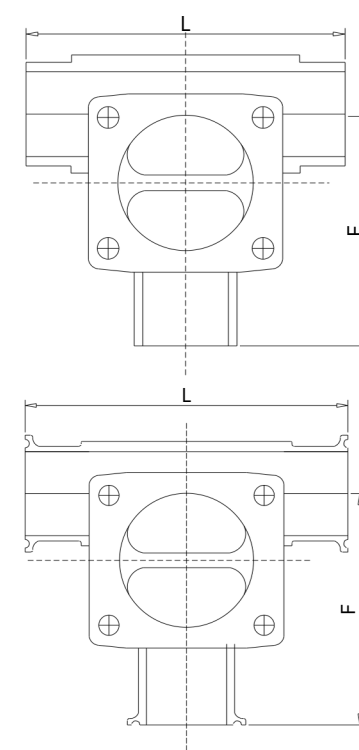
DIN JN-DV-23 1004



Size	L	F	F1	H × Y	D1	C	D2	D3
DN6	72	80	55	21 × 21	6	41	19	25.2
DN8	72	80	55	21 × 21	8	41	19	25.2
DN10	72	80	55	21 × 21	10	41	19	25.2
DN15	106	126	80	36 × 32	13	61	19	25.2
DN20	125	144	110	48 × 55	16	72	43.5	50.5
DN25	126	144	110	48 × 55	22	72	43.5	50.5
DN32	161	164	120	70 × 64	29	92	43.5	50.5
DN40	162	164	120	70 × 64	35	92	43.5	50.5
DN50	193	182	125	85 × 75	49	112	56.5	64
DN65	220	200	165	105 × 91	59	138	70.5	77.5
DN70	256	251	180	126 × 114	72	190	83.5	91
DN80	256	251	180	126 × 114	85	190	97	106
DN100	350	370	230	Φ194 × 8	98	250	110	119
DN125	350	370	230	Φ194 × 8	125	250	146	155

T Type Diaphragm Valve

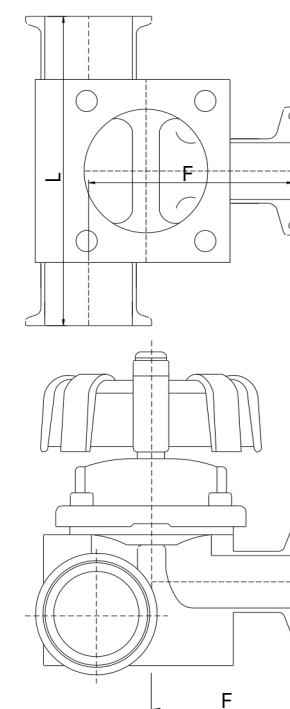
JN-DV-23 1005



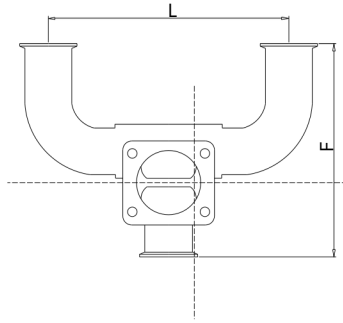
Size	L	F	Size	L	F
Φ12.7×12.7	72	44	Φ32×25.4	128	91
Φ19×12.7	72	42	Φ38×25.4	128	97
Φ25.4×12.7	72	43	Φ50.8×25.4	135	91
Φ38×12.7	72	45	Φ32×32	134	114
Φ19×19	102	65	Φ38×32	134	111
Φ25.4×19	102	67.5	Φ50.8×32	134	112
Φ32×19	102	72	Φ38×38	134	114
Φ38×19	102	75	Φ50.8×38	134	112
Φ50.8×19	102	81	Φ80.8×50.8	172	137
Φ63.5×19	102	86.5	Φ63×63	243	150
Φ25.4×25.4	128	91	Φ76×63	243	150

Forged Diaphragm Valve

JN-DV-23 1006



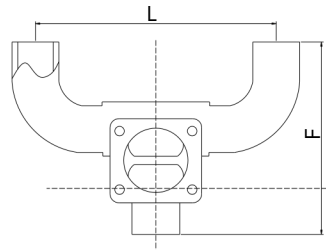
Size	L	F	Size	L	F
Φ12.7×12.7	72	44	Φ32×25.4	128	91
Φ19×12.7	72	42	Φ38×25.4	128	97
Φ25.4×12.7	72	43	Φ50.8×25.4	135	91
Φ38×12.7	72	45	Φ32×32	134	114
Φ19×19	102	65	Φ38×32	134	111
Φ25.4×19	102	67.5	Φ50.8×32	134	112
Φ32×19	102	72	Φ38×38	134	114
Φ38×19	102	75	Φ50.8×38	134	112
Φ50.8×19	102	81	Φ80.8×50.8	172	109.6
Φ63.5×19	102	86.5	Φ63×63	243	150
Φ25.4×25.4	128	91	Φ76×63	243	150
Φ50.8×50.8	172	109.6			



U Type clamped Diaphragm Valve

JN-DV-23 1007

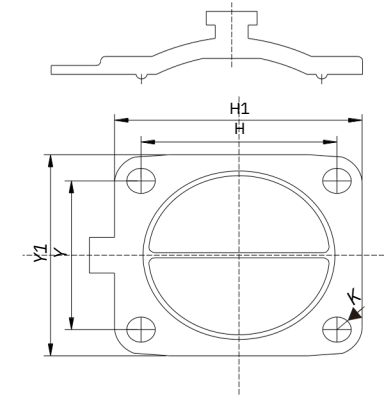
Size	L	F	Size	L	F
Φ12.7×12.7	Customized	Customized	Φ32×25.4	163	170
Φ19×12.7	Customized	Customized	Φ38×25.4	181	185
Φ25.4×12.7	Customized	Customized	Φ50.8×25.4	246	214
Φ38×12.7	Customized	Customized	Φ32×32	188	193
Φ19×19	Customized	Customized	Φ38×32	207	231
Φ25.4×19	135	140	Φ50.8×32	265	235
Φ32×19	138	151	Φ38×38	207	231
Φ38×19	156	163	Φ50.8×38	265	235
Φ50.8×19	183	204	Φ80.8×50.8	283	260
Φ63.5×19	195	249	Φ63×63	315	300
Φ25.4×25.4	160	163	Φ76×63	325	310



U Type welded Diaphragm Valve

JN-DV-23 1008

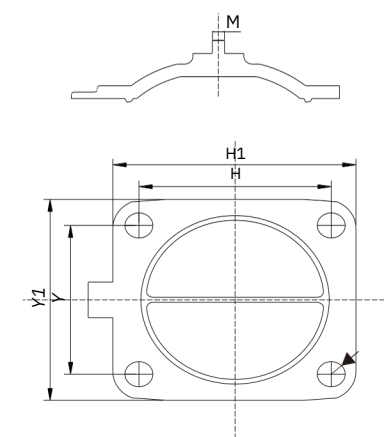
Size	L	F	Size	L	F
Φ12.7×12.7	Customized	Customized	Φ32×25.4	163	149
Φ19×12.7	Customized	Customized	Φ38×25.4	181	164
Φ25.4×12.7	Customized	Customized	Φ50.8×25.4	246	193
Φ38×12.7	Customized	Customized	Φ32×32	188	172
Φ19×19	Customized	Customized	Φ38×32	207	210
Φ25.4×19	135	119	Φ50.8×32	265	214
Φ32×19	138	130	Φ38×38	207	210
Φ38×19	156	142	Φ50.8×38	265	214
Φ50.8×19	183	183	Φ50.8×50.8	283	239
Φ63.5×19	195	195	Φ63×63	315	280
Φ25.4×25.4	160	142	Φ76×63	325	285



Diaphragm Sheet

JN-DV-23 1009

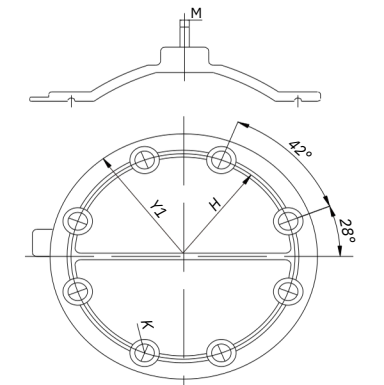
Size	H × Y	H1 × Y1	M	K
DN6	21 × 21	35 × 35	Φ9.5	5
DN8	21 × 21	35 × 35	Φ9.5	5
DN10	21 × 21	35 × 35	Φ9.5	5



Diaphragm Sheet

JN-DV-23 1010

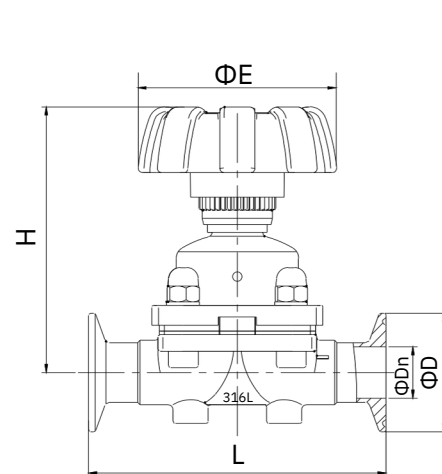
Size	H × Y	H1 × Y1	M	K
DN15	36 × 32	51 × 48	M4	6
DN20	48 × 55	74 × 68	M6	9
DN25	48 × 55	74 × 68	M6	9
DN32	70 × 64	102 × 90	M6	11
DN40	70 × 64	102 × 90	M6	11
DN50	85 × 75	112 × 105	M6	13
DN65	105 × 91	134 × 126	M8	15
DN70	126 × 114	185 × 156	M8	15
DN80	126 × 114	185 × 156	M8	15



Diaphragm Sheet

JN-DV-23 1011

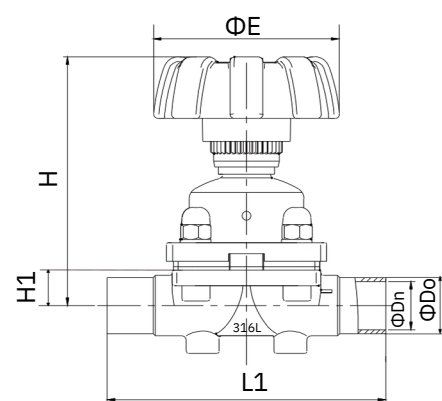
Size	H	Y1	M	K
DN100	194	227	Φ8	15
DN125	194	227	Φ8	15



Manual Diaphragm Valve

JN- DV-23 1012

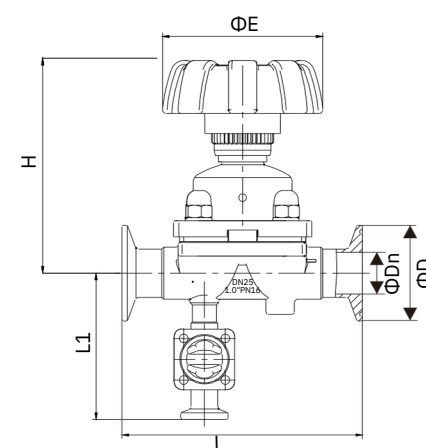
SEAL	SIZE	D	Dn	L	H	E
8	DN 8	1/4"	25.2	4.3	63.5	36
8	DN 10	3/8"	25.2	7.5	63.5	36
8	DN 15	1/2"	25.2	9.4	63.5	36
10	DN 15	1/2"	25.2	9.4	108	73
10	DN 20	3/4"	50.5	15.8	117	75
25	DN 20	3/4"	50.5	15.8	127	113
25	DN 25	1"	50.5	22.1	127	115
32	DN 32	1.25"	50.5	28.5	146	133
40	DN 40	1.5"	50.5	34.8	159	135
50	DN 50	2"	64	47.5	190	156
50	DN 65	2.5"	77.5	59.5	190	160
50	DN 65	2.5"	77.5	59.5	205	210
80	DN 80	3"	91	72.2	265	256
100	DN100	4"	119	97.4	340	268



Manual Diaphragm Valve

JN- DV-23 1013

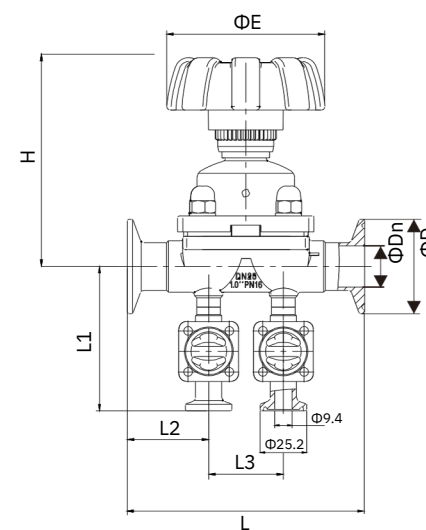
SEAL	SIZE	Do	Dn	L1	H	H1	E	
8	DN 8	1/4"	6.35	4.3	63.5	65	8	36
8	DN 10	3/8"	9.5	7.5	63.5	65	8	36
8	DN 15	1/2"	12.7	9.4	63.5	65	8	36
10	DN 15	1/2"	12.7	9.4	108	73	11.5	65
10	DN 20	3/4"	19.1	15.8	117	75	11.5	65
25	DN 20	3/4"	19.1	15.8	127	113	17	65
25	DN 25	1"	25.4	22.1	127	115	17	85
40	DN 32	1.25"	31.8	28.5	146	133	20	105
40	DN 40	1.5"	38.1	34.8	159	135	22	105
50	DN 50	2"	50.8	47.5	190	156	31	125
50	DN 65	2.5"	63.5	59.5	190	160	37	125
50	DN 65	2.5"	63.5	59.5	240	205	42	210
80	DN 80	3"	76.2	72.2	240	256	50	210
100	DN 100	4"	101.6	97.4	310	268	61	210



Diaphragm Valve

JN- DV-23 1014

SIZE	SIZE	D	Dn	L	L1	H	E
Dn10-G8	1/2"-G8	25.2	9.4	63.5	-	65	36
Dn15-G8	1/2"-G10	25.2	9.4	108	75	95	65
DN20	3/4"	25.2	15.8	117	76	95	65
DN25	1"	50.5	22.1	127	85	115	85
DN32	1.25"	50.5	28.5	159	92	100	105
DN40	1.5"	50.5	34.8	159	95	110	105
DN50	2"	64	47.5	190	100	125	125
DN65	2.5"	77.5	59.5	190	-	100	125
DN80	3"	91	72.2	265	110	110	210
DN100	4"	119	97.4	340	120	125	210

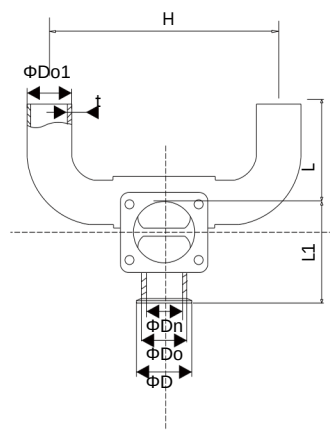


Diaphragm Valve

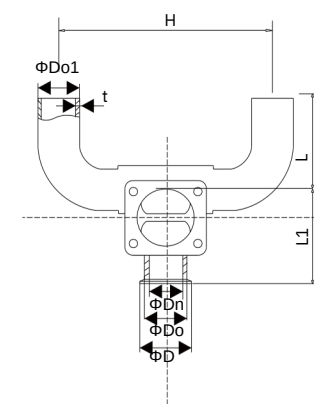
JN- DV-23 1015

SIZE	SIZE	D	Dn	L	L1	L2	L3	H	E
DN10-G8	1/2"-G8	25.2	9.4	63.5	-	-	-	65	36
DN15-G10	1/2"-G10	25.2	9.4	108	75	36.5	34	95	65
DN20	3/4"	25.2	15.8	117	76	41.5	34	95	65
DN25	1"	50.5	22.1	127	85	43.5	40	115	85
DN32	1.25"	50.5	28.5	146	92	50.5	58	100	105
DN40	1.5"	50.5	34.8	159	95	50.5	58	110	105
DN50	2"	64	47.5	190	100	57	76	125	125
DN65	2.5"	77.5	59.5	190	100	57	76	100	125
DN80	3"	91	72.2	265	110	91.5	82	110	210
DN100	4"	119	97.4	340	120	105	130	125	210

U-Shaped Three-Way Diaphragm Valve(Cast) JN- DV-23 1016



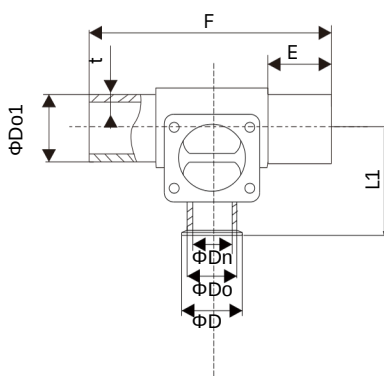
Seal	Size	D	Do	Dn	Do1	t	L	L1	H	
10	DN20/20	3/4"-3/4"	25.2	19.1	15.8	19.1	1.65	54	68	130
10	DN20/25	3/4"-1"	25.2	19.1	15.8	25.4	1.65	68	70	149
10	DN20/40	3/4"-1 1/2"	25.2	19.1	15.8	38.1	1.65	87	77	187
10	DN20/50	3/4"-2"	25.2	19.1	15.8	50.8	1.65	110	83	225
25	DN25/25	1"-1"	50.5	25.4	22.1	25.4	1.65	68	82	171
25	DN25/40	1"-1 1/2"	50.5	25.4	22.1	38.1	1.65	87	92	209
25	DN25/50	1"-2"	50.5	25.4	22.1	50.8	1.65	110	95	247
25	DN25/65	1"-2 1/2"	50.5	25.4	22.1	63.5	1.65	132	100	285
32	DN32/32	1 1/4"-1 1/4"	50.5	31.8	28.5	31.8	1.65	78	108	217
32	DN32/40	1 1/4"-1 1/2"	50.5	31.8	28.5	38.1	1.65	87	111	236
32	DN32/50	1 1/4"-2"	50.5	31.8	28.5	50.8	1.65	110	114	274
32	DN32/65	1 1/4"-2 1/2"	50.5	31.8	28.5	63.5	1.65	132	120	312
40	DN40/40	1 1/2"-1 1/2"	50.5	38.1	34.8	38.1	1.65	87	111	236
40	DN40/50	1 1/2"-2"	50.5	38.1	34.8	50.8	1.65	110	114	274
40	DN40/65	1 1/2"-2 1/2"	50.5	38.1	34.8	63.5	1.65	132	120	312
50	DN50/50	2"-2"	64.0	50.8	47.5	50.8	1.65	110	139	296
50	DN50/65	2"-2 1/2"	64.0	50.8	47.5	63.5	1.65	132	141	340
65	DN65/65	2 1/2"-2 1/2"	77.5	63.5	60.2	63.5	1.65	110	141	340
65	DN65/80	2 1/2"-3"	77.5	63.5	60.2	76.2	1.65	132	147	378
80	DN80/80	3"-3"	91.0	76.2	72.9	76.2	1.65	151	171	448



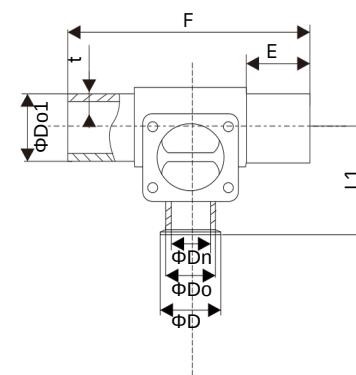
U-Shaped Three-Way Diaphragm Valve(Forged) JN- DV-23 1018

Seal	Size	D	Do	Dn	Do1	t	L	L1	H	
10	DN20/20	3/4"-3/4"	25.2	19.1	15.8	19.1	1.65	54	68	130
10	DN20/25	3/4"-1"	25.2	19.1	15.8	25.4	1.65	68	70	149
10	DN20/40	3/4"-1 1/2"	25.2	19.1	15.8	38.1	1.65	87	77	187
10	DN20/50	3/4"-2"	25.2	19.1	15.8	50.8	1.65	110	83	225
25	DN25/25	1"-1"	50.5	25.4	22.1	25.4	1.65	68	82	174
25	DN25/40	1"-1 1/2"	50.5	25.4	22.1	38.1	1.65	87	92	209
25	DN25/50	1"-2"	50.5	25.4	22.1	50.8	1.65	110	95	247
25	DN25/65	1"-2 1/2"	50.5	25.4	22.1	63.5	1.65	132	100	285
32	DN32/32	1 1/4"-1 1/4"	50.5	31.8	28.5	31.8	1.65	78	108	217
32	DN32/40	1 1/4"-1 1/2"	50.5	31.8	28.5	38.1	1.65	87	111	236
32	DN32/50	1 1/4"-2"	50.5	31.8	28.5	50.8	1.65	110	114	274
32	DN32/65	1 1/4"-2 1/2"	50.5	31.8	28.5	63.5	1.65	132	120	312
40	DN40/40	1 1/2"-1 1/2"	50.5	38.4	34.8	38.1	1.65	87	111	236
40	DN40/50	1 1/2"-2"	50.5	38.1	34.8	50.8	1.65	110	114	274
40	DN40/65	1 1/2"-2 1/2"	50.5	38.1	34.8	63.5	1.65	132	120	312
50	DN50/50	2"-2"	64	50.8	47.5	50.8	1.65	110	139	296
50	DN50/65	2"-2 1/2"	64	50.8	47.5	63.5	1.65	132	141	340
65	DN65/65	2 1/2"-2 1/2"	77.5	63.5	60.2	63.5	1.65	110	141	340
65	DN65/80	2 1/2"-3"	77.5	63.5	60.2	76.2	1.65	132	147	378
80	DN80/80	3"-3"	91	76.2	72.9	76.2	1.65	151	171	448

U-Shaped Three-Way Diaphragm Valve(Cast) JN- DV-23 1017



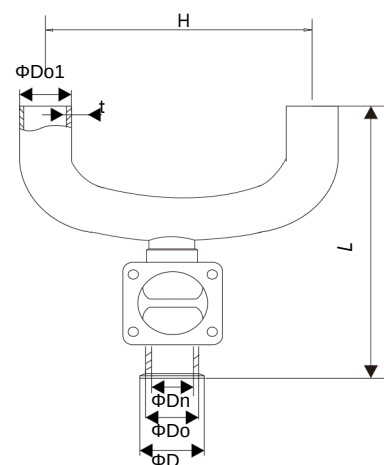
Seal	Size	D	Do	Dn	Do1	L1	E	F	t	
10	DN20/20	3/4"-3/4"	25.2	19.1	15.8	19.1	68	30	110	1.65
10	DN20/25	3/4"-1"	25.2	19.1	15.8	25.4	70	30	110	1.65
10	DN20/40	3/4"-1 1/2"	25.2	19.1	15.8	38.1	77	30	110	1.65
10	DN20/50	3/4"-2"	25.2	19.1	15.8	50.8	83	35	120	1.65
25	DN25/25	1"-1"	50.5	25.4	22.1	25.4	92	30	134	1.65
25	DN25/40	1"-1 1/2"	50.5	25.4	22.1	38.1	92	30	134	1.65
25	DN25/50	1"-2"	50.5	25.4	22.1	50.8	95	35	144	1.65
25	DN25/65	1"-2 1/2"	50.5	25.4	22.1	63.5	95	35	144	1.65
32	DN32/32	1 1/4"-1 1/4"	50.5	31.8	28.1	31.8	108	35	144	1.65
32	DN32/40	1 1/4"-1 1/2"	50.5	31.8	28.1	38.1	108	35	144	1.65
32	DN32/50	1 1/4"-2"	50.5	31.8	28.1	50.8	114	35	162	1.65
32	DN32/65	1 1/4"-2 1/2"	50.5	31.8	28.1	63.5	114	35	162	1.65
40	DN40/40	1 1/2"-1 1/2"	50.5	38.1	34.8	38.1	111	35	172	1.65
40	DN40/50	1 1/2"-2"	50.5	38.1	34.8	50.8	119	35	172	1.65
40	DN40/65	1 1/2"-2 1/2"	50.5	38.1	34.8	63.5	120	35	172	1.65
50	DN50/50	2"-2"	50.5	50.8	47.5	50.8	133	35	195	1.65
50	DN50/65	2"-2 1/2"	64.0	50.8	47.5	63.5	141	35	195	1.65
65	DN65/65	2 1/2"-2 1/2"	77.5	63.5	60.2	63.5	141	35	195	1.65
65	DN65/80	2 1/2"-3"	77.5	63.5	60.2	76.2	147	40	205	1.65
80	DN80/80	3"-3"	91.0	76.2	72.9	76.2	171	40	264	1.65



U-Shaped Three-Way Diaphragm Valve(Forged) JN- DV-23 1019

Seal	Size	D	Do	Dn	Do1	L1	E	F	t	
10	DN20/20	3/4"-3/4"	25.2	19.1	15.8	19.1	68	30	110	1.65
10	DN20/25	3/4"-1"	25.2	19.1	15.8	25.4	70	30	110	1.65
10	DN20/40	3/4"-1 1/2"	25.2	19.1	15.8	38.1	77	30	110	1.65
10	DN20/50	3/4"-2"	25.2	19.1	15.8	50.8	83	35	120	1.65
25	DN25/25	1"-1"	50.5	25.4	22.1	25.4	92	30	134	1.65
25	DN25/40	1"-1 1/2"	50.5	25.4	22.1	38.1	92	30	134	1.65
25	DN25/50	1"-2"	50.5	25.4	22.1	50.8	95	35	144	1.65
25	DN25/65	1"-2 1/2"	50.5	25.4	22.1	63.5	95	35	144	1.65
32	DN32/32	1 1/4"-1 1/4"	50.5	31.8	28.1	31.8	108	35	144	1.65
32	DN32/40	1 1/4"-1 1/2"	50.5	31.8	28.1	38.1	108	35	144	1.65
32	DN32/50	1 1/4"-2"	50.5	31.8	28.1	50.8	114	35	162	1.65
32	DN32/65	1 1/4"-2 1/2"	50.5	31.8	28.1	63.5	114	35	162	1.65
40	DN40/40	1 1/2"-1 1/2"	50.5	38.1	34.8	38.1	111	35	172	1.65
40	DN40/50	1 1/2"-2"	50.5	38.1	34.8	50.8	119	35	172	1.65
40	DN40/65	1 1/2"-2 1/2"	50.5	38.1	34.8	63.5	120	35	172	1.65
50	DN50/50	2"-2"	50.5	50.8	47.5	50.8	133	35	195	1.65
50	DN50/65	2"-2 1/2"	64.0	50.8	47.5	63.5	141	35	195	1.65
65	DN65/65	2 1/2"-2 1/2"	77.5	63.5	60.2	63.5	141	35	195	1.65
65	DN65/80	2 1/2"-3"	77.5	63.5	60.2	76.2	147	40	205	1.65
80	DN80/80	3"-3"	91.0	76.2	72.9	76.2	171	40	264	1.65

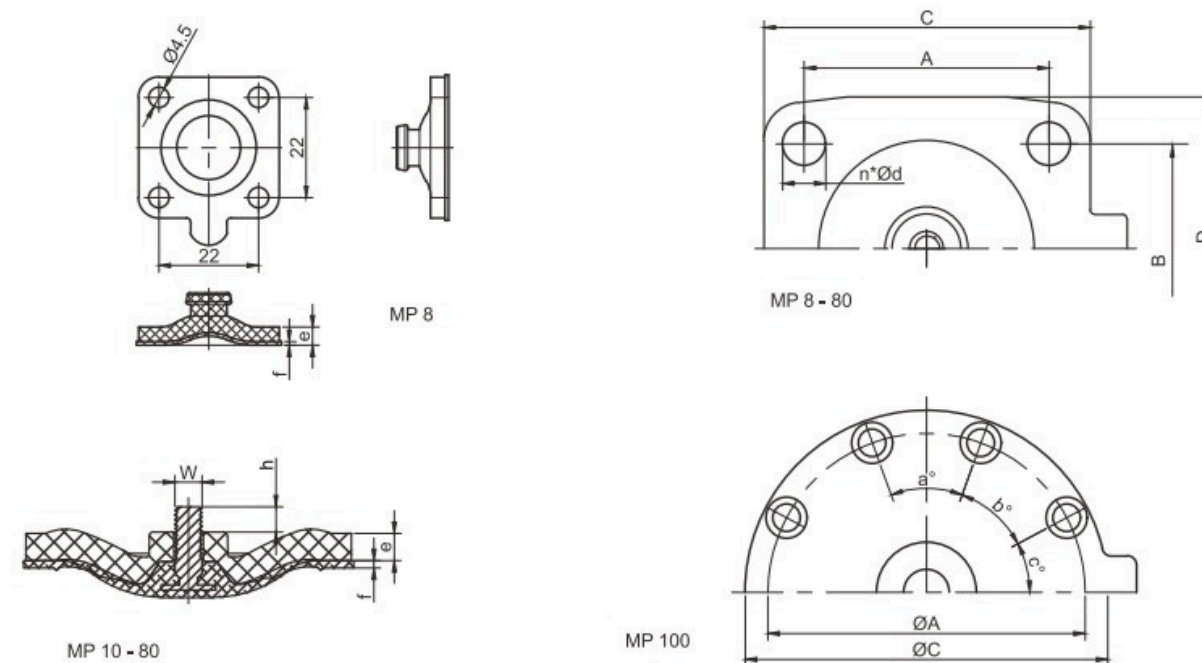
U-Shaped Three-Way Diaphragm Valve - B JN- DV-23 1020



Seal	Size	D	Do	Dn	Do1	t	L	L1	
8	DN10/10	1/2"-1/2"	25.2	12.7	9.4	12.7	1.65	95	55
8	DN10/20	1/2"-3/4"	25.2	12.7	9.4	19.1	1.65	158	105
10	DN20/20	3/4"-3/4"	25.2	19.1	15.8	19.1	1.65	195	105
10	DN20/25	3/4"-1"	25.2	19.1	15.8	25.4	1.65	197	120
10	DN20/32	3/4"-1 1/4"	25.2	19.1	15.8	31.8	1.65	227	155
10	DN20/40	3/4"-1 1/2"	25.2	19.1	15.8	38.1	1.65	229	155
10	DN20/50	3/4"-2"	25.2	19.1	15.8	50.8	1.65	247	175
10	DN20/65	3/4"-2 1/2"	25.2	19.1	15.8	63.5	1.65	255	190
25	DN25/25	1"-1"	50.5	25.4	22.1	25.4	1.65	205	120
25	DN25/32	1"-1 1/4"	50.5	25.4	22.1	31.8	1.65	235	155
25	DN25/40	1"-1 1/2"	50.5	25.4	22.1	38.1	1.65	237	155
25	DN25/50	1"-2"	50.5	25.4	22.1	50.8	1.65	255	175
25	DN25/65	1"-2 1/2"	50.5	25.4	22.1	63.5	1.65	263	190
32	DN32/32	1 1/4"-1 1/4"	50.5	31.8	28.5	31.8	1.65	268	155
32	DN32/40	1 1/4"-1 1/2"	50.5	31.8	28.5	38.1	1.65	270	155
32	DN32/50	1 1/4"-2"	50.5	31.8	28.5	50.8	1.65	288	175
32	DN32/65	1 1/4"-2 1/2"	50.5	31.8	28.5	63.5	1.65	296	190
40	DN40/40	1 1/2"-1 1/2"	50.5	38.1	34.8	38.1	1.65	270	155
40	DN40/50	1 1/2"-2"	50.5	38.1	34.8	50.8	1.65	288	175
40	DN40/65	1 1/2"-2 1/2"	50.5	38.1	34.8	63.5	1.65	296	190
50	DN50/50	2"-2"	64	50.8	47.5	50.8	1.65	315	175
50	DN50/65	2"-2 1/2"	64	50.8	47.5	63.5	1.65	323	190
50	DN50/80	2"-3"	64	50.8	47.5	76.2	1.65	345	230



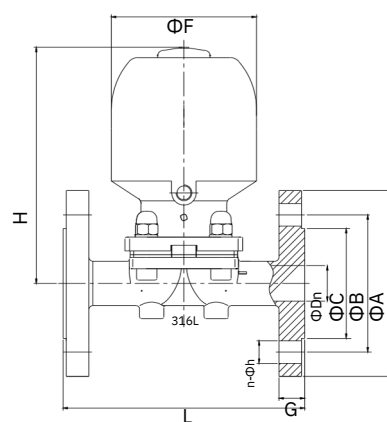
EPDM+PTFE



Epdm+ptfe Double-ayer Diaphragm Size [mm]

JN- DV-23 1021

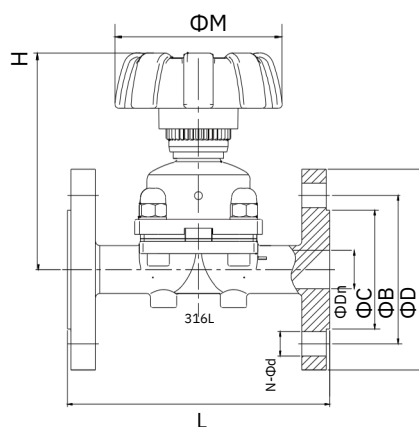
	Size	A	B	C	D	Φd	e	f	h	W	a	b	c	n	
8	DN4-15	1/4"-1/2"	22	22	32	32	4.5	4	0.5	5.5	-	-	-	4	
10	DN10-20	3/8"-3/4"	39	44	48	53	5.5	5	0.5	9	M4	-	-	4	
25	DN15-25	1/2"-1"	54	46	72	67	9.5	6	1.6	8	1/4"	-	-	4	
40	DN32-40	1 1/4"-1 1/2"	70	65	100	90	11.5	7	1.6	8	1/4"	-	-	4	
50	DN50	2"	82	78	124	106	13	7	1.6	7	1/4"	-	-	4	
80	DN80	3"	127	114	186	156	18	9	2.0	8	5/16"	-	-	4	
100	DN100	4"	194	-	228	-	13	10	2.0	9	5/16"	28°	42°	40°	8



Pneumatic Flange Diaphragm Valve

JN- DV-23 1022

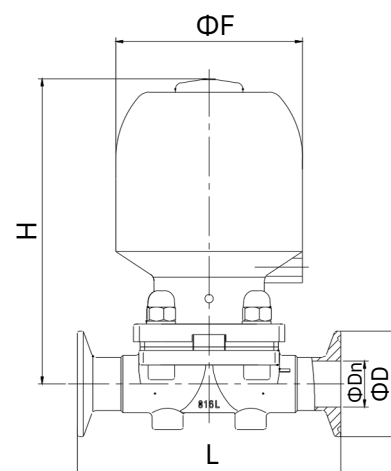
Size	Dn	A	B	C	L	H	F	G	n	h
DN15	10	95	65	45	140	111	58	14	4	14
DN20	16	105	75	58	145	114	58	16	4	14
DN25	22	115	85	68	150	146	90	16	4	14
DN32	28.5	140	100	78	170	178	112	18	4	18
DN40	35	150	110	88	180	180	112	18	4	18
DN50	47.5	165	125	102	210	210	138	18	4	18
DN65	60	185	145	122	220	215	138	20	4	18
DN80	73	200	160	138	280	345	167	20	8	18
DN100	98	220	180	158	350	400	198	22	8	18



Flange Diaphragm Valve

JN- DV-23 1023

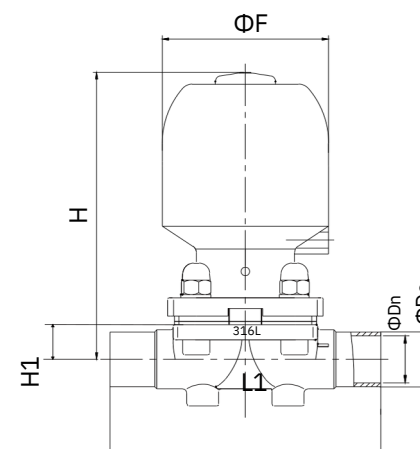
Size	Dn	D	B	C	L	H	M	N	d
DN15	9.4	95	65	45	140	73	65	4	14
DN20	15.8	105	75	58	145	75	65	4	14
DN25	22.1	115	85	68	150	113	85	4	14
DN32	28.5	140	100	78	170	133	105	4	18
DN40	34.8	150	110	88	180	135	105	4	18
DN50	47.5	165	125	102	240	156	125	4	18
DN65	60.2	185	145	122	220	160	125	4	18
DN80	72.6	200	160	138	280	256	210	8	18
DN100	97.4	220	180	158	350	268	210	8	18



**Pneumatic Manual Diaphragm Valve
(Stainless Steel actuator)**

JN- DV-23 1024

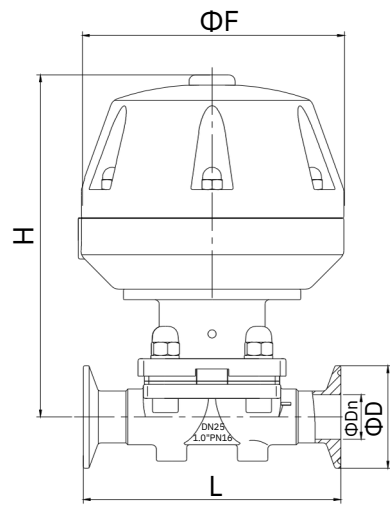
Seal	Size	D	Dn	L	H	F	
8	DN 8	1/4"	25.2	4.3	63.5	95	44
8	DN 10	3/8"	25.2	7.5	63.5	95	44
8	DN 15	1/2"	25.2	9.4	63.5	95	44
10	DN 15	1/2"	25.2	9.4	108	111	58
10	DN 20	3/4"	50.5	15.8	117	114	58
25	DN 20	3/4"	50.5	15.8	127	146	90
25	DN 25	1"	50.5	22.1	127	146	90
40	DN 32	1.25"	50.5	28.5	146	180	112
40	DN 40	1.5"	50.5	34.8	159	180	112
50	DN 50	2"	64	47.5	190	215	138
50	DN 65	2.5"	77.5	59.5	190	221	138
80	DN 65	2.5"	77.5	59.5	265	345	168
80	DN 80	3"	91	72.2	265	345	168
100	DN100	4"	119	97.4	340	400	198



**Pneumatic Manual Diaphragm Valve
(Stainless Steel actuator)**

JN- DV-23 1025

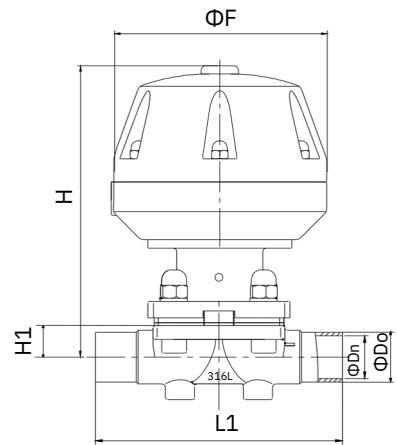
Size	DN Size	Inch Size	d0 (mm)	d1 (mm)	D1 (mm)	E1 (mm)	H (mm)	L (mm)
8	DN 8	1/4"	6.35	4.3	63.5	95	8	44
8	DN 10	3/8"	9.5	7.5	63.5	95	8	44
8	DN 15	1/2"	12.7	9.4	63.5	95	8	44
10	DN 15	1/2"	12.7	9.4	108	111	11.5	58
10	DN 20	3/4"	19.1	15.8	117	114	11.5	58
25	DN 20	3/4"	19.1	15.8	127	146	16	90
25	DN 25	1"	25.4	22.1	127	146	17	90
40	DN 32	1.25"	31.8	28.5	146	180	20	112
40	DN 40	1.5"	38.1	34.8	159	180	22	112
50	DN 50	2"	50.8	47.5	190	215	31	138
50	DN 65	2.5"	63.5	59.5	190	221	37	138
80	DN 65	2.5"	63.5	59.5	240	345	42	168
80	DN 80	3"	76.2	72.2	240	345	50	168
100	DN 100	4"	101.6	97.4	310	400	61	198



**Pneumatic Diaphragm Valve
(MushRoom Head Actuator)**

JN- DV-23 1026

Seal	Size		D	Dn	L	H	F
25	DN 20	3/4"	50.5	15.8	127	175	130
25	DN 25	1"	50.5	22.1	127	178	130
40	DN 32	1.25"	50.5	28.5	159	205	160
40	DN 40	1.5"	50.5	34.8	159	207	160
50	DN 50	2"	64	47.5	190	225	160
50	DN 65	2.5"	77.5	59.5	190	230	160
80	DN 65	2.5"	77.5	59.5	265	345	220
80	DN 80	3"	91	72.2	265	345	220
100	DN 100	4"	119	97.4	340	400	270



**Pneumatic Diaphragm Valve
(MushRoom Head Actuator)**

JN- DV-23 1027

Seal	Size		Do	Dn	L1	H	H1	F
25	DN 20	3/4"	19.1	15.8	127	175	16	130
25	DN 25	1"	25.4	22.1	127	178	17	130
40	DN 32	1.25"	31.8	28.5	159	205	20	160
40	DN 40	1.5"	38.1	34.8	159	207	22	160
50	DN 50	2"	50.8	47.5	190	225	31	160
50	DN 65	2.5"	63.5	59.5	190	230	37	160
80	DN 65	2.5"	63.5	59.5	240	345	42	220
80	DN 80	3"	76.2	72.2	240	345	50	220
100	DN 100	4"	101.6	97.4	310	400	61	270

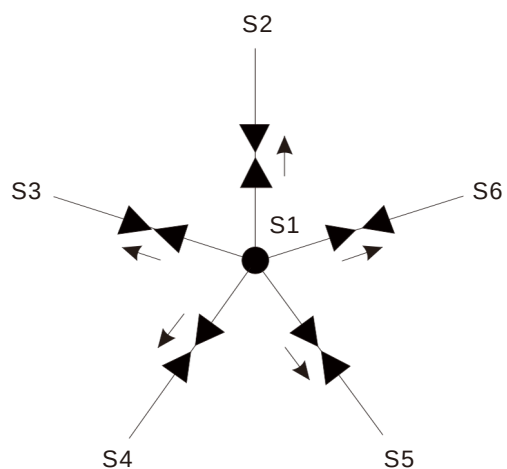
MULTI-PORT DIAPHRAGM VALVE

M-65A

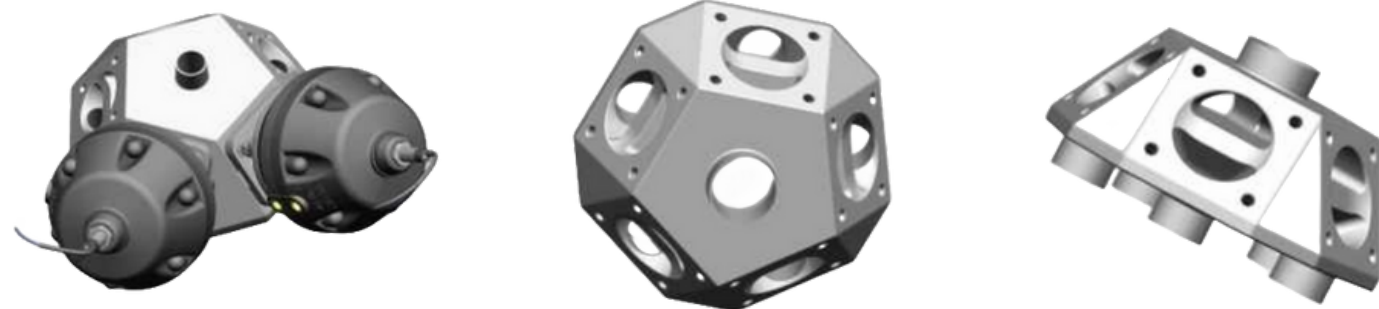
©The multi-channel diaphragm valve is currently the most advanced solution designed to meet the high cleanliness requirements of biopharmaceuticals. The installation of a valve array system composed of traditional welding is very complicated, takes a long time to implement, and takes up a lot of space. The installation and welding work verification costs are quite high.

Installation suggestion

©Depending on the diameter, the star design can have up to 7 valves. In addition, the star design can also be composed of two opposite multi-channel valves, which are connected through a common pipe.



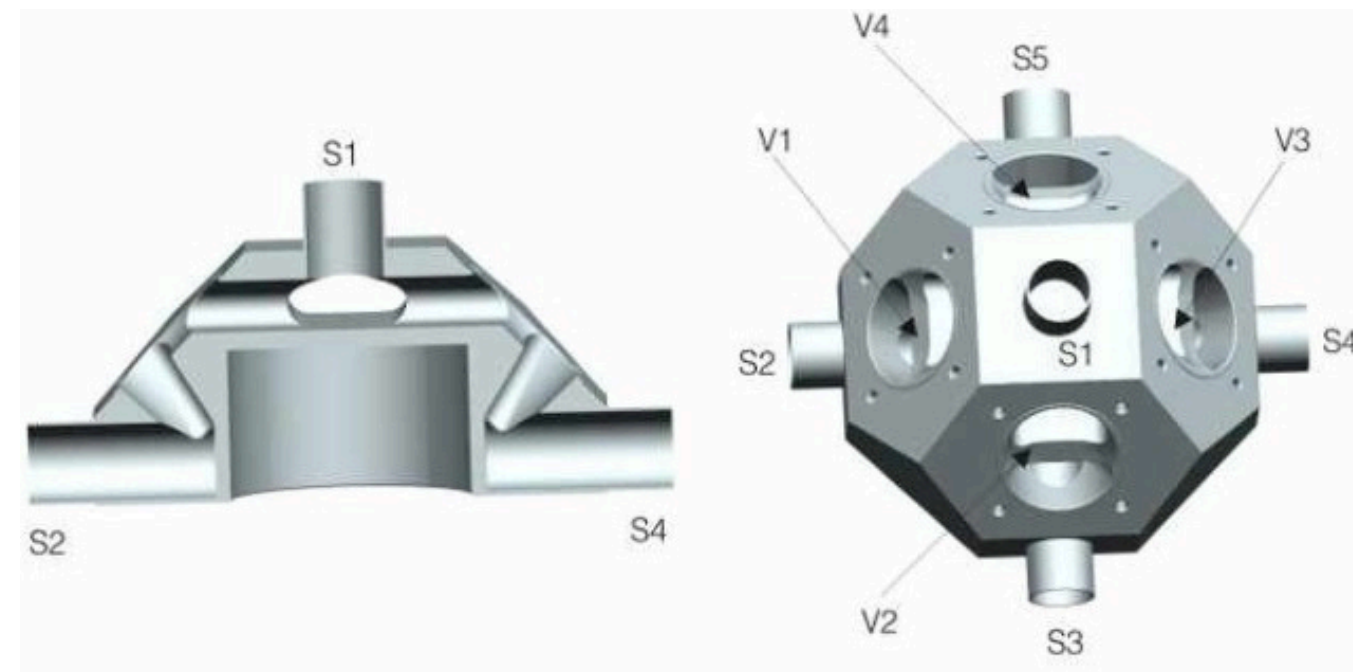
M-65A Type



MULTI-PORT DIAPHRAGM VALVE

©Aseptic valve block A block made of stainless steel, used, for example, as a valve array system or dispenser.

©Block made of stainless steel, used in applications such as sterile valve blocks, as valve array systems or distributors.



Spigot S1 aligned vertically up or down

MULTI-PORT VALVES



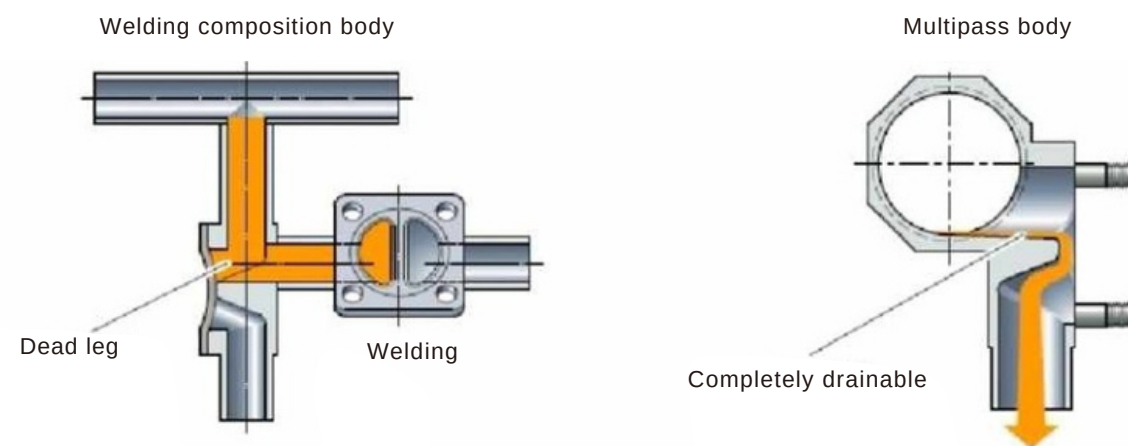
VALUE AND SIGNIFICANCE OF USING MULTI-PORT DIAPHRAGM VALVE

WHAT IS THE MULTI-PORT DIAPHRAGM VALVE

©Multi-channel diaphragm valve is made from a single piece of stainless steel material. It can be processed into at least 3 channels, and can be processed into valves with up to 35 channels and 20 actuators. If it is processed into more channels, , mainly depends on the feasibility of valve body processing. In the field of hygiene, the selection and specification of multi-channel diaphragm valves are very important because multi-channel valves have great advantages in

MULTI-PORT DIAPHRAGM VALVE KEY FEATURES

©Designed for customers' special needs. Compact structure and small installation space. Combination of multiple different diameters. Optimized self-draining function. Zero dead angles to reduce contact area, prevent medium retention, prevent cross-infection. Eliminate joints and reduce pipe welding. Various qualification certifications of the valve are required, and the actuator and connection method can be selected according to the customer.

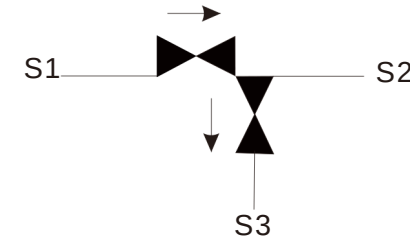


MULTIPASS TANK BOTTOM DIAPHRAGM VALVE

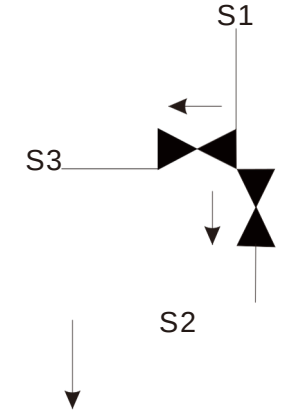


MULTI-PORT DIAPHRAGM VALVE COMBINATION

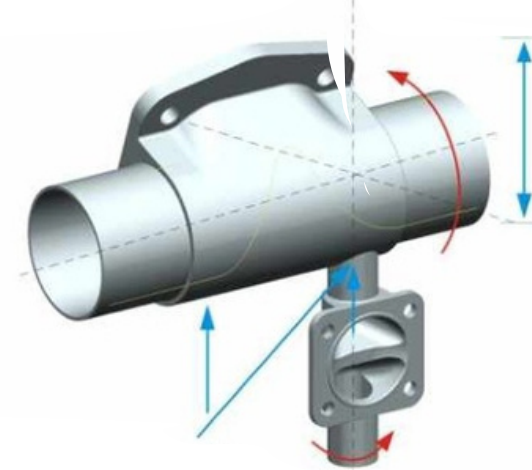
SAP CONFIGURATION GMP



GMP CONFIGURATION

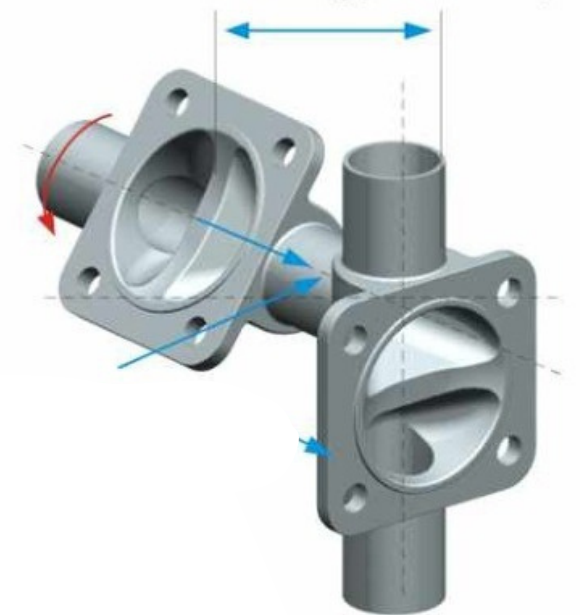


<3D DEADLEG(SOMETIMES >3D*)

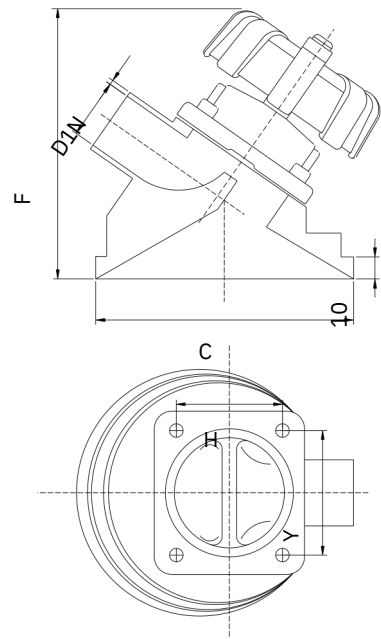


MANUAL WELD IN THE PRODUCT AREA

<3D DEADLEG(SOMETIMES >3D*)

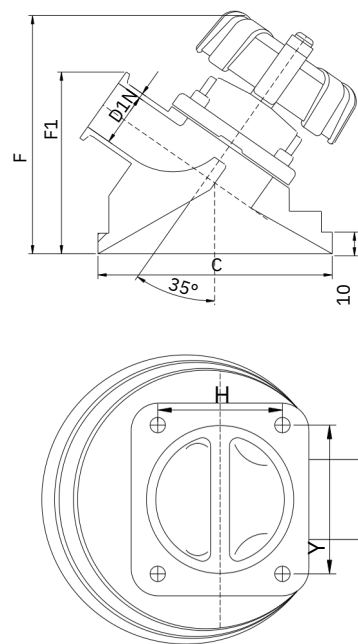


MANUAL WELD IN THE PRODUCT AREA



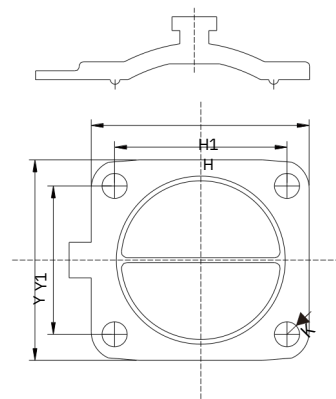
Aseptic Diaphragm Tank Bottom Valve JN-DPHVBJ-23 1009

Size	C	F	D1	N
DN15	70	40	13	1.5
DN20	105	64	16	1.5
DN25	105	64	22	1.5
DN32	140	85	29	1.5
DN40	140	85	35	1.5
DN50	160	94	49	1.5
DN65	200	110	59	2
DN70	238	120	72	2
DN80	238	120	85	2



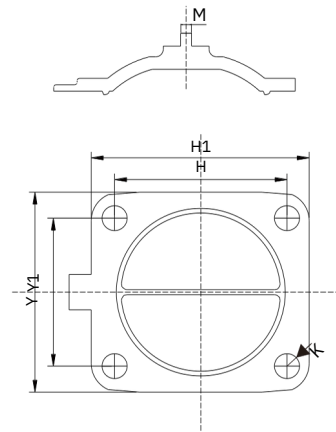
Manual Tank Bottom Diaphragm Valve JN-DPHVBJ-23 1010

Size	C	F1	D1	N
DN15	70	40	13	1.5
DN20	105	64	16	1.5
DN25	105	64	22	1.5
DN32	140	85	29	1.5
DN40	140	85	35	1.5
DN50	160	94	49	1.5
DN65	200	110	59	2
DN70	238	120	72	2
DN80	238	120	85	2



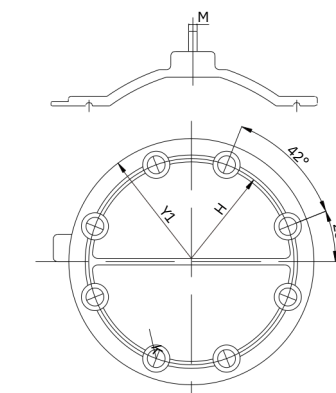
Diaphragm Sheet JN-DPHVBJ-23 2001

Size	H × Y	H1 × Y1	M	K
DN6	21 × 21	35 × 35	Φ9.5	5
DN8	21 × 21	35 × 35	Φ9.5	5
DN10	21 × 21	35 × 35	Φ9.5	5



Diaphragm Sheet JN-DPHVBJ-23 2002

Size	H × Y	H1 × Y1	M	K
DN15	36 × 32	51 × 48	M4	6
DN20	48 × 55	74 × 68	M6	9
DN25	48 × 55	74 × 68	M6	9
DN32	70 × 64	102 × 90	M6	11
DN40	70 × 64	102 × 90	M6	11
DN50	85 × 75	112 × 105	M6	13
DN65	105 × 91	134 × 126	M8	15
DN70	126 × 114	185 × 156	M8	15
DN80	126 × 114	185 × 156	M8	15



Diaphragm Sheet JN-DPHVBJ-23 2003

Size	H	Y1	M	K
DN100	194	227	Φ8	15
DN125	194	227	Φ8	15