

SING-TAO

SANITARY DIAPHRAGM VALVES

Sterile, Aseptic and Sanitary Valves



www.sing-tao.com.cn

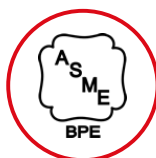
SING-TAO

Initiated by Dr. Dave Schmidt, a valve control expert, the innovation team is formed by the industry elites from Germany, Belgium and Hungary to jointly explore the wonderful pleasure of fluid control technology. We have successively established production factories in Malaysia and Indonesia, where there are rich mineral resources. With the help of Singapore's mature international trade market position, we have established a supply system integrating research and development, casting, processing and marketing.

We prefer to provide fluid control valves made of stainless steel and corrosion-resistant materials for applications in drinks, drugs and electronic semiconductor fields, including electric, pneumatic and manual valves: Steam drain valve, diaphragm valve, spherical valve, flap valve, mix-proof valve, check valve, angle stop valve, pipeline pressure maintaining valve, etc. We have full-time research and development engineers who conduct continuous improvement to every valve type, so that the products can better match the process requirements.

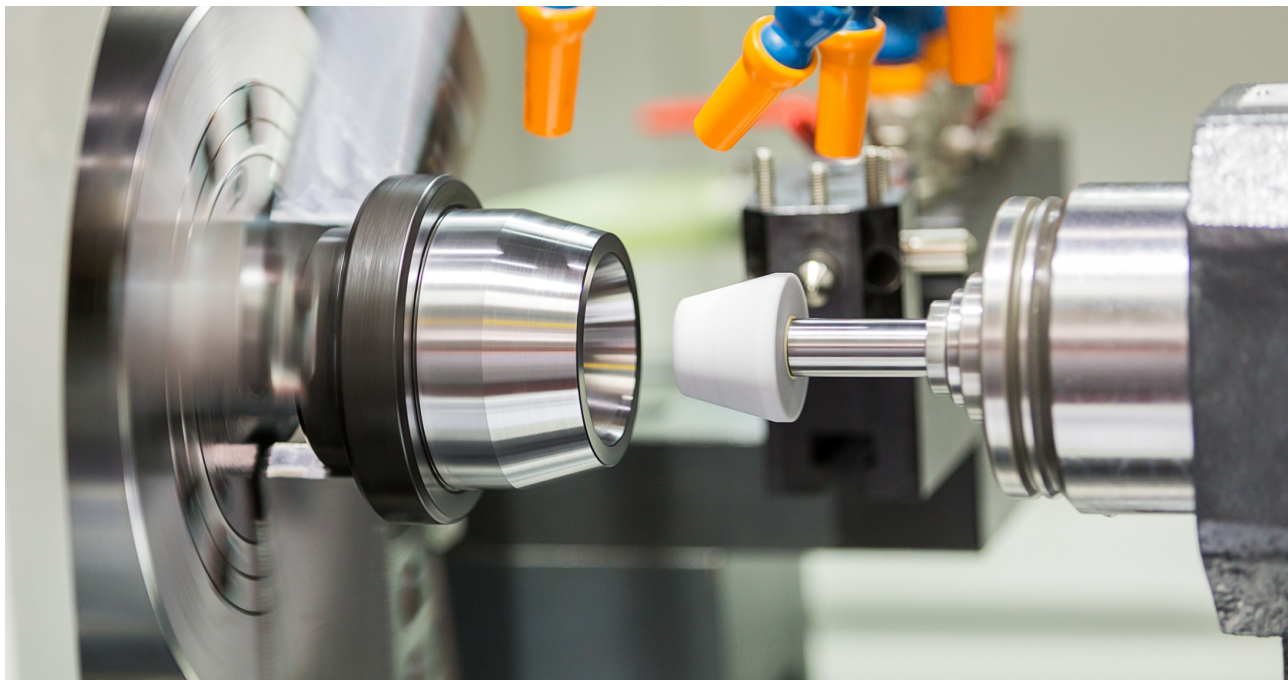
We always ensure that our products meet international industry standards and professional guidelines in quality control and best practices, including 3A, ASME BPE, FDA and SGS. Thanks to our continued commitment to product quality, we have been actively involved in EHEDG and FPSA, who have helped us become a leading valve supplier in the fluid control industry with their knowledge. For example: In order to reduce the risk of microbial contamination, we defined the structure and connection form of diaphragm valves used for cross-materials. The large flux check valve and plunger sterile tank bottom valve, etc. are designed ingeniously, becoming the industry leader.

Taking the Free Trade Agreement Upgrade Protocol signed between Singapore and China as the opportunity, we received the invitation to officially set up China's first "SING-TAO" valve representative office in the Singapore Industrial Park in Suzhou, China in 2022, to serve the Chinese market as the world's second largest economy, which will be the most important milestone in promoting the brand globalization of "SING-TAO" valve.



ENTERPRISE VISION

Let the experience exceed expectations



TRACEABILITY OF PRODUCTS

Each SING-TAO product is labeled with the brand name, material, dimension and traceable product number. Such information and customer purchase records are well documented and tracked in our system.

SANITARY DIAPHRAGM VALVE



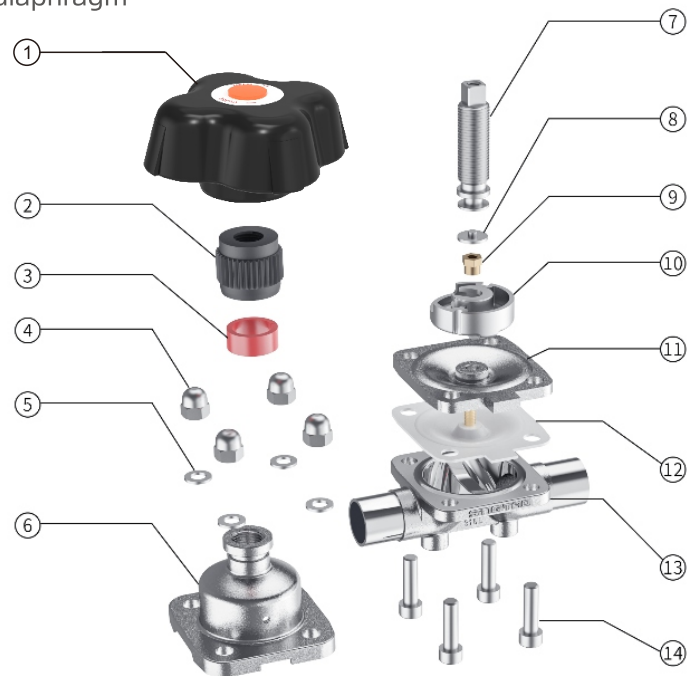
Application: It is designed according to ASME BPE, GMP and other sanitary standards and used in food and beverage, dairy products, bio-pharmaceutical and other fields.

Features: There is no residue and dead angle to the valve body structure, so that the self-exhaustion can be achieved, and the materials contacted with the medium are non-precipitating, non-toxic, high temperature-resistant and corrosion-resistant. It is applicable for all kinds of process pipelines with high sanitary grade, can be used with solenoid valve or positioner, which has the function such as precise flow regulation.

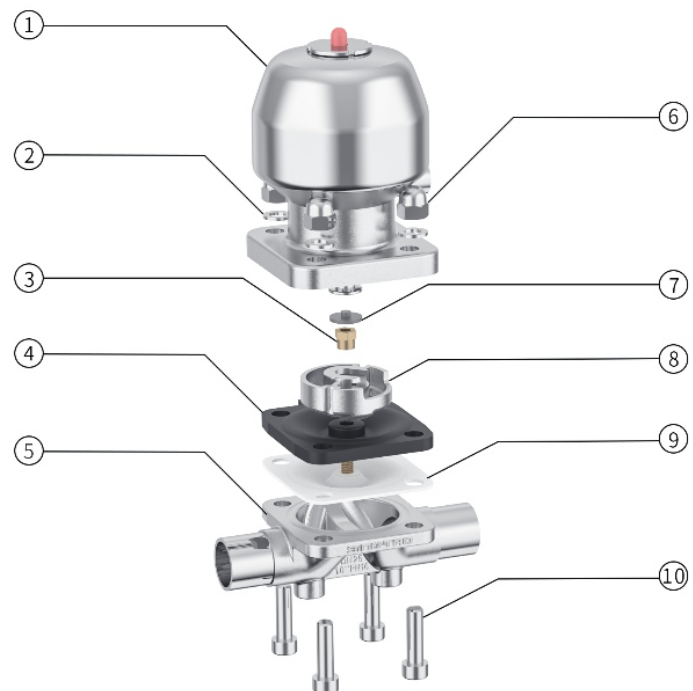
Dimension range: DN10-DN80 (3/8"-3")	Seat material: PTFE, EPDM
Working temperature: -20°C-150°C	Body material: 304/316L
Pressure rating: 16bar	Interface form: Welding and clamping
Drive mode: Manual/pneumatic	Standard: Comply with EHEDG, ASME BPE and GMP certification
Automatic control unit: Feedback device and locating device	

- Zero dead angle and no residue
- Excellent self-emission performance
- Safe and non-toxic material selection
- High temperature-resistant and long-life diaphragm

No.	Description	Material (EN)
1	Handwheel	Nylon PA6
2	Limit block	Nylon PA6
3	Indicator ring	Nylon PA6
4	Cap nut	A194 8M
5	Spring washer	SS 304
6	Valve cover	A351 CF3M
7	Valve stem	A182 F316L
8	Wear pads	PEEK
9	Lock nut	T3
10	Guide block	A351 CF3M
11	Diaphragm lining	EPDM
12	Diaphragm	PTFE
13	Valve body	A351 CF3M
14	Inner hexagon screw	A194 B8M

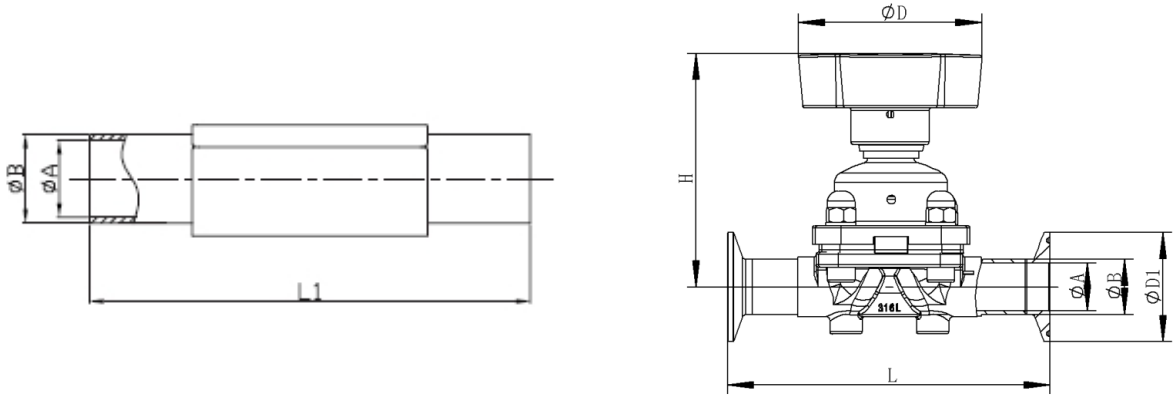


No.	Name	Materials
1	Pneumatic actuator	Stainless steel components
2	Spring washer	SS 304
3	Lock nut	T3
4	Diaphragm lining	EPDM
5	Valve body	A351 CF3M
6	Cap nut	A194 8M
7	Wear pads	PEEK
8	Guide block	A351 CF3M
9	Diaphragm	PTFE
10	Inner hexagon screw	A194 B8M

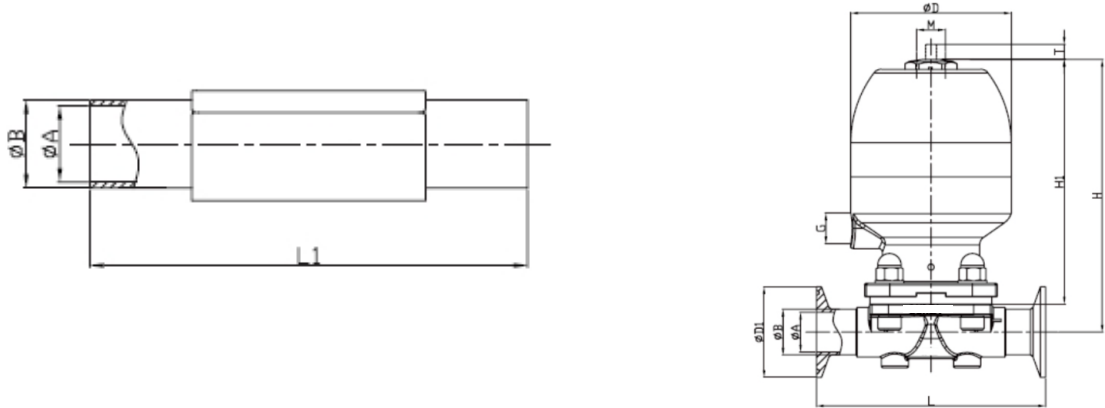


Dimension table of diaphragm valve

DN	A	B	D1	D	H	L	L1
DN15	9.4	12.7	25	33	62	63.5	61.5
DN20	15.8	19.1	25	60	79	117	108
DN25	22.1	25.4	50.4	90	103	127	120
DN40	34.8	38.1	50.4	110	130	159	153
DN50	47.5	50.8	63.9	128	150	190	173
DN65	60.2	63.5	77.5	210	188	240	240
Dn80	72.9	76.2	91	210	188	270	270



DN	A	B	D1	D	H1	L	L1	G	M	T
DN15	9.4	12.7	25	46	90.3	63.5	61.5	G1/8	M16X1	5
DN20	15.8	19.1	25	56	102.3	117	108	G1/8	M16X1	6
DN25	22.1	25.4	50.4	89	136	127	120	G1/4	M16X1	11
DN40	34.8	38.1	50.4	110	157.5	159	153	G1/4	M16X1	14
Dn50	47.5	50.8	63.9	135	172	190	173	G1/4	M16X1	20

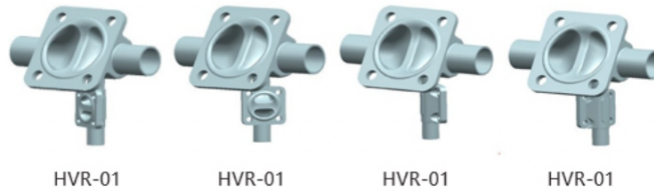




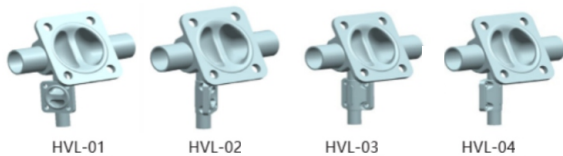
The combined diaphragm valve is welded together by the valve body of the straight diaphragm valve as required specifically by the customer. The different combination azimuth and angles are adopted to reduce the length of the dead angle pipe on the pipeline, but it shall conform to the requirements of ASME BPE for $L/D \leq 3$ in principle.

Combination form

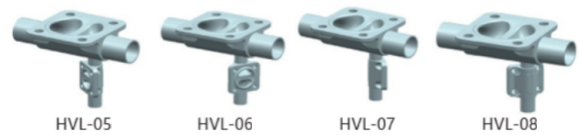
The main valve is installed horizontally and in self-exhaustion, and the right side of the branch valve is installed vertically.



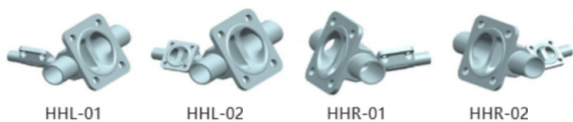
The main valve is installed horizontally and in self-exhaustion, and the left side of the branch valve is installed vertically.



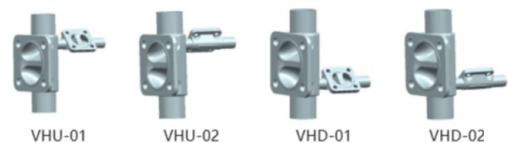
The main valve is installed horizontally and upward, and the right (left) side of the branch valve is installed vertically.



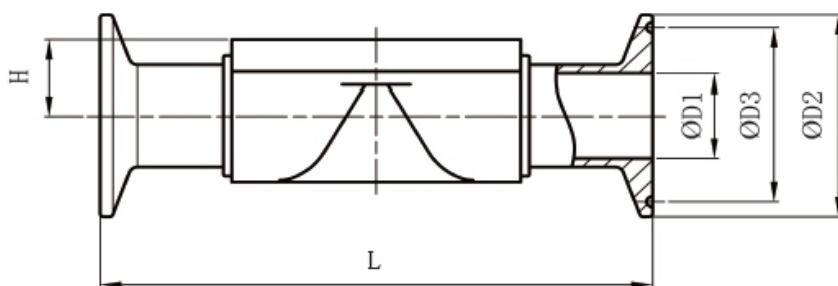
The main valve is installed horizontally and in self-exhaustion, and the left (right) side of the branch valve is installed horizontally and in self-exhaustion.



The main valve is installed vertically, and the upper (lower) part of the branch valve is installed horizontally and in self-exhaustion.

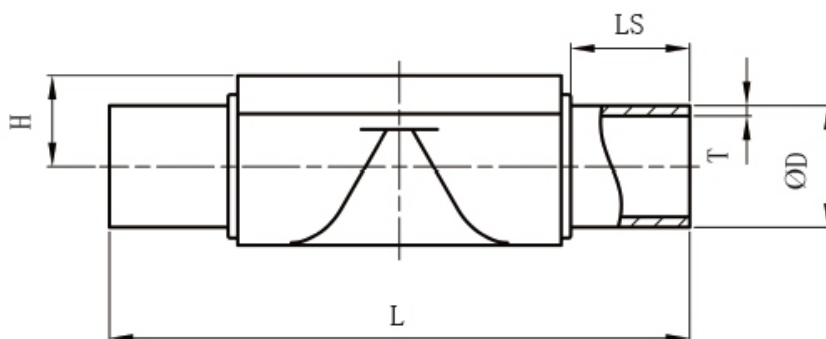


Sing-Tao Series -1 Sanitary Diaphragm Valves



Body dimensions - clamping (mm)			
DN	NPS	L	H
DN15	1/2"	82	8.5
DN20	3/4"	108	12.5
DN25	1"	130	19
DN40	1 1/2"	161	26
DN50	2"	172	32
DN65-DN80	2 1/2"-3"	240	40

Body dimensions - clamping (mm)							
		ASME BPE			ISO		
DN	NPS	ØD1	ØD2	ØD3	ØD1	ØD2	ØD3
DN15	1/2"	9.4	25.0	-	9.7	25.0	-
DN20	3/4"	15.75	25.0	-	16.05	25.0	-
DN25	1"	22.1	50.5	43.5	22.4	50.5	43.5
DN40	1 1/2"	34.8	50.5	43.5	35.1	50.5	43.5
DN50	2"	47.5	64.0	56.5	47.8	64.0	56.5
DN65	2 1/2"	60.2	77.5	70.5	59.5	77.5	70.5
DN80	3"	72.9	91.0	83.5	72.2	91.0	83.5



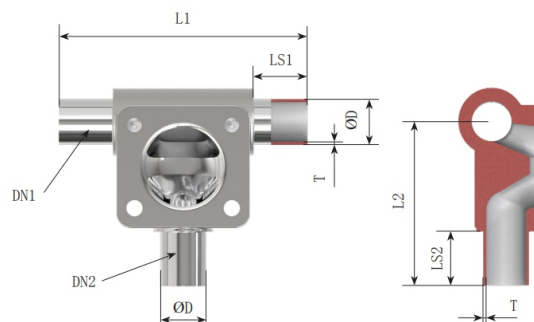
Body dimensions - welding (mm)

DN	NPS	L	LS	H
DN10	-	82	22	8.5
DN15	1/2"	82	22	8.5
DN20	3/4"	108	25	12.5
DN25	1"	130	30	19
DN40	1 1/2"	161	30	26
DN50	2"	172	30	32
DN65~DN80	2 1/2"~3"	240	36	40

Body dimensions - welding (mm)

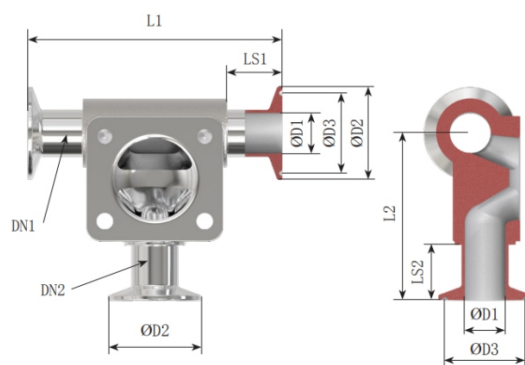
		ASME BPE		ISO	
DN	NPS	ØD	T	ØD	T
DN10	-	-	-	10.0	1.00
DN15	1/2"	12.7	1.65	12.7	1.50
DN20	3/4"	19.05	1.65	19.05	1.50
DN25	1"	25.4	1.65	25.4	1.50
DN40	1 1/2"	38.1	1.65	38.1	1.50
DN50	2"	50.8	1.65	50.8	1.50
DN65	2 1/2"	63.5	1.65	63.5	2.00
DN80	3"	76.2	1.65	76.2	2.00

Sing-Tao Series -1 Sanitary Diaphragm Valves



Body dimensions - welding (mm)

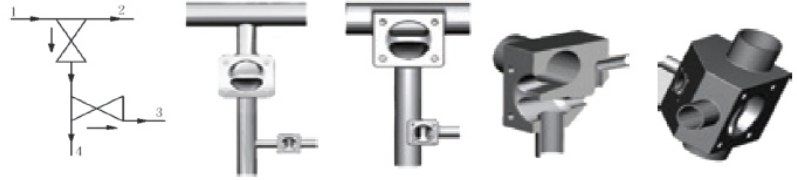
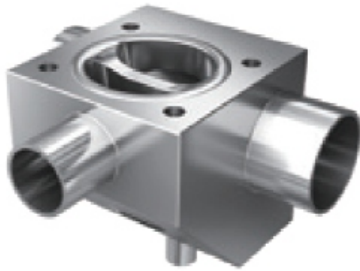
DN	NPS	ASME BPE		ISO	
		Ø D	T	Ø D	Ø T
DN8	-	-	-	-	-
DN10	-	-	-	10.0	1.00
DN15	1/2"	12.7	1.65	12.7	1.50
DN20	3/4"	19.05	1.65	19.05	1.50
DN25	1"	25.4	1.65	25.4	1.50
DN40	1 1/2"	38.1	1.65	38.1	1.50
DN50	2"	50.8	1.65	50.8	1.50



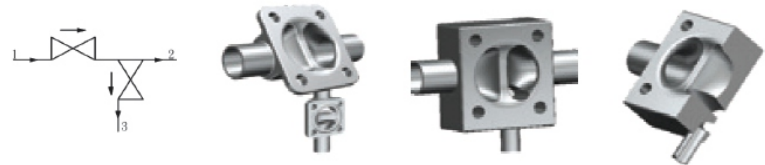
Body dimensions - clamping (mm)

DN	NPS	ASME BPE			ISO		
		Ø D1	Ø D2	Ø D3	Ø D1	Ø D2	Ø D3
DN10	-	-	-	-	8.0	25.0	-
DN15	1/2"	9.4	25.0	-	9.7	25.0	-
DN20	3/4"	15.75	25.0	-	16.05	25.0	-
DN25	1"	22.1	50.5	43.5	22.4	50.5	43.5
DN40	1 1/2"	34.8	50.5	43.5	35.1	50.5	43.5
DN50	2"	47.5	64.0	56.5	47.8	64.0	56.5

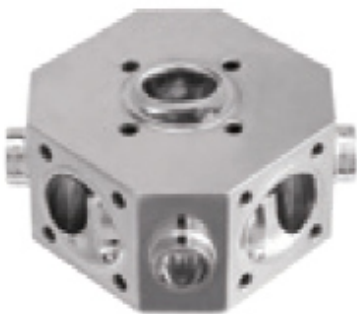
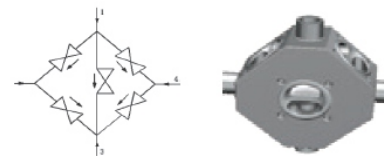
T-valve with sterilization port



Integrated GMP valve

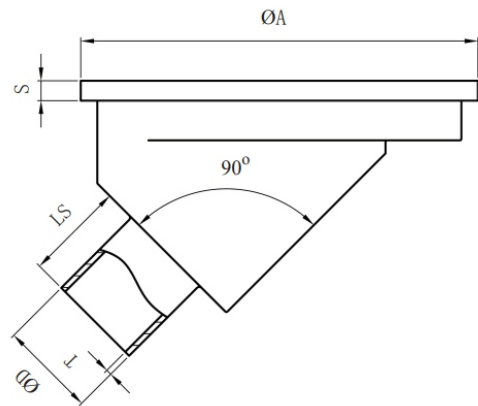


Multichannel

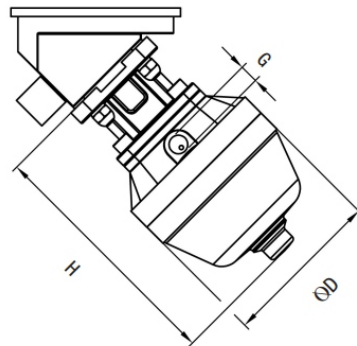
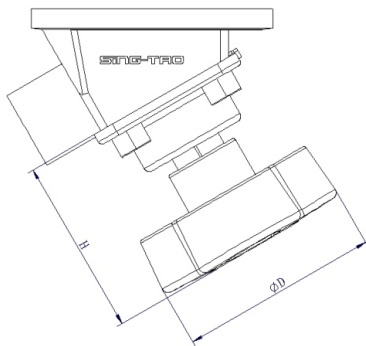


Technical parameter	
Item	Data
Working pressure	0-18bar, 145psi (EPDM+PTFE)
Working temperature	-10-130°C, SIP max150°C
Drive mode	Manual/pneumatic
Valve body material	1.4435(316L), forging block
Surface treatment	Outer surface sandblasting inner surface $Ra \leq 0.375\mu m$ (SF4)
Connection mode	Welding ISO, DIN, ASME BPE, 3A

Tank Bottom diaphragm valve



Body dimensions - welding (mm)								
					ASME BPE		ISO	
DN	NPS	ØA	LS	S	ØD	T	ØD	T
DN25	1"	120	25	6	25.4	1.65	25.4	1.50
DN40	1 1/2"	160	25	6	38.1	1.65	38.1	1.50
DN50	2"	200	30	6	50.8	1.65	50.8	1.50
Dn80	3"	230	30	16	76.2	1.65	76.2	2.00



Actuator dimension (mm)		
DN	ØD	H
DN25	Ø92	109
DN40	Ø114	126
Dn50	Ø140	149

Actuator dimension (mm)			
DN	ØD	H	G
DN25	Ø116	175	G 1/4
DN40	Ø143	205	G 1/4
Dn50	Ø143	218	G 1/4

**Sing-Tao diaphragm valve can be used directly
with the following accessories**

Feedback device in
electronic position



Intelligent locator



Solenoid valve



Sing-Tao Series -1 Sanitary Diaphragm Valves

Diaphragm valve code DV		Interface dimension	Connection mode	Interface standard	Structural form	Drive mode	Valve body material	Seat style
Interface dimension								
0.5"	DN 15							
0.75"	DN 20							
1"	DN 25							
1.5"	DN 40							
2"	DN 50							
2.5"	DN 65							
3"	DN 80							
4"	DN100							
Connection mode								
Welding type	6							
Casette type	8							
Welding clamp type	9							
Interface standard								
ISO	I							
3A/BPE	P							
DIN	D							
Structural form								
Straight-through type	Z							
Three-way type	T							
Drive mode								
Manual	1							
Pneumatic normally open	2							
Pneumatic normally close	3							
Pneumatic double action	4							
Valve body material								
CF8(304)	A							
CF3M(316L)	B							
Diaphragm material								
EPDM	E							
EPDM/PTFE	F							

SING-TAO

QUALITY FIRST



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