

ZheJiang Hico Industrial Equipment Co.,Ltd



Address:
No2469. Binhai Sixth Road,
Economic-Technological Development Area,
Wenzhou,China

Post Code:325000

Tel:+86-0577-88056888
Max:+86-0577-88056999

XK GK Products Services
please visit and contact us:
www.zjxkgk.cc

Technical Support
Tel:+86-13656518258
Email:jay@zjxkgk.cc

Service,Sales
Tel:+86-18858717208
Email:echo@zjxkgk.cc

Dealer Management
Tel:+86-13868510768
Email:lana@zjxkgk.cc

Copyright@2017 XK GK

Professional sanitary valves&fittings supplier,supply and marketing worldwide.



INDUSTRIAL
XK GK
Diaphragm Valve

PROFESSIONAL SANITARY VALVE MANUFACTURER

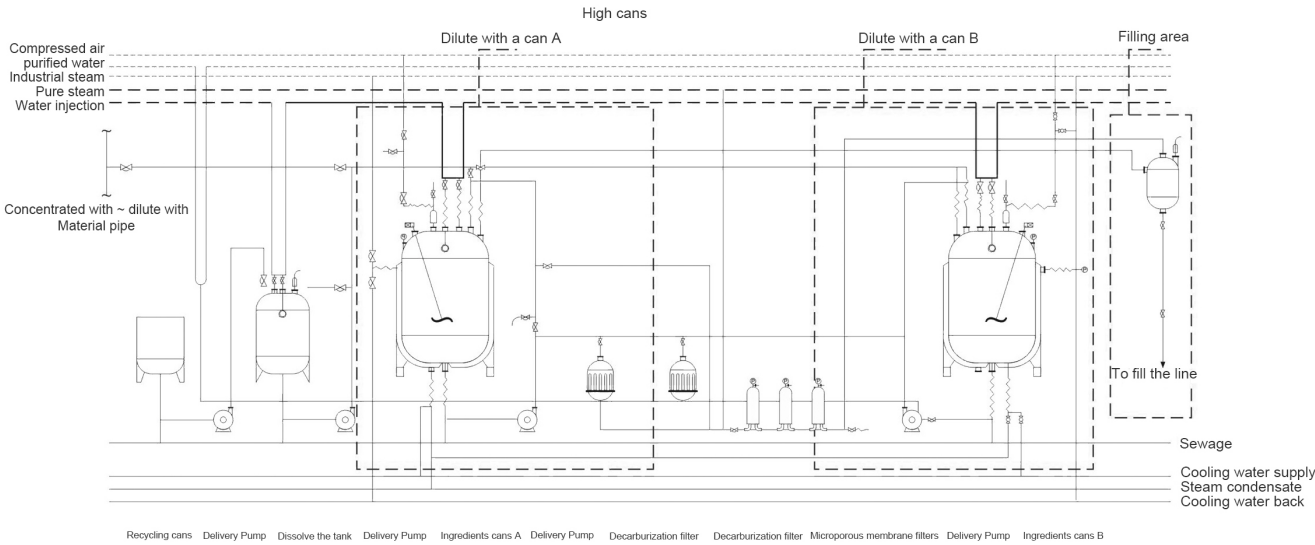
The meticulous work attitude is the best interpretation of our quality!
Cautious attitude of our conduct of this!



Our Services To Biological, Pharmacrutiual, Food, Beverage,
Water Treatment And Other Fields!



Process Flow Chart Of Large
Infusion Production Line



✚ Sterile Diaphragm Valve

Sterile diaphragm valve is designed to meet the requirements of clean and sterile requirements. Widely used in medicine, food and biopharmaceutical industry, as well as semiconductor ultra-pure industry, microelectronics industry, fine chemical industry. Used in ultra pure water (WFI), ultra-pure chemicals, bio-pharmaceutical, food processing, chemical and other industries.

Features:

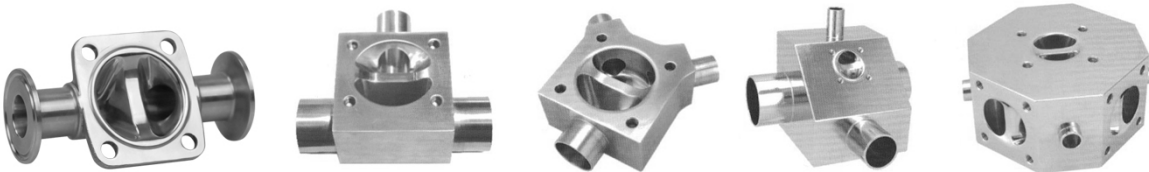
- ◎Design of airtight closing function
- ◎For high flow, high corrosive or high viscosity fluids
- ◎Product contact surface is smooth, no dead ends
- ◎Easy to disassemble, easy to maintain, easy to clean, CIP
- ◎Unique diaphragm structure of the moving head, effectively extending the diaphragm life

Technical Parameters:

Working pressure:	EPDM/Silicon 10bar ; PTFE 7bar
Operating temperature:	-40℃~150℃ (EPDM+PTFE), -40℃~130℃ (EPDM), -40℃~200℃ (Silicone)
Control method:	Manual operation/Pneumatic control
Pneumatic control:	SA,DA
Control the pressure:	5-7bar(NC)3-7bar(NO+DA)
Pneumatic device:	Supply pressure 5-7bar, can be installed sensor, solenoid valve intelligent controller
Sealing material:	EPDM/EPDM+PTFE/Silicon
Body material:	316L(EN1.4409 CF3M,EN1.4404)
Interface form:	Welding,Clamp
Interface caliber:	DN15~DN80
Surface treatment:	Outer surface sandblastingRa≤0.5μm(SF1), Ra≤0.375μm(SF4)
Standard Specification:	DIN,ISO,ASM,BPE,3A,etc



Valve body design:



Body form	Casting	Forging	Forging
Two-way valve	◎	◎	
T-type valve	◎	◎	◎
Series valve	◎	◎	◎
Multi-channel valve			◎

Type	Casting	Forging
Material	316L,EN 1.4409 CF3M	316L,EN 1.4409 10213-4
Ferrite	≤20%	≤3%
Sulfur content	0.005%~0.017%	0.005%~0.017%

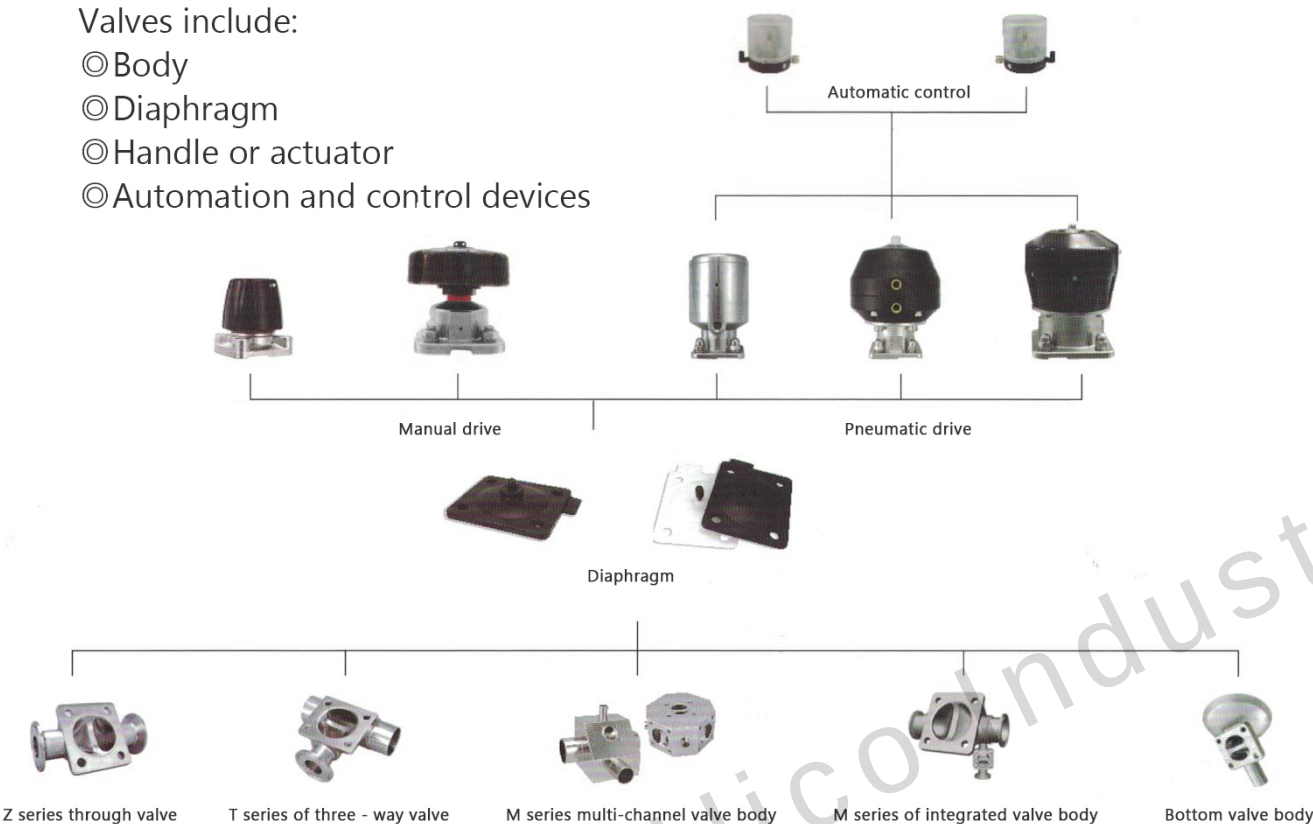
Diaphragm Valve



+ Modular design

Because of its modular design, almost all configurations are possible

- Valves include:
- ◎ Body
 - ◎ Diaphragm
 - ◎ Handle or actuator
 - ◎ Automation and control devices



+ Handle and actuator selection

Material	PP		PC		SS		Aluminum alloy	
SIZE	Handle	Actuator	Handle	Actuator	Handle	Actuator	Handle	Actuator
0.5"			◎			◎		
0.75"			◎			◎		
1.0"		◎	◎			◎		
1.5"		◎	◎			◎		
2.0"		◎	◎			◎		
2.5"					◎			◎
3.0"					◎			◎

Diaphragm Valve



+ Diaphragm Tablet

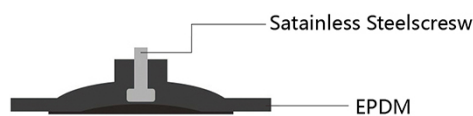


Diaphragm tablets are in line with health and pharmaceutical standards, the product through the US FDA certification, the use of imported raw materials, and has a high temperature, long life, strong corrosion resistance, wide adaptability and other characteristics

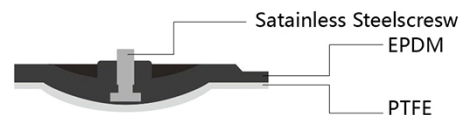
+ The list of food,pharmaceutical and biotechnology-specific diaphragms

Diaphragm	Size	A x B	ΦD	Material	Working pressure	Stem Sterilization (hightest)Short Time (2h)/Long Time
	DN65 DN50 DN40 DN32	127x114 83x78 70x65	4-Φ18 4-Φ13 4-Φ11	EPDM PTFE EPDM PTFE+EPDM	Max. 10bar Max. 7bar Max. 7bar	140°C /121°C 170°C /150°C 140°C /130°C
	DN25 DN20	53x45 38x43	4-Φ9 4-Φ6	EPDM PTFE EPDM PTFE+EPDM	Max. 10bar Max. 7bar Max. 7bar	140°C /121°C 170°C /150°C 140°C /130°C
	DN10 DN8	25x25	4-Φ5	EPDM PTFE EPDM	Max. 7bar Max. 7bar	170°C /150°C 140°C /130°C

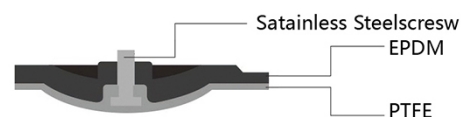
+ Sterile Diaphragm Valve



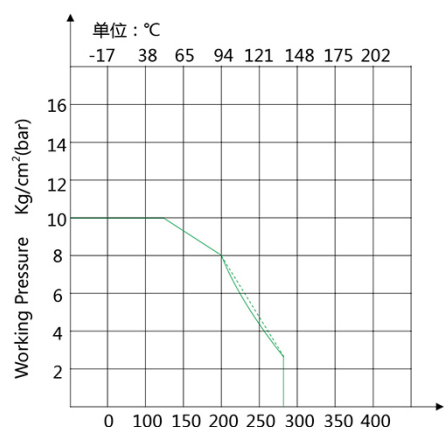
Normal Open Single Diaphragm



Normal Closed Composite Diaphragm

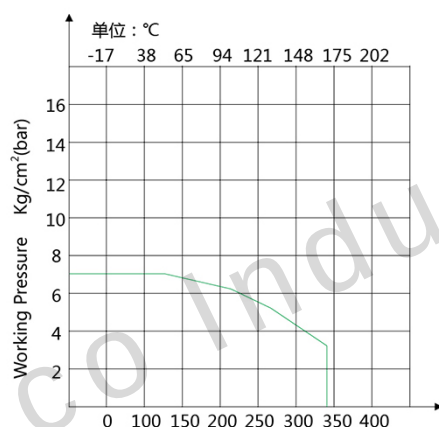


Normal Closed Double Diaphragm



Working Temperature Temperature Curve

Proportional change of single diaphragm's or Composite diaphragms' working pressure and Temperature in diagram



Working Temperature Temperature Curve

Double diaphragm working pressure and temperature ratio trend chart

The Faetures Of The Diaphragm

Single Diaphragm: Sanitary and of good leakproofness

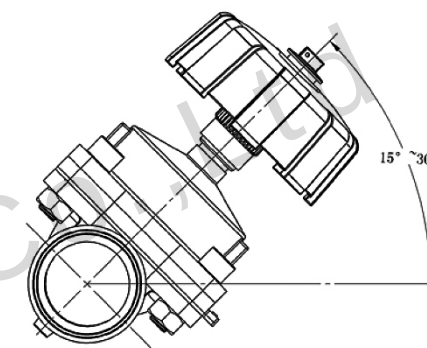
Double Diaphragm: Sanitary and of high temperature resistance

Composite Diaphragm: Sanitar of good corrosion resistance, good leakproofness and wide application

All the diaphragms are maked with material and production date.

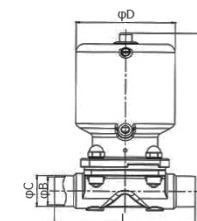
+ Optimal Installation Angle Diagram

According to the structure feature, fifteen thirty degree is optimal, which makes for complete drain after cleaning and keep no residue.

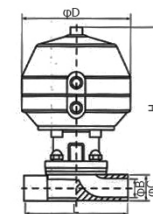


+ Pneumatic through straight diaphragm valve

SIZE	C	B	D	H	L
DN12	12.7	9.4	45	101	61
DN19	19.1	15.8	60	127	117
DN25	25.0	22.6	89	162	127
DN38	38.0	35.6	112	193	159
DN50	51.0	48.6	142	227	190



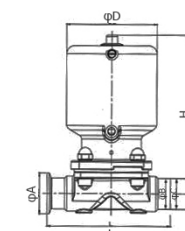
SIZE	C	B	D	H	L
DN25	25.0	22.6	128	188	127
DN38	38.0	35.6	164	227	159
DN50	51.0	48.6	164	227	190



SIZE	C	B	D	H	L
DN63	63.5	60.3	193	311.6	250
DN76	76.1	72.9	193	311.6	250



SIZE	A	B	C	D	H	L
DN12	25.0	9.4	12.7	45	101	61
DN19	25.0	15.8	19.1	60	127	117
DN25	50.5	22.6	25.0	89	162	127
DN38	50.5	35.6	38.0	112	193	159
DN50	64.0	48.6	51.0	142	227	190



Diaphragm Valve



+ NEW Pneumatic through straight diaphragm valve

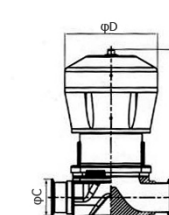
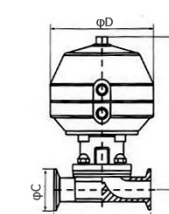
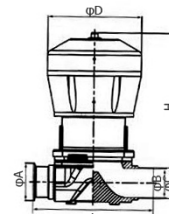
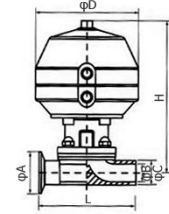
SIZE	A	B	C	D	H	L
DN25	50.5	22.6	25.0	89	188	127
DN38	50.5	35.6	38.0	112	227	159
DN50	64.0	48.6	51.0	142	227	190

SIZE	A	B	C	D	H	L
DN63	77.5	60.3	63.5	193	311.6	250
DN76	91.0	72.9	76.1	193	311.6	250

SIZE	A	D	H	L
DN12	25.0	45	101	63
DN19	25.0	60	127	117
DN25	50.5	89	162	127
DN38	50.5	112	193	159
DN50	64.0	142	227	190

SIZE	C	D	H	L
DN25	50.5	89	188	127
DN38	50.5	112	227	159
DN50	64.0	142	227	190

SIZE	C	D	H	L
DN63	77.5	193	311.6	250
DN76	91	193	311.6	250



Diaphragm Valve



+ Pneumatic through straight diaphragm valve

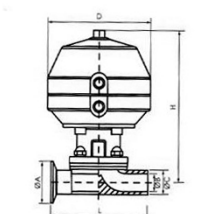
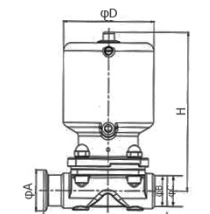
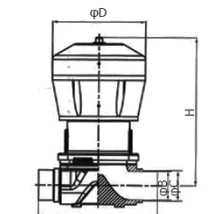
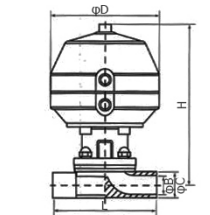
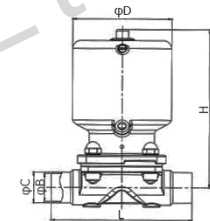
SIZE	B	C	D	H	L
DN15	9.4	12.7	45	101.0	63.0
DN20	15.8	19.1	60	128.0	101.6
DN25	22.6	25.0	89	154.5	120.0
DN38	35.6	38.0	112	197.0	159.0
DN51	48.6	51.0	142	220.9	190.0

SIZE	B	C	D	H	L
DN25	22.6	25.0	128	189.7	120
DN38	35.6	38.0	164	254.5	159
DN51	48.6	51.0	164	273.5	190

SIZE	B	C	D	H	L
DN65	60.3	63.5	193	311.6	250
DN80	72.9	76.1	193	311.6	250

SIZE	A	B	C	D	H	L
DN15	25.0	9.4	12.7	45	101.0	63.0
DN20	25.0	15.8	19.1	60	128.0	101.6
DN25	50.4	22.6	25.0	89	154.5	120.0
DN38	50.4	35.6	38.0	112	197.0	159.0
DN51	63.9	48.6	51.0	142	220.9	190.0

SIZE	A	B	C	D	H	L
DN25	50.4	22.6	25.0	128	189.7	120
DN40	50.4	35.6	38.0	164	254.5	159
DN50	63.9	48.6	51.0	164	273.5	190



Diaphragm Valve



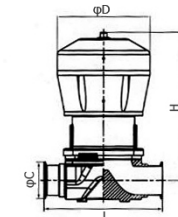
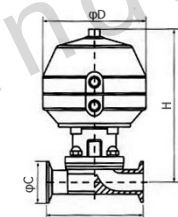
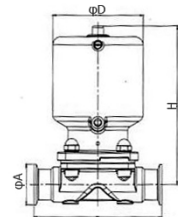
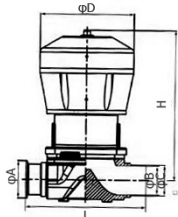
+ Pneumatic through straight diaphragm valve

SIZE	A	B	C	D	H	L
DN65	77.5	60.3	63.5	193	311.6	250
DN80	91.0	72.9	76.1	193	311.6	250

SIZE	A	D	H	L
DN15	25.0	45	101.0	63.0
DN20	25.0	60	128.0	101.6
DN25	50.5	89	154.5	120.0
DN38	50.5	112	197.0	159.0
DN51	64.0	142	220.9	190.0

SIZE	C	D	H	L
DN25	50.5	128	189.7	120
DN40	50.5	164	254.5	159
DN50	64.0	164	273.5	190

SIZE	C	D	H	L
DN65	77.5	193	311.6	250
DN80	91.0	193	311.6	250



Diaphragm Valve



+ NEW Manual Straight Limit Diaphragm Valve

SIZE	A	B	D	H	L
DN12	12.7	9.4	33	4.5	63.5

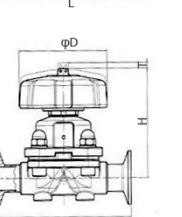
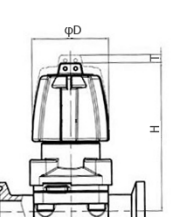
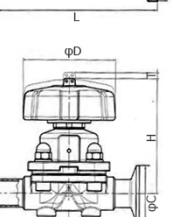
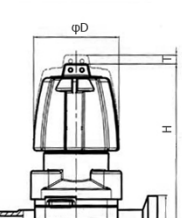
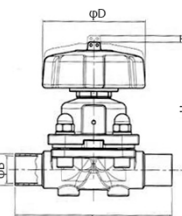
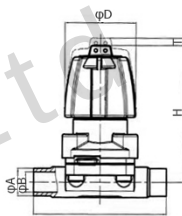
SIZE	A	B	D	T	H
DN19	19.1	15.8	60	6	79.5
DN25	25.0	22.6	89	11	103.5
DN38	38.0	35.6	112	15.5	129.8
DN50	51.0	48.6	142	20.5	153

SIZE	A	B	C	D	T	H
DN12	12.7	9.4	25	33	4.5	63.5

SIZE	A	B	C	D	H	L
DN19	19.1	15.8	25.0	60	6	79.5
DN25	25.0	22.6	50.5	90	11	103.5
DN38	38.0	35.6	50.5	110	15.5	129.8
DN50	51.0	48.6	64.0	128	20.5	153

SIZE	C	D	T	H	L
DN12	25	33	4.5	63.5	63

SIZE	C	D	T	H
DN19	25.0	60	6	79.5
DN25	50.5	90	11	103.5
DN38	50.5	110	15.5	129.8
DN50	64.0	128	20.5	153



Diaphragm Valve



+ Manual Straight Diaphragm Valve

SIZE	A	B	H	L
DN15	12.7	9.4	58	61.0
DN20	19.1	15.8	85	97.6

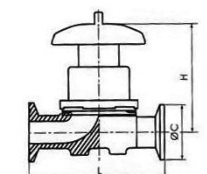
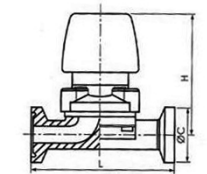
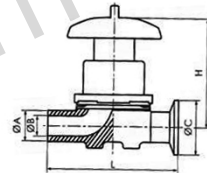
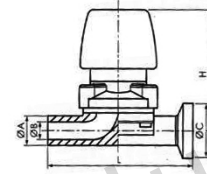
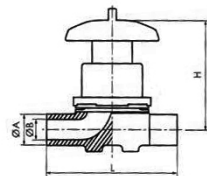
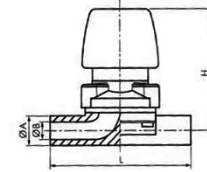
SIZE	A	B	H	L
DN25	25.0	22.6	106	120.0
DN38	38.0	35.6	124	159.0
DN50	51.0	48.6	134	190.0

SIZE	A	B	C	H	L
DN15	12.7	9.4	25.0	58	62.0
DN20	19.1	15.8	25.0	76	97.6

SIZE	A	B	C	H	L
DN25	25.0	22.6	50.5	106	120
DN38	51.0	35.6	50.5	124	159
DN50	63.5	48.6	64.0	134	190

SIZE	C	H	L
DN12	25	58	62.0
DN20	25	76	101.6

SIZE	C	H	L
DN25	50.5	106	120.0
DN38	50.5	124	159.0
DN50	64.0	134	190.0

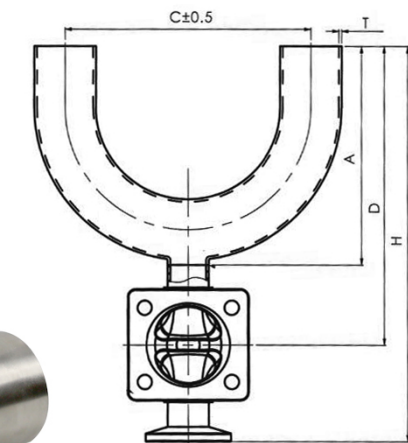


Diaphragm Valve



+ Manual U type Sterile Diaphragm Valve

DN1xND2	A	C	D	H	T
19X15	86.2	114.3	108.2	139.7	1.6
15X19	86.2	114.3	117.7	168.5	1.6
25X19	89.4	114.3	130.4	171.7	1.2
25X25	89.4	152.4	138.9	198.9	1.2
38X15	135.6	152.4	157.6	189.1	1.2
38X19	135.6	152.4	167.1	217.9	1.2
38X25	136.0	152.4	185.5	245.5	1.2
38X38	136.0	152.4	215.5	295.0	1.2
51X15	155.4	152.4	177.4	208.9	1.2
51X19	155.4	152.4	186.9	237.7	1.2
51X25	155.4	152.4	204.9	264.9	1.2
51X38	155.7	152.4	235.0	314.7	1.2
63X19	181.3	190.5	212.8	263.6	1.6
63X25	181.3	190.5	230.8	290.8	1.6
63X38	181.3	190.5	260.8	340.3	1.6



Zero Dead Angle T type Sterile Diaphragm Valve

Features:

Compact structure, repeated from the exhaustion, no dead ends.

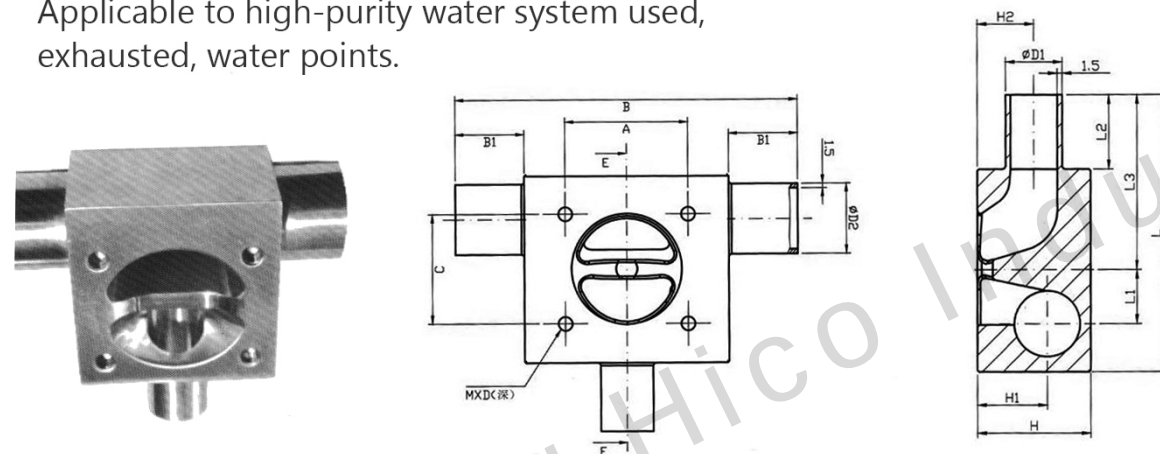
Forged body, intergranular structure dense, sterile quickly and thoroughly, easy to verify. Advanced equipment integration processing, installation more secure and reliable.

The size of the main pipe is generally greater than the size of the pipe design to ensure that the main channel circulation.

Applicable to high-purity water system used, exhausted, water points.



Body design:
forging block five-axis machining
center precision machining

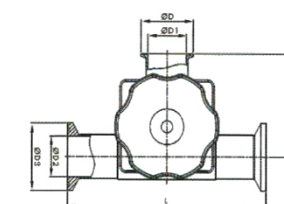
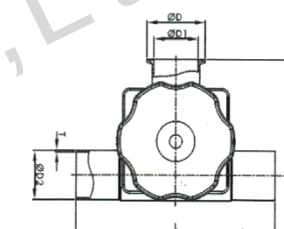


	D2	A	B	B1	C	D	H	H1	H2	L	L1	L2	L3	M
12.7	25.4	22.0	82.0	25	22.0	6	35	20.0	8.5	66	15.3	20	36	M4
19.1	25.4	44.5	114.5	25	39.7	10	38	23.5	19.0	93	17.9	25	55	M6
25.4	25.4	54.0	124.0	25	46.0	10	38	23.5	19.0	93	17.9	25	59	M8
19.1	38.1	39.7	100.0	25	44.5	8	48	27.7	12.5	97	23.5	25	53	M6
25.4	38.1	54.0	124.0	25	46.0	10	51	29.9	19.0	105	25.0	25	59	M8
25.4	50.8	54.0	134.0	30	46.0	10	61	36.2	19.0	118	32.0	25	59	M8
38.1	50.8	70.0	162.0	30	65.0	10	66	39.1	26.0	133	34.1	25	71	M10

Zero Dead Angle T type Sterile Diaphragm Valve

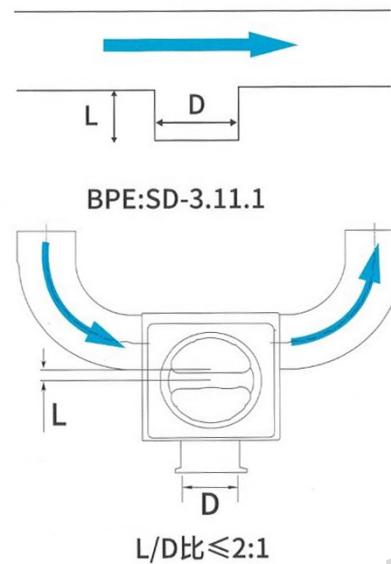
SIZE	D	D1	D2	H	L	T
25X15	25.0	9.4	25.0	51.3	82	1.2
25X20	25.0	15.8	25.0	65.0	101	1.2
25X25	50.5	22.6	25.0	76.9	125	1.2
38X15	25.0	9.4	38.0	59.5	82	1.2
38X20	25.0	15.8	38.0	72.0	101	1.2
38X25	50.5	22.6	38.0	84.0	124	1.2
38X38	50.5	35.6	38.0	98.1	150	1.2
51X15	25.0	9.4	51.0	66.6	92	1.2
51X20	25.0	15.8	51.0	79.1	111	1.2
51X25	50.5	22.6	51.0	92.0	134	1.2
51X38	50.5	35.6	51.0	105.1	160	1.2
51X51	64.0	48.6	51.0	120.3	176	1.2
63X15	25.0	9.4	63.5	73.6	92	1.6
63X20	25.0	15.8	63.5	86.1	111	1.6
63X25	50.5	22.6	63.5	98.1	135	1.6
63X38	50.5	35.6	63.5	112.2	160	1.6

SIZE	D	D1	D2	D3	H	L
25X15	25.0	9.4	22.6	50.5	51.3	107.4
25X20	25.0	15.8	22.6	50.5	65.0	126.4
25X25	50.5	22.6	22.6	50.5	76.9	150.4
38X15	25.0	9.4	35.6	50.5	59.5	107.4
38X20	25.0	15.8	35.6	50.5	72.0	126.4
38X25	50.5	22.6	35.6	50.5	84.0	149.4
38X38	50.5	35.6	35.6	50.5	98.1	175.4
51X15	25.0	9.4	48.6	64.0	66.6	117.4
51X20	25.0	15.8	48.6	64.0	79.1	136.4
51X25	50.5	22.6	48.6	64.0	92.0	159.4
51X38	50.5	35.6	48.6	64.0	105.1	185.4
51X51	64.0	48.6	48.6	64.0	120.3	201.4
63X15	25.0	9.4	60.3	77.5	73.6	117.4
63X20	25.0	15.8	60.3	77.5	86.1	136.4
63X25	50.5	22.6	60.3	77.5	98.1	160.4
63X38	50.5	35.6	60.3	77.5	112.2	185.4



+ Water point sterile diaphragm valve

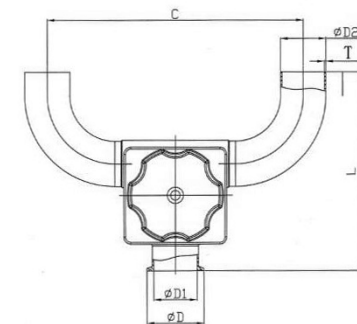
Avoid the retention of the U-shaped tee through the septum barrier, reduce the number of welds, improve the smoothness of the contact surface (MOC), and have a minimum length of the horizontal pipe. Based on ASME BPE 2005: SD-3.11.1 aseptic design specifications, L/D ratio $\leq 2:1$, to eliminate the discharge due to the discharge port area, resulting in the breeding of bacteria hidden, to ensure that the loop is absolutely safe.



Water valve application characteristics:

1. In the production of purified water (PW) and injection water (WFI) of the loop, the most sensitive point of application is the use of water valve.
2. This valve is necessary to ensure that the loop to determine the safety, to avoid environmental damage, but also as a tap point consumption, so this valve has the highest level of security, cleanliness.

SIZE	D	D1	D2	C	L	T
15X15	25.0	9.4	12.7	109.2	120.7	1.6
20X20	25.0	15.8	19.1	128.2	137.6	1.6
25X15	25.0	9.4	25.0	128.2	127.5	1.2
25X20	25.0	15.8	25.0	147.2	141.2	1.2
25X25	50.5	22.6	25.0	171.2	153.1	1.2
38X15	25.0	9.4	38.0	166.4	154.8	1.2
38X20	25.0	15.8	38.0	185.4	167.3	1.2
38X25	50.5	22.6	38.0	208.4	179.3	1.2
38X38	50.5	35.6	38.0	234.4	193.4	1.2
51X15	25.0	9.4	51.0	204.4	187.2	1.2
51X20	25.0	15.8	51.0	223.4	199.8	1.2
51X25	50.5	22.6	51.0	246.4	211.7	1.2
51X38	50.5	35.6	51.0	272.4	225.8	1.2
51X51	64.0	48.6	51.0	288.4	241.0	1.2
63X15	25.0	9.4	63.5	242.6	213.3	1.6
63X20	25.0	15.8	63.5	261.6	225.8	1.6
63X25	50.5	22.6	63.5	285.6	237.8	1.6
63X38	50.5	35.6	63.5	310.6	251.9	1.6



+ Multi - channel sterile diaphragm valve

Working pressure: 0-10 bar

Operating temperature: -40 ~ 140 °C

Drive mechanism: manual / pneumatic control

Sealing material: EPDM, Viton, Silicone

Body design: OEM / ODM

Body Material: 316L Stainless Steel Forged Block
High Purity Material (Block)

Surface treatment: outer surface sandblasting, inner surface $Ra \leq 0.5\mu m$ (SF1), $Ra \leq 0.355\mu m$ (SF4)

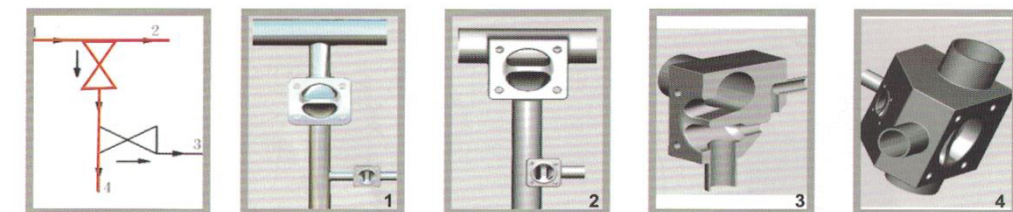
Interface standard: ISO, DIN, ASME, BPE, 3A, BS

Features: Multi-channel valve to maximize installation space and installation time, reduce costs can be used as a replacement valve

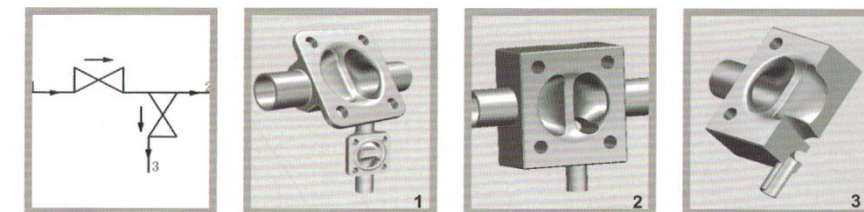


THE EVOLUTION OF MULTI - CHANNEL VALVES:

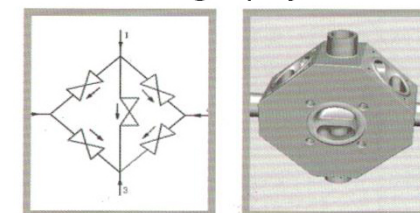
T-type valve with carrier drain



Integrated GMP valve



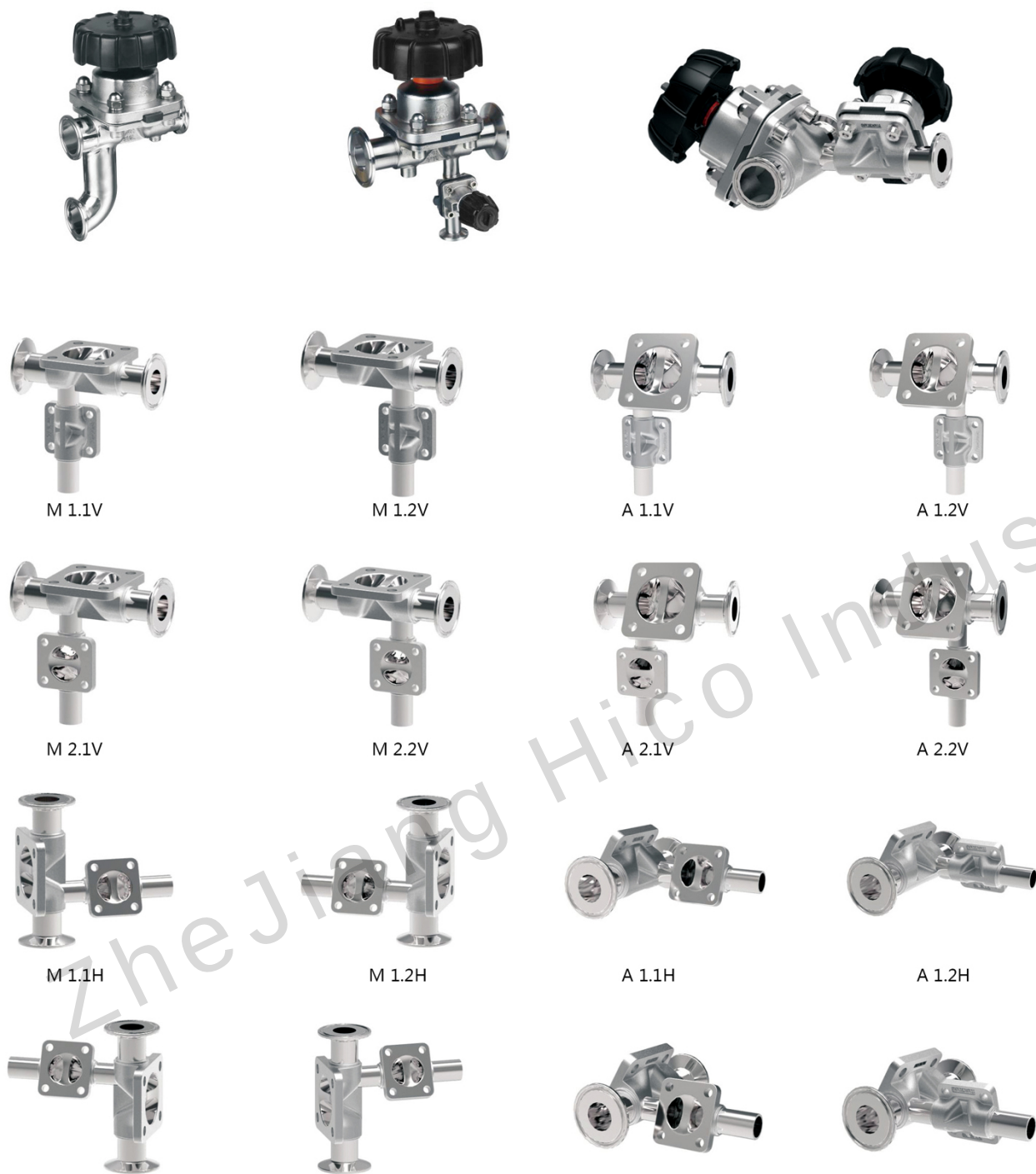
Chromatography valve



Diaphragm Valve



+ Duplex sterile diaphragm valve



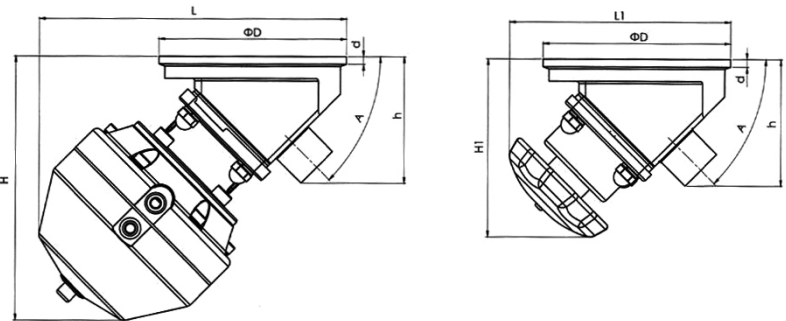
Diaphragm Valve



+ Bottom Diaphragm Valve

Bottom valve is mainly used in medicine, food and beverage industries, generally installed in the bottom of the tank, etc., play the role of sampling, drainage can also be integrated for SIP / CIP.

Working pressure: 0-10 bar
Operating temperature: -40 ~ 150 °C
Drive mechanism: manual / pneumatic control
Sealing material: EPDM+PTFE
Body Material: 1.4435 / 316L (EN1.4409 CF-3M)
Surface treatment: inner surface $R_a \leq 0.5\mu\text{m}$ (SF1), $R_a \leq 0.355\mu\text{m}$ (SF4)
Interface standard: ISO/SMS, 3A
Interface: welding, clamps



SIZE	A	D	H	H1	L	L1	h	d
1.0"	45°	119	175.1	122.9	206.6	154.1	82.9	6.0
1.5"	45°	160	225.1	151.6	262.0	207.0	108.0	6.5
2.0"	45°	180	234.3	167.0	274.0	274.0	120.7	6.5
3.0"	45°	250	344.7	270.0	402.4	326.1	173.5	6.5