



Diaphragm valves

Diaphragm Valves



Applications

- Diaphragm valves, manually or pneumatically operated, are specifically designed for use on hygienic and aseptic processes in the pharmaceutical industries.
- The valve is excellent for flow control as well as for open/close duties.



Operating Principles

- The diaphragm provides the body seal as well as the seat seal. There are no paths to the outside environment and as such the valve is suitable for aseptic processes.
- As the valve is closed a pressure pad which supports the diaphragm moves towards the sealing face on the body. As the pressure plate moves the diaphragm flexes and is forced down onto the seat area in the centre of the body thus closing off the flow path through the body.
- The inter-relationship of body to the pressure plate prevents over compression of the diaphragm.
- The valve can be actuated either manually or pneumatically and controlled by control tops and solenoid valves.

FDA 177.2600



**EPDM SILICON
 VITON PTFE+EPDM**



Technical specifications 技术规格

- Max. pressure: 10 BAR(145PSI)
- Working temperature: -10°C to +120°C
 (EPDM) -14 ° F to 248 ° F
 (+140 °C (SIP, max. 30 min) 284 ° F)
- Approved according to Directive PED 97/23 EC



Design and features

- The diaphragm valves are better in feature of flow in comparison with other valves. It is easier to clean up and better to process the substance with particles. The phenomenon of air pocket is rare during application of flow control.
- Mini diaphragm valve available size: 1/4", 3/8", 1/2", 3/4",
- Diaphragm valve available size: 1", 1 1/4", 1 1/2", 2", 2.5", 3", 4"
- Suitable for CIP/SIP.
- Parts in contact with the product: AISI 316L,
- Other stainless steel parts: AISI 304,
- Internal surface finish bright, $Ra \leq 0.5 \mu m$



Options

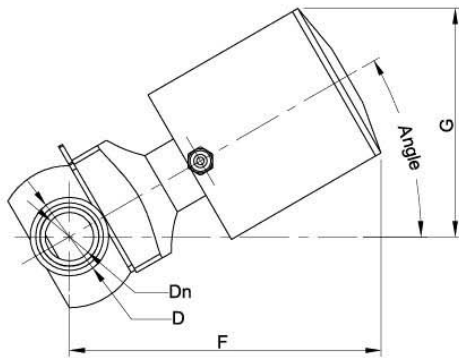
- Connections(standard): clamp, weld, thread, DIN SMS IDF ISO 3A BPE
- Body construction: Straight, Three ways, U type
- Diaphragms in EPDM, SILICON, VITON, EPDM+PTFE, all of them according to FDA 177.2600



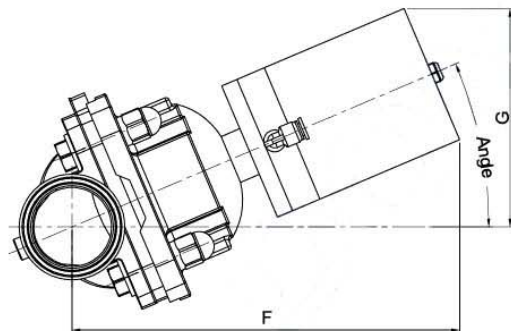


Applications

© Pneumatic diaphragm valves or manual diaphragm valves can be assembled according below angle. It is convenient for valves to complete drain out after cleaning. The leftover can't be reserved inside.



SIZE	Dn	D	A	F	G	Angle
1/4"	4	25.4	68.6	101	74	30°
3/8"	7.1	25.4	68.6	102	74	30°
1/2"	9.4	25.4	68.6	104	74	30°
3/4"	15.7	25.4	85	106	74	30°

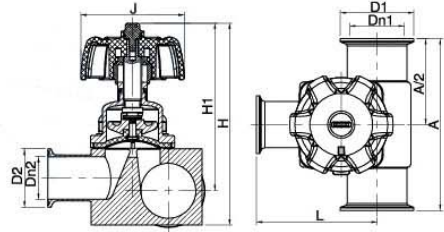


SIZE	Dn	D	A	F	G	Angle
DN20	22.4	34	145.4	192	155.8	30°
1"	22.4	50.5	145.4	192	155.8	30°
DN25	26	50.5	145.4	192	155.8	30°
1.25"	28.8	50.5	178.4	199	155.8	30°
DN32	32	50.5	178.4	199	155.8	30°
1.5"	35	50.5	178.4	198	149	28°
DN40	38	50.5	178.4	198	149	28°
2"	47.8	64	198.4	235	132	23°
DN50	50	64	198.4	235	132	23°



卡箍式三通隔膜阀

Three-way clamp diaphragm valves

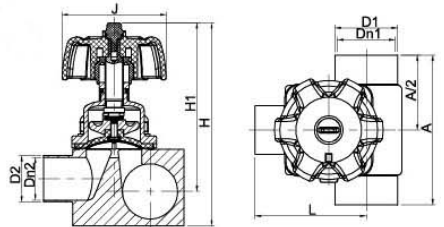


No.20314

SIZE	Dn1	D1	Dn2	D2	A	L	J	H
DN25-DN15	26	50.5	16	34	148.4	91.9	90	146.8
DN25-DN20	26	50.5	20	34	148.4	91.9	90	146.8
DN25-DN25	26	50.5	26	50.5	148.4	91.9	90	146.8
DN40-DN20	38	50.5	20	34	149.4	98.4	114	173.5
DN40-DN25	38	50.5	26	50.5	149.4	98.4	114	173.5
DN40-DN32	38	50.5	32	50.5	149.4	98.4	114	173.5
DN50-DN25	50	64	26	50.5	149.4	105.1	140	217.3
DN50-DN32	50	64	32	50.5	149.4	105.1	140	217.3
DN50-DN40	50	64	38	50.5	149.4	105.1	140	217.3

SIZE	Dn1	D1	Dn2	D2	A	L	J	H
1"-1/2"	22.4	50.5	9.7	25.4	148.4	91.9	90	146.8
1"-3/4"	22.4	50.5	16	25.4	148.4	91.9	90	146.8
1"-1"	22.4	50.5	50.5	50.5	148.4	91.9	90	146.8
1.5"-3/4"	35	50.5	25.4	34	149.4	98.4	114	173.5
1.5"-1"	35	50.5	22.4	50.5	149.4	98.4	114	173.5
1.5"-1 1/4"	35	50.5	29	50.5	149.4	98.4	114	173.5
2"-1"	48	64	22.4	50.5	149.4	105.1	140	217.3
2"-1 1/4"	48	64	29	50.5	149.4	105.1	140	217.3
2"-1.5"	48	64	35	50.5	149.4	105.1	140	217.3

Three-way weld diaphragm valve



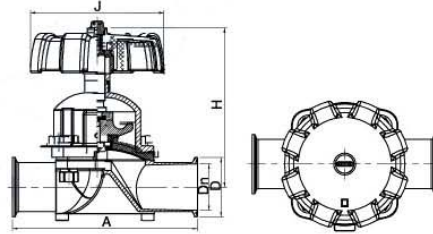
No.20315

SIZE	Dn1	D1		DN2	D2		A	L	J	H
		1	2		1	2				
DN25-DN15	26	28	29	16	18	19	123	79.2	90	146.8
DN25-DN20	26	28	29	20	22	23	123	79.2	90	146.8
DN25-DN25	26	28	29	26	28	29	123	79.2	90	146.8
DN40-DN20	38	40	41	20	22	23	124	85.7	114	173.5
DN40-DN25	38	40	41	26	28	29	124	85.7	114	173.5
DN40-DN32	38	40	41	32	34	35	124	85.7	114	173.5
DN50-DN25	50	52	53	26	28	29	124	92.4	140	217.3
DN50-DN32	50	52	53	32	34	35	124	92.4	140	217.3
DN50-DN40	50	52	53	38	40	41	124	92.4	140	217.3

SIZE	Dn1	D1	Dn2	D2	A	L	J	H
1"-1/2"	22.4	25.4	9.7	12.7	148.4	91.9	90	146.8
1"-3/4"	22.4	25.4	16	19	148.4	91.9	90	146.8
1"-1"	22.4	25.4	22.4	25.4	148.4	91.9	90	146.8
1.5"-3/4"	35	38	16	19	149.4	98.4	114	173.5
1.5"-1"	35	38	22.4	25.4	149.4	98.4	114	173.5
1.5"-1 1/4"	35	38	29	32	149.4	98.4	114	173.5
2"-1"	48	50.8	22.4	25.4	149.4	105.1	140	217.3
2"-1 1/4"	48	50.8	29	32	149.4	105.1	140	217.3
2"-1.5"	48	50.8	35	38	149.4	105.1	140	217.3



Clamped straight diaphragm valve



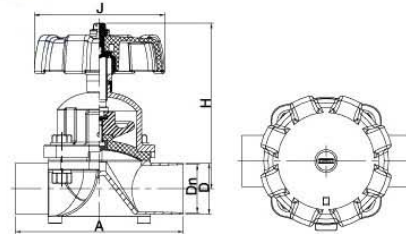
No.20309

SIZE	Dn	D	A	H	J
DN20	20	34	145.4	126	90
DN25	26	50.5	145.4	126	90
DN32	32	50.5	178.4	142.4	114
DN40	38	50.5	178.4	142.4	114
DN50	50	64	198.4	183.5	140
DN65	66	91	259	200	140
DN80	81	106	297	220	140
DN100	100	119	348	240	140

SIZE	Dn	D	J	A	H
1"	22.4	50.5	90	145.4	126
1.25"	28.8	50.5	114	178.4	142.4
1.5"	35	50.5	114	178.4	142.4
2"	47.8	64	140	198.4	183.8
2.5"	59.5	77.5	140	259	190
3"	72.2	91	140	259	200
3.5"	85	106	140	297	220
4"	97.6	119	140	348	240



Welded straight diaphragm valve



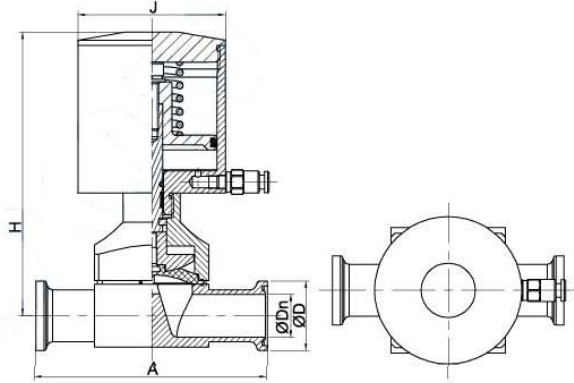
No.20305

SIZE	Dn	D		A	H	J
		1	2			
DN20	20	22	23	145.4	126	90
DN25	26	28	29	145.4	126	90
DN32	32	34	35	178.4	142.4	114
DN40	38	40	41	178.4	142.4	114
DN50	50	52	53	198.4	183.5	140
DN65	66	70	-	259	200	140
DN80	81	85	-	297	220	140
DN100	100	104	-	348	240	140

SIZE	Dn	D	J	A	H
1"	22.4	25.4	90	145.4	126
1.25"	28.8	32	114	178.4	142.4
1.5"	35	38	114	178.4	142.4
2"	47.8	51	140	198.4	183.8
2.5"	59.5	63.5	140	259	190
3"	72.2	76.2	140	259	200
3.5"	85	89	140	297	220
4"	97.6	101.6	140	348	240



Clamped pneumatic mini-type diaphragm valve

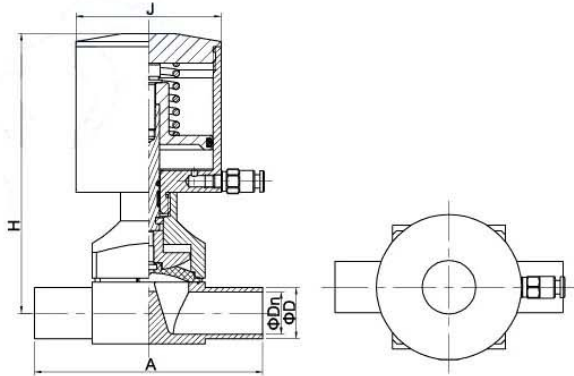


No.12031601

SIZE	Dn	D	A	H	J
DN6	1/4"	4	25.4	68.6	98
DN8	3/8"	7.1	25.4	68.6	98.8
DN10	1/2"	9.4	25.4	68.6	100.7
DN15	3/4"	15.7	25.4	85	104

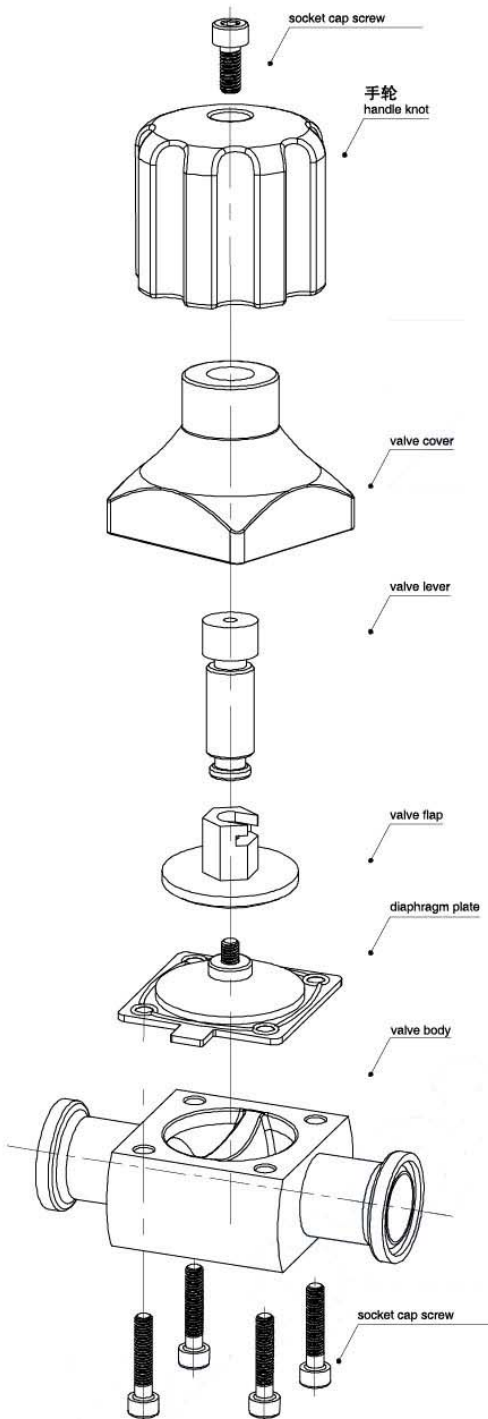


Welded pneumatic mini-type diaphragm valve

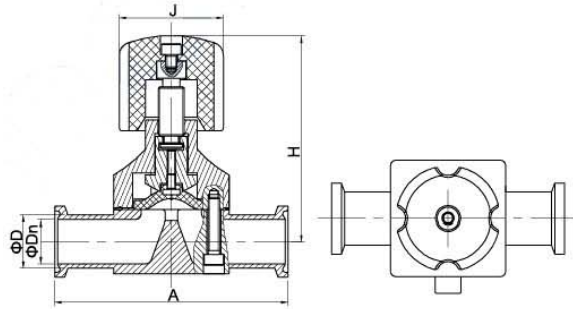


No.12031701

SIZE	Dn	D	A	H	J
DN6	1/4"	4	6.4	68.6	98
DN8	3/8"	7.1	9.5	68.6	98.8
DN10	1/2"	9.4	12.7	68.6	100.7
DN15	3/4"	15.7	19	85	104



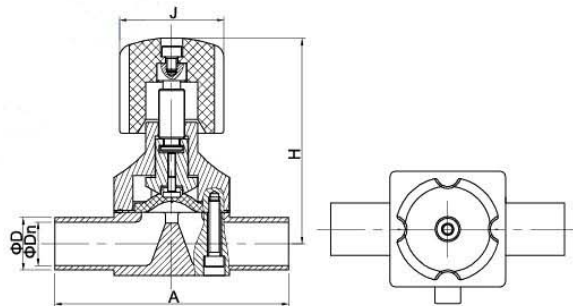
Clamped mini-type diaphragm valve



No.20316

SIZE	Dn	D	A	H	J	
DN6	1/4"	4	25.4	68.6	69.4	38
DN8	3/8"	7.1	25.4	68.6	70.3	38
DN10	1/2"	9.4	25.4	68.6	72.2	38
DN15	3/4"	15.7	25.4	85	75.5	38

Welded mini-type diaphragm valve

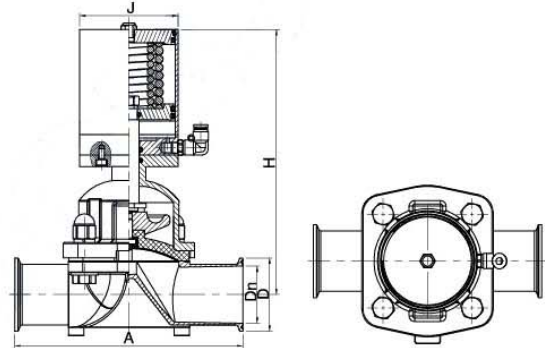


No.20317

SIZE	Dn	D	A	H	J	
DN6	1/4"	4	6.4	68.6	69.4	38
DN8	3/8"	7.1	9.5	68.6	70.3	38
DN10	1/2"	9.4	12.7	68.6	72.2	38
DN15	3/4"	15.7	19	85	75.5	38



Clamped pneumatic diaphragm valve

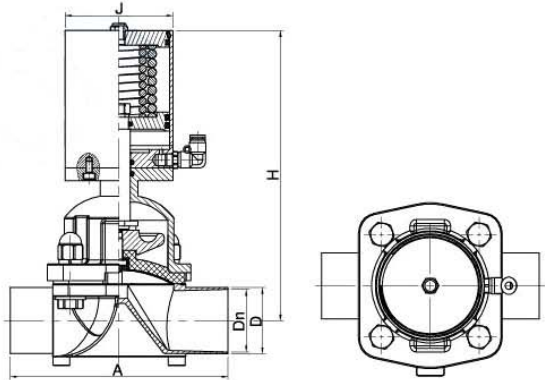


No.12030901

SIZE	Dn	D	A	H	J	SIZE	Dn	D	A	H	J
DN20	20	34	145.4	188.5	86	1"	22.4	50.5	145.4	188.5	86
DN25	26	50.5	145.4	188.5	86	1.25"	28.8	50.5	178.4	195.8	86
DN32	32	50.5	178.4	195.8	86	1.5"	35	50.5	178.4	195.8	86
DN40	38	50.5	178.4	195.8	86	2"	47.8	64	198.4	232.2	86
DN50	50	64	198.4	232.2	86	2.5"	59.5	77.5	259	311	133
DN65	66	91	259	311	133	3"	72.2	91	259	311	133
DN80	81	106	297	311	133	3.5"	85	106	297	311	133
DN100	100	119	348	305	133	4"	97.6	119	348	305	133



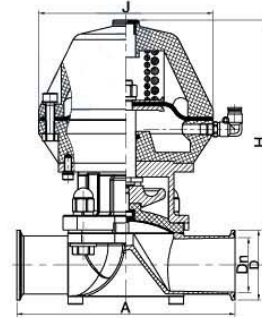
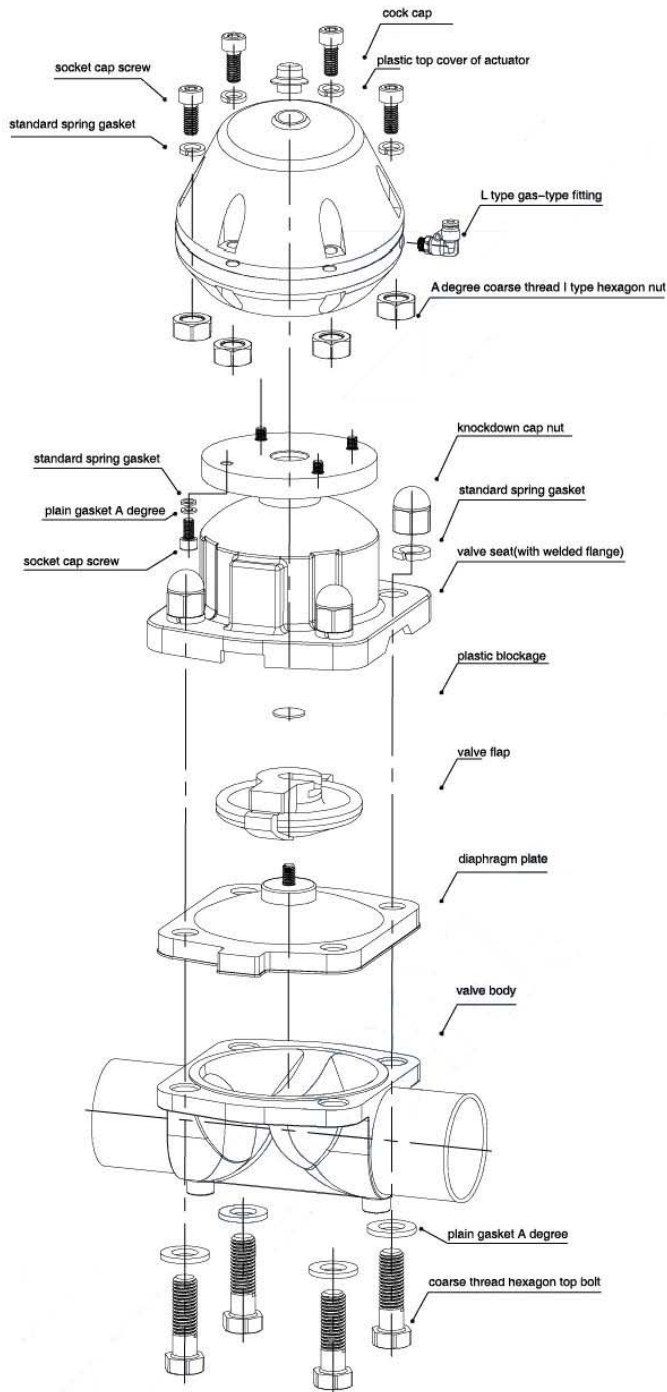
Welded pneumatic diaphragm valve



No.12030501

SIZE	Dn	D		A	H	J	SIZE	Dn	D	A	H	J
		1	2									
DN20	20	22	23	145.4	188.5	86	1"	22.4	25.4	145.4	188.5	86
DN25	26	28	29	145.4	188.5	86	1.25"	28.8	50.5	178.4	195.8	86
DN32	32	34	35	178.4	195.8	86	1.5"	35	38	178.4	195.8	86
DN40	38	40	41	178.4	195.8	86	2"	47.8	50.8	198.4	232.2	86
DN50	50	52	53	198.4	232.2	86	2.5"	59.5	63.5	259	311	133
DN65	66	70	-	259	311	133	3"	72.2	76.2	259	311	133
DN80	81	85	-	297	311	133	3.5"	85	89	297	311	133
DN100	100	104	-	348	305	133	4"	97.6	101.6	348	305	133

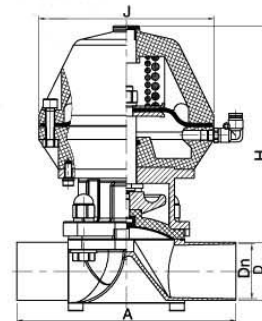
Diaphragm valve with plastic pneumatic actuator



No. 12030902

Clamped pneumatic diaphragm valve

SIZE	Dn	D	A	H	J
DN20	22.4	34	145.4	174.5	130
DN25	26	50.5	145.4	174.5	130
DN32	32	50.5	178.4	179.2	130
DN40	38	50.5	178.4	214.4	160
DN50	50	64	198.4	224	160
DN65	66	91	259	311	160
DN80	81	106	297	311	160
DN100	100	119	348	305	160
1"	22.4	50.5	145.4	174.5	130
1.25"	28.8	50.5	178.4	179.2	130
1.5"	35	50.5	178.4	214.4	160
2"	47.8	64	198.4	224	160
2.5"	59.5	77.5	259	311	160
3"	72.2	91	259	311	160
3.5"	85	106	297	311	160
4"	97.6	119	348	305	160



No. 12030502

Welded pneumatic diaphragm valve

SIZE	Dn	D	A	H	J
DN20	22.4	25.4	145.4	174.5	130
DN25	26	29	145.4	174.5	130
DN32	32	35	178.4	179.2	130
DN40	38	41	178.4	214.4	160
DN50	50	53	198.4	224	160
DN65	66	70	259	311	160
DN80	81	85	297	311	160
DN100	100	104	348	305	160
1"	22.4	25.4	145.4	174.5	130
1.25"	28.8	31.8	178.4	179.2	130
1.5"	35	38	178.4	214.4	160
2"	47.8	50.8	198.4	224	160
2.5"	59.5	63.5	259	311	160
3"	72.2	76.2	259	311	160
3.5"	85	89	297	311	160
4"	97.6	101.6	348	305	160