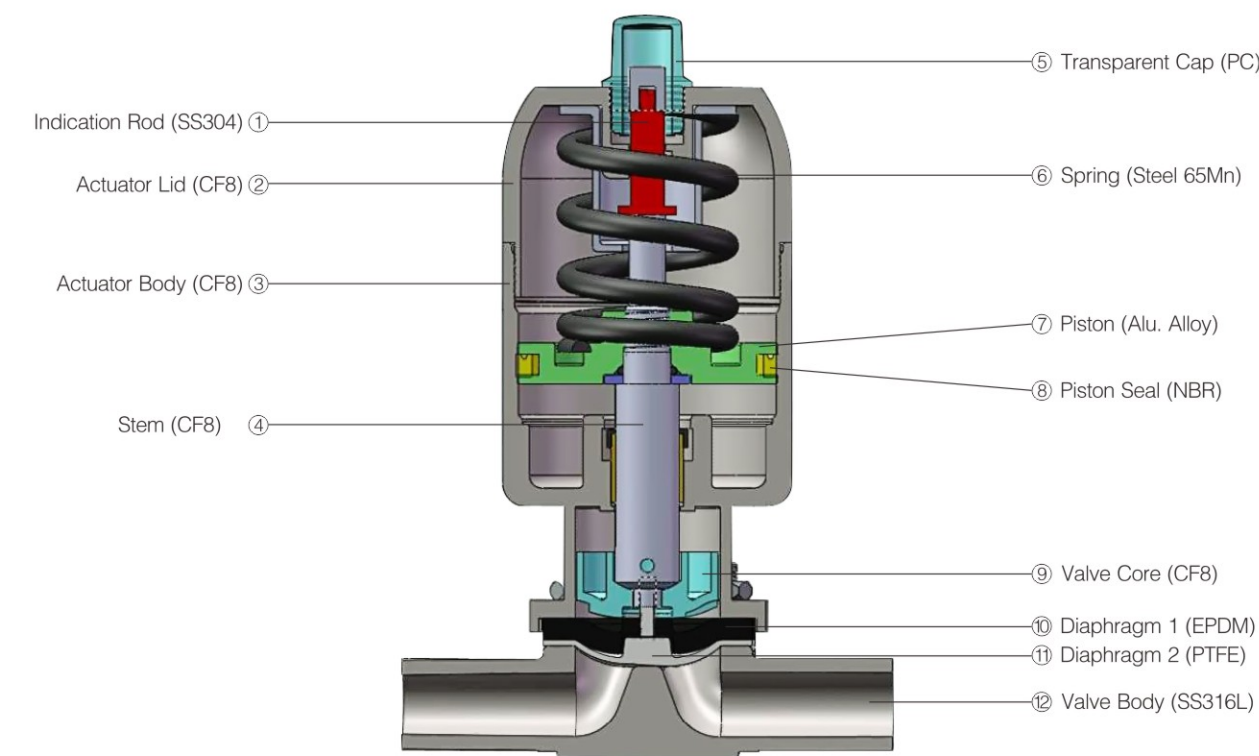
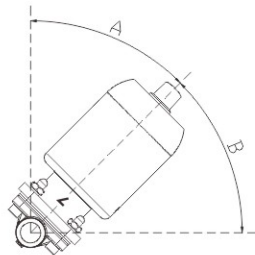


Diaphragm Valve



Installation Angle

Size	Installation angle	
	A	B
DN08	40.4°	49.6°
DN10	33.6°	56.4°
DN15	22.2°	67.8°
DN20	26.5°	63.5°
DN25	29.9°	60.1°
DN40	27.2°	62.8°
DN50	30.1°	59.9°

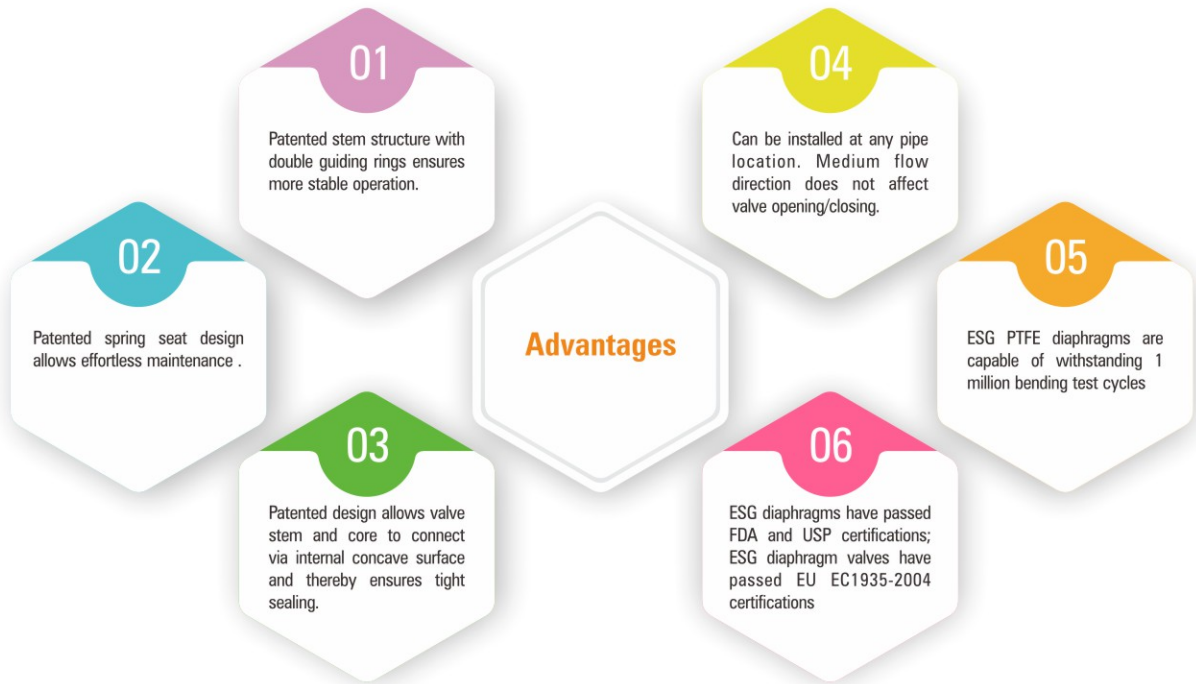


Technical Specification

- Material: (Body) SS316L
(Pneumatic) Actuator + Valve seat SS304;
(Manual) Valve seat SS304
- Internal surface: $Ra \leq 0.4 \mu m$, mechanically polished
- Diaphragm material: EPDM + PTFE
(double-layer diaphragm)
- Operating pressure: 0–10bar (0–145psi)
- Fluid temperature: $-10^{\circ}C$ — $+150^{\circ}C$
- Control pressure(pneumatic): 4.5–7bar (65–102psi)

Typical Applications

Fermentation tank, Preparation vessel, Filling machine, Sterilizing equipment, Aseptic fluid transfer, CIP/SIP, etc.



Diaphragm Introduction



* Diaphragm is available for purchase separately

Advantages

Safety, reliability and durability of diaphragm valves are heavily dependent upon performance of the diaphragm. Diaphragm is the soul of diaphragm valve.

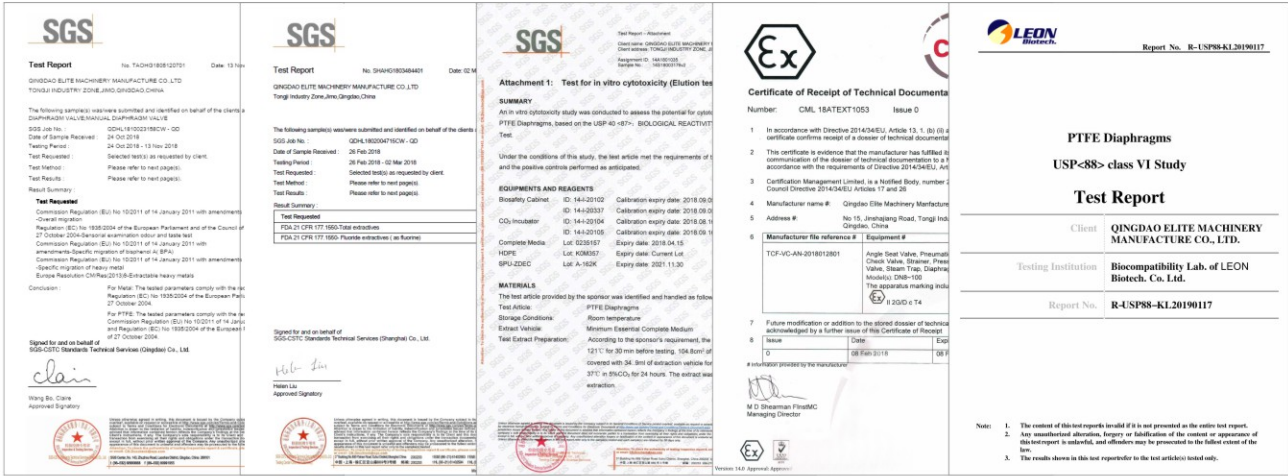
PTFE/EPDM two-piece diaphragm is a high-standard diaphragm typically used for aseptic and hygienic applications. PTFE diaphragms are developed and manufactured by ESG. High quality raw materials sourced globally are manufactured into highly dense, smooth and flexible diaphragm products. Our diaphragms are SIP-capable and autoclavable thanks to its superb high-temperature performance. We have tested our diaphragms through accredited institutions and obtained FDA 21CFR 177.1550 and USP40–NF25 certifications, which correspond to the highest standards in food, beverage and pharmaceutical industries.

Diaphragm Valve



Diaphragm certificate

ESG PTFE diaphragms are tested and certified by accredited 3rd party institution (SGS in Switzerland)



● EC 1935 / FDA(Food and Drug Administration) Certificate / USP(US Pharmacopeia) Certificate / ATEX anti-explosion certificate

Quality Control

- 1. Valve assembly inspection:
100% inspection according to the shipping inspection form.
- 2. Diaphragm valve seal test:
100% valve assembly seal test, tested according to DIN EN 12266-1.
- 3. Inner surface finish:
100% IPQC (in-process control), roughness sampling test according to GB2828.
- 4. Contact surface inspection:
Material testing – Spectrum analyzer; Dimension inspection – Three Coordinate Measuring Machine.
- 5. Qualification:
Quality Management System ISO9001, Food Contact Raw Materials and Products Directive EC1935-2004, Explosion-proof Safety ATEX Directive 2014/34/EU.



Roughness tester



Spectromax meter



Three-coordinate measurement machine

A00 Series
Welded Pneumatic
Diaphragm Valve



A00 Series
Tri-Clamp Pneumatic
Diaphragm Valve



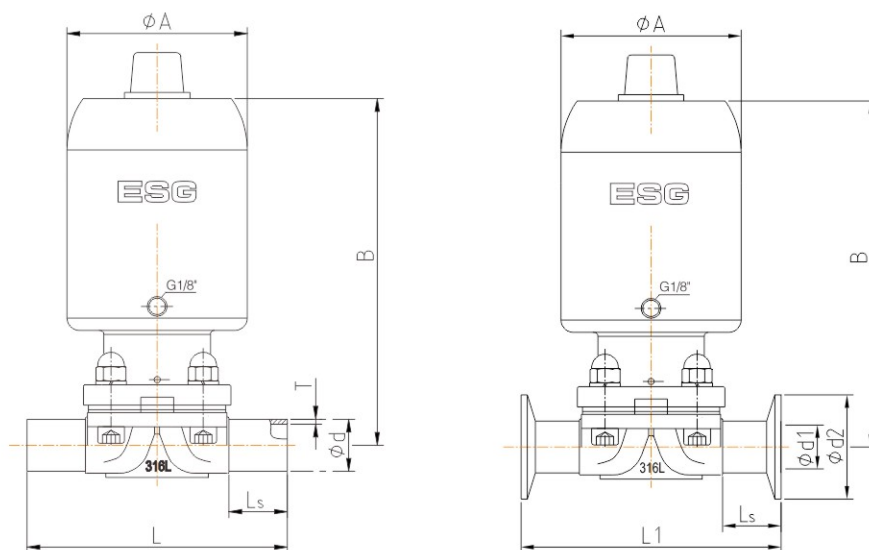
Main Dimension

Pneumatic diaphragm valve -Welded connection		ASME-BPE		SMS3008		JIS-G3447		ISO-1127		DIN-11850				DIN-11866	
										-0	-1	-2	-3	A	B
Size	Diaphragm	Actuator	ΦA	B	LS	L	Φd×T	Φd×T	Φd×T	Φd×T	Φd×T	Φd×T	Φd×T	Φd×T	Φd×T
DN8	8	42	47	85	20	72	6.35×0.89	—	—	—	—	—	—	—	—
DN10	8	42	47	85	20	72	9.53×0.89	—	—	—	—	—	—	—	—
DN15	8	50	57	106	20	72	12.70×1.65	—	—	—	—	—	—	—	—
	10	57	65	134	29	108	—	—	—	21.3×1.6	18×1.5	18×1.0	19×1.5	19×1.5	21.3×1.6
DN20	10	57	65	134	29	108	19.05×1.65	—	—	—	—	—	—	—	—
	25	80	88	170	26	120	—	—	—	26.9×1.6	22×1.5	22×1.0	23×1.5	24×2	23×1.5 26.9×1.6
DN25	25	80	88	170	26	120	25.4×1.65	25.0×1.2	25.4×1.2	33.7×2	28×1.5	28×1.0	29×1.5	30×2	29×1.5 33.7×2
DN40	40	105	109	196	30	153	38.1×1.65	38.0×1.2	38.1×1.2	48.3×2	40×1.5	40×1.0	41×1.5	43×2	41×1.5 48.3×2
DN50	50	125	129	226	30	173	50.8×1.65	51.0×1.2	50.8×1.5	60.3×2	52×1.5	52×1.0	53×1.5	54×2	53×1.5 60.3×2

Pneumatic diaphragm valve -Tri-clamp connection		ASME-BPE		ASME-BPE EN558-1 Series 7		SMS3008		JIS-G3447		ISO-1127		DIN-11850		
												Φd1	Φd2	L1
Size	Diaphragm	Actuator	ΦA	B	LS	Φd1	Φd2	L1	Φd1	Φd2	L1	Φd1	Φd2	L1
DN8	8	42	47	85	15.5	4.57	25	63.5	—	—	—	—	—	—
DN10	8	42	47	85	15.5	7.75	25	63.5	—	—	—	—	—	—
DN15	8	50	57	106	15.5	9.4	25	63.5	9.4	25	108	—	—	—
	10	57	65	134	34	—	—	—	—	—	—	—	—	—
DN20	10	57	65	134	34	15.75	25	101.6	15.75	25	117	15.75	25	117
	25	80	88	170	30	—	—	—	—	—	—	—	—	—
DN25	25	80	88	170	30	22.1	50.5	114.3	22.1	50.5	127	22.6	50.5	127
DN40	40	105	109	196	33	34.8	50.5	139.7	34.8	50.5	159	35.6	50.5	159
DN50	50	125	129	226	39	47.5	64	158.8	47.5	64	190	48.6	64	190

Other specifications available for customization.

Diaphragm Valve



Order Instruction

A00	XXX	X	XXX	XX	X	X	X	X	(*)
Series No.	Diaphragm M08、M10、 size M25、M40、M50	Control type 1: Single acting normally closed	Size D08、D10、D15、 D20、D25、D40、D50	Connection type	H1: Welded ASME-BPE H2: Welded SMS3008 H3: Welded JIS-G3447 H4: Welded ISO1127/DIN11866 B H5: Welded DIN11850-0 H6: Welded DIN11850-1 H7: Welded DIN11850-2/DIN11866 A H8: Welded DIN11850-3	Diaphragm material A: PTFE+EPDM (two-piece diaphragm)	Actuator material 1: CF8 9: Extruded SS304	Body material 6: SS316L	Special customization Polishing 1: Mechanical polishing $\leq 0.4 \mu\text{m}$ 2: Electropolishing
									K1: Tri-clamp ASME-BPE K2: Tri-clamp SMS3008 K3: Tri-clamp JIS-G3447 K4: Tri-clamp ISO1127 K5: Tri-clamp DIN11850 K6: Tri-clamp ASME-BPE EN558-1