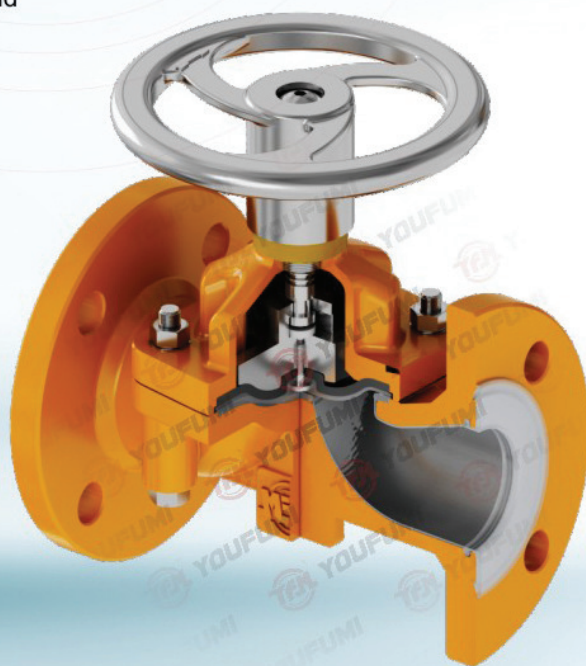


Lined Diaphragm Valve

Patent No.: ZL01210923.1
ZL201420018098.9

✘Product Description

- Youfumi lined diaphragm valve is ideally suited for shut-off, flow control and throttling of corrosive process media in either liquid or gaseous state. Its main features are heavy-duty, robust construction, maintenance-free, easy replacement of components on site. Convenient, flexible and accurate open or close.
- It can sustain any corrosive medium in addition to the "molten alkali metals and fluorine elements". It is ideal products used in chlor-alkali, industrial in organic chemicals, metal and mining, nitrogen and phosphatic fertilizers, petroleum refining, pharmaceutical etc.
- It is not applicable for diaphragm used in medium with hard particles, which will cause diaphragm damage and leakage.
- The working temperature cannot exceed the specified range.
- Open the diaphragm too frequent will influence the sealing performance.
- Lining material: PFA, FEP, GXPO etc.
- Operation methods: manual, worm gear, electric, pneumatic and hydraulic actuator.
- Youfumi lined diaphragm valves are available as per the needs of applications in additional sizes and other than standard materials.



A Lined Valve

Lined Diaphragm Valve

※ Material Specification

No.	Name	Materials		
1	Lock screw	A320 B8	A320 B8	A193 B8M
2	Body bolt	A320 B8	A320 B8	A193 B8M
3	Handwheel	A216 WCB	A351 CF8	
4	Sleeve	SS304		
5	Bonnet	A216 WCB	A351 CF8	A351 CF8M
6	Stem nut	Brass		
7	Stem	2Cr13	A182 304	A182 316
8	Adjustable pad	SS304		
9	Disc	A216 WCB	A351 CF8	A351 CF8M
10	Rubber Disphragm	EPDM		
11	Diaphragm	PFA FEP		
12	Body	A216 WCB+ Lining material	A351 CF8+ Lining material	A351 CF8M+ Lining material
13	Nut	A194 2H	A194 8	A194 8M
14	Flat washer	45#	A182 304	A182 316
15	Outer hexagonal screw	A193 B7	A320 B8	A193 B8M



A Lined Valve

Lined Diaphragm Valve

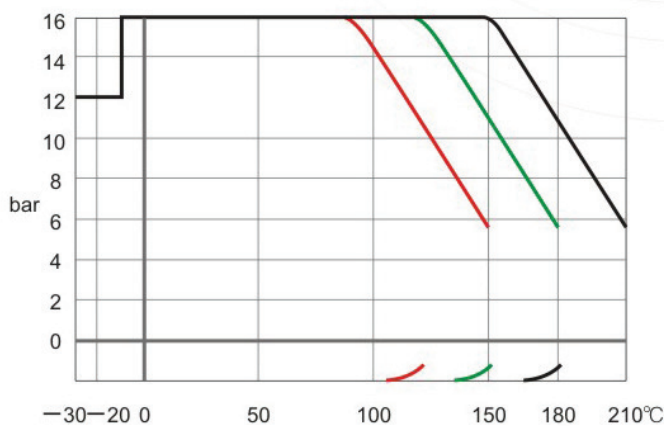


※ Technical Specification

Design Standard	HG/T 3704, GB/T 12239			MSS-SP-88
Face-to-face Dimension Standard	HG/T 3704, GB/T 12221			EN 558-1
Flange Standard	HG/T 20592, GB/T 9119			ASME B16.5, JIS B2220
Inspection & Test Standard	GB/T 13927, JB/T 9092			API 598
Nominal Diameter	DN15~DN300			1/2"~12"
Nominal Pressure (MPa)	0.6	1.0	1.6	150Lb
Test Pressure (MPa)	Shell Test	0.9	1.5	1.5
	High Pressure Sealing	0.66	1.1	1.1
	Low Pressure Sealing	0.6	0.6	0.6
Temperature Range (°C)	PFA: -30~200		FEP: -30~150	GXPO: -10~80
Applicable Medium	Strong corrosive medium i.e. hydrochloric acid, Nitric acid, Hydrofluoric acid, Liquid chlorine, Sulfuric Acid and Aqua regia etc.			

Note: Test standard refers general valve standard, high pressure should be customized for processing.

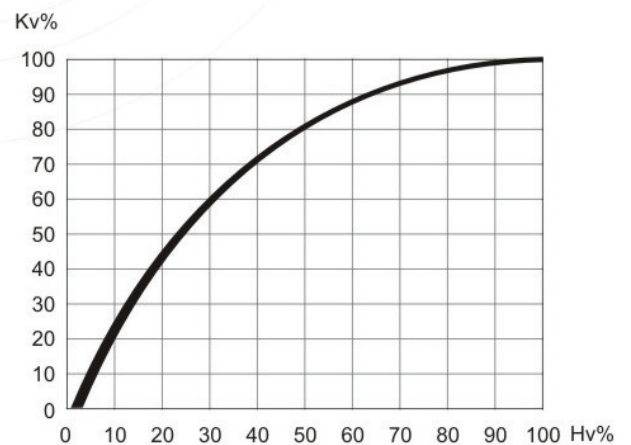
※ Pressure-Temperature Curve



Vacuum
0.1mbar

Note: — PFA — PTFE — FEP

※ Flow Characteristic

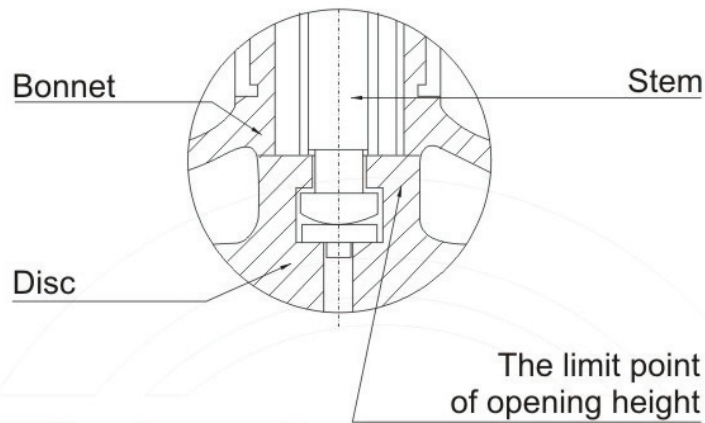


Valve Position Angle

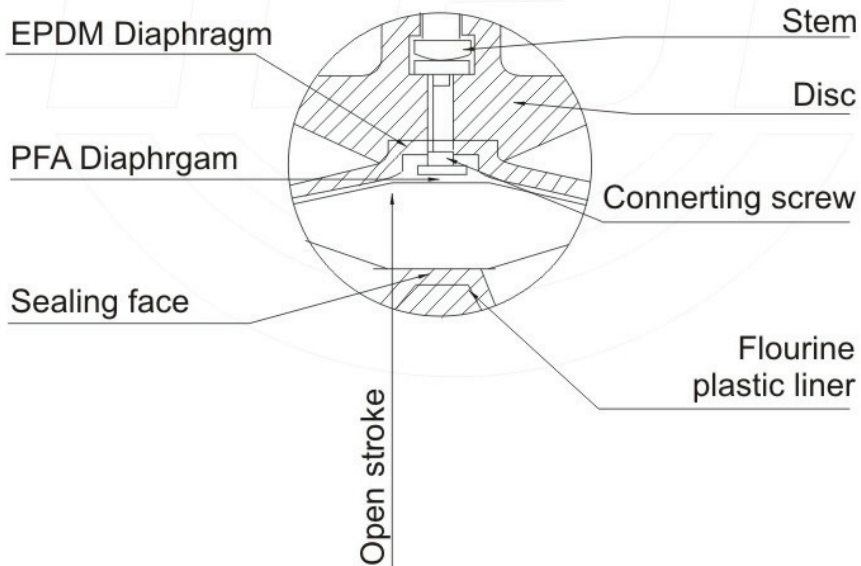
1Cv=1.167Kv

A Lined Valve Lined Diaphragm Valve

※ Structure Features



(1) Limit principle

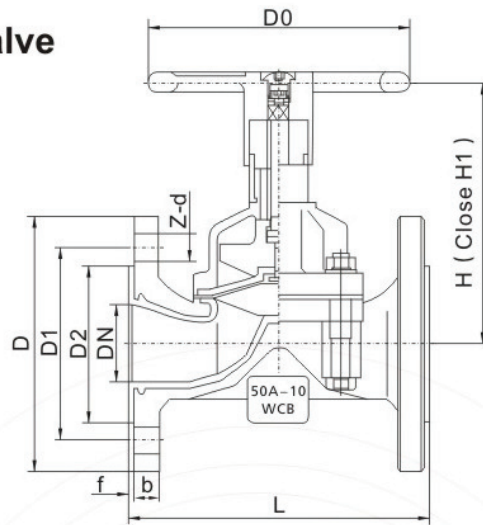


(2) Sealing principle

A Lined Valve

Lined Diaphragm Valve

GB Lined Diaphragm Valve



HG/T 20592 PN6

Unit:mm

DN	L	D	D1	D2	Z-d	f	b	H	H1	D0	Wt(Kg)
15	125	80	55	40	4-12	2	12	116	126	120	2.8
20	135	90	65	50	4-12	2	14	116	126	120	3
25	145	100	75	60	4-12	2	14	127	140	140	4.5
32	160	120	90	70	4-14	3	16	132	149	140	6.5
40	180	130	100	80	4-14	3	16	155	175	160	8
50	210	140	110	90	4-14	3	16	162	188	180	10
65	250	160	130	110	4-14	3	16	196	230	220	16
80	300	190	150	125	4-18	3	18	220	262	250	21
100	350	210	170	145	4-18	3	18	272	325	280	30
125	400	240	200	175	8-18	3	20	332	397	320	52
150	460	265	225	200	8-18	3	20	372	450	360	70
200	570	320	280	255	8-18	3	22	496	600	400	112
250	680	375	335	310	12-18	4	24	570	700	450	220

HG/T 20592 PN10

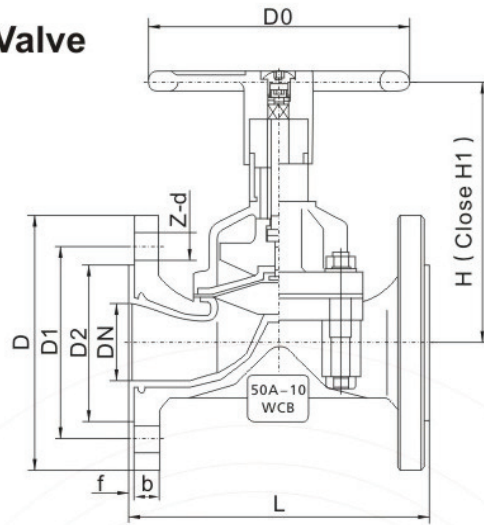
15	125	95	65	45	4-14	2	14	116	126	120	3
20	135	105	75	55	4-14	2	14	116	126	120	3.4
25	145	115	85	65	4-14	2	14	127	140	140	5.5
32	160	140	100	78	4-18	3	16	132	149	140	7
40	180	150	110	85	4-18	3	16	155	175	160	9
50	210	165	125	100	4-18	3	16	162	188	180	12.5
65	250	185	145	120	4-18	3	18	196	230	220	20
80	300	200	160	135	4-18	3	20	220	262	250	26
100	350	220	180	155	8-18	3	20	272	325	280	36
125	400	250	210	185	8-18	3	22	332	397	320	60
150	460	285	240	210	8-23	3	24	372	450	360	80
200	570	340	295	265	8-23	3	26	496	600	400	125
250	680	395	350	320	12-23	4	28	570	700	450	240

Note: for more size please consult factory.

A Lined Valve

Lined Diaphragm Valve

ANSI Lined Diaphragm Valve



HG/T 20592 PN16

Unit:mm

DN	L	D	D1	D2	Z-d	f	b	H	H1	D0	Wt(Kg)
15	125	95	65	45	4-14	2	12	116	126	120	2.8
20	135	105	75	55	4-14	2	14	116	126	120	3
25	145	115	85	65	4-14	2	14	127	140	140	4.5
32	160	140	100	78	4-18	3	16	132	149	140	6.5
40	180	150	110	85	4-18	3	16	155	175	160	8
50	210	165	125	100	4-18	3	16	162	188	180	10
65	250	185	145	120	4-18	3	16	196	230	220	16
80	300	200	160	135	4-18	3	18	220	262	250	21
100	350	220	180	155	8-18	3	18	272	325	280	30
125	400	250	210	185	8-18	3	20	332	397	320	52
150	460	285	240	210	8-23	3	20	372	450	360	70
200	570	340	295	265	12-23	3	22	496	600	400	112
250	680	405	355	320	12-25	4	24	570	700	450	220

ASME B16.5 Class150

1/2	110	89	60.5	35	4-16	2	12	116	126	120	3
3/4	117	98	70.0	43	4-16	2	12	116	126	120	3.4
1	127	108	79.5	51	4-16	2	14	127	140	140	5.5
1 1/4	140	117	89.0	64	4-16	3	16	132	149	140	7
1 1/2	165	127	98.5	73	4-19	3	17.5	155	175	160	9
2	178	152	120.5	92	4-19	3	19	162	188	180	12.5
2 1/2	190	178	139.5	105	4-19	3	22	196	230	220	20
3	203	190	152.5	127	4-19	3	24	220	262	250	26
4	229	229	190.5	157	8-18	3	24	272	325	280	36
5	254	254	216.0	186	8-18	3	24	332	397	320	60
6	267	279	241.5	216	8-23	3	25.5	372	450	360	80
8	292	343	298.5	270	8-23	3	28.5	496	600	400	125
10	330	406	362.0	324	12-23	4	30	570	700	450	240