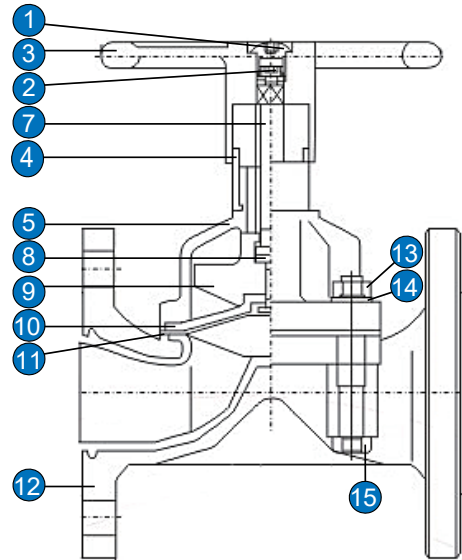


LINED DIAPHRAGM VALVE

Lined Diaphragm Valve
DN15-DN250 | 1/2"-10"

MODEL: KMY

- » **Body Material**
ASTM CF8M, CF8, WCB
- » **Size Range**
DN: 15 - 250
NPS: 1/2" - 10"
- » **Pressure Rating**
PN6*, PN10*,
PN16*, CL150
- » **End Connection**
Flanged
- » **Lining Material**
PFA, FEP, PO



Materials List:

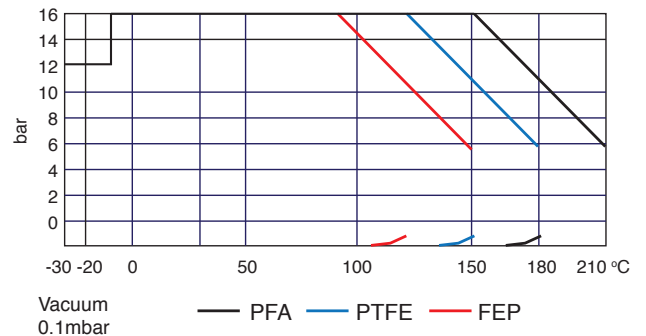
NO	Name	Material		
1	Lock screw	A320 B8	A320 B8	A193 B8M
2	Body bolt	A320 B8	A320 B8	A193 B8M
3	Handwheel	A216 WCB / A351 CF8		
4	Sleeve	SS304		
5	Bonnet	A216 WCB	A351 CF8	A351 CF8M
6	Stem nut	Brass		
7	Stem	SS420	A182 304	A182 316
8	Adjustable pad	SS304		
9	Disc	A216 WCB	A351 CF8	A351 CF8M
10	Rubber Diaphragm	EPDM		
11	Diaphragm	PFA, FEP		
12	Body	A216 WCB+Lining	A351 CF8+Lining	A351 CF8M+Lining
13	Nut	A194 2H	A194 8	A194 8M
14	Flat washer	1045	A182 304	A182 316
15	Outer hexagonal screw	A193 B7	A320 B8	A193 B8M

Technical Specification:

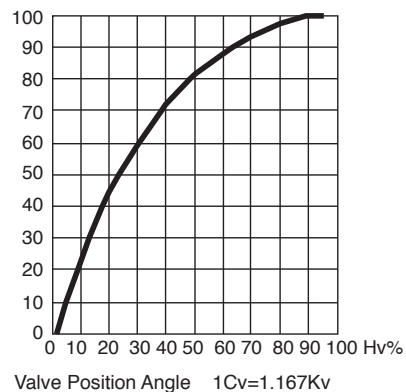
Design Standard	Manufacturer Std.	Manufacturer Std.		
Face-to-face Standard	Manufacturer Std.	ASME B16.10		
Flange Standard	EN 1092-1	ASME B16.5		
Inspection and Test Standard	See below*			
Nominal Diameter	DN15-DN250	1/2"-10"		
Nominal Pressure (MPa)	0.6	1.0	1.6	CLASS 150
Pressure Test (MPa)	Shell Test	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, PO:-10~80			
Applicable Medium	Strong corrosive medium i.e. hydrochloric acid, Nitric acid, Hydrofluoric acid, Liquid chlorine, Sulfuric Acid and Aqua regia etc.			

*Note: Standards indicated are general standard used as reference, some variations exist. Other standard or tests may be available on request for fee.

Pressure Temperature Curve



Flow Characteristic

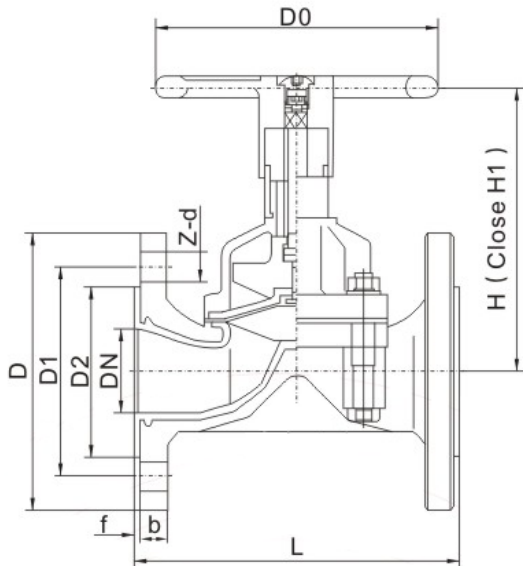


LINED DIAPHRAGM VALVE

Lined Diaphragm Valve

PN6*, DN15-DN250 | PN10*, DN15-DN250

MODEL: KMY



PN6* Dimensions (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

*Note: Some dimensions do not fully conform to EU standards, please be sure to confirm.

PN10* Dimensions (mm):

DN	L	D	D1	D2	Z-d	f	b	H	H1	D0	Wt(Kg)
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

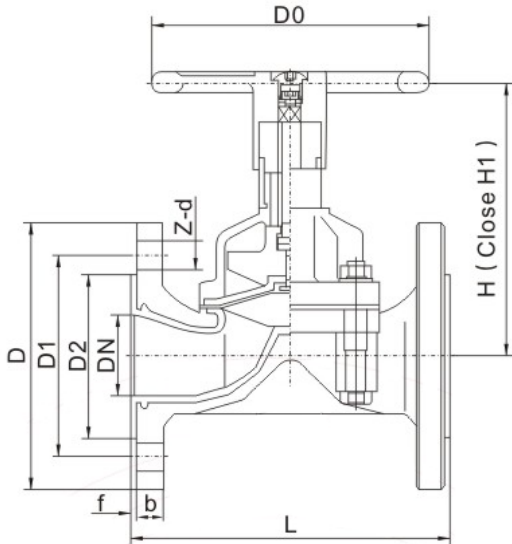
*Note: Some dimensions do not fully conform to EU standards, please be sure to confirm.

LINED DIAPHRAGM VALVE

Lined Diaphragm Valve

PN16*, DN15-DN250 | CL150, 1/2"-10"

MODEL: KMY



PN16* Dimensions (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

*Note: Some dimensions do not fully conform to EU standards, please be sure to confirm.

CL150 Dimensions (mm):

IN	L	D	D1	D2	Z-d	f	b	H	H1	D0	Wt(Kg)
1/2"	110	89	60.5	35	4-16	2	12	116	126	120	3
3/4"	117	98	70	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
1¼"	140	117	89.0	64	4-16	3	16	132	149	140	7
1½"	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
2½"	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

LINED VALVE

Fluorine Plastic Performance

Performance	Item		PTFE	PVDF	FEP	PFA	PO	PE	PP
			F4	F2	F46	PFA	PO	PE	PP
Physical Performance	Specific Gravity	g/cm3	2.1-2.2	1.76	2.1-2.2	2.1-2.2	0.92	0.92	0.92
	Water absorption	%	0.001~0.005	0.04	≤0.01	≤0.01	0.005	0.005	0.005
	Shrinkage rate of finished product	%	1~5	2.0	2~5	1~5	1~2	1~2	1~2
	Embrittlement coefficient	10-5/K	10~12	8.5~15.3	8.3~10.5	8.3~12	-	-	-
	Embrittlement temperature T1	°C	-180~-195	-62	-260	-180~-195	-40	-40	-20
	Hot resistance T2	°C	260	150	204	260	100	100	100
	Recommend working temperature T3	°C	≤180	≤100	≤150	≤200	≤85	≤85	≤85
Mechanical Performance	Hardness	SOSIXO	D50-65	D80	(R45)	D50-65	D40	D40	D40
	Friction coefficient f	-	0.06	0.14-0.17	0.06-0.11	0.06-0.11	-	-	-
	Tensile strength σ_b	MPa	13.7-24.5	45-48.3	20.0-24.5	14-28	≥10	6.9-14	7.5-14
	Bending strength σ_w	MPa	10.7-13.7	-	-	15-28	-	-	-
	Compression strength σ_y	MPa	111	68.6	-	111	-	-	-
	Impact strength σ_k	KJ/m2	16	19.7	Continuous	1 +	-55	45	50
	Ultimate elongation $\Delta\lambda$	%	250-350	30-300	250-270	300-500	480	300-600	600-700
	Breakdown voltage v	KV/mm	25~40	10.2	40	25~40	-	-	-
Processing Performance	Compression molding		Good	Good	Good	Good	Good	Good	Good
	Injection molding		-	Good	Good	Good	Good	Good	Good
	Lamination		Good	Good	Good	Good	Good	Good	Good
	Lamination		Good	Good	Good	Good	Good	Good	Good

LINED VALVE

Fluorine Plastic Performance

Corrosion Resistance performance (theoretical reference)

Medium	Concentration (%)	Temperature (°C)	PTFE	PVDF	FEP	PFA	PO	PE	PP
Sulfuric acid	10~98	Normal temperature ~100	A	A~B	A	A	Concentration ≤50%	Concentration ≤60%	A
Nitric acid	5~98	Normal temperature ~100	A	A	A	A	Concentration ≤30%	Concentration ≤60%	A
Hydrochloric acid	10~38	Normal temperature ~100	A	A	A	A	Concentration ≤38%	Concentration ≤60%	A~B
Acetic acid	10~100	Normal temperature ~100	A	A~B	A	A	Concentration ≤10%	Concentration ≤60%	A
Chromic acid	50~100	Normal temperature ~70	A	A~B	A	A	Concentration ≤30%	Concentration ≤20%	A
Phosphoric acid	50~85	Normal tempera- ture~100	A~B	D	A~B	A~B	Concentration ≤85%	Concentration ≤80%	A
Trichloroethane	100	Normal temperature	C	B	C	C	X	X	X
Copper-sulfate	15	Normal temperature	A	C	A	A	Concentration ≤90%	Concentration ≤80%	A
Diethyl ether	100	Normal temperature	B	C	B	B	X	X	X
Ethyl acetate	100	Normal temperature	B	A	B	B	X	X	X
Petrol	100	Normal temperature	A	A~B	A	A	X	X	X
Hydrogen peroxide	3~30	Normal temperature	A	A	A	A	Concentration ≤30%	Concentration ≤60%	A
Nitrobenzene	100	Normal temperature	A	A~B	A	A	X	X	X
Superalkali	10-50	Normal tempera- ture~100	A	A	A	A	Concentration ≤80%	Concentration ≤60%	A
Sodium Hypochlorite	-	70	A	B	A	A	Concentration ≤80%	Concentration ≤60%	A~B
Hydroxyl acid	40~99	-10~30	A~B	B	A~B	A~B	Concentration ≤80%	Concentration ≤60%	A~B
Oleum	20	Normal temperature	A	B	A	A	X	X	X
Acrylonitrile	-	Normal temperature	B	C	B	B	-	-	-
Aniline	100	Normal temperature	B	B	B	B	Concentration ≤60%	Concentration ≤20%	B
Benzene	100	Normal temperature	B	C	B	B	X	X	X
Butyl acetate	100	Normal temperature	B	C	B	B	Concentration ≤60%	Concentration ≤20%	B
Tetrachloromethane	Reagent grade	Normal temperature	B	C	B	B	X	X	X

Data indicated are theoretical value for reference. Depending on valve type and DN size, temperature limitation may be reduced accordingly.

A = Excellent, B = Good, C = OK, D = Poor

Many factors influence corrosion rating such as temperature fluctuation, concentration and aeration of fluids, high velocity or abrasions in the fluid steam, etc. The physical properties of material are affected differently by each corrosive media and sometimes it is inevitable one property is sacrificed for gain in another property. The corrosion data is provided as a comprehensive theoretical guide indicating the possible range, user must consider all parameters and exercise sound engineering judgment in material selection.