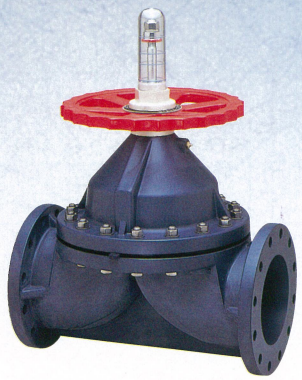
DIAPHRAGM VALVE TYPE 72 200mm, 250mm(8inch, 10inch)

● 200mm(8inch) · 250mm(10inch)



FEATURES

Sealed Bonnet

Having a sealed bonnet with an O-ring, prevents rain water or external atmosphere from entering the bonnet, DIAPHRAGM VALVE TYPE 72 can be safely used outdoors.

Sealed Indicator

Because a clear indicator gauge protects the exposed metallic part on top of the stem against atmosphere, corrosive gas or fluid does not of the valve.

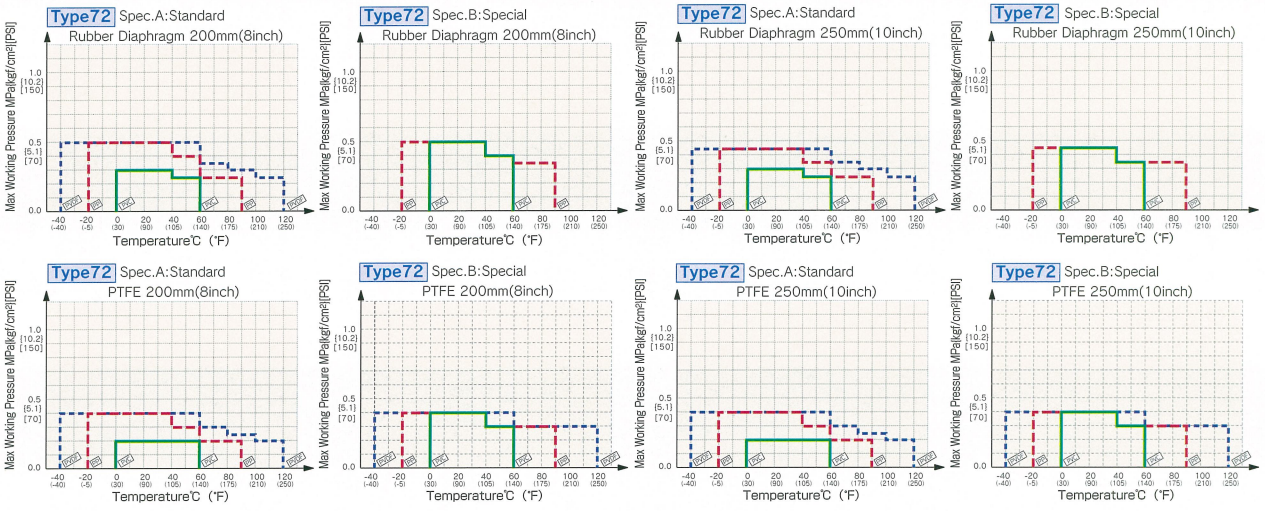
Position Indication

The position indicator also shows the degree of the valve position.

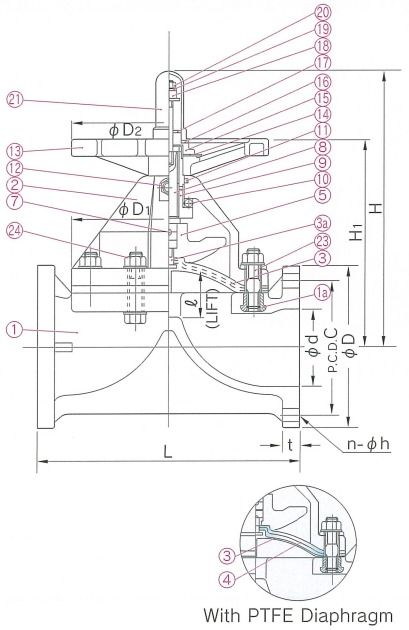
MATERIAL AND WORKING TEMPERATURE

Body material	Nominal size mm(inch)	Working Temperature ℃(°F)	Max. Working Pressure at 20℃(70°F) MPa{kgf/cm²}[PSI]			
			Rubber Diaphragm		PTFE Diaphragm	
			200mm(8inch)	250mm(10inch)	200mm(8inch)	250mm(10inch)
PVC	200(8)·250(10)	0 - 60(30 - 140)	0.3{3.1}[40]	0.3{3.1}[40]	0.2{2.0}[30]	0.2{2.0}[30]
PP	200(8)·250(10)	−20 - 90(−5 - 195)	0.5{5.1}[70]	0.45{4.6}[65]	0.4{4.1}[55]	0.4{4.1}[55]
PVDF	200(8)·250(10)	−40 - 120(−40 - 250)	0.5{5.1}[70]	0.45{4.6}[65]	0.4{4.1}[55]	0.4{4.1}[55]

WORKING PRESSURE VS. TEMPERATURE



DIMENSION



With PTFE Diaphragm

PARTS & MATERIALS

	DESCRIPTION		MATERIAL		DESCRIPTION		MATERIAL
①	BODY	1	BODY/BONNET PVC/PVC PP/PP PVDF/PPG PVDF/PVDF	⑪	O-RING(A)	1	NBR
				⑫	GREASE NIPPLE	1	COPPER ALLOY
②	BONNET	1		⑬	HAND WHEEL	1	PP
				⑭	NAME PLATE	1	PVC
③	DIAPHRAGM	1	EPDM,PTFE,FKM,NBR VIFLON F(FKM-F) VIFLON C(FKM-C)	⑮	CAP	1	PP
				⑯	SEAT GASKET(A)	1	EPDM
				⑰	SEAT RING	1	STAINLESS STEEL304
④	CUSION[1]	1	EPDM	⑱	STOPPER	1	CHROMIZED STEEL(SS400)
⑤	COMPRESSOR	1	GRAY IRON CASTING	⑲	SPRING WASHER	1	STAINLESS STEEL304
⑥	COMPRESSOR NUT	1	COPPER ALLOY(C3604)	⑳	SET NUT	1	STAINLESS STEEL304
⑦	COMPRESSOR PIN	1	STAINLESS STEEL304	㉑	GAUGE COVER	1	POLYCARBONATE
⑧	STEM	1	SUM23	㉓	STUD BOLT·NUT	–	STAINLESS STEEL304
⑨	SLEEVE(A)	1	GRAY IRON CASTING	㉔	BOLT·NUT	–	STAINLESS STEEL304
⑩	THRUST BEARING(A)	1	HIGH CARBON CHROMIUM BEARING(SUJ2)	⑱a	INSERTED NUT	–	COPPER ALLOY(C3604)[2] STAINLESS STEEL304[3]
				③a	INSERTED METAL OF DIAPHRAGM	1	STAINLESS STEEL304 Others

Note : 1) Used for PTFE Diaphragm
2) Used for PVC,PP Body
3) Used for PVDF Body

DIMENSIONS TABLE

JIS Unit:mm

Nominal Size mm	Nominal Size inch	※ d	JIS 10K C	JIS 10K ※ D	JIS 10K h	JIS 10K n	※ D_1	D_2	ℓ	L	t PVC	t PP,PVDF	※ H_1	H
200	8	196	290	330	23	12	430	410	95	570	28	32	419	627
250	10	247	355	400	25	12	540	560	128	680	30	37	510	778

※……Standard dimensions based on PVC material

DIN Unit:mm

Nominal Size mm	Nominal Size inch	※ d	DIN 2501 PN10 C	DIN 2501 PN10 ※ D	DIN 2501 PN10 h	DIN 2501 PN10 n	※ D_1	D_2	ℓ	L	t PVC	t PP,PVDF	※ H_1	H
200	8	196	295	340	22	8	430	410	95	600	30	34	419	627
250	10	247	350	395	22	12	540	560	128	730	34	36	510	778

※……Standard dimensions based on PVC material

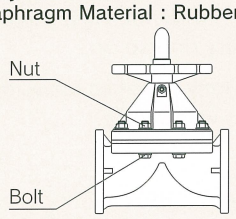
ANSI Unit:inch

Nominal Size inch	Nominal Size mm	※ d	ANSI CLASS 150 C	ANSI CLASS 150 ※ D	ANSI CLASS 150 h	ANSI CLASS 150 n	※ D_1	D_2	ℓ	L	t PVC,PP,PVDF	※ H_1	H
8	200	7.72	11.75	13.50	0.88	8	16.93	16.14	3.74	22.44	1.26	16.50	24.69
10	250	9.72	14.25	16.00	1.00	12	21.26	22.05	5.04	26.77	1.46	20.08	30.63

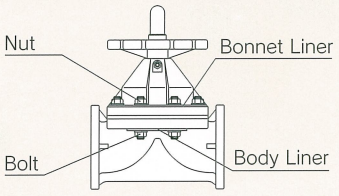
※……Standard dimensions based on PVC material

SPEC. A (Standard)

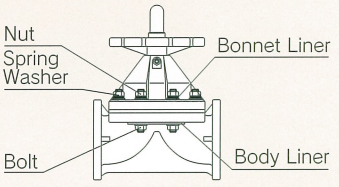
Body Material:PVC
Diaphragm Material : Rubbers or PTFE



Body Material:PP
Diaphragm Material : Rubbers or PTFE

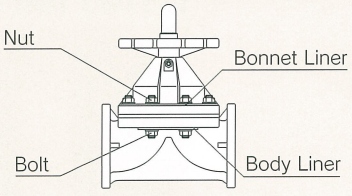


Body Material:PVDF
Diaphragm Material : Rubbers or PTFE

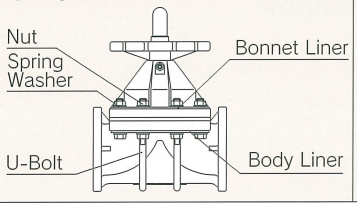


SPEC. B (Special)

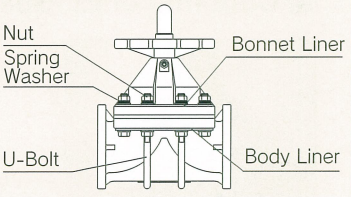
Body Material:PVC
Diaphragm Material : Rubbers or PTFE



Body Material:PP
Diaphragm Material : Rubbers or PTFE



Body Material:PVDF
Diaphragm Material : PTFE



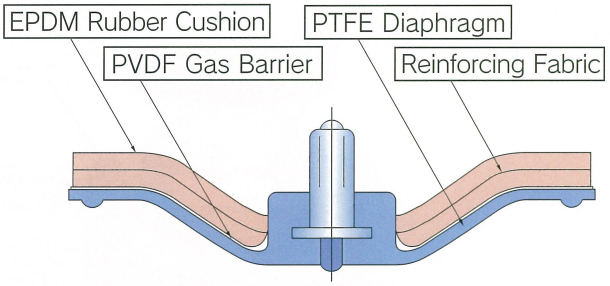
DIAPHRAGM VALVE TYPE 72

- We recommend that a PVDF Gas Barrier should be installed with PTFE DIAPHRAGM VALVE if it is used in an application that has corrosive gas.
- Temperature variations during operation or long periods of storage may cause the diaphragm to settle. In this case, it is recommended to check bonnet bolt torque,prior to installation(See the table below).

▼ Tightening Torque for Diaphragm Valve Bonnet for TYPE 72

Unit:N·m{kgf·cm}

Material \ Nominal Size mm(inch)	200 (8)	250 (10)
Rubber Diaphragm	25.0 {255}	25.0 {255}
PTFE Diaphragm	25.0 {255}	25.0 {255}



Diaphragm with PVDF Gas Barrier

MATERIAL AND WORKING TEMPERATURE (SPEC. B-Special)

Body material	Nominal size mm(inch)	Working Temperature ℃(°F)	Max. Working Pressure at 20℃(70°F) MPa{kgf/cm²}[PSI] Rubber Diaphragm 200mm(8inch)	Rubber Diaphragm 250mm(10inch)	PTFE Diaphragm 200mm(8inch)	PTFE Diaphragm 250mm(10inch)
PVC	200(8)·250(10)	0 - 60(30 - 140)	0.5{5.1}[70]	0.45{4.6}[65]	0.4{4.1}[55]	0.4{4.1}[55]
PP	200(8)·250(10)	−20 - 90(−5 - 195)	0.5{5.1}[70]	0.45{4.6}[65]	0.4{4.1}[55]	0.4{4.1}[55]
PVDF	200(8)·250(10)	−40 - 120(−40 - 250)	–	–	0.4{4.1}[55]	0.4{4.1}[55]

DIAPHRAGM VALVE/Chlor-Alkali Specification & EL Specification

FEATURES

As a solution for blister or crack problem on the surface of the valve body or the diaphragm in the severe working conditions especially for Chlor/Brine application, we prepared a special specification "EL-Specification".
The "EL-Specification", which has EL-PVDF body and EL-PTFE diaphragm, provides excellent chemical resistance and longer product life.
According to the result of our field tests, it is confirmed that the "EL-Specification" has 2 to 5 times longer product life than standard "C/A Specification" in the same working condition.

The detail of EL-Specification

Feature:To prevent the generation of blister and crack by applying special material.

Medium:High temperature brine, Sodium hypochlorite, Hydrofluoric acid and so on.

Countermeasure:for blister, crack, peeling-off and so on.

Parts:EL-PVDF(Body) and EL-PTFE(Diaphragm)

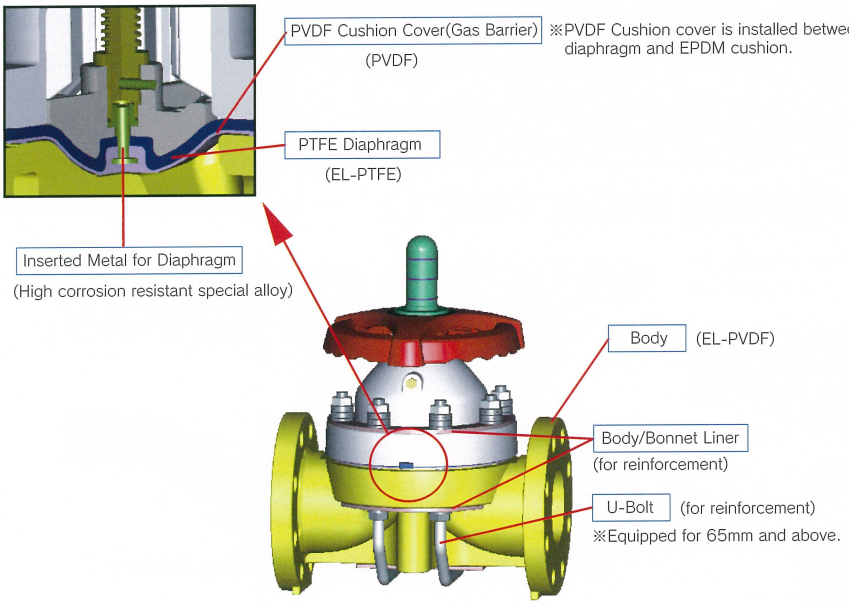
Target:Chlor/Alkali industry, pulp & paper industry, steel industry and so on.

Reference:Many factories especially in Electrolysis plants in world wide.

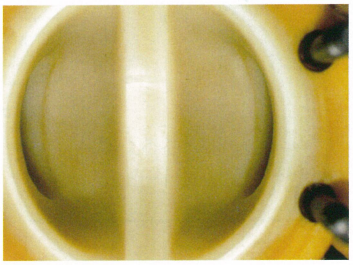
Size

15mm (1/2inch) - 100mm (4inch)

Contents of EL-Specification



Field Test Result



EL-PVDF/No blister is observed

PVDF/Blister is observed

(Electrolysis Plant/ Return Brine
88℃, 0.3MPa, after 5years service)

Comparison table between EL-Specification and Chlor/Alkali specification

Parts / Specification	Body	PTFE Diaphragm	Inserted Metal for PTFE Diaphragm	PVDF Cushion Cover	Remark
EL Spec.	EL-PVDF	EL-PTFE	Special Alloy	Equipped	c/w Body/Bonnet Liner and Conical Spring Washer
C/A Spec.	PVDF	PTFE	Special Alloy	Equipped	c/w Body/Bonnet Liner and Conical Spring Washer

Note : Please contact us for further information.