



Type 72 Diaphragm

Parts Type 72 (1/2" - 2") Non-True Union

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, CPVC, PVDF
2	Bonnet	1	PVC, PP, PVDF
3	Diaphragm	1	EPDM, PTFE, Others
4	Cushion*	1	EPDM
5	PVDF Gas Barrier*	1	PVDF
6	Compressor	1	PVDF
8	Stem	1	Copper Alloy
9	Sleeve	1	Copper Alloy
10	O-Ring	1	NBR
11	Hand Wheel	1	PP
12	Name Plate	1	PVC
13	Cap	1	PP
14	Sheet Gasket (A)	1	EPDM
15	Sheet Ring	1	Stainless Steel 304
16	Stopper	1	Stainless Steel 304
17	Spring Washer	1	Stainless Steel 304
18	Nut	1	Stainless Steel 304
19	Gauge Cover	2	PC
20	End Connector	1	PVC, CPVC, PP, PVDF
21	Union Nut	1	PVC, CPVC, PP, PVDF
22	End Connector Sealing	2	EPDM, Viton [®] , [†] Others
23	Bonnet Liner ¹	1	Stainless Steel 304
24	Stud, Bolt, Nut ²	-	Stainless Steel 304
25	Bolt, Nut, Washer	-	Stainless Steel 304
26	Body Liner	2	Stainless Steel 304
27	Upper Bonnet Liner ²	2	Stainless Steel 304
28	U-Bolt, Nut ¹	2 Sets	Stainless Steel 304
29	Lid Liner ¹	1	Stainless Steel 304
30	Spring Washer	-	Stainless Steel 304
1a	Metal Body Insert ³	-	Stainless Steel 304
3a	Metal Diaphragm Insert	1	Stainless Steel 305

* Used for PTFE diaphragm

¹ Used for PVDF body

² Used for PVDF bodies

³ Used for PVC, CPVC, and PP bodies

Specifications

Sizes: 1/2" - 2"

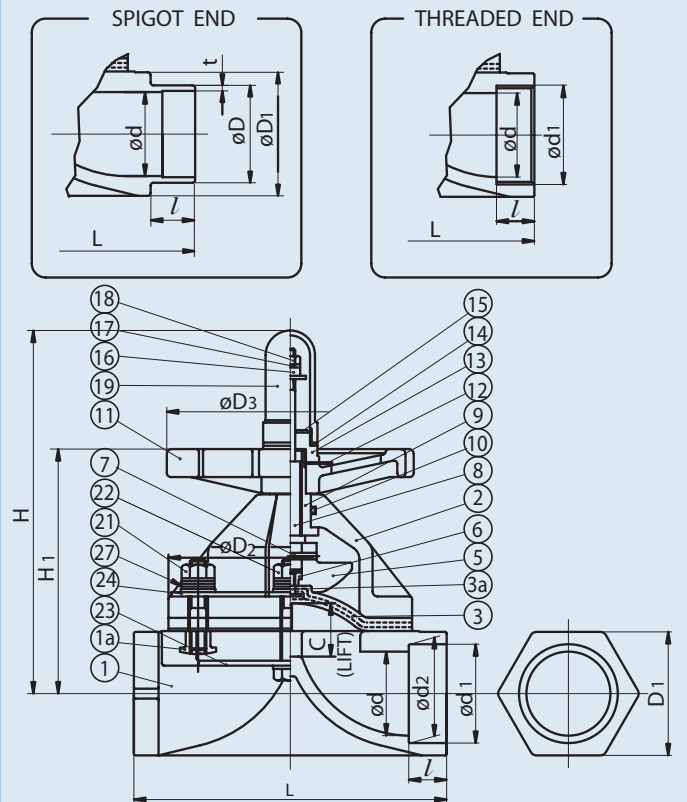
Body Materials: PVC, CPVC, and PVDF

Bonnet Materials: PVC, PP, and PVDF

Models: PVC & CPVC: Soc. & Thr'd
PVDF: Thr'd or Butt end

Diaphragms: EPDM and PTFE
Also available in other materials such as Nitrile, Butyl, Hypalon[®][†] and Neoprene[®][†]

[†] Trademarks of E. I. du Pont de Nemours and Company



Standard Features

- Solid, molded body and bonnet for maximum corrosion resistance
- Socket and threaded connections for PVC and CPVC are to IPS dimensions
- Connections without involving elastomeric O-rings, which could be susceptible to chemical attacks
- Weir design for excellent throttling
- Full vacuum rating
- Bubble-tight sealing, even in applications such as slurries or those containing suspended particles

FOR "TROUBLESHOOTING" SEE PAGE 57

ASAHI/AMERICA

Rev. A 01-02

Type 72 Mono-Bloc

Diaphragm Valves

Standard Features

- Bonnet seals to protect internals from corrosive environments
- Built-in travel stop to prevent diaphragm from being over-tightened
- Indicator at the top for valve position
- PVDF gas barrier, which protects EPDM cushion from gas permeation, standard for PVDF valves

Options

- PVDF gas barrier for PVC and CPVC valves
- 2" square nut
- "T" operating nut for remote operation
- Stem extensions (single and two-piece designs)
- Locking device for tamper-proofing
- Manual limit switches for remote position indication by lights or for sequencing of other equipment
- Pneumatic or electric actuation

Sample Specification

All TYPE 72 diaphragm valves shall be of solid thermoplastic construction for body and bonnet with socket, threaded or butt end connectors. The valves shall come standard with a position indicator, travel stop and bonnet o-ring sealing arrangement. The valve shall be weir type design. All PTFE diaphragms shall accept the installation of a PVDF gas barrier between the layers of EPDM and PTFE for aggressive chemical service. PVC conforming to ASTM D1784 Cell Classification 12454-A, CPVC conforming to ASTM D1784 Cell Classification 23567-A, PP conforming to ASTM D4101 Cell Classification PP0210B67272, PPG (Bonnet Only) conforming to ASTM D4101 Cell Classification PP0110M20A21130, and PVDF conforming to ASTM D3222 Cell Classification Type II. PVC, CPVC, and PVDF shall be rated to 150 psi for elastomeric diaphragms at 70 degrees F. PVC, CPVC, and PVDF shall be rated to 150 psi sizes 1/2" thru 1-1/2" and 120 psi size 2" at 70 degrees F for PTFE diaphragms, as manufactured by Asahi/America, Inc.

Pressure vs. Temperature PSI, WATER, NON-SHOCK

NOMINAL SIZE		PVC				CPVC						PVDF		
		ELASTOMERS		PTFE		ELASTOMERS			PTFE			PTFE		
INCHES	mm	30° F 105° F	106° F 140° F	30° F 105° F	106° F 140° F	30° F 105° F	106° F 140° F	141° F 195° F	30° F 105° F	106° F 140° F	141° F 195° F	40° F 140° F	141° F 175° F	176° F 250° F
1/2-1 1/2	15-40	150	120	150	100	150	120	100	150	100	90	150	100	90
2	50	150	120	120	90	150	120	90	120	90	75	120	90	75

Dimensions Type 72 Non-True Union or "Mono-Bloc" (Sizes 1/2" – 2")

NOMINAL SIZE		d	SOCKET											THREADED		
			PVC, CPVC				PP, PVDF (DIN)				PP, PVDF (IPS)			d1	l	L
			ANSI SCH 80			L	DIN 16962			d1	l	L				
INCHES	mm	d1	d2	l	L		d1	d2	l				L	d1	l	L
1/2	15	0.63	0.848	0.836	0.683	3.35	0.768	0.760	0.57	3.35	0.83	0.87	3.35	1/2-14NPT	0.59	3.35
3/4	20	0.79	1.058	1.046	0.719	3.74	0.965	0.957	0.63	3.74	1.03	1.00	3.74	3/4-14NPT	0.67	3.74
1	25	0.98	1.325	1.310	0.875	4.33	1.240	1.232	0.71	4.33	1.30	1.13	4.33	1-111/2NPT	0.79	4.33
1 1/4	32	1.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 1/2	40	1.57	1.912	1.894	1.094	6.30	1.947	1.937	0.93	6.30	1.89	1.37	6.30	11/2-111/2NPT	0.98	6.30
2	50	2.01	2.387	2.369	1.156	7.48	2.461	2.445	1.08	7.48	2.36	1.50	7.48	2-111/2NPT	1.10	7.48

NOMINAL SIZE		SPIGOT (BUTT END)										
		PVC, CPVC										
		DIN 3442		PP	PVDF							
INCHES	mm	d1	l	t	t	L	D1	D2	D3	C (LIFT)	H	H1
1/2	15	0.787	0.728	0.098	0.075	4.88	1.18	2.13 X 2.76	3.74	0.39	4.96	3.35
3/4	20	0.984	0.866	0.106	0.075	5.67	1.42	2.48 X 3.07	3.74	0.47	5.39	3.70
1	25	1.260	0.886	0.118	0.094	6.06	1.81	2.68 X 3.46	4.33	0.59	6.71	3.94
1 1/4	32	1.575	1.024	0.146	0.094	7.64	2.56	4.92 X 4.92	5.91	0.87	7.48	5.31
1 1/2	40	1.969	1.260	0.181	0.118	7.64	2.56	4.92 X 4.92	5.91	0.87	7.48	5.31
2	50	2.480	1.417	0.228	0.118	8.82	2.95	5.83 X 5.83	5.91	1.22	8.35	5.75

Cv Values/Wt.

NOMINAL SIZE		Cv	WT. (LBS.)
INCHES	mm		
1/2	15	4.9	1.98
3/4	20	8.0	2.20
1	25	11	3.31
1 1/4	32	27	5.29
1 1/2	40	27	7.72
2	50	54	8.82