



Type 15 Flanged Diaphragm

Parts Type 15 (5" – 6")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, PP, PVDF
2	Bonnet	1	PVC, PP, PPG, PVDF
3	Diaphragm	1	EPDM, PTFE, Others
3a	Diaphragm Metal Insert	1	Stainless Steel 304
4	Cushion*	1	EPDM
4a	PVDF Gas Barrier*	1	PVDF
5	Compressor	1	PVDF
6	Compressor Nut	1	Copper Alloy
7	Compressor Pin	1	Stainless Steel 304
8	Stem	1	Copper Alloy
9	Sleeve (A)	1	Copper Alloy
10	Thrust Bearing (A)	1	High Carbon Chromium Bearing
11	O-Ring (A)	1	NBR
12	Grease Nipple	1	Copper Alloy
13	Hand Wheel	1	PP
14	Name Plate	1	PVC
15	Cap	1	PP
16	Sheet Gasket (A)	1	EPDM
17	Sheet Ring	1	Stainless Steel 304
18	Stopper	1	Chromized Steel
20	Nut	1	Stainless Steel 304
21	Gauge Cover	1	PC
23	Stud Bolt, Nut	4 Sets	Stainless Steel 304, Others
24	Bolt, Nut, Washer	-	Stainless Steel 304
1a	Inserted Nut	4	Stainless Steel 304 ¹ Copper Alloy ²

* Used for PTFE diaphragm ¹ Used for PVDF body ² Used for PVC, PP, bodies

Specifications

Sizes: 5" – 6"

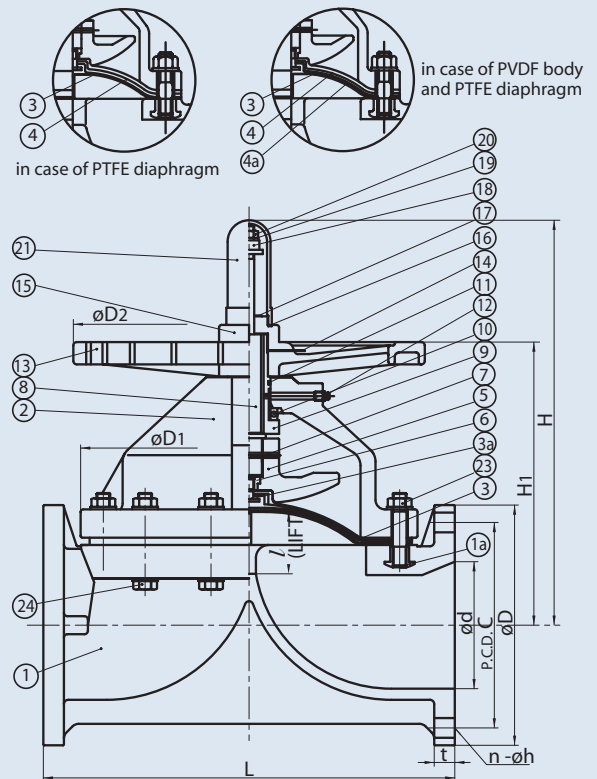
Body Materials: PVC, PP and PVDF

Bonnet Materials: PVC, PP, PPG and PVDF

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



Features

- Flanged face-to-face dimensions are equivalent to those of Type G diaphragm valve
- Rugged body and bonnet are of solid thermoplastic for maximum corrosion resistance
- Bubble-tight sealing, even in applications such as slurries or suspended particles

Dimensions Type 15 Flanged (Sizes 5" – 6")

NOMINAL SIZE		ANSI CLASS 150						t		D1	D2	l	H	H1
INCHES	mm	d	C	D	n	h	L	PVC	PP, PVDF					
5	125	4.92	10.00	8.50	8	0.88	16.14	0.87	0.94	12.60	11.81	2.36	16.54	12.13
6	150	5.83	11.00	9.50	8	0.88	18.90	0.94	1.06	15.16	16.14	2.76	18.74	13.15

Cv Values/Weight

NOMINAL SIZE		Cv	WT.
INCHES	mm		
5	125	300	58.00
6	150	400	89.00

Features

- Weir design for excellent throttling
- Uniquely designed body and bonnet together with diaphragms of new sealing designs by the state-of-the-art computer aided analysis for superior sealing
- 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 and prevention of over-tightening
- PVDF gas barrier, which protects EPDM backing cushion from gas permeation, is standardized for PVDF valves

Options

- PVDF gas barrier for PVC and PP Diaphragm Valves
- 2" square operating nut
- "T" operating nuts for remote operation
- Stem extensions (single stem or two-piece stem)
- Chain operators
- Locking device for tamper-proofing
- Manual limit switches for remote position indication by lights or for sequencing of other equipment

Troubleshooting

What if valve does not open or close?

1. Air pressure is too low. Adjust the pressure.
2. Power source of solenoid valve is off. Check the connection.
3. Solenoid wiring is disconnected. Connect.
4. Solenoid voltage is low or incorrect. Check voltage with tester and reset.

5. Air not supplied to solenoid valve.
6. By-pass valve is open. Close it.
7. Speed control on solenoid set incorrectly. Adjust.

What if fluid flows even when closed?

1. Operating pressure is too low (Air-to-Air only). Adjust. Air not exhausted (Air-to-Spring only). Exhaust air.
2. Diaphragm is damaged or worn. Replace.
3. Body may be damaged. Inspect and replace.
4. Foreign material is caught between weir and diaphragm. Disassemble and clean.

What if valve leaks to atmosphere?

1. Bolts for body and actuator improperly tightened. Tighten as specified.
2. True Union style: (a) Union nut(s) not tightened properly. Tighten; (b) O-ring between end connector and body is damaged. Replace.

Sample Specification

All TYPE 15 flanged diaphragm valves shall be of solid thermoplastic construction for body and bonnet with molded flanged ends. The valves shall come standard with a position indicator, travel stop (to prevent over-tightening) and bonnet o-ring sealing arrangement. The valve shall be weir type with a round bonnet body sealing design and threaded stud diaphragm connection. All PTFE diaphragms shall accept the installation of a PVDF gas barrier between the layers of EPDM and PTFE for aggressive chemical service. The face-to-face dimensions shall conform to TYPE G. PVC conforming to ASTM D1784 Cell Classification 12454-A, PP conforming to ASTM D4101 Cell Classification PPO210B67272, PPG (Bonnet Only) conforming to ASTM D4101 Cell Classification PPO110M20A21130, and PVDF conforming to ASTM D3222 Cell Classification Type II. PVC, and PP shall be rated to 115 psi for elastomeric diaphragms at 70 degrees F. PVC, PP and PVDF shall be rated to 100 psi (5") and 70 psi (6") for PTFE diaphragms at 70 degrees F., as manufactured by Asahi/America, Inc.

Pressure vs. Temperature PSI, WATER, NON-SHOCK

NOMINAL SIZE		PVC				PP						PVDF							
		ELASTOMERS		PTFE		ELASTOMERS			PTFE			ELASTOMERS				PTFE			
INCHES	mm	30° F 105° F	106° F 140° F	30° F 105° F	106° F 140° F	-5° F 105° F	106° F 140° F	141° F 195° F	-5° F 105° F	106° F 140° F	141° F 195° F	-40° F 140° F	141° F 175° F	176° F 210° F	211° F 250° F	-40° F 140° F	141° F 175° F	176° F 210° F	211° F 250° F
5	125	115	100	100	80	115	95	70	100	80	55	115	100	85	70	100	85	70	55
6	150	115	70	70	55	115	90	55	70	60	40	115	95	75	55	70	60	50	40