

TVI THERMOPLASTIC VALVES INC.

ARRANGEMENT DRAWING DIAPHRAGM VALVE-FLG.TYPE

SIZE: 1/2" - 10"

DWN BY CKP	DATE 1/96	DWG NO. 104-DV
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**CERTIFIED
CORRECT FOR GENERAL DIMENSIONS**

Date _____ Per: _____

Materials of Construction

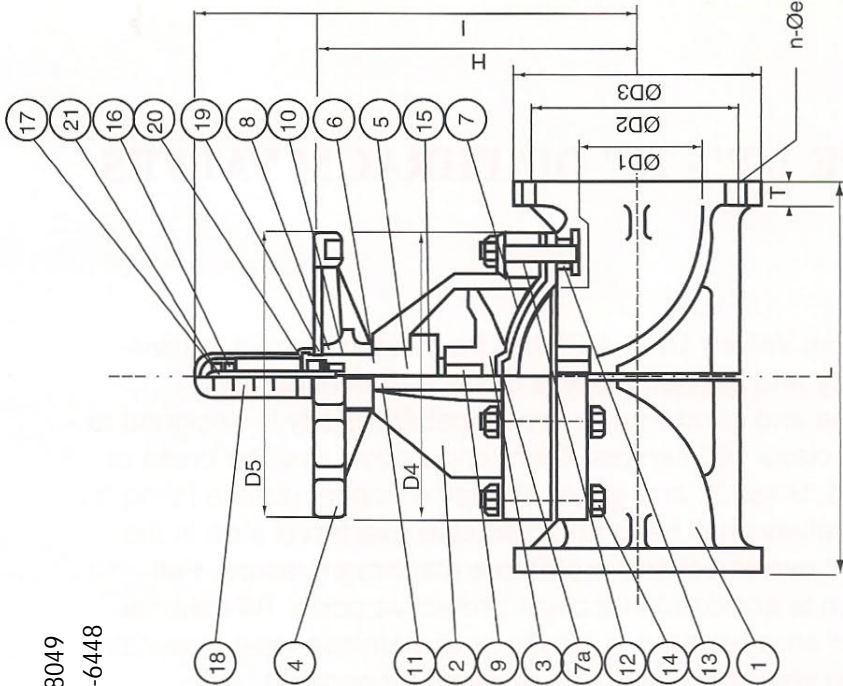
Item	Parts	Pcs	Materials	Item	Parts	Pcs	Materials
1	Body	1	PVC PP/PVDF CPVC	11	Grease Nipple	1	BRASS
2	Bonnet	1	PVC PP/PVDF CPVC PPO	12	Stud Bolt & Nut	4 Sets 1 1/2" - 2"	SS41, SUS304
3	Compressor	1	1/2" - 1" PP/PA/Nylon	13	Inserted Nut	6 Sets 2 1/2" - 5"	BRASS
4	Hand Wheel	1	1 1/2" - 10" CAST IRON*	14	Bolt Nut & Washer	8 Sets 6" - 8"	SS41, SUS304
5	Sleeve	1	PP	15	Thrust Bearing	20 Sets 10"	SS41, SUS304
6	Stem	1	1 1/2" - 2" BRASS 2 1/2" - 10" CAST IRON*	16	Stopper	1	Standardized 3" - 10" Used Only
7	Diaphragm	1	1 1/2" - 10" SS-41 EPDM; HYPALON® TEFLON®	17	Set Nut	1	SS-41, BRASS, SUS304
8	Cap	1	1 1/2" - 10" PVC, PP*	18	Gauge Cover	1	POLYCARBONATE
9	Compressor Pin	1	SUS-304	19	Sheet Gasket	1	EPDM
10	Name Plate	1	PVC	20	Sheet Ring	1	SS-41, BRASS, SUS304
				21	Spring Washer	1	SS-41, SUS304

HYPALON® VITON® and TEFLON® are trademarks of DuPont Dow Elastomers

Ansi Dimensions

Size Inch	D ₁	D ₂	D ₃	D ₄	D ₅	Lift	L	T	H	Rubber Diaphragm @ 73°F			Teflon Diaphragm @ 73°F											
										UPVC	PP	PPG	CPVC	PVDF	UPVC	PP	PPG	CPVC	PVDF					
1/2	0.63	2.38	3.50	0.63	4	2.32x2.09	3.70	0.51	4.25	0.51	3.98	5.51	150	150	150	150	150	150	150	150	105	105	105	105
3/4	0.79	2.76	3.86	0.63	4	2.80x2.48	3.70	0.51	5.90	0.59	4.17	5.98	150	150	150	150	150	150	150	150	105	105	105	105
1	0.98	3.13	4.25	0.63	4	3.15x2.60	3.70	0.55	5.90	0.67	4.45	6.22	150	150	150	150	150	150	150	150	105	105	105	105
1 1/2	1.61	3.88	5.00	0.63	4	4.96	5.79	0.94	6.95	0.67	5.24	7.60	150	150	150	150	150	150	150	150	105	105	105	105
2	2.05	4.74	5.96	0.75	4	5.83	5.79	1.10	7.95	0.67	5.71	8.27	150	150	150	150	150	150	150	150	105	105	105	105
2 1/2	2.68	5.49	7.01	0.75	4	7.48	7.95	1.26	9.85	0.79	7.76	10.87	150	150	150	150	150	150	150	150	105	105	105	105
3	3.07	6.00	7.52	0.75	4	8.46	7.95	1.34	10.40	0.79	8.50	11.54	150	150	150	150	150	150	150	150	90	75	90	90
4	3.94	7.50	9.02	0.75	8	10.04	9.49	2.13	12.95	1.10	10.28	14.57	150	150	150	150	150	150	150	150	90	75	90	90
5	4.92	8.50	10.00	0.87	8	12.60	10.79	2.83	16.14	1.10	12.13	16.22	105	105	105	105	105	105	105	105	60	60	60	60
6	5.83	9.51	10.98	0.87	8	15.16	15.55	2.83	18.90	1.26	13.15	18.54	105	105	105	105	105	105	105	105	60	60	60	60
8	7.80	11.75	13.50	0.87	8	16.93	15.55	3.78	22.44	1.26	16.40	24.61	60	60	60	60	60	60	60	60	45	45	45	45
10	9.76	14.25	15.98	0.98	12	21.26	21.85	5.20	26.77	1.34	20.08	29.53	60	45	60	60	60	60	60	60	45	45	45	45

Testing performed on PVC body, EPDM diaphragm at 73°F water temperature, non-shock



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FLANGED BODY TYPE 1/2" - 10" DIAPHRAGM VALVES

DESIGN SPECIFICATION

Thermoplastic Diaphragm Valves 1/2" - 10" shall be molded of solid thermoplastic materials for body and bonnet. Body is of the weir configuration exhibiting large flow area and good flow control capability. Body is designed to fit between ANSI B16.5 class 150 flanges. Stem and sleeve shall be brass or cast iron, fully lubricated. Sizes 3" and larger employ a bonnet grease fitting for ease of lubrication. All valves shall have an adjustable overtravel stop in the close position to prevent overtravel and premature diaphragm failure. Full stroke position indication is enclosed in a clear protective cover. All external fasteners shall be either encapsulated in plastic or of stainless steel materials. Materials of construction shall be: (select as required for service)

BODY

PVC, CPVC, ASTM D-1784, PP, ASTM D-4101, PVDF, ASTM D-3222

BONNET

PVC, CPVC, ASTM D-1784, PP, ASTM D-4101, PVDF, ASTM D-3222
PPO, ASTM D-4101 (Standard)

STEM/SLEEVE

Brass, 1/2" - 2",
C.I., 2 1/2" - 10"

DIAPHRAGM

EPDM, Ethylene Propylene Diene Monomer
Fluorocarbon, Viton (Dupont Dow Elastomers) only avail. for vacuum service.
PTFE/Neoprene, Teflon (Dupont Dow Elastomers)

DIAPHRAGM INSERT STUD

Stainless Steel, Large Diameter

POSITIVE INDICATOR COVER

PC, Polycarbonate, ASTM - D-2848

HANDWHEEL

ABS, ASTM D-1788

NOTE: For any diaphragm application with use of sodium hypochlorite, factory must be informed prior to quote.