

**PVC/CPVC/Chem-Pure® (NPP)/
Natural Kynar® (PVDF)**

150 psi at 73°F water—non-shock

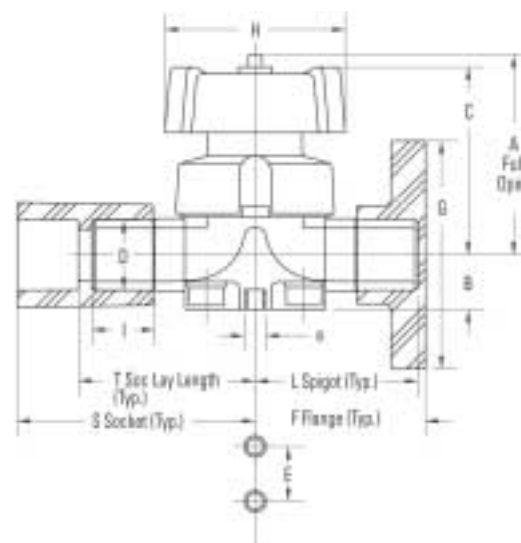
Chemtrol plastic Diaphragm Valves offer characteristics ideal for corrosive or high-purity chemicals and water, abrasive slurries, and vacuum applications. These multi-turn valves are designed for accurate flow control, outstanding durability, and leak-proof operation. The absence of stagnation pockets or crevices, together with the self-cleansing of unobstructed flow through the valves, make them ideal for slurries, salts which tend to plate-out on surfaces, and services which are sensitive to microbiological growth.

Features

- Diaphragm isolates the working parts of the valve from process medium for long life and leak-proof performance.
- Pack-less design minimizes the potential of shell leakage for ideal emissions control.
- The resilient diaphragm assures bubble-tight closure to flow.
- No pockets or dead spaces, thus preventing accumulation or stagnation of process fluids or contaminants.
- Multi-turn operation allows for precise throttling of manual valves.
- A visual position indicator is standard.
- EPDM or PTFE diaphragm selection affords wide range of applications, from corrosives to slurries and high-purity.
- Anchor/support bolt holes are located in base of body.

Notes

See page 14 for a list of *Components and Construction Materials*. For more insight into the selection of materials, refer to *Materials*, page 1. For the specific relationship of pressure vs. temperature, refer to *Engineering Data*, page 33. For *Chemtrol Valve Standards*, see page 35.



Chemtrol Figure Numbers

Valve Style		Body Material			
Diaphragm	End Connection	PVC	CPVC	Natural Polypro	Natural PVDF
EPDM	Spigot ³	G45CD-E	G51CD-E	NA ¹	NA ¹
	Flanged	F45CD-E	F51CD-E	NA ¹	NA ¹
	Socket	S45CD-E	S51CD-E	NA ¹	NA ¹
PTFE ²	Spigot ³	G45CD-T	G51CD-T	G62CD-T	G66CD-T
	Flanged	F45CD-T	F51CD-T	F62CD-T	F66CD-T
	Socket	S45CD-T	S51CD-T	S62CD-T	S66CD-T

- 1 Chem-Pure NPP and NPVDF valves are not usually specified with EPDM diaphragms. However, they can be field fabricated by purchasing an EPDM diaphragm for replacement in a PTFE trimmed valve.
- 2 At the point of manufacture, the diaphragm sealing surface of the flange on the valve body receives special preparation to enhance sealing with PTFE diaphragms. This finishing operation is not performed on bodies receiving rubber diaphragms. Therefore, a PTFE diaphragm **cannot** be used as a replacement in an EPDM trimmed valve.
- 3 All PVC and CPVC valves and 3" & 4" NPP and NPVDF valves have IPS (US) spigots. These valve styles can be field joined with any standard Chemtrol fitting of the same size and material, utilizing solvent cement or Chemtrol heat fusion equipment—material specific. NPP and NPVDF valves in sizes 1/2" - 2" have metric spigots. Factory produced flanged and socket styles in these materials and sizes utilize specially fabricated metric joining heat faces and fittings with metric sockets. Since these essential items **are not** offered for sale, purchase of spigot styles in these materials and sizes for field joining **is not** encouraged.

Dimensions—Weight—Fluid Flow Coefficient

D ¹		A	B	C	H	E	G	L		I	F		S		T	e ³	Flow	
IPS Size	Metric Size	Full Open						PVC CPVC	PP PVDF	PVC CPVC	PP PVDF	PVC CPVC	PP PVDF	PVC CPVC	PP PVDF	Weight Lbs. ⁴	Coeff. Cv ⁵	
1/2"	20	3.74	1.02	3.46	3.54	0.98	3.50	2.74	3.97	0.93	0.63	2.90	2.99	3.88	3.97	2.99	3.14	M6 1.54 6.45
3/4"	25	3.74	1.02	3.46	3.54	0.98	3.88	3.03	2.83	1.03	0.75	3.19	3.45	4.30	4.56	3.28	3.59	M6 1.54 9.43
1"	32	3.74	1.02	3.46	3.54	0.98	4.25	3.03	3.03	1.16	0.91	3.17	3.68	4.42	4.90	3.28	3.82	M6 1.54 12.14
1 1/4"	NA ²	4.96	1.58	4.57	4.53	1.75	4.63	3.74	NA ²	1.36	NA ²	3.92	NA ²	5.26	NA ²	3.92	NA ²	M8 3.31 20.81
1 1/2"	50	4.96	1.58	4.57	4.53	1.75	5.00	3.82	3.82	1.42	1.26	4.01	4.52	5.46	5.95	4.07	4.62	M8 3.31 28.86
2"	63	5.83	1.57	5.83	5.49	1.77	6.00	4.41	4.41	1.54	1.54	4.60	5.08	6.18	6.63	4.66	5.17	M8 5.29 53.14
2 1/2"	NA ²	9.73	2.17	9.11	9.80	3.94	7.00	5.53	NA ²	1.81	NA ²	5.73	NA ²	7.57	NA ²	5.79	NA ²	M12 14.33 90.18
3"	-	9.73	2.17	9.11	9.80	3.94	7.50	5.90	5.90	2.01	2.01	6.11	6.17	8.02	8.07	6.12	6.25	M12 15.43 138.73
4"	-	11.50	2.50	10.04	9.80	4.73	9.00	6.69	6.69	2.40	2.19	6.93	6.95	9.16	9.13	6.88	6.94	M12 19.84 187.29

1 All PVC and CPVC valves and 3" & 4" Chem-Pure NPP and NPVDF Valves have IPS (US) spigots. Chem-Pure NPP and NPVDF Valves in sizes 1/2" - 2" have metric spigots.
 2 The 1 1/4" and 2 1/2" valve sizes are not available in Chem-Pure NPP and NPVDF.
 3 Thread for metric bolt.
 4 Weights are for the PVC spigot valve style.
 5 Cv values are for the spigot valve style, represented by the PVC and CPVC laying length = 2 x L.