

AEGIS®

LDV/SC COMPOSITE SERIES



**Fully Lined Structural Composite High Performance
Diaphragm Valves**



ISO 9001:2008



AEGIS FLOW TECHNOLOGIES

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BIO-TECHNOLOGY - CHEMICAL - CHLOR ALKALI - PETROCHEMICAL - PHARMACEUTICAL - PULP & PAPER - SEMICONDUCTOR
PHARMACEUTICAL - PULP & PAPER - SEMICONDUCTOR - BIO-TECHNOLOGY - CHEMICAL - CHLOR ALKALI - PETROCHEMICAL

LDV/SC	Standard Features	Optional Features
Application	Internally and Externally Corrosive and Ultra-pure Processes	
Conforming Standards	ASME B16.5, API 598	
Size	1/2" - 4"	
Body	40% GF PPS	40% GF PPA / 30%GF PPL
Lining	PFA	PVDF
Temperature	35 °F to 400 °F	
Process Sealing	Gas Tested, Bubble tight per API 598	
Stem Sealing	Paraflon® Diaphragm w/ Gas Barrier	
Pressure Rating	ANSI 150#	
Connection Type	ANSI 150# Flanged	
Control Characteristics	≈Linear	
Flow Direction	Bi-directional	

Features & Benefits

- Structural Composite Body/Bonnet
- Fully Fluoropolymer Lined Body
- Molded Closed Diaphragm
- Zero stem leakage
- Laminated Paraflon® Diaphragm w/ Gas Barrier
- Ideally used for Control and Isolation Valves
- Atmospheric Bonnet Seal
- Non-Conductive

Precisely Engineered

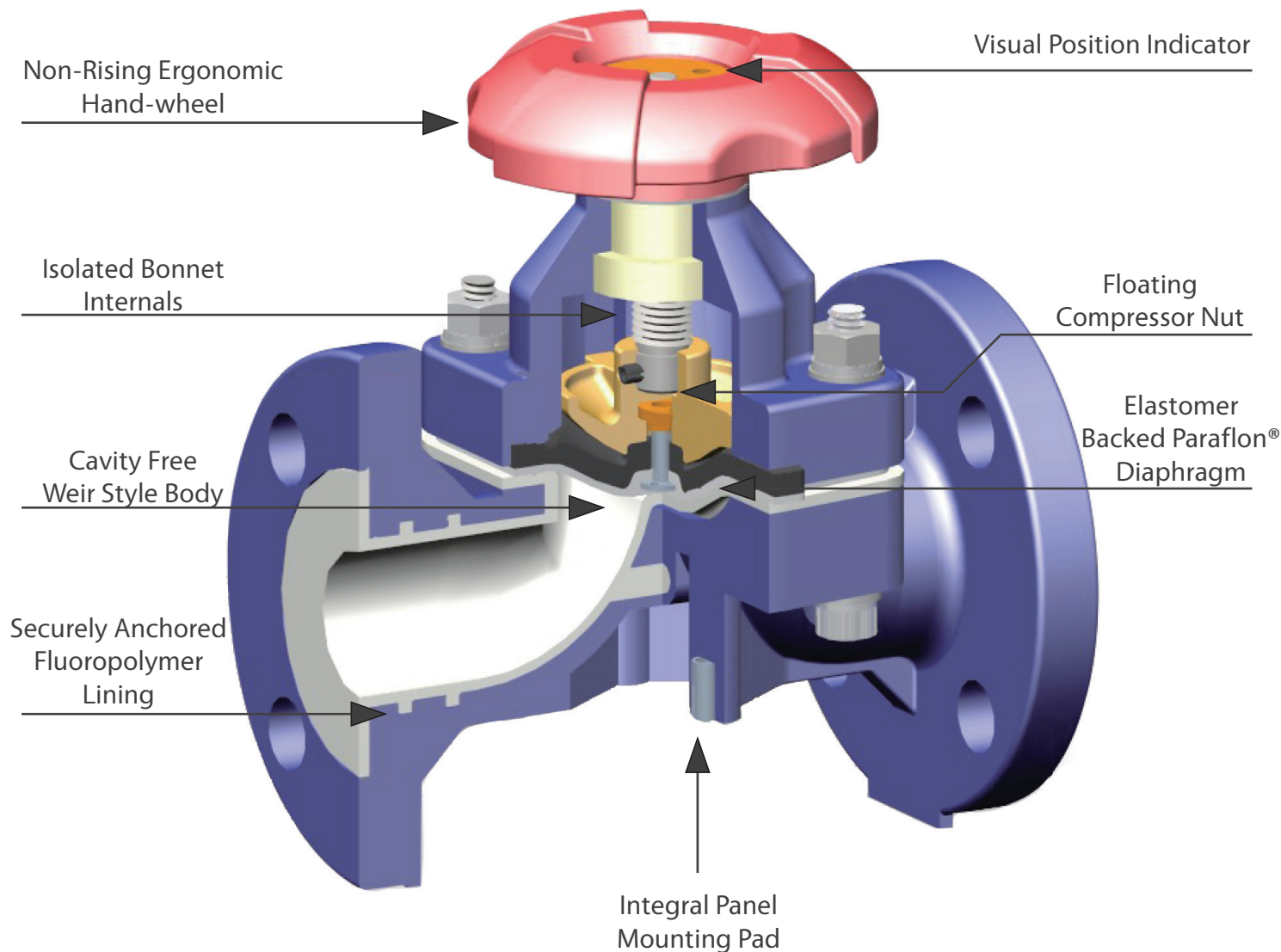
Constructed of structural composite materials, the body of the LDV/SC valve is 10 times stronger than conventional fiberglass and dual laminate systems and is non-conductive. The LDV/SC valve offers an ideal solution to process conditions where internal and external corrosion issues exists as well as applications where electrolytic corrosion and weight are concerns.

Designed for Extremely Corrosive Processes

- Acid Brine
- Catholyte
- Chlorine Condensate
- Sulfuric Acid
- Sodium Hypochlorite
- Alkaline Brine
- Chlorine Gas
- Hydrochloric Acid
- Sodium Chlorate
- Spent Acid
- Anolyte
- Chlorinated Brine
- Hydrobromic Acid
- Sodium Hydroxide
- Ultra Pure Water

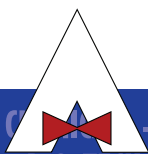
Property	Unit	Lining		Body		
		PFA	PVDF	30% GF PPL	40% GF PPS	40% GF PPA
Specific Gravity	-	2.14-2.16	1.75-1.75	0.9	1.66	1.56
Melting Point	°F	580	350	330	545	595
Tensile Strength	KSI	4.829	5.80-7.54	4.35-5.07	30.45	37.7
Continuous Service Temp.	°F	500	300	194	392	365
Deflection Temp @ 260 PSI	°F	118	194	-	518	550



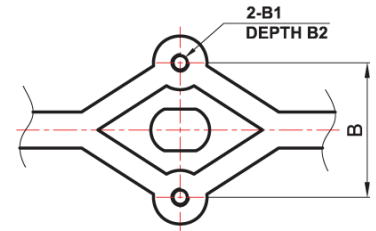
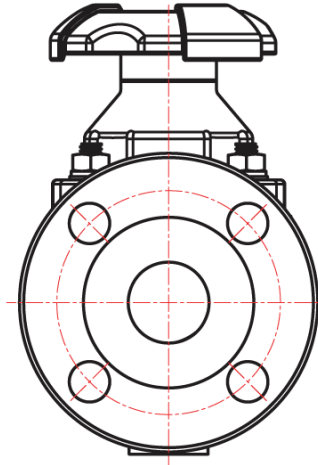
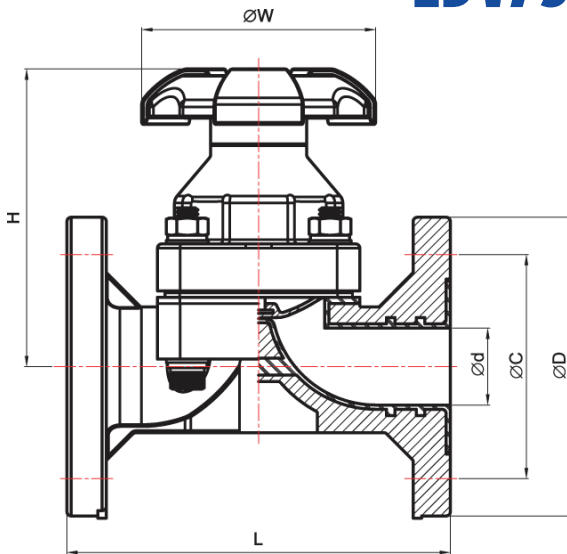


Bolt Torque

Size	Bonnet to Body	Valve Flange
	N · m (In · lb)	N · m (In · lb)
1/2"	5.8 (51.3)	17.5 (154.8)
3/4"	5.8 (51.3)	17.5 (154.8)
1"	7.8 (69)	20 (177)
1-1/2"	12 (106)	20 (177)
2"	19.6 (173.5)	22.5 (199)
3"	26 (78.8)	30 (86)
4"	30 (86)	40 (104)

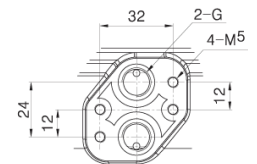
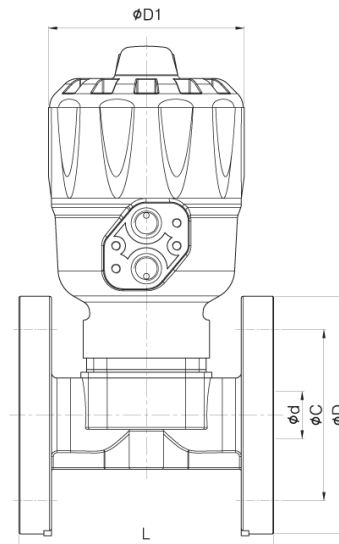
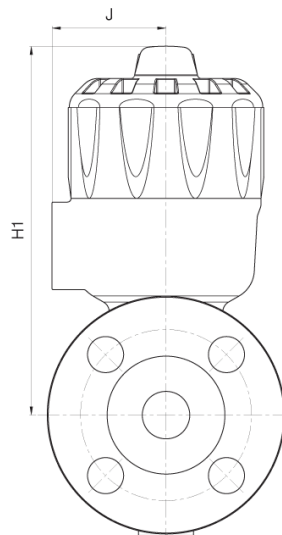


AEGIS® LDV/SC COMPOSITE SERIES

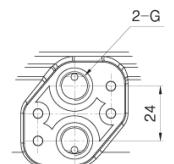


BOTTOM STAND

Size	Ød	L	ØD	ØD1	ØC	Øw	H	H1	B	B1	B2	J	G	Ref.
1/2"	0.59	4.33	3.50	4.06	2.38	3.35	3.35	7.48	0.98	M5	0.51	2.36	1/4	A
3/4"	0.79	4.72	3.88	4.06	2.75	3.35	3.35	7.48	0.98	M5	0.51	2.36	1/4	B
1"	0.98	5.11	4.25	4.06	3.13	3.35	3.74	7.60	0.98	M5	0.51	2.36	1/4	C
1-1/2"	1.50	7.08	5.00	6.10	3.88	4.37	5.51	11.02	1.77	M6	0.59	3.39	1/4	D
2"	1.97	8.26	5.98	6.10	4.75	4.92	6.16	11.42	1.77	M8	0.59	3.39	1/4	E
2-1/2"	2.56	9.84	7.01	6.10	5.51	8.66	7.48	11.61	3.35	M8	0.79	3.39	1/4	F
3"	3.15	11.02	7.50	10.24	6.00	8.66	7.87	15.75	3.94	M10	1.10	6.10	1/4	G
4"	3.94	13.38	9.02	10.24	7.58	10.24	9.45	16.14	4.72	M10	1.10	6.10	1/4	H



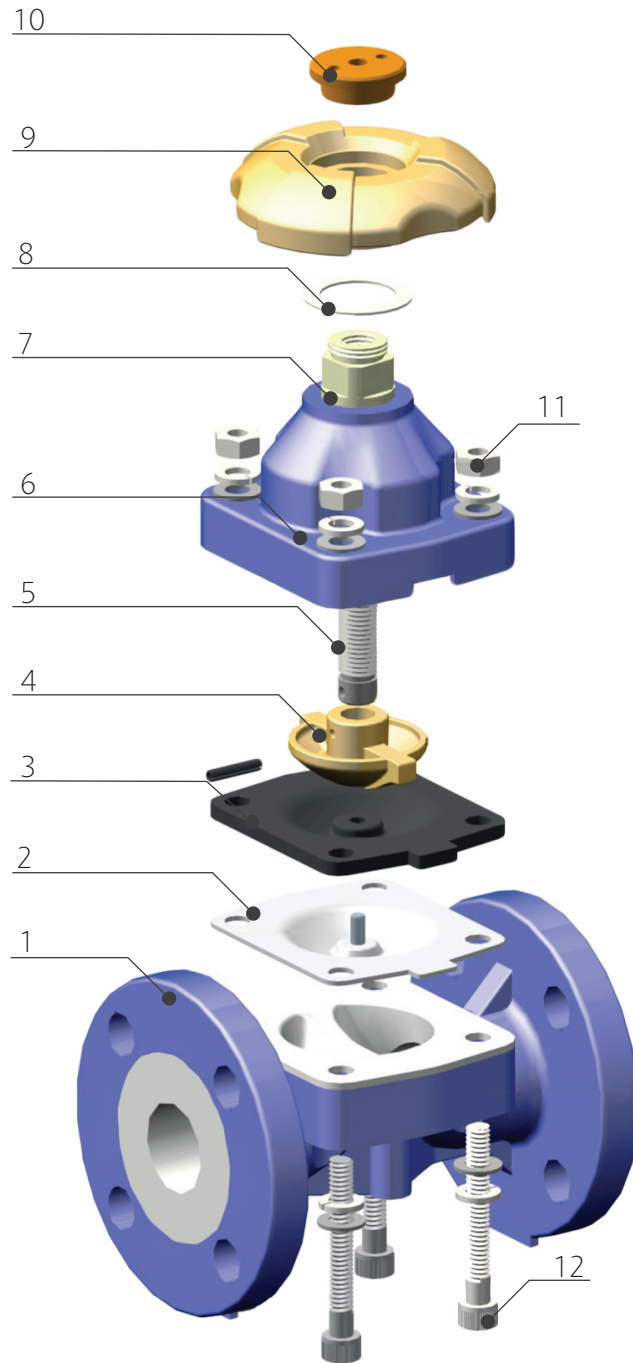
NAMUR PORT



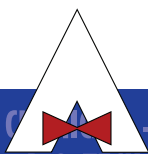
STANDARD PORT



COMPONENTS



Item	Description	Material
1	PFA/PVDF lined Body	GF 40% PPS, GF 40% PPA, GF 30% PP
2	Diaphragm	Paraflex®
3	Cushion Rubber	EPDM, Viton
4	Compressor	GF 40% PPS, GF 40% PPA, GF 30% PP
5	Spindle	304 SS, Carbon steel
6	Bonnet	GF 40% PPS, GF 40% PPA, GF 30% PP
7	Spindle Bushing	POM, Brass
8	Hand Wheel	PTFE
9	Hand Wheel Cap	GF 40% PPS, GF 40% PPA, GF 30% PP
10	Hand Wheel Cap	POM
11	Nut / Spring washer	304SS (Alloy 20 Option)
12	Fasteners	304SS (Alloy 20 Option)

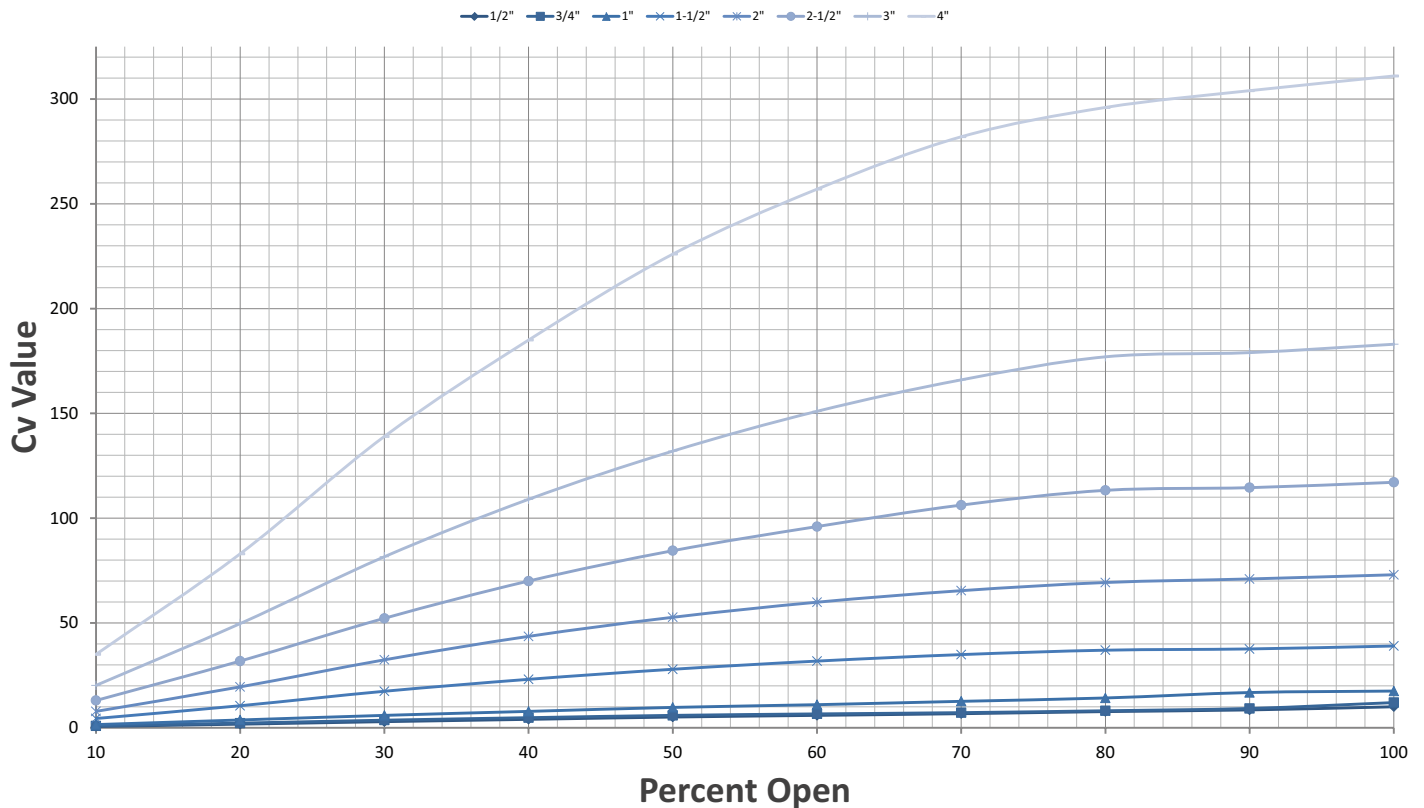


CV Values

Percent Open

Size	10	20	30	40	50	60	70	80	90	100
1/2"	0.6	1.7	2.9	4	5.1	5.9	6.7	7.7	8.5	10
3/4"	0.9	2.2	3.6	4.8	5.9	6.6	7.2	8.1	9.2	12
1"	1.5	3.7	5.9	7.8	9.7	11	12.6	14.2	16.8	17.5
1-1/2"	4.4	10.5	17.4	23.1	27.9	31.8	34.9	37	37.6	39
2"	7.8	19.5	32.4	43.6	52.7	59.9	65.4	69.3	71	73
2-1/2"	13.0	31.8	52.2	70.0	84.5	96.0	106.2	113.3	114.6	117.1
3"	20.2	49.7	81.6	109	132	151	166	177	179	183
4"	35	83	139	185	226	257	282	296	304	311

Percent Open vs. Cv Value



$$CV = Q \sqrt{SG / \Delta P}$$

SG = Specific Gravity of fluid

Q = Volume flow rate (USGPM)

ΔP = Pressure drop (PSI)

CV = Flow coefficient of valve

CV defined as Q @ $\Delta P = 1$ psi



1. Type	
Type	LDV/SC

2. Size	
Size	1/2" - 4"

3. Lining	
L1	PFA*
L2	PVDF

4. Body Material	
B1	40% GF-PPS*
B2	40% GF-PPA
B3	PPL

5. Diaphragm	
D1	EPDM / Paraflon®*
D2	Viton / Paraflon®
D3	Viton
D4	EPDM

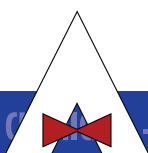
6. Operators	
M	Manual Handwheel
DA	Double Acting Actuator
FC	Fail Closed Actuator
FO	Fail Open Actuator

7. Accessories	
PS	Proximity Switch
PP	Pneumatic Positioner
PE	Electro-pneumatic Positioner
PR	Pressure Regulator
SV	Solenoid valves

8. Cleaning Procedure	
C1	Chlorine
C2	UPW
C3	Oxygen

* denotes standard configuration

Ordering Example		
3" PFA Lined, 40% GF-PPS body with EPDM/ Paraflon® with a Fail Close Actuator, Pneumatic Positioner with the valve being chlorine cleaned		
Type	LDV/SC	
Size	3	
Lining	L1	
Body Material	B1	
Diaphragm	D1	
Operators	FC	
Accessories	PP	
Cleaning Procedure	C1	
LDV/SC-3-L1-B1-D1-FC-PP-C1		



LDV/SC COMPOSITE SERIES



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