

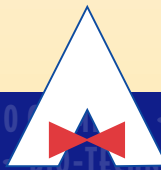
AEGIS® LDV SERIES



Lined Diaphragm Valves

ISO 9001 and PED Approvals

AEGIS FLOW TECHNOLOGIES



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Aegis® LDV Series Diaphragm Valves

Aegis® LDV Series weir style diaphragm valves feature the **Most Advanced Technology** available for controlling and isolating extremely corrosive and toxic process fluids and gases. Designed using industry's pertinent specifications as a minimum requirement, **AEGIS** valves incorporate the highest standards of fundamental engineering principles, quality, and safety that are essential in assuring reliable long-term performance and protection against environmental concerns. Our modular design and in-depth knowledge of materials and industrial processes allows us to advise our customers on the selection of the most appropriate valve for their applications. As a result, **AEGIS** valves are routinely specified for most demanding services associated with the following industries:

Bio-Technology

Mining

Pulp & Paper

Power

Chemical

Petro Chemical

Semiconductor

Water Treatment

Chlor Alkali

Pharmaceutical

Textile

Aegis® LDV Series Diaphragm Valve Features / Benefits

Quality Assurance

AEGIS' LDV series valves are designed, engineered and manufactured under a company-committed quality assurance process that has been audited and approved by **ISO 9001:2008** for Quality and Management Systems and the **PED (Pressure Equipment Directive) 97/23/EC** for mechanical integrity. All valves are manufactured utilizing modern computer-aided production methods and molding technology, guaranteeing control of the manufacturing process and reduction of rework thus assuring defect free products that are delivered on time. Each valve is individually tested in accordance with API 598 specifications and is spark tested with 35,000 volts to assure lining integrity. A PMI process is performed on all critical components allowing material identification. In addition, each valve is subjected to visual and dimensional examinations as well as a functional test. Subsequent to successfully completing all testing, each valve is permanently assigned a stainless steel serial numbered identification plate that assures complete traceability. Mill Test Certificates are available upon request.

Zero Leakage Performance

Each valve is tested and certified per the API 598 specifications and the DIN 3230 part 3, leakage rate 1 specifications for absolute **bubble tight shutoff and zero stem leakage**.

UPW Service

Valves intended for the meticulous requirements of the semiconductor industry's UPW service are assembled and tested in industry-approved clean rooms beneath Class 1000 Hepa Filters assuring that the environment is grease, dirt, dust, oil and lubricant free. Each valve is thoroughly cleaned via DI water baths and IPA wipe downs. Assembly personnel also wear semiconductor clean room approved attire during the assembly process.

Aegis® LDV Series Diaphragm Valve Features / Benefits *(cont'd)*

A Maintenance-Free Design Eliminating the Need for In-line Adjustments.

A Self-Draining, Totally Dead-Space Free Valve Body
Designed to Eliminate Product Contamination.

A Packless Design Engineered to Control Fugitive Emissions by Isolating the
Process Media From the Bonnet and Shaft.

Atmospheric Sealed Bonnets and Shafts Designed to Eliminate the Migration of External Contaminants.

A Molded in the Closed Position Diaphragm Engineered to Offer Superior Shutoff and Reduce the
Effects of Stress Placed on the Diaphragm.

A Two Piece PTFE Diaphragm Design, Eliminating the Delamination Problems
Associated with One Piece Designs.

A Mechanical Force Limiting Device Engineered to Yield High Diaphragm Cycle Life

A Minimum 3mm Lining Thickness that is Securely Anchored Within the Valve Body by a Series of
Machined Dovetails.

Fully Automated Packages that are Ideally Suited for Linear Operating Control Valves

An Intrinsically Safe, External Visual Position Indicator.

A Comprehensive Testing Process Assuring that each Valve is Bi-Directional Tested for
Bubble Tight Shutoff and is Spark Tested with 35,000 Volts to Assure the Lining Integrity

Available with Optional (SES) Secondary Environmentally Sealed Bonnets.

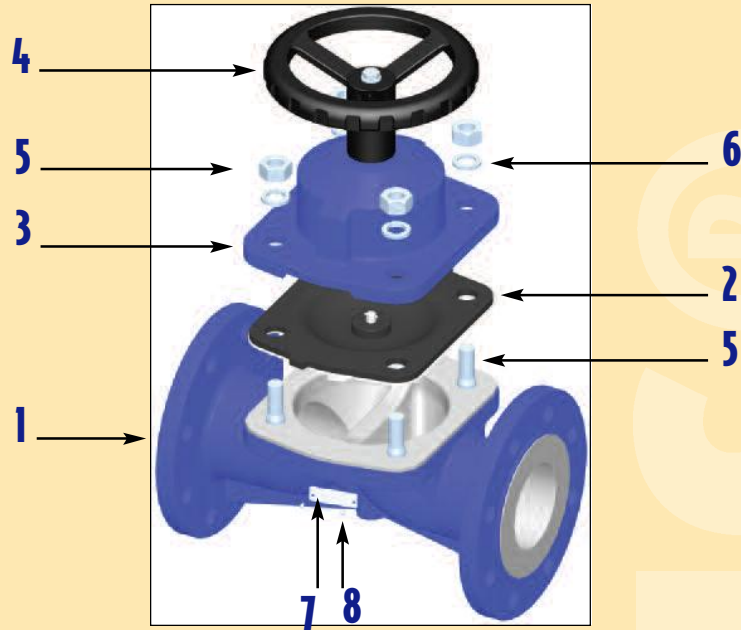
An Economically Field Repairable Design.

Temperature Range from -4° F to 302° F

Pressure Range from 13.33 mbar to 235 PSI.

Ideally Suited for Vacuum and Gas Handling Applications.

LDV Series Materials and Cv Chart



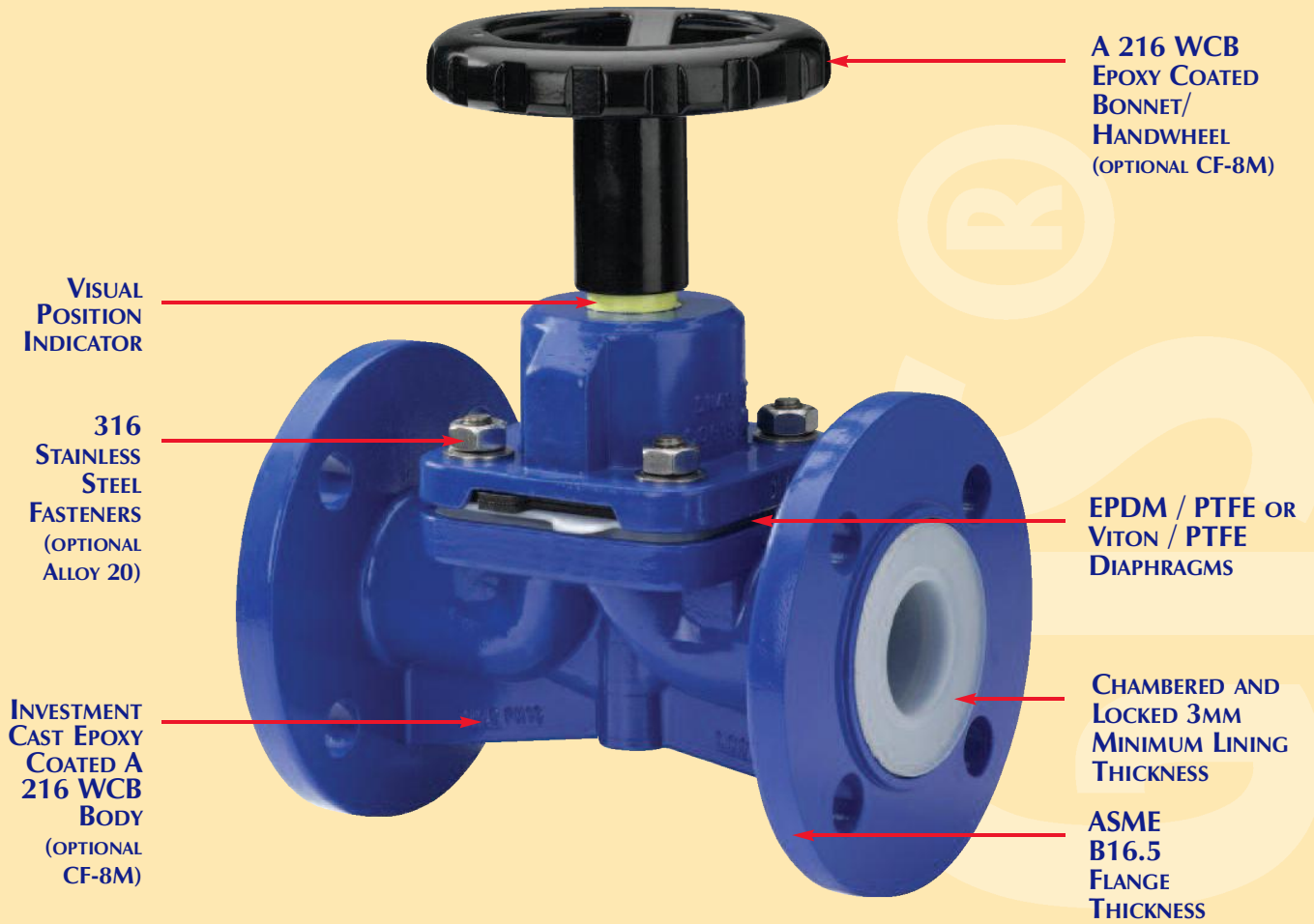
Item	Description	Materials
1	Body	WCB / CF-8M PFA Lined
2	Diaphragm	EPDM/PTFE, Viton/PTFE
3	Bonnet	WCB / CF-8M
4	Handwheel	WCB / CF-8M
5	Body Fasteners	316 SS / Alloy 20
6	Lock Washers/Nuts	316 SS / Alloy 20
7	Identification Tag	316 SS
8	Rivets	316 SS

* WCB Bodies are Epoxy Coated.

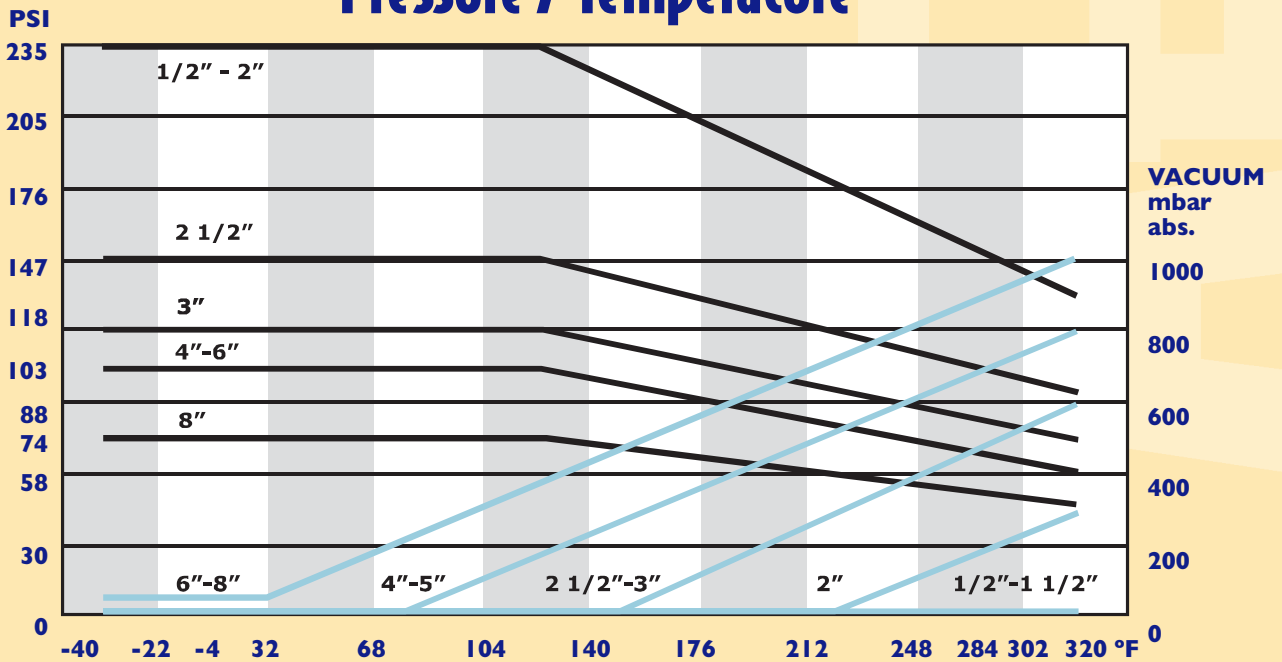
Cv Chart

Valve Size									
% Open	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
10	0.6	0.9	1.5	4.4	7.8	20.2	35	81	114
20	1.7	2.2	3.7	10.5	19.5	49.7	83	196	275
30	2.9	3.6	5.9	17.4	32.4	81.6	139	325	459
40	4.0	4.8	7.8	23.1	43.6	109	185	431	615
50	5.1	5.9	9.7	27.9	52.7	132	226	525	747
60	5.9	6.6	11.0	31.8	59.9	151	257	598	850
70	6.7	7.2	12.6	34.9	65.4	166	282	656	931
80	7.7	8.1	14.2	37.0	69.3	177	296	695	984
90	8.5	9.2	16.8	37.6	71.0	179	304	708	1006
100	10.0	12.0	17.5	39.0	73.0	183	311	720	1035

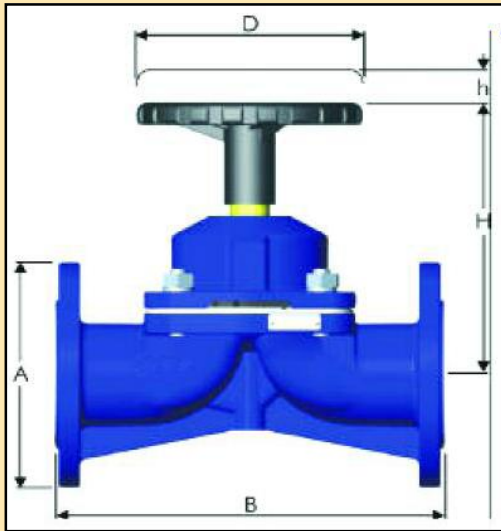
LDV Series



Pressure / Temperature

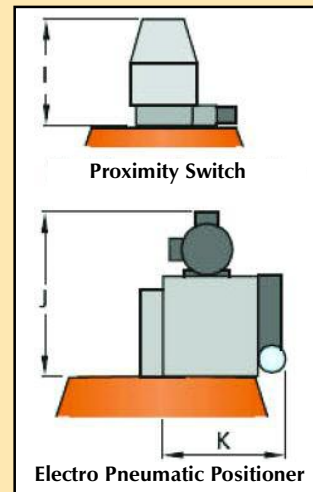
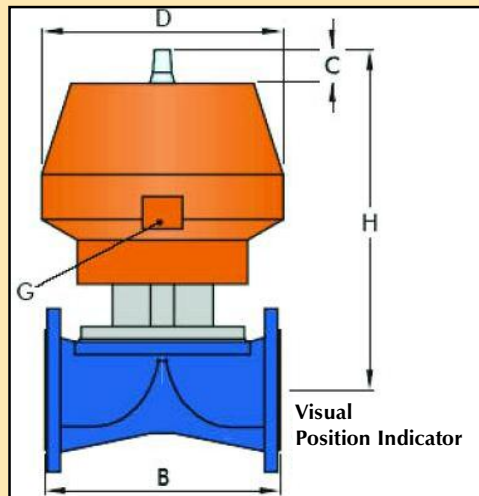


LDV Series Dimensional Data and Weight



Dimensions (Inches)					Weight Lbs.	Revolutions Per/Stroke	PSI Max	Closing Force Lbs.	Travel Inches	Cv
Size	A	B	D	H						
1/2"	3.75	5.11	3.34	4.52	6	4.5	235	429	.315	10.0
3/4"	4.13	5.90	3.34	4.60	7	4.5	235	550	.315	12.0
1"	4.25	5.75	3.34	4.88	8	5.5	235	668	.394	17.5
1 1/2"	5.00	6.85	4.72	6.81	16	12.0	235	1015	.945	39.0
2"	5.98	7.87	4.72	7.32	21	15.0	235	1380	1.18	73.0
3"	7.48	10.24	7.08	9.17	40	13.5	120	2110	1.34	183.0
4"	9.01	12.87	9.84	11.10	66	13.5	100	2650	1.58	311.0
6"	10.98	16.38	15.74	16.22	145	15.0	100	7700	2.36	720.0
8"	13.38	23.62	15.74	17.40	268	22.5	75	9980	3.54	1035.0

Cv = USG/Min



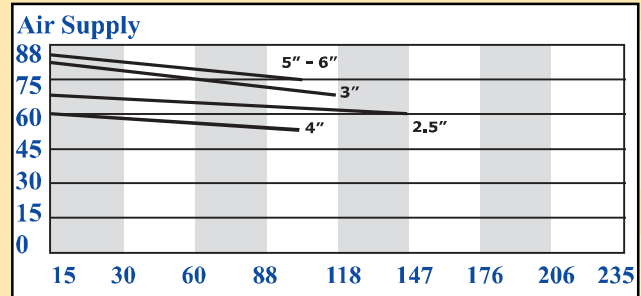
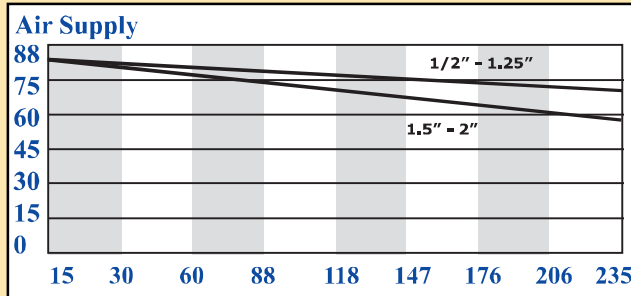
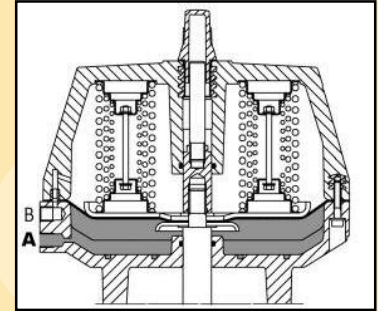
Dimensions (Inches)									
Size	B	C	D	G	H	I	J	K	Weight (lbs)
1/2"	5.12	.89	3.78		8.30	3.94	9.17	7.48	10.56
3/4"	5.91	.89	3.78		8.39	3.94	9.17	7.48	11.66
1"	5.74	.89	3.78		8.94	3.94	9.17	7.48	14.08
1 1/2"	6.85	1.4	5.90		11.18	3.94	9.17	7.48	30.58
2"	7.87	1.4	5.90		11.89	3.94	9.17	7.48	35.20
3"	10.24	1.8	11.02		14.69	5.08	9.17	7.48	72.16
4"	12.87	1.8	13.19		17.64	5.08	9.17	7.48	102.74
6"	16.38	1.8	13.19		24.41	5.08	9.17	7.48	132.00
8"	23.62	-	-	-	-	-	-	-	-

*Actuator Dimensions Subject to Change.

LDV Series Modes of Operation

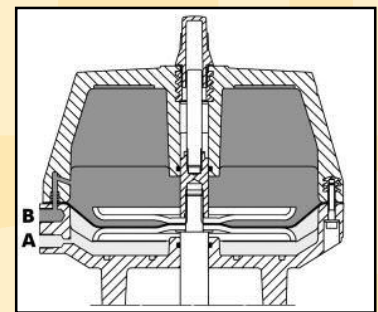
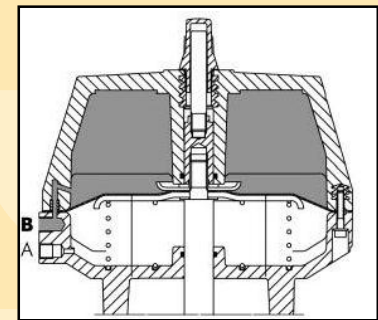
Fail Closed: Single-acting (spring to close)

In the de-energized state, the valve is closed by spring force. When the control media is admitted to the actuator (connection A), the valve opens; as soon the media is vented, the valve is closed again by spring force.



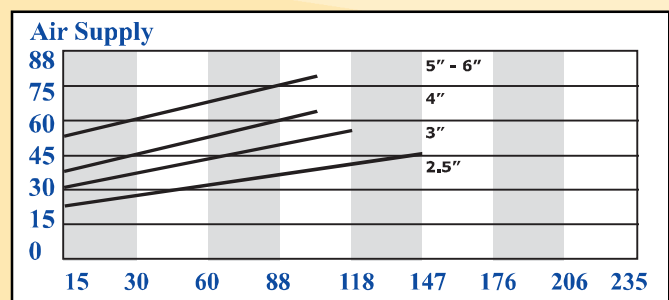
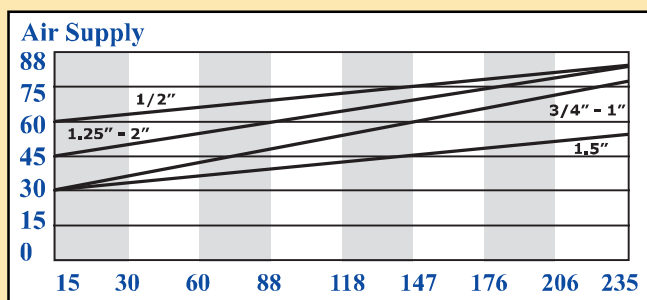
FO: Single-acting (spring to open)

In the de-energized state, the valve is opened by spring force. When the control media is admitted to the actuator (connection B), the valve closes; as soon the control media is vented, the valve is opened again by spring force.



DA: Double-acting

The valve has no defined position, it is opened and closed by applying control air pressure to the corresponding actuator connections, i.e. connection A for open, connection B for closed.



Max. Temperature of control media is 100°F

LDV Series Ordering Information

SIZE	PRODUCT	DIAPHRAGM	BODY
1/2"	LDV 1000-PFA	ET- EPDM/PTFE	B1-Epoxy Coated A216 WCB
3/4"	LDV 1200-PVDF	VT- Viton/PTFE	B2-CF8M (Stainless Steel)
1"	LDV 1300-PPL	EM- EPDM	
1 1/2"	LDV 1400-PFA/AS	VN- Viton	
2"		HS- EPDM/PVDF/PTFE	
3"			
4"			
6"			
8"			

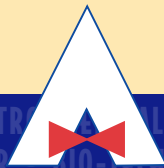
OPERATOR	ACCESSORIES
M-Manual Handwheel	PS-Proximity Switch
SS-Sliding Spindle	MS-Micro Switch
DA-Double Acting Actuator	PC-Pneumatic Positioner
FC-Fail Closed Actuator	PP-Electro Pneumatic Positioner
FO-Fail Open Actuator	PR-Pressure Regulator
EA-Electric Actuator	SV-Solenoid Valve
	SL-Stroke Limiter
	SS-Secondary Environmental Seal

HOW TO ORDER

1" Aegis LDV series, ANSI 150# flanged, fully PFA lined diaphragm valve complete with EPDM backed PTFE diaphragm, epoxy coated A216 WCB body and double acting actuator

Model # 1"-LDV 1000-ET-B1-DA

Aegis is a registered trademark of Aegis Flow Technologies L.L.C.
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