



JOB NAME:	CONTRACTOR:
JOB LOCATION:	APPROVAL:
ENGINEER:	CONTRACTOR P.O.:
APPROVAL:	REPRESENTATIVE:

**EPVF300DA - EPVF600DA - EPVF900DA**  
30° BALL    60° BALL    90° BALL

**VF300/600/900 DIRECT MOUNT, 3-PC, 2-WAY STAINLESS STEEL FLANGED ANSI 150 V-BALL VALVE, FULL PORT BALL VALVE WITH DOUBLE ACTING PNEUMATIC ACTUATOR AND PNEUMATIC ENP-B 4-20 mA POSITIONER**  
SIZES 1/2" TO 6"

**EPVF300SR - EPVF600SR - EPVF900SR**  
30° BALL    60° BALL    90° BALL

**VF300/600/900 DIRECT MOUNT, 3-PC, 2-WAY STAINLESS STEEL FLANGED ANSI 150 V-BALL VALVE, FULL PORT BALL VALVE WITH SPRING RETURN PNEUMATIC ACTUATOR AND PNEUMATIC ENP-B 4-20 mA POSITIONER**  
SIZES 1/2" TO 6"

**SPECIFICATIONS**

The EPVF300/600/900 series features a V-ball control stainless steel ANSI 150 split body style flanged ball valve, with 30, 60, and 90-degree ball options. The 30-degree ball offers a special combination of 30 to 90 degrees.

The valve is a 275 psi rated ball valve, with a thermal protection relief hole, and 25% carbon-filled PTFE seats. This valve is designed to ANSI 16.5, ANSI 16.10, and ANSI 16.34.

The actuator is made by Valbia, one of the premier actuator manufacturers in the world, and features a standard elevated temperature model equipped with Viton seals.

The ENP-B electro-pneumatic positioner has an IP66, Type 4X enclosure that resists corrosion due to its Epoxy polyester powder coating. This unit is compatible with most controllers and uses a 4-20 mA signal.

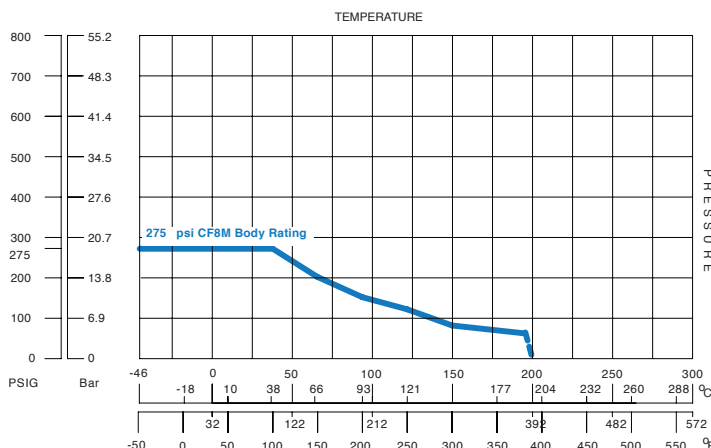
**ACTUATOR FEATURES**

- Hard anodized extruded aluminum body
- Concentric spring sets
- Die cast aluminum end caps
- Solid steel barstock pinion (not casting)
- 0°-90° rotation adjustment cam
- 0°-90° rotation adjustment bolts
- POM piston guides
- Minimum air pressure rating: 80 psi
- Maximum air pressure rating: 116 psi
- Working temperature: -4°F - 302°F
- No lubrication maintenance required for the entire actuator lifetime
- 100% factory tested

**VALVE FEATURES**

- Stainless steel, ANSI 150 flanged
- Full port, sizes 1/2" to 6"
- ISO 5211 mounting pad w/ square stem
- 25% carbon filled P.T.F.E. ball seats
- Temperature range -18°F to 392°F
- ANSI 16.5, 16.10 and 16.34
- Blow out proof stem
- Live loaded stem packing design
- Anti-static design
- P.T.F.E. packing and thrust washer

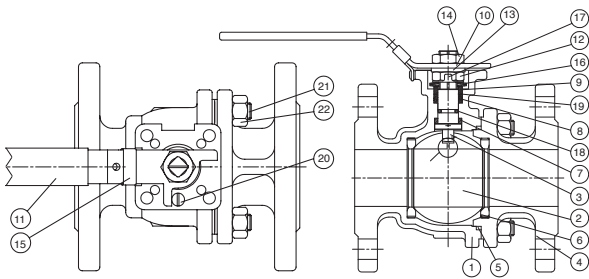
**PRESSURE - TEMPERATURE CHART FOR SERIES VF300/VF600/VF900**



**VF300/VF600/VF900 V-BALL SERIES MODEL OPTIONS**

	<b>90° V-BALL</b>
	<b>EPVF300</b>
	<b>60° V-BALL</b>
	<b>EPVF600</b>
	<b>30° V-BALL</b>
	<b>EPVF900</b>

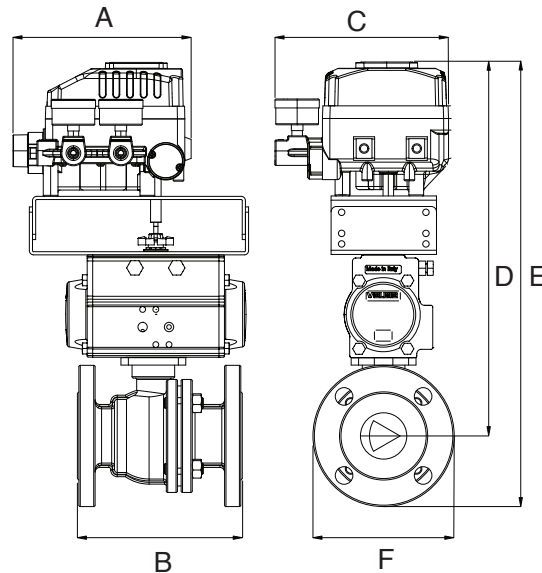
## BILL OF MATERIALS FOR VF300/VF600/VF900



N POS	PART NAME	MATERIAL	N PCS
1	BODY	ASTM A351 Gr. CF8M	1
2	BALL	ASTM A351 Gr. CF8M	1
3	STEM	SS 316	1
4	END CAP	ASTM A351 Gr. CF8M	2
5	BODY SEAL	P.T.F.E.	1
6	SEAT	Carbon graphite filled P.T.F.E.	2
7	THRUST WASHER	P.T.F.E.	1
8	STEM PACKING	P.T.F.E.	1
9	GLAND	SS 304	1
10	HANDLE	SS 304	1
11	HANDLE COVER	PLASTIC	1

N POS	PART NAME	MATERIAL	N PCS
12	STEM NUT	SS 304	1
13	HANDLE WASHER	SS 304	1
14	HANDLE NUT	SS 304	1
15	LOCKING PAD	SS 304	1
16	BELLEVILLE WASHER	SS 304	2
17	TAB WASHER	SS 304	1
18	O-RING	VITON	1
19	PACKING FOLLOWER	P.T.F.E. + 25% GF	1
20	STOP PIN	SS 304	1
21	BODY STUD	ASTM A193 GR. B8	4-8
22	BOLT NUT	ASTM A194 GR. 8	4-8

## DIMENSIONS



**EPVF300DA** VF300 with **DA** Actuator & ENP-B Positioner  
**EPVF600DA** VF600 with **DA** Actuator & ENP-B Positioner  
**EPVF900DA** VF900 with **DA** Actuator & ENP-B Positioner

**EPVF300SR** VF300 with **SR** Actuator & ENP-B Positioner  
**EPVF600SR** VF600 with **SR** Actuator & ENP-B Positioner  
**EPVF900SR** VF900 with **SR** Actuator & ENP-B Positioner

Size	A	B	C	D	E	F	ACT. DA
1/2"	6.65	4.25	6.57	12.09	14.07	3.50	52
3/4"	6.65	4.61	6.57	12.64	15.20	3.88	52
1"	6.65	5.00	6.57	13.17	15.82	4.25	63
1-1/4"	6.65	5.51	6.57	13.45	16.38	4.63	63
1-1/2"	6.65	6.50	6.57	14.35	17.49	5.00	75
2"	6.65	7.01	6.57	14.69	18.18	6.00	75
2-1/2"	6.65	7.48	6.57	16.62	21.04	4.64	100
3"	6.65	7.99	6.57	16.99	21.78	7.50	100
4"	6.65	9.02	6.57	19.85	26.24	9.00	115
6"	6.65	15.51	6.57	22.64	31.44	11.00	125

Size	A	B	C	D	E	F	ACT. SR
1/2"	6.65	4.25	6.57	12.54	14.52	3.50	63
3/4"	6.65	4.61	6.57	13.80	16.36	3.88	75
1"	6.65	5.00	6.57	15.22	17.87	4.25	85
1-1/4"	6.65	5.51	6.57	15.50	18.43	4.63	85
1-1/2"	6.65	6.50	6.57	16.19	19.33	5.00	100
2"	6.65	7.01	6.57	17.10	20.59	6.00	115
2-1/2"	6.65	7.48	6.57	18.45	22.87	4.64	125
3"	6.65	7.99	6.57	20.65	25.44	7.50	160
4"	6.65	9.02	6.57	22.16	28.55	9.00	160
6"	6.65	15.51	6.57	25.73	34.53	11.00	180

**CV VERSUS VALVE OPENING PERCENTAGE**

Size	V-Ball Angle	Class VI S/O	Low %	Control Zone									Full Open
		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
1/2"	30°	0.00	0.04	0.24	0.47	0.77	1.19	1.84	2.46	3.42	4.63	5.57	
	60°	0.00	0.04	0.29	0.74	1.11	1.83	2.91	4.31	7.01	9.45	12.79	
	90°	0.00	0.06	0.47	0.85	1.27	2.11	3.22	4.77	8.31	11.59	14.72	
3/4"	30°	0.00	0.07	0.29	0.63	1.02	1.56	2.44	3.26	4.52	6.12	7.31	
	60°	0.00	0.07	0.36	0.94	1.48	2.42	3.86	5.26	9.24	12.43	16.27	
	90°	0.00	0.08	0.61	1.10	1.71	2.69	4.27	6.25	10.85	15.30	19.39	
1"	30°	0.00	0.09	0.45	1.25	2.07	3.56	5.32	7.69	10.51	12.85	15.49	
	60°	0.00	0.10	0.70	1.75	2.77	5.14	8.01	11.89	18.71	23.23	32.81	
	90°	0.00	0.11	1.00	2.77	5.10	7.74	12.20	17.32	24.47	26.81	43.88	
1-1/4"	30°	0.00	0.05	0.47	1.35	2.49	4.13	6.11	8.81	11.75	14.86	17.36	
	60°	0.00	0.07	0.66	2.04	3.42	6.45	10.79	15.41	22.34	33.39	43.43	
	90°	0.00	0.08	0.80	2.91	5.52	10.23	17.27	19.51	34.93	51.75	65.82	
1-1/2"	30°	0.00	0.07	0.66	1.87	3.40	5.66	8.36	12.14	16.17	20.45	23.88	
	60°	0.00	0.09	0.93	2.82	4.70	8.89	14.84	21.16	30.73	45.87	59.75	
	90°	0.00	0.10	1.07	4.00	7.45	14.08	23.78	26.77	48.05	71.17	90.50	
2"	30°	0.00	0.09	1.19	3.80	7.53	12.27	17.85	26.45	36.46	48.10	55.84	
	60°	0.00	0.11	1.53	5.79	10.41	20.58	34.10	48.74	69.05	104.23	135.77	
	90°	0.00	0.17	1.90	7.28	13.59	25.37	42.30	55.55	87.04	129.77	167.36	
2-1/2"	30°	0.00	0.09	1.16	4.44	7.91	13.40	20.05	30.44	41.92	69.78	76.95	
	60°	0.00	0.13	1.46	5.91	11.88	23.24	37.94	59.30	83.30	113.64	162.55	
	90°	0.00	0.18	1.86	7.28	16.45	31.15	53.54	77.87	118.29	177.33	239.42	
3"	30°	0.00	0.13	1.21	4.16	9.49	15.97	26.78	38.92	53.30	69.78	85.92	
	60°	0.00	0.15	2.91	6.73	15.81	29.38	46.34	73.58	106.72	149.89	193.22	
	90°	0.00	0.20	4.13	8.66	21.10	41.09	69.31	105.90	161.04	237.24	359.22	
4"	30°	0.00	0.16	1.75	7.84	18.61	35.21	58.61	87.88	127.45	158.53	196.34	
	60°	0.00	0.26	2.22	12.46	33.68	63.00	106.27	160.48	233.98	329.51	437.40	
	90°	0.00	0.35	4.36	19.70	50.31	91.82	157.45	240.50	365.15	546.65	830.90	
6"	30°	0.00	0.30	3.12	13.97	33.15	62.70	104.37	156.53	221.56	282.33	349.70	
	60°	0.00	0.47	5.41	22.15	59.97	112.16	189.24	285.82	416.68	586.83	800.80	
	90°	0.00	0.68	7.79	35.05	89.56	163.55	280.37	428.34	650.32	973.50	1480.08	