

## Series "V8" Characterized Ball Valve-2006

The Series "V8" is designed to provide characterized control of fluids in light to moderate service. The characterized "V" is laser cut in either 60° or 30° configurations directly into the valve ball. "V8" valves may be used in manual or modulating control service.

### The Series "V8" features:

- 60° or 30° configurations
- Integral ISO mounting pad
- Live-Loaded Stem Seals for High Performance Cycling
- In line weldability
- Selection of Ends: NPT, SW, BW, Flanged plus Tube and TriClamp
- Variety of Seats and Seals for a wide range of services
- Pressure Drop (250 Steam, 500 Liquid) psig
- **Size Range: ½", 1", 1.5" and 2"**



### Applications

The "V8" Control Valve is ideal for applications where critical, high performance characterized flow is required.

The "V" Ball is adapted to our well proven, "Process-Quality" ball valves to provide accurate control of gases, liquids and slurries.

With a wide choice of advanced technology seat materials, "V8" control valves may be used in a variety of critical applications including:

- Temperature Control – Steam and Heat Transfer Fluids
- pH control
- Flow Control
- Level control
- Pressure Control
- Filling Applications

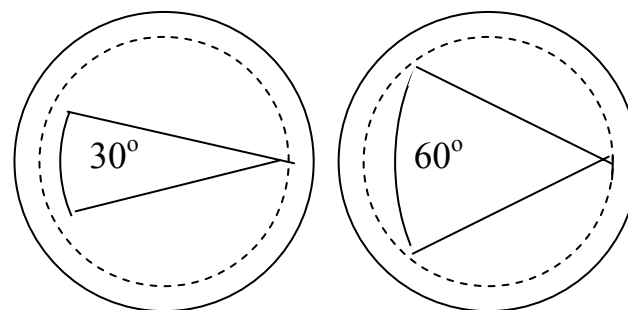


### Design Advantages

- Simplicity-Low maintenance costs compared to globe and segmented valves
- Low Weight-about 30% lighter than globe valve
- Compact Size-Leaves more room for additional field equipment
- Low Flow – to Cv=0.08
- Flexibility-"V" Ball comes in 60° or 30° configurations

### Dynamic Characteristics

- Shutoff Class VI
- Capacity: 2" Cv = 61
- Rangeability: 200:1
- Live Loaded Stem seal is inherently resistant to wear under high cycling
- Pressure Drop to 500 psi
- Temperature to 450°F
- Inherent Characteristic: Equal %



### Control Valve Selection Information

Service Conditions	Units	Minimum	Normal	Maximum
<b>Media</b>				
<b>Inlet Pressure</b>				
<b>Outlet Pressure</b>				
<b>Differential Pressure</b>				
<b>Flow Rate</b>				
<b>Temperature</b>				
<b>Specific Gravity</b>				
<b>Viscosity/Specific Heat Ratio</b>				
<b>Required Cv</b>				

Cv Table for SVF Series "V8" Characterized "V-Ball" Control Valves

Valve Size	Line Size	10%	20%	30%	40%	50%	60%	70%	80%	90%	OPEN
1/2" V30	1/2"	0.02	0.10	0.20	0.34	0.55	0.83	1.11	1.59	2.08	2.5
	3/4"	0.02	0.09	0.18	0.30	0.49	0.74	0.99	1.41	1.85	2.22
	1"	0.02	0.08	0.17	0.28	0.46	0.69	0.92	1.32	1.73	2.07
1/2" V60	1/2"	0.02	0.12	0.33	0.60	0.84	1.35	1.95	3.10	4.37	5.92
	3/4"	0.02	0.10	0.29	0.44	0.75	1.20	1.74	2.76	3.90	5.27
	1"	0.02	0.10	0.27	0.41	0.70	1.12	1.62	2.57	3.63	4.91
1" V30	1"	0.02	0.21	0.56	0.96	1.58	2.39	3.43	4.62	6.15	7.26
	1.5"	0.02	0.16	0.44	0.75	1.23	1.86	2.68	3.60	4.80	5.66
	2"	0.02	0.15	0.40	0.69	1.14	1.72	2.47	3.33	4.43	5.23
1" V60	1"	0.02	0.30	0.78	1.24	2.27	3.59	5.28	8.29	11.60	15.50
	1.5"	0.02	0.23	0.61	0.97	1.77	2.80	4.12	6.47	9.05	12.10
	2"	0.02	0.22	0.56	0.89	1.63	2.58	3.80	5.97	8.35	11.20
1.5" V30	1.5"	0.02	0.41	1.16	2.12	3.51	5.22	7.56	10.28	13.71	16.28
	2"	0.02	0.38	1.05	2.00	3.14	4.83	6.80	9.51	12.66	15.04
	2.5"	0.02	0.36	0.96	1.80	2.80	4.47	6.11	8.80	11.68	13.90
1.5" V60	1.5"	0.02	0.57	1.74	2.99	5.59	9.07	13.16	19.80	28.42	37.51
	2"	0.02	0.53	1.60	2.76	5.15	8.36	12.13	18.27	26.23	34.74
	2.5"	0.02	0.48	1.47	2.54	4.74	7.70	11.19	16.87	24.21	32.16
2" V30	1.5"	0.02	0.55	1.72	3.41	5.65	8.26	12.10	16.60	22.20	26.50
	2"	0.02	0.45	1.41	2.80	4.63	6.77	9.92	13.60	18.20	21.70
	2.5"	0.02	0.41	1.27	2.52	4.18	6.11	8.95	12.30	16.40	19.60
2" V60	1.5"	0.02	0.70	2.64	4.90	9.32	15.50	22.20	32.10	47.20	61.60
	2"	0.02	0.57	2.16	4.02	7.64	12.70	18.20	26.30	38.70	50.50
	2.5"	0.02	0.52	1.95	3.63	6.90	11.50	16.40	23.80	34.90	45.60

Series "V8" Control Valve

**Flow Coefficient - Cv - Standard Seat Control Valves (Regular Round Port)**

		Percent of Rated Travel (Degree of Rotation)										
VALVE SIZE	LINE SIZE	0 (0)	10 (9)	20 (18)	30 (27)	40 (36)	50 (45)	60 (54)	70 (63)	80 (72)	90 (81)	100 (90)
1/2"	1/2	0	0.15	0.29	0.46	0.7	1.09	1.76	2.6	4.3	6.4	8
	3/4	0	0.13	0.26	0.39	0.62	0.97	1.57	2.31	3.83	5.69	7.12
	1	0	0.13	0.24	0.38	0.58	0.9	1.46	2.16	3.57	5.31	6.64
3/4"	3/4	0	0.21	0.43	0.7	1.05	1.62	2.64	4	6.4	9.6	12
	1	0	0.19	0.39	0.64	0.96	1.47	2.4	3.64	5.82	8.74	10.92
	1.5	0	0.17	0.34	0.56	0.84	1.3	2.11	3.2	5.12	7.68	9.6
1"	1	0	0.58	1.15	1.9	2.8	4.3	7	10.5	17	26	32
	1.5	0	0.45	0.9	1.48	2.18	3.35	5.46	8.19	13.3	20.3	24.9
	2	0	0.42	0.83	1.37	2.02	3.1	5.04	7.56	12.24	18.7	23.1
1 1/4"	1.25	0	0.83	1.65	2.67	4.05	6.5	10	15.2	24.6	36	46
	1.5	0	0.77	1.53	2.48	3.77	6.05	9.3	14.14	22.9	33.5	42.8
	2	0	0.68	1.35	2.19	3.32	5.33	8.2	12.46	20.2	29.5	37.7
1 1/2"	1.5	0	1.48	2.95	4.75	7.2	11	18	27	44	65.5	82
	2	0	1.24	2.48	3.99	6.05	9.2	15.1	22.7	36.9	55	68.9
	3	0	0.99	2	3.18	4.82	7.4	12.06	18.1	29.5	43.9	54.9
2"	2	0	2.16	4.33	6.95	10.5	16.2	26.4	39.6	64	96	120
	3	0	1.77	3.55	5.7	8.61	13.3	21.6	32.5	52.5	78.7	98.4
	4	0	1.6	3.2	5.14	7.77	11.99	19.5	29.3	47.4	71.1	88.8
3"	3	0	6.4	12.6	20.2	31.1	47.4	77.8	115	187	280	350
	4	0	4.6	9.1	14.5	22.4	34.1	56	82.9	134	201	252
	6	0	3.5	6.9	11.1	17.1	26.1	42.8	63.3	103	154	192
4"	4	0	13.1	26	42.1	63.1	97.2	159	238	385	575	720
	6	0	7.5	16.9	27.4	41	63.2	103	154	251	374	467
	8	0	7.2	14.3	23.1	34.7	53.5	87.4	131	212	316	396
6"	6	0	18.4	36.7	59	90	138	224	338	545	815	1020
	8	0	16.2	32.3	51.9	79.2	121.4	197.1	297.4	479.6	717.2	897.6
	10	0	14.4	28.6	46	70.2	107.6	174.7	263.6	425.1	635.7	795.6
8"	8	0	34	68	109	165	254	415	620	1010	1500	1880
	10	0	31.9	63.9	102.5	155.1	238.8	390.1	582.8	949.4	1410	1767.2
	12	0	29.5	57.1	91.6	138.6	213.4	348.6	520.8	848.4	1260	1580

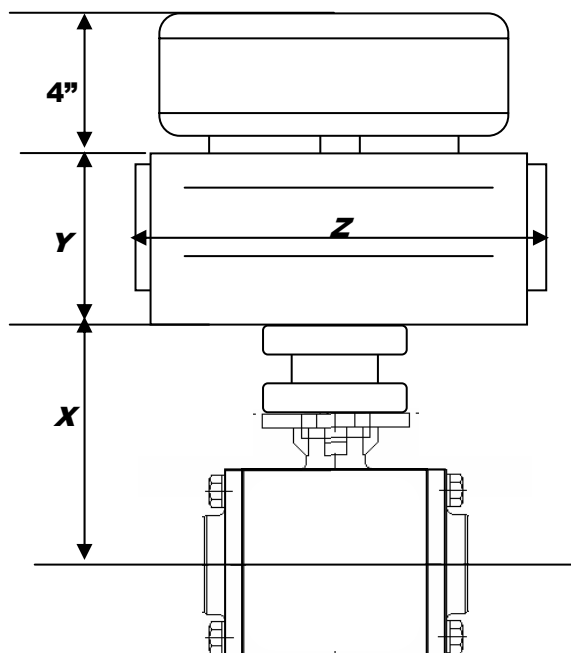
## Series "V8" Characterized Ball Valve-2006

## Actuator Sizing and Package Dimensions (with Positioner)

Size	Torque	X (in.)	80 PSI		60 PSI	
			A2D @ 80	A2S @ 80	A2D @ 60	A2S @ 60
1/2"	60	1.75	A2D-020	A2S-020	A2D-020	A2S-035
1"	90	2.32	A2D-020	A2S-035	A2D-020	A2S-035
1.5"	300	3.00	A2D-035	A2S-075	A2D-050	A2S-110
2"	375	3.32	A2D-050	A2S-075	A2D-075	A2S-160

Note: A2D (Double Acting Models), A2S (Spring Return Models), @ = Air Supply Pressure (psi)

Model	Y (in.)	Z (in.)
A2-020	4	6
A2-035	4.5	6.5
A2-050	4.5	7
A2-075	5.5	8.0
A2-110	5.3	10.3
A2-160	6	10.5
A2-255	7	11.5
A2-400	8	15
A2-500	8.5	18



## HOW TO ORDER

SIZE	STYLE	BODY/ENDS	BALL/STEM	SEAT	SEAL	ENDS
1/2"	V8	6-316L	6-316 SS	T-TFE	T- Virgin TFE	SE-NPT
1"		4-Carbon Steel		S-SupraLon	B- BUNA	BW-BUTT WELD
1.5"				K-PEEK	E- EPDM	SW-SOCKET WELD
2"				U-UHMWPE	G- Graphoil	CE-COMPRESSION
				V- Viton	150-FLANGED	
				S-SupraLon		TR-TRICLAMP
						ETO-TUBE OD

SupraLon is a high density TFM Material. V8 valves should not be used for erosive fluids.

Valve and Actuator Selection Data			
<b>Valve Information</b>		<b>Pipeline Information</b>	
Type	<b>Ball Valve</b>	Inlet Pipe size	
Size		Pipe SCH.	
End connection		Outlet Pipe Size	
ANSI Class		Pipe SCH.	
Body Material		Material of Construction	
Ball/Stem Material			
Seat/Seal Material			
Stem Seal Material			
<b>Pneumatic Actuator Information</b>		<b>Positioner Information</b>	
Double Acting		Control Signal	
Spring Return		Enclosure NEMA 4 or 7	
Air Supply (Min psi)		Other Information	
<b>Fail Position</b>			
Open			
Closed			
Fail In Place			
<b>Electric Actuator Information</b>		<b>Positioner Information</b>	
Enclosure NEMA 4 or 7		Control Signal	
Voltage AC/DC/Current		Other Information	
Other Information			
<b>Accessories</b>	<b>Voltage</b>	<b>NEMA 4 or 7</b>	<b>Other</b>
Limit Switches			
Pilot Valve			
Tubing (SS or Plastic)			
Other			

**Not responsible for typographical errors. Specifications can change without notice.**