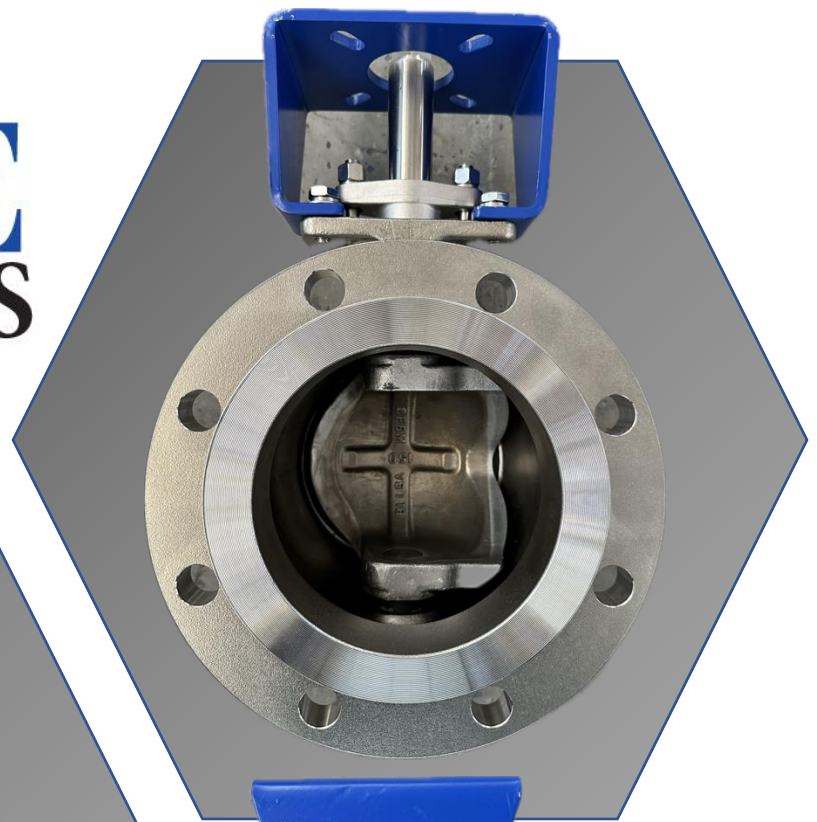




SABLE CONTROLS



ANSI 150 CONTROL
VALVE FOR PRODUCED
WATER, OIL, AND GAS



SEGMENT V-BALL
CONTROL VALVE

SVB
SERIES

Sable Controls' SVB Series of flanged segment V-Ball valves provide excellent process control in produced water making them a valuable asset in saltwater disposal applications.

The SVB is a quarter turn valve that can be easily automated with pneumatic or electric actuators and provide equal percent throttling flow control similar to traditional globe style control valves.

Our SVB valves for produced water applications are constructed of full CF8M/316 SS for excellent corrosion resistance. The TFM4215 soft seats allow for Class VI bubble tight shut off. The ball segments are made of CF8M with a layer of hardened Chrome for additional abrasion resistance.

The SVB's uni-body design enhances the structural integrity of the valve and minimizes leak paths. The adjustable stem packing gland with PTFE packing allows for zero leakage from the valve stem area.



Features

- 2" - 12" size range
- ANSI 150 RF
- Excellent modulating control
- Equal percent trim characteristic
- All stainless materials for corrosive applications
- Easily automated with electric or pneumatic actuators
- Adjustable packing gland
- Soft seat for bubble-tight shut off

Applications

- Ideal for high flow applications with low pressure drop
- Produced water – Saltwater disposal
- Chemical fluids with suspended solids
- Dirty, clean, viscous, and corrosive fluids
- Gas compression

SVB SERIES

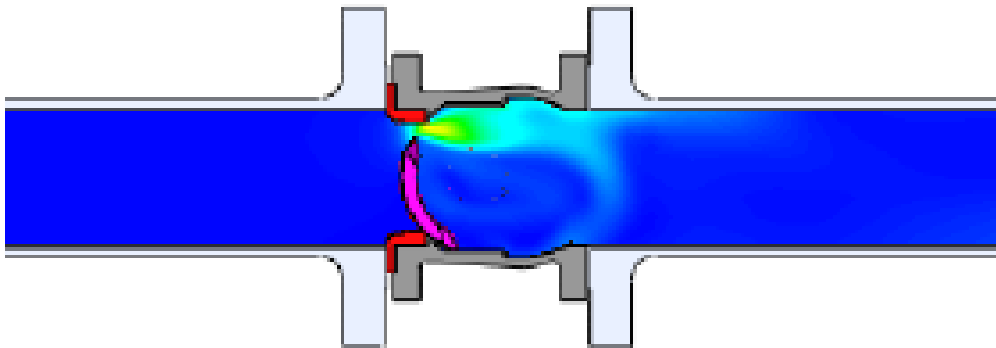
SEGMENT V-BALL CONTROL VALVE

PROPER SIZING

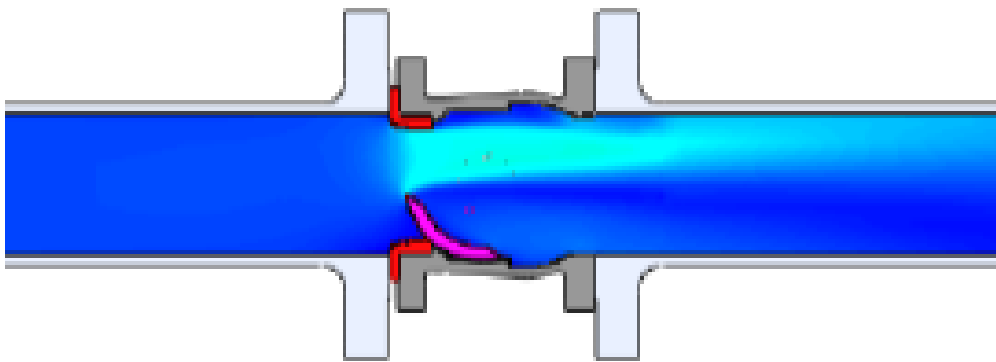
Since segment V-Ball valves like the SVB Series are control valves and not standard ball valves, the following information is needed to properly size your control valve. A properly sized control valve will ensure proper flow control capability and lengthen the life of the valve. An oversized control valve will be mostly closed causing increased wear and destruction on the valve body, seats, and downstream piping. Conversely, an undersized control valve will cause restricted flow that may not meet your application flow requirements.

Required Data for Sizing

- Flow Media: Water, Oil, or Gas
- Flow Rate: BPD, GPM, or SCFD
- Inlet Pipe Size
- Outlet Pipe Size
- Inlet Pressure in PSIG
- Outlet Pressure in PSIG
- Temperature of Media
- Specific Gravity

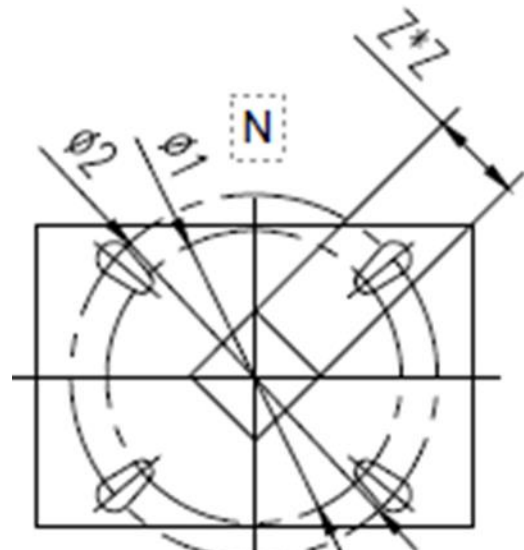
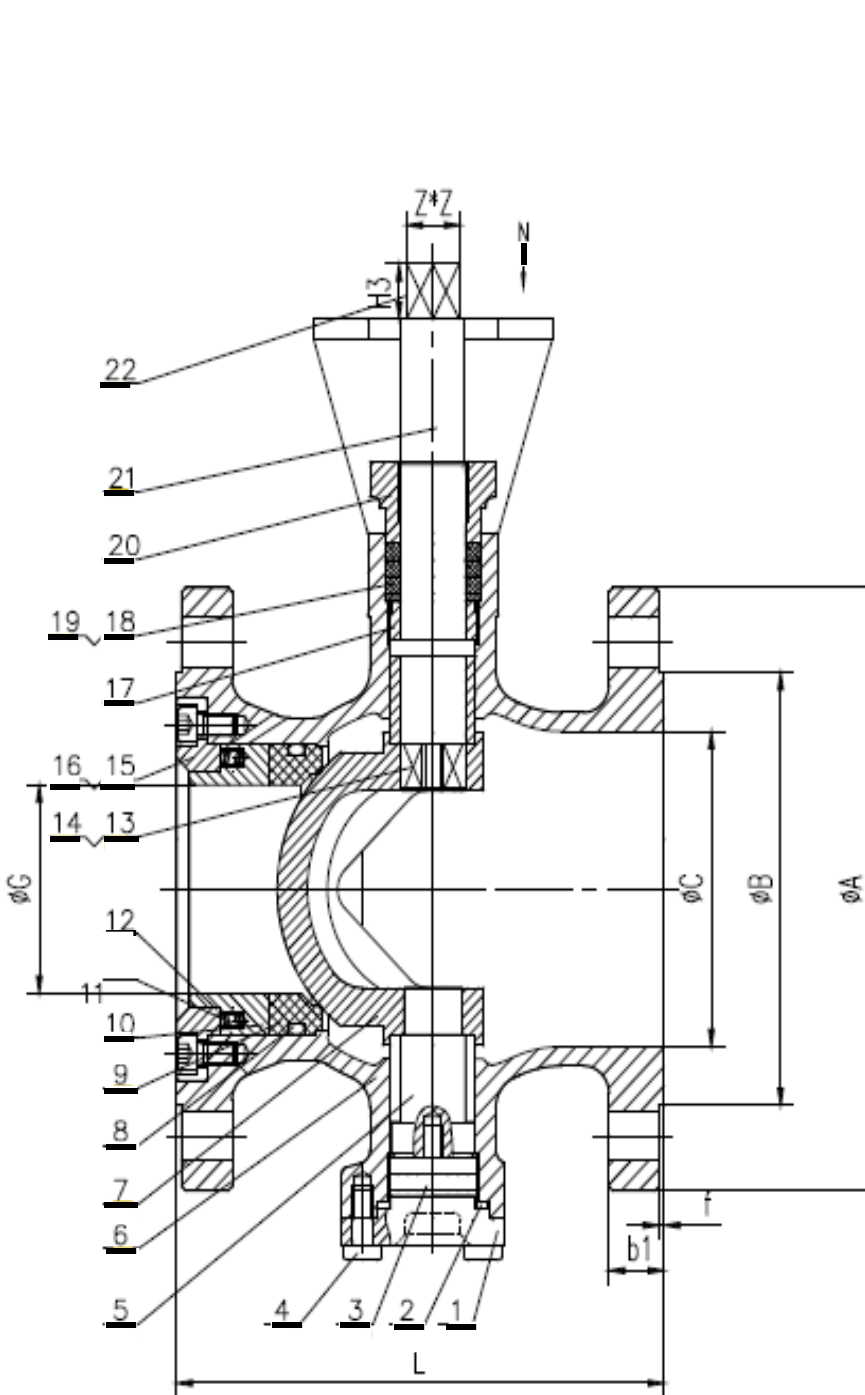


Oversized valve = choked flow, turbulence, and downstream wear on seat and body



Properly sized valve = less turbulence and longer valve life

Nominal Diameter		Dimensions Metric														
NPS	ANSI Class	L	A	B	C	G	b1	f	Φ2	Z*Z	H	H1	H2	ØY	n-Ød	H3
2 In	150	124	150	92.1	62	40	16.5	2	70	17*17	95	90	98	120.7	4-19.	19
3 In	150	165	190	127	93	64	19.5	2	70	17*17	125	118	110	152.4	4-19.	19
4 In	150	194	230	158	115	76	24.3	2	102	17*17	136	130	110	190.5	8-19.	19
6 In	150	229	280	216	165	125	26	2	102	22*22	170	170	115	241.3	8-22.	24
8 In	150	243	345	270	206	160	29	2	125	27*27	200	201	125	298.5	8-22.	27
10 In	150	297	405	324	260	200	30.6	2	140	36*36	240	237	135	362	12-25.4	36
12 In	150	338	485	381	316	245	32.2	2	140	36*36	285	285	140	431.8	12-25.4	36



No.	Part Name	Material
1	Cover	ASTM A351 CF8M
2	Gasket	316 SS+PTFE
3	Lock Nut	316 SS
4	Bolt	A193 B8
5	Stem	17-4PH SS
6	Body	ASTM A351 CF8M
7	Ball	ASTM A351 CF8M+CR
8	O-Ring	Viton
9	Seat Ring	TFM 4215
10	Spring Seat	316 SS
11	Spring	316 SS
12	Seat Clamp	316 SS
13	Stem	17-4 PH SS
14	Shaft Sleeve	316 SS+Cr
15	Seat Clamp	316 SS
16	Screw	A193 B8
17	Lock Nut	316 SS
18	Packing Gasket	316 SS
19	V-Type Packing	PTFE
20	Packing Gland	ASTM A351 CF8M
21	Key - N/A	CS
22	Key - N/A	CS
Title		Segment V-Ball Valve
		ANSI 150 RF
Date		10/18/2023

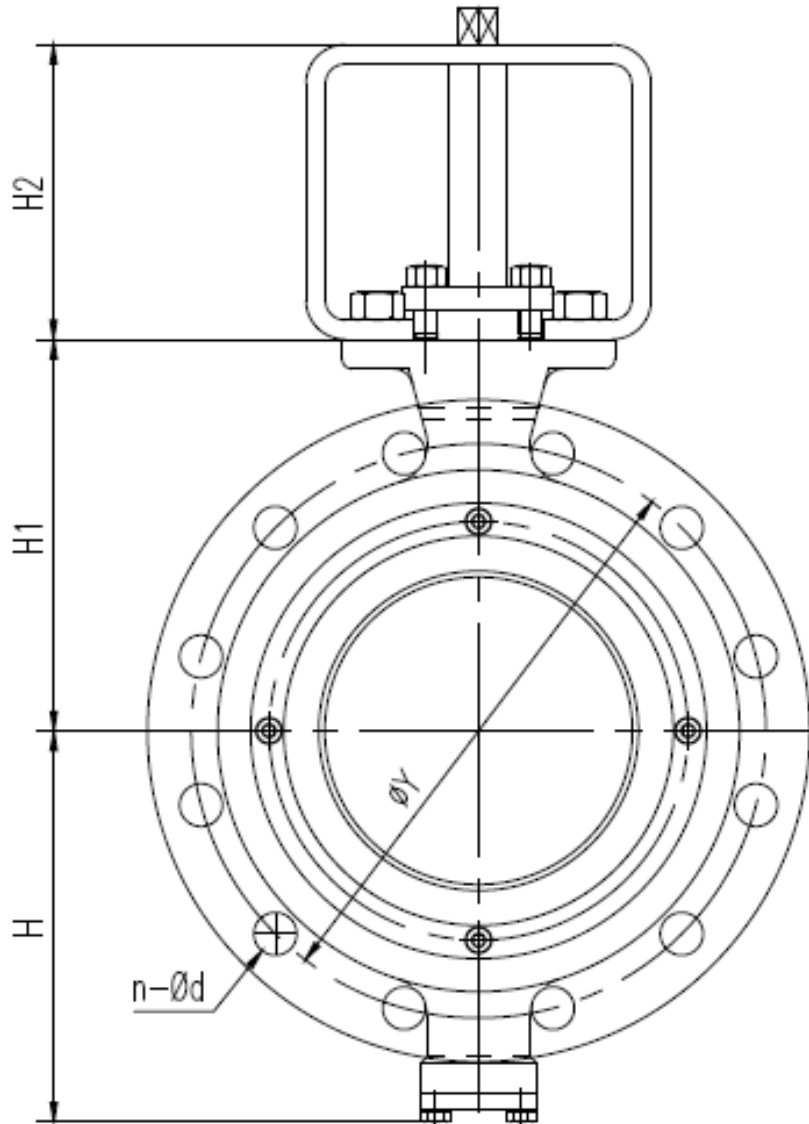


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Design Standard

1. Flange Standard: ASME B16.5
2. Face to Face Dimension: IEC/DIN 534-3-2
3. Wall Thickness Standard: ASME B16.34-2004
4. Test Standard: ASME B16.104 (Class VI)
5. Pressure Temperature Rating: ASME B16.34-2004

Technical Specification	
Pressure Rating	150 LB
Shell Test	3.0Mpa
Seat Test	0.6Mpa
Max Allowable Leakage	CL VI
Applied Medium	Corrosive or Fluid Contains Particles, Fiber, Etc.
Applied Temp	-20 to +302F

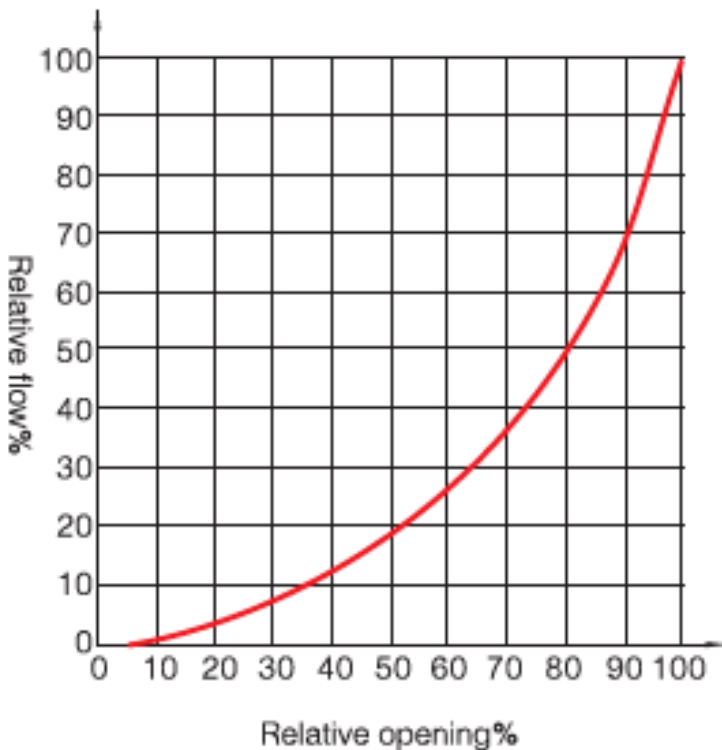


PERFORMANCE DATA

Flow Coefficient - Cv Chart

Size	CV	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
2"	152	-	2.198	3.713	6.365	10.74	18.298	30.761	53.036	90.161	152
3"	358	-	3.042	5.178	8.744	14.99	25.295	43.095	72.45	124.913	358
4"	540	4.588	7.808	13.19	22.61	38.155	65.004	109.282	188.416	320.308	540
6"	1424	12.09	20.59	34.79	59.63	100.62	171.42	288.18	496.86	844.67	1424
8"	2176	18.48	31.47	53.15	91.11	153.75	261.94	440.37	759.25	1290.72	2176
10"	3532	30	51.1	86.3	147.9	249.6	425.2	714.8	1232.4	2095.1	3532
12"	5732	48.7	82.9	140	240	405	690	1160	2000	3400	5732

Flow Characteristics

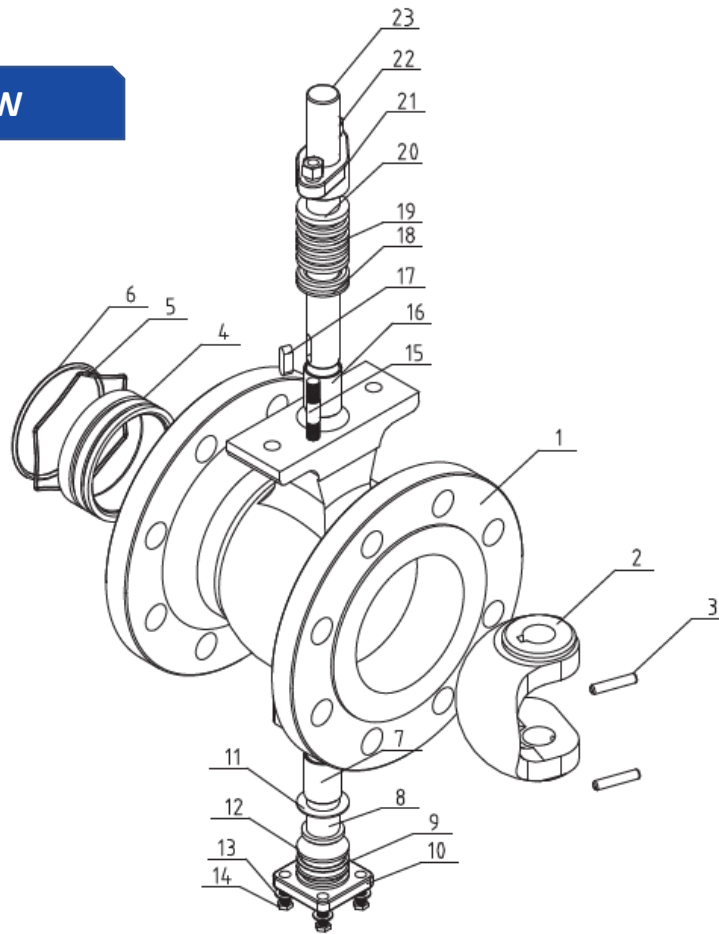


ANSI 150 Torque Values

Size	Torque Lbf/In
2"	709
3"	885
4"	1239
6"	3187
8"	5222
10"	9736
12"	13273

Noted torque values are at full differential pressure and include 30% safety factor for actuation sizing

EXPLODED VIEW



Material List

No.	Part	Quantity	Material
1	Body	1	ASTM A351 CF8M
2	Ball Segment	1	ASTM A351 CF8M+Cr
3	Pin	2	ASTM A276 316
4	Seat	1	ASTM A276 316+TFM4215
5	Spring	1	ASTM A276 316
6	O-Ring	1	Viton
7	Self-Lubricating Bearing	1	ASTM A276 316
8	Lower Stem	1	ASTM A276 316
9	O-Ring	1	Viton
10	Lower Cover	1	ASTM A351 CF8M
11	Washer	1	PTFE
12	Adjusted Gasket	1	PTFE
13	Flat Gasket	4	304 SS
14	Screw	4	A4-70
15	Bolt	2	A4-70
16	Self-Lubricating Bearing	1	ASTM A276 316
17	Key	1	ASTM A276 316
18	Lower Stem Packing	1	PTFE
19	Middle Stem Packing	1	PTFE
20	Upper Stem Packing	1	PTFE
21	Packing Gland	1	ASTM A351 CF8M
22	Nut	2	A4-70
23	Upper Stem	1	HH 17-4PH