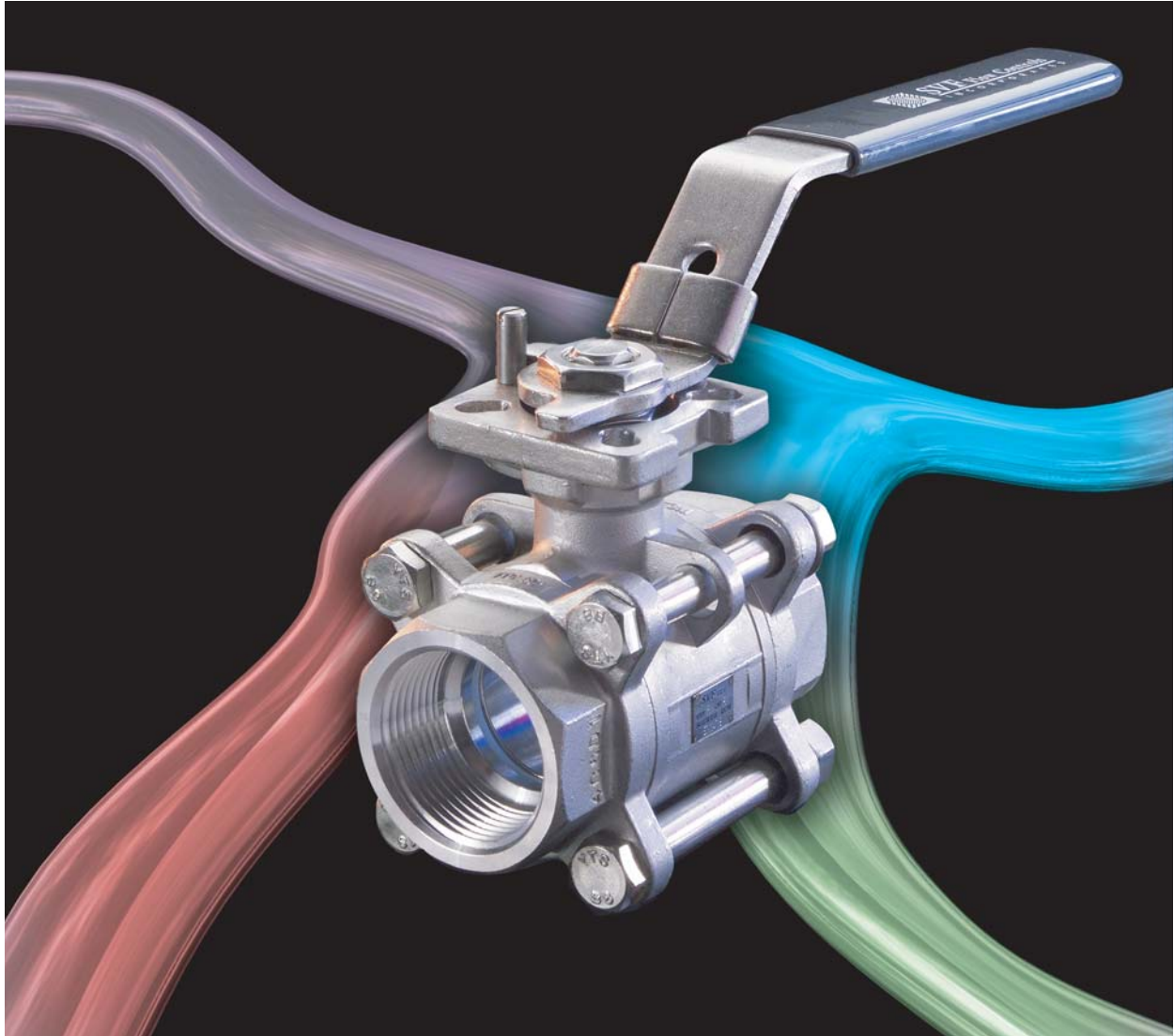


# ***EZ** Valve*

**High Performance Ball Valves**



***SVF*** Flow Controls  
I N C O R P O R A T E D



SVF Flow Controls, Inc. [www.EZValve.com](http://www.EZValve.com)  
800 783 7836 [Sales@SVF.net](mailto:Sales@SVF.net)

# **EZ** Valve



## High Performance Ball Valves

### CONTENTS



- 3...Design & Performance Data
- 4...Design & Operating
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- 8...Pneumatic Actuator
- 9...Ordering and Sales
- 10...Product Line
- 11...Product Specifications

### Why **EZ** Valve

**EZ** Valve represents the next generation of simplicity and performance for users of manual and automated ball valves.

The design features a high performance stem seal design, direct-mount actuation and a complete selection of line sizes in a full port design.

And with EZAutomation, you can select "**aero** Valve" or "**electro** Valve" to simplify your automation needs.

## Applications and Solutions

With pressure ratings up to 1,000 psi, the **EZ** Valve is a true and versatile alternative for general purpose applications and is ideal for use in a wide range of industries.

Compact and light weight, the **EZ** Valve product line is available with NPT, Socket Weld and Butt Weld end connections in stainless and carbon steel and with manual, pneumatic or electric operation.

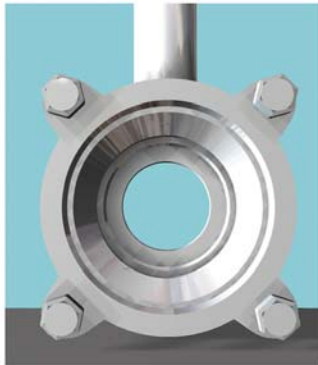


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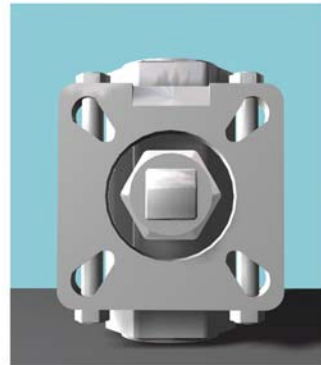
- Dual Pattern ISO-5211 “Direct-Mount” Actuator Attachment
- Live-Loaded Stem Seals
- One-Piece Seat/Seal (TFM)
- Integral Locking Device
- Three-Piece Construction
- End Connections: NPT, SW, BW
- Engineered Stem Seal Design
- Full Port Opening
- 316 Stainless Steel construction. Carbon Steel valves feature a 316 SS Center Section
- Blow Out Proof Stem



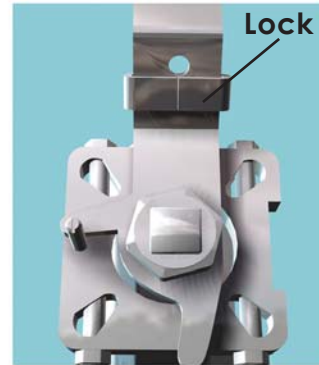
Size Range 1/4" to 2" Full Port



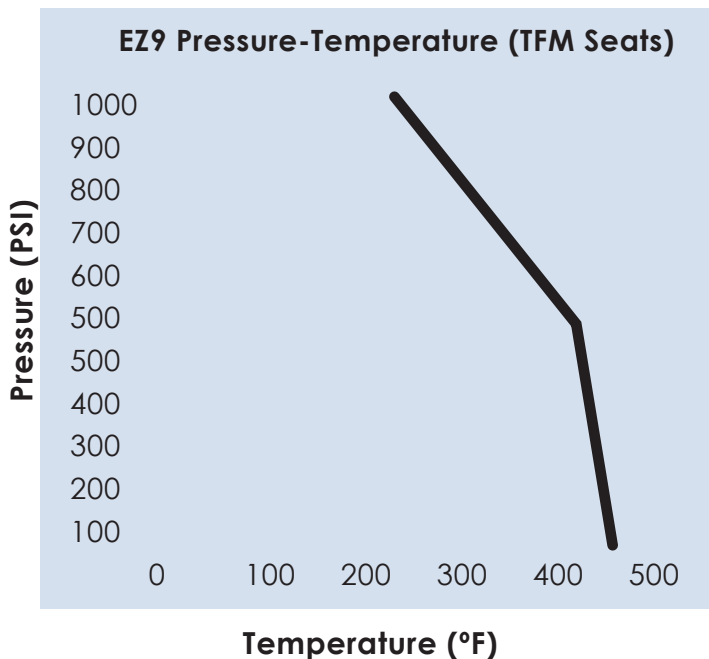
Full Port Opening  
(NPT, SW, BW)



ISO-5211 for  
Direct Mount Actuation



Integral  
Locking Device



**PERFORMANCE DATA (Cv)**

Valve Size	Approximate Flow (Cv)
1/4-1/2"	12
3/4"	32
1"	57
1.25"	80
1.5"	104
2"	240

All Valves Are Full Ported.

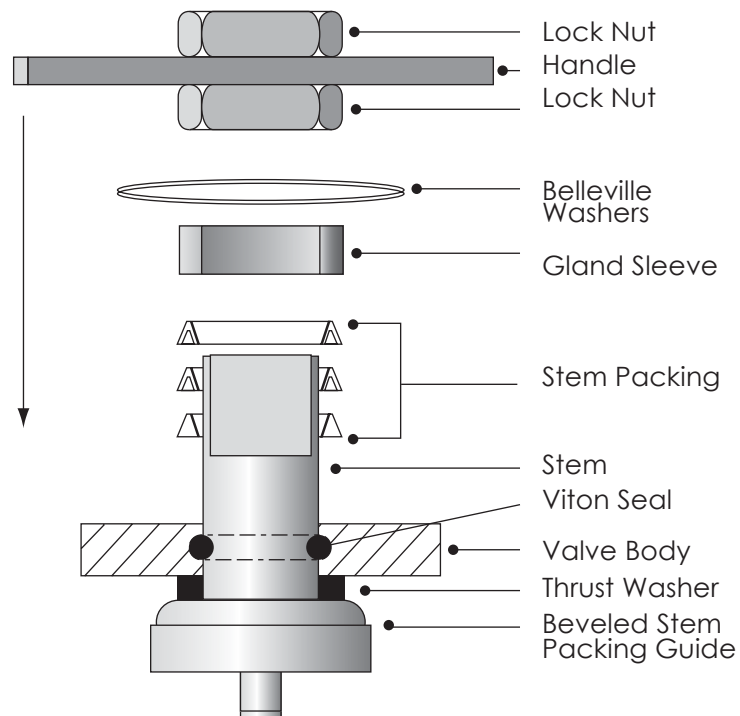


## Quick Reference Data

Valve Size	Approximate Flow (Cv)	Operating Torque (Lbf.in.)	Weight (lbs)	ISO Flange		
				FO4	FO5	FO7
1/4 - 1/2"	12	35	1.5	x	x	
3/4"	32	50	1.8	x	x	
1"	57	80	2.4	x	x	
1.25"	80	120	3.6	x	x	
1.5"	104	250	5.6		x	x
2"	240	300	8.2		x	x

### High Performance Stem Seal Design

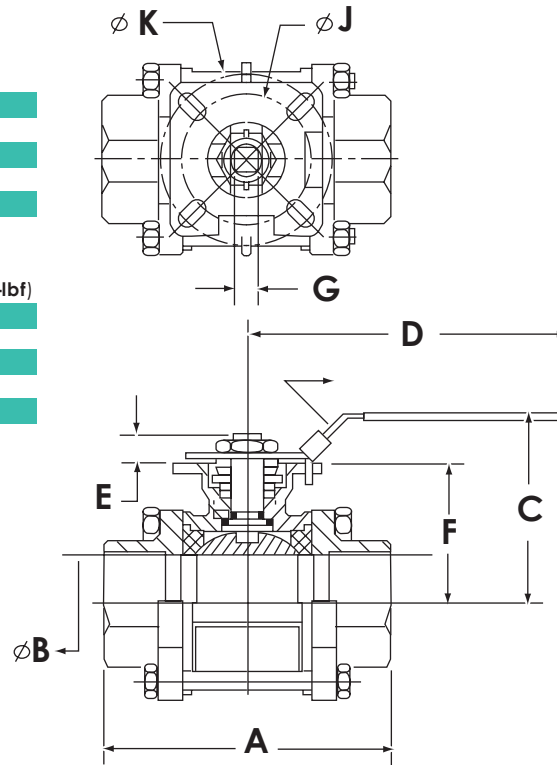
- An adjustable V-Ring design creates a multiple seal between the stem and body.
- Each stem assembly is composed of three V-Rings providing a very high cycle life by resisting creep and cold flow.
- The Thrust Washer adds a secondary seal, reduces torque and prevents galling.
- The beveled stem packing/thrust guide provides an additional level of performance and sealing and completes the High Performance design.



### EZ Valve Dimensions

Size	A	B	C	D	E
1/4-1/2"	2.5	0.59	2.88	4.41	0.335
3/4"	2.85	0.79	3.18	4.41	0.335
1"	3.19	1	3.56	5.35	0.449
1-1/4"	3.72	1.25	3.89	7.28	0.449
1-1/2"	4.25	1.5	4.54	7.79	0.551
2"	4.78	2	4.88	7.79	0.54

Size	F	G	ΦJ/ISO 5211	ΦK/ISO 5211	Torque (in-lbf)
1/4-1/2"	1.46	0.354	1.654/F04	1.969/F05	35
3/4"	1.77	0.354	1.654/F04	1.969/F05	50
1"	2.11	0.433	1.654/F04	1.969/F05	80
1-1/4"	2.32	0.433	1.654/F04	1.969/F05	120
1-1/2"	2.95	0.551	1.969/F05	2.756/F07	250
2"	3.29	0.551	1.969/F05	2.756/F07	300



### Materials List

No.	Part Name	Material		Qty.
		Stainless Steel	Carbon Steel	
1	Body	A351 Gr. CF8M		1
2	Ball	SS316		1
3	End Cap	A351 Gr.CF3m or A216 Gr. WCB		2
4	Seat/Seal	TFM		2
5	Stem	SS316		1
6	Stem Packing	RTFE.		1Set
7	Handle	SS304		1
8	Handle Cover	Plastic		1
9	Thrust Washer	RTFE.		1
10	Gland	SS304		1
11	Belleville Washer	SS401		2
12	Tab Washer	SS304		1
13	Locking Device	SS304		1
14	Gland Nut	SS304		1
15	Handle Washer	SS304		1
16	Handle Nut	SS304		1
17	Bolt	SS304		4~6
18	Bolt Washer	SS304		4~6
19	Bolt Nut	SS304		4~6
20	Stop Pin	SS304		1

Important note: For carbon Steel Piping Systems, Stainless steel valves are supplied with carbon steel ends (SW, BW)



## Direct-Mount Actuator Attachment

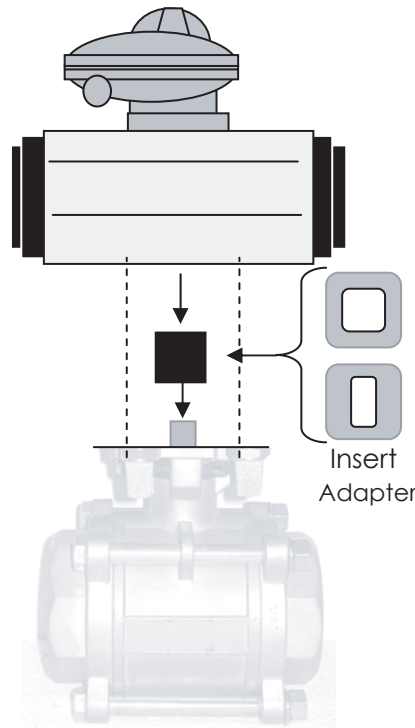
EZ9 Valves are specifically designed for “EZ Automation” Each valve features a top mounting pad that is dimensionally identical to the standard ISO-5211 mounting design found on most of today’s pneumatic and electric actuators. The “Direct Mount” feature helps create a low profile package that eliminates mounting hardware, improves product availability, and ensures a reliable and economical automated valve.



### Limit Switch

#### Product Features

- Rugged and Compact design
- Quick-Set cam is spring loaded and does not require any special tools
- Dual Cable Entries to facilitate wiring in the field and the addition of ancillary devices (Pilot Valve)
- Captive Cover Bolts will not get lost during commissioning
- NAMUR mounting for universal use
- Selection of Mechanical or Proximity switch/sensors



**ISO-5211 for Direct Mount Actuation**



### Pilot Valve

#### Product Features

- High Flow Capacity (Cv=0.7)
- Anodized aluminum for corrosion resistance
- Integral Manual Override
- Rated for Continuous Duty
- NAMUR universal interface
- Selection of voltages.
- Low Watt (<3W) for Asi and Device Net applications
- NEMA-4 or 7 available
- Speed control option

EZAutomation

With **-EZ Valve-** it is now possible to order a pneumatically ( **-aero Valve-** ) or electrically ( **-electro Valve-** ) automated valve using a single part number.

On this page you will find tables with pre-selected actuator models based on supply pressure for the specific valve size you require.

Under "**How To Order**" you may create a simple part number for the basic automated valve or one that has the more common automation and control accessories. For more options, contact SVF.

## -aero Valve- Dimensions

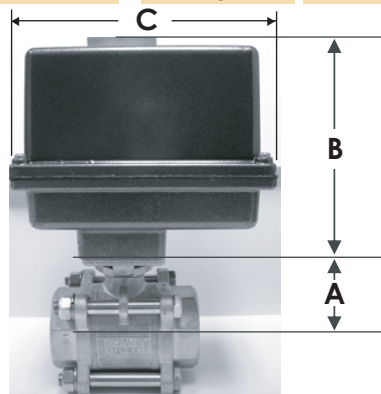
Add 3" to "B" for Top Mounted Limit Switch

Size	A(in.)	Spring Return A2S-			Double Acting A2D-				
		80 psi B(in.)	C(in.)	60 psi B(in.) C(in.)	80 psi B(in.) C(in.)	60 psi B(in.) C(in.)			
1/4"-1/2"	1.46	020-10 2.83	5.8	020-8 2.83	5.8	020 2.83	5.8	020 2.83	5.8
3/4"	1.77	020-10 2.83	5.8	020-8 2.83	5.8	020 2.83	5.8	020 2.83	5.8
1"	2.11	035-10 3.46	6.7	035-8 3.46	6.7	020 2.83	5.8	020 2.83	5.8
1-1/4"	2.32	035-10 3.46	6.7	050-8 3.94	7.3	020 2.83	5.8	020 2.83	5.8
1-1/2"	2.95	075-10 4.29	8.1	110-8 4.61	10.3	035 3.46	6.7	035 3.46	8.7
2"	3.29	075-10 4.29	8.1	110-8 4.61	10.3	035 3.46	6.7	050 3.94	7.3



## -electro Valve- Actuator Package

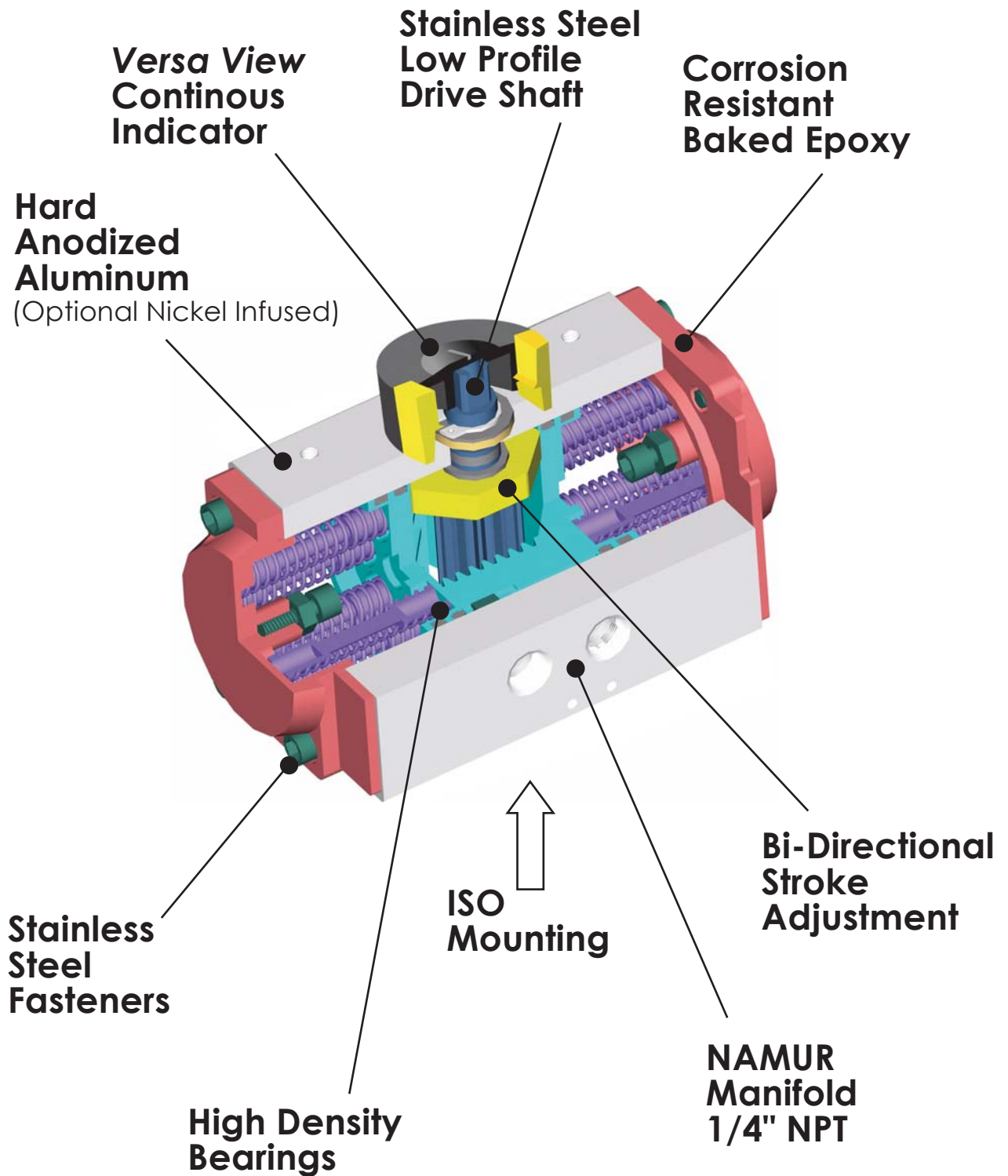
electroValve Dimensions			Electric Actuator		Actuator Specifications	
Size	A (in.)	"E" Series	B (in.)	C (in.)	Enclosure	NEMA4, 4X (NEMA7 Optional)
1/4"-1/2"	1.46	E-100	5"	6"	Voltage	115/60/1 Std. (Optional AC&DC)
3/4"	1.77	E-100	5"	6"	Locked Rotor	0.75 Amps
1"	2.11	E-100	5"	6"	Conduit Entry	1/2" NPT (one)
1-1/4"	2.32	E-200	6"	7"	Speed	E-100 (2.5sec), E-200,300 (5sec)
1-1/2"	2.95	E-300	6"	7"	Duty Cycle	25%
2"	3.29	E-300	6"	7"	Weight	7 pounds



See Page 9 to order  
aeroValve and electroValve



# High Performance Ball Valves Pneumatic Actuator





### HOW TO ORDER

Part Numbering System for SVF EZ Valve (EZ9)

**Series EZ 9**

EXAMPLE						
2"	EZ9	4	6	AT	SW	
SIZE	STYLE	ENDS	BODY, BALL + STEM	SEAT	BODY SEAL	END CONNECTION
1/4 - 1/2 3/4 1 1 1/4 1 1/2 2	EZ VALVE	6-STAINLESS* 4- CARBON	6-STAINLESS CF8M			SE-NPT SW-SOCKET WELD BW-BUTT WELD
				One Piece-TFM		

\*NOTE: Stainless Steel Ends are CF3M (316L)

Important note: For carbon steel piping systems, stainless steel valves are supplied with carbon steel ends (S,W, BW)  
The above Part Number Example would be: EZ946ATSSW-20

## aeroValve Actuator Package

### HOW TO ORDER

Prefix	Body/Ball/Stem	Ends	End Type	Pneumatic Actuator		Pilot Valve	Limit Switch	(Valve Size)
EZ 9	6-316SS	6-316SS 4-Carbon Steel	1-SE (NPT) 2-SW 3-BW	Double Acting	Spring Return	N-None		02-1/4" 05-1/2" 07-3/4" 10-1" 12-1.25" 15-1.5" 20-2"
						For	N-None	
				A1-A2D-020 A2-A2D-035 A3-A2D-050 A4-A2D-075 A5-A2D-110	A6-A2D-020 A7-A2D-035 A8-A2D-050 A9-A2D-075 A10-A2D-110	1-A2D NEMA4 2-A2D NEMA7  3-A2S NEMA4 4-A2S NEMA7 <small>(all are 115/60/1AC)</small>	1-LS 820 NEMA4  For other switches and options Contact SVF	

Contact SVF for optional voltages and configurations

## electroValve Actuator Package

### HOW TO ORDER

Prefix	Body/Ball/Stem	Ends	End 1 Type	Electric Actuator	Enclosure	Options	Valve Size
EZ 9	6-316 SS	6-316SS 4-Carbon Steel	1-SE (NPT) 2-SW 3-BW	E1-E-100	1-NEMA4	N-None	02-1/4" 05-1/2" 07-3/4" 10-1" 12-1.25" 15-1.5" 20-2"
				E2-E-200	2-NEMA7	1-Heater/Therm 2-Analog Positioner	
				E3-E-300		Other Contact SVF	



## SVF produces a full line of Process-Quality Valves, Actuators and Controls



At the heart of our product offering is the "8" Series of valves (shown here with the **-aero<sup>2</sup>** actuator). These valves come in a variety of materials including stainless steel, carbon steel, Hastelloy and other exotic materials. For a wide range of services the "8" Series comes with seat and seal options for applications from steam to cryogenic. Ask for our R8/B8 brochure.



Clean**FLOW** valves are designed for pharmaceutical, cosmetic and other high purity applications. As a leading supplier to these industries our high purity products come in a selection of materials and configurations including multiport designs, forged construction and with a complete automation package. Ask for CleanFLOW.



The SVF **-aero<sup>2</sup>** actuator provides high performance valve automation for plant wide applications. The standard actuator can be fitted with limit switches, pilot valves, positioners, Two-Wire controls and a wide selection of custom controls. The actuator is available with our standard hard anodized construction or nickel infusion for corrosive environments. An all stainless version is also available. Ask for **-aero<sup>2</sup>**.



Custom Valves. Our engineering group can develop custom valve designs and configurations to meet "Process-Specific" applications. Our Pro-Spec program has produced multi-functional valves, manifolds and sophisticated automation packages to handle tough applications in a variety of industries. Go to [www.Pro-Spec.net](http://www.Pro-Spec.net)



## Product Specification for Full Ported, 3-Piece Ball Valves (EZ9)

This specification covers the design of full port, three-piece ball valves used in plant-wide applications.



- Valve shall be a three-piece design (1/4" to 2") in full port design and in a selection of body materials (stainless steel, carbon steel), and TFM seats to meet a broad range of fluid types, pressures and temperatures.
- End connection shall be NPT, Socket Weld, Butt Weld or flanged.
- Weld-ends shall be "L" grade 316 stainless steel or carbon steel as required by the application.
- Stem seal shall be live-loaded V-Ring design using high-performance stainless steel disc springs (Belleville Washers). The design shall meet the stem seal testing criteria according to ISA-SP-93.
- Actuator attachment shall be by integral mounting surface as part of the valve center section to eliminate the use of pressure-containing body bolts for actuator mounting. Dimension and design as per ISO-5211.
- Manual lever-handle shall be stainless steel with vinyl grip and locking capabilities.
- Product tagging shall be permanently affixed using spot welding, etching or riveting.
- Ball and stem shall be 316 stainless steel.
- Valves -with weld ends- for carbon steel piping systems shall be supplied with stainless steel center sections.
- Valve shall provide equal-percentage flow characteristics when used in throttling control.
- Valve shall be designed, manufactured and tested to meet applicable industry standards; such as: ANSI, ASME, API, BPE, DIN, ISO (as required)
- Process-quality ball valves shall be SVF Series "EZ9" (full port) or equal.



# *SVF* Flow Controls

INCORPORATED



## **Valves & Actuators**



Industrial Valves



High Purity Valves



Custom Controls



Custom Valves

