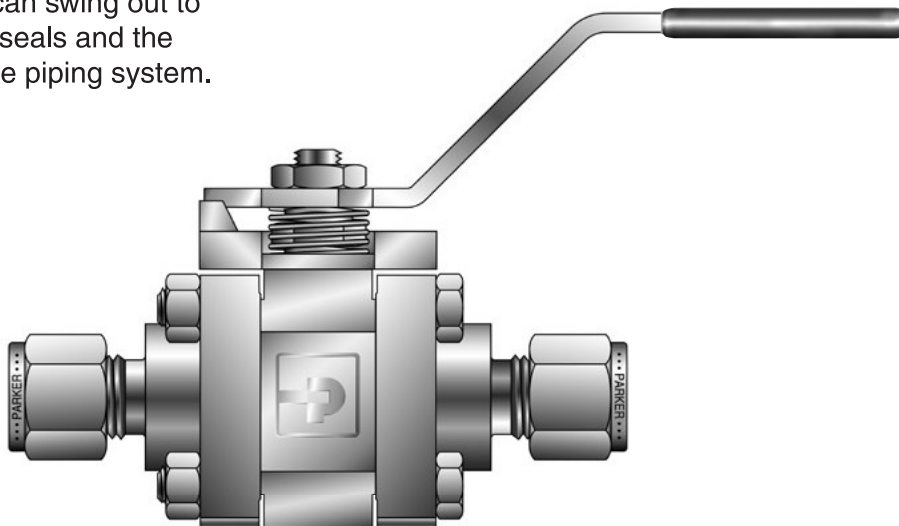


Introduction

Parker's three-piece SWB Series Ball Valves are durable valves that can handle the pressure and piping loads. The center section can swing out to quickly and easily replace seats, seals and the ball without major disruption to the piping system.



Model Shown: 8Z-SWB8L-RT-BN-SS

SWB

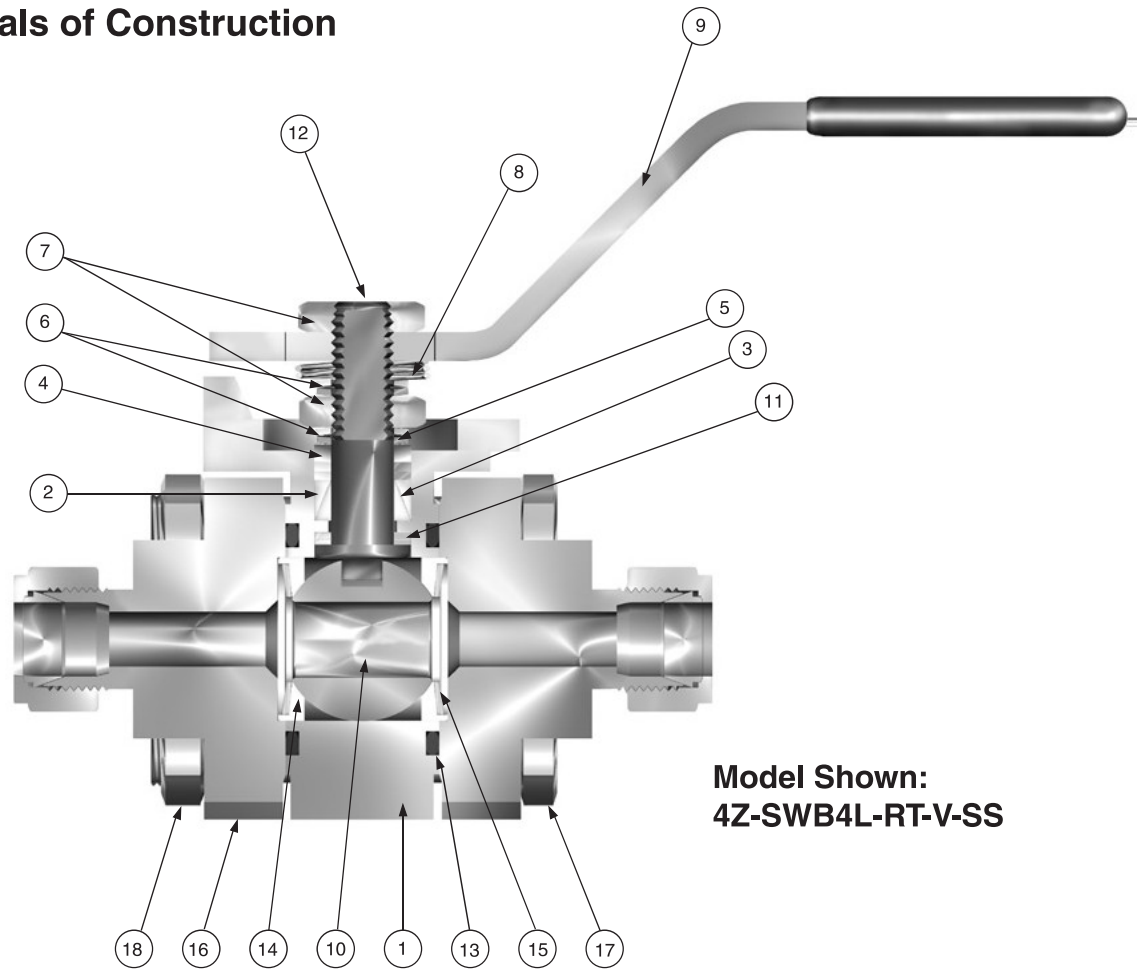
Features

- ▶ Ultra low internal volume
- ▶ Free floating ball design allows for seat wear compensation
- ▶ Self-compensating stem seal
- ▶ Spring-loaded seats
- ▶ Blow out resistant stem
- ▶ Fully enclosed body bolting
- ▶ Four bolt construction
- ▶ ISO-type actuator mounting design
- ▶ Pneumatic and electric actuation options
- ▶ 100% factory tested

Specifications

Body Materials	Stainless Steel
Seat Materials	Reinforced PTFE PEEK (size 4 only)
Seal Materials	Nitrile Rubber Ethylene Propylene Rubber Fluorocarbon Rubber PTFE Grafoil® (size 4 only)
Flow Data	C _v : 1.1 to 35.0
Pressure Ratings	2500 psig (172 bar)
Temperature Ratings — Seats	
Reinforced PTFE Seats	-65°F to 450°F (-54°C to 232°C)
PEEK Seats	-65°F to 600°F (-54°C to 316°C)
Temperature Ratings — Seals	
Nitrile Rubber Seals	-40°F to 250°F (-40°C to 121°C)
Ethylene Propylene Rubber Seals	-65°F to 300°F (-54°C to 149°C)
Fluorocarbon Rubber Seals	-15°F to 400°F (-26°C to 204°C)
PTFE Seals	-65°F to 350°F (-54°C to 177°C)
Grafoil® Seals	-65°F to 600°F (-54°C to 316°C)

Materials of Construction



Model Shown:
4Z-SWB4L-RT-V-SS

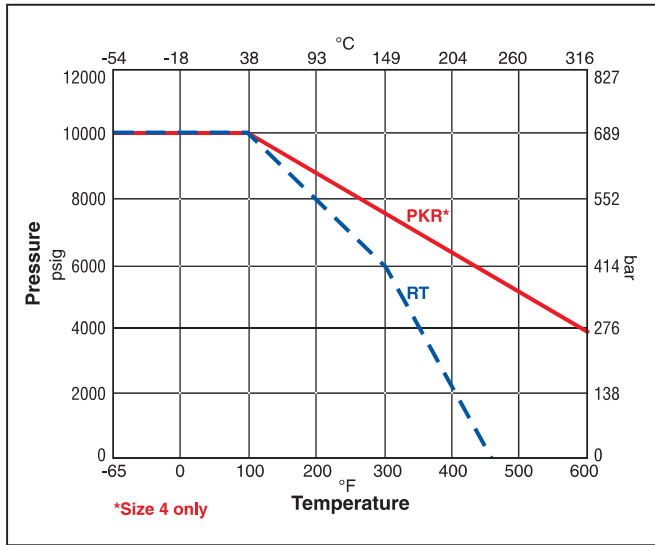
SWB

Materials of Construction

Item #	Part	Qty	Material
1	Body	1	ASTM A 351 Grade CF3M
2	Lower Packing	1	PTFE
3	Upper Packing	1	PTFE
4	Packing Support	2	PEEK
5	Packing Gland	1	ASTM A 276 Type 304
6	Stem Spring	4	ASTM A 666 Type 301
7	Stem Hex Nut	2	ASTM A 276 Type 304
8	Grounding Spring	1	ASTM A 276 Type 304
9	Handle Assembly	1	ASTM A 276 Type 304; Vinyl Covered
10	Ball	1	ASTM A 276 Type 316
11	Thrust Washer	2	PEEK
12	Stem	1	ASTM A 276 Type 316
13	Body Seal	2	Fluorocarbon Rubber*
14	Seat	2	Reinforced PTFE, PEEK*
15	Seat Spring	2	ASTM A 666 Type 301
16	End Flanges	2	ASTM A 351 Grade CF3M
17	Body Bolts	4	ASTM A 193 Grade B8M Class 2
18	Body Bolt Nuts	4	ASTM A 194 Grade 8M

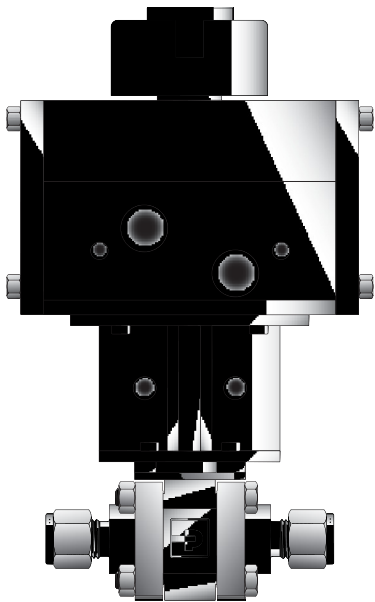
*Optional body seal materials are described in the [How to Order](#) section.

Pressure vs. Temperature

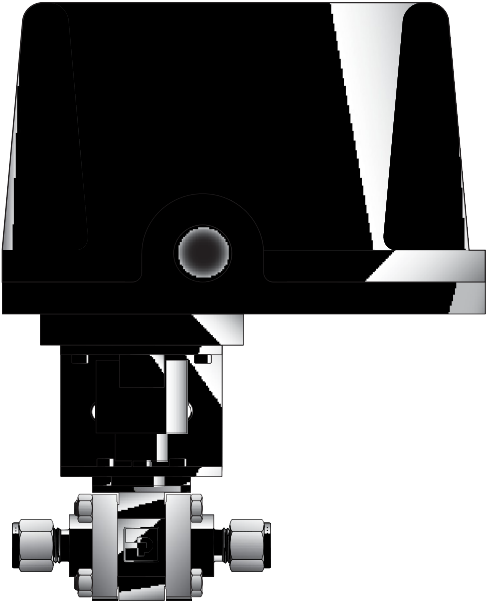


Note: This Pressure versus Temperature chart reflects the use of indicated seat materials in Stainless Steel valves without consideration of seal materials. When combining seat and seal materials, the most restrictive temperature rating of the seats or seals becomes the limiting factor on temperature range. Please [refer to Page 34](#) for seal temperature ranges.

SWB

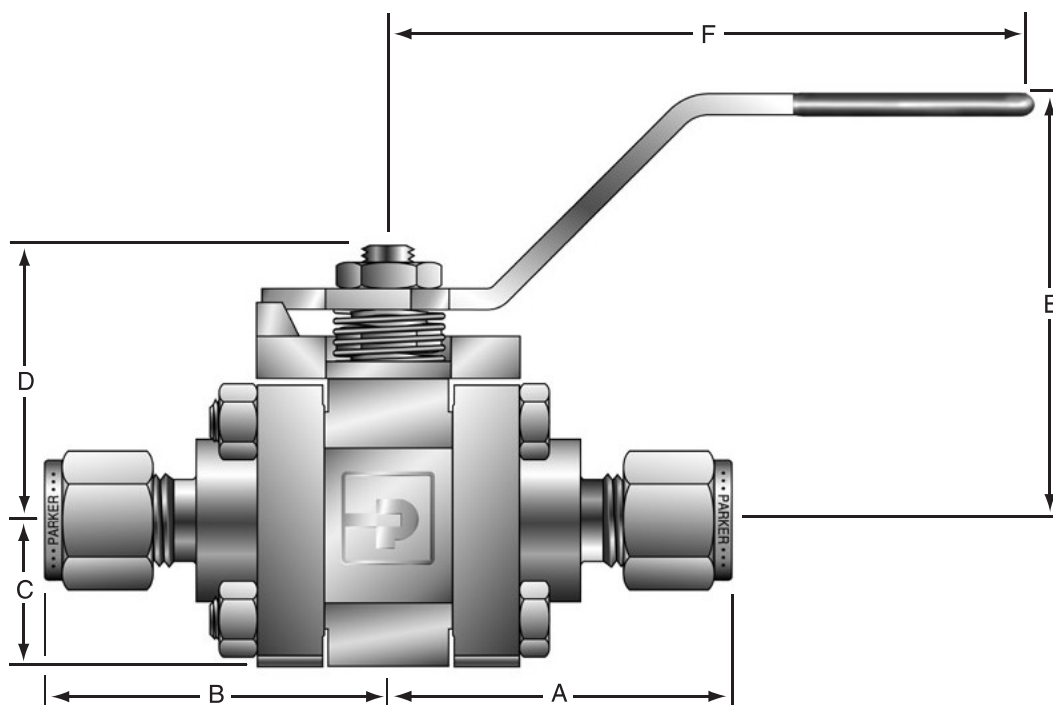


Pneumatic Actuated Model Shown:
8Z-SWB8L-RT-V-SS-62AD



Electric Actuated Model Shown:
8A-SWB8L-RT-V-SS-71

Dimensions / Flow Data



SWB

Basic Part Number	Flow Data					Dimensions Inches (mm)										
	Orifice		C_v	X_T^*	A†		B†		C		D		D		F	
	Inch	mm			Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
4Z(A)-SWB4L	0.19	4.8	1.1	0.19	1.59	40.4	1.59	40.4								
4F-SWB4L	0.28	7.1	2.9	0.29	1.09	27.7	1.09	27.7	0.68	17.3	1.28	32.5	2.00	50.8	3.00	76.2
6Z(A)-SWB4L	0.28	7.1	4.5	0.19	1.59	40.4	1.59	40.4								
6F-SWB8L	0.44	11.2	8.2	0.35	1.29	32.8	1.29	32.8								
8Z(A)-SWB8L	0.41	10.4	6.4	0.35	2.03	51.6	2.03	51.6								
8F-SWB8L	0.44	11.2	8.2	0.26	1.29	32.8	1.29	32.8	0.89	22.6	1.54	39.1	2.36	59.9	3.94	100.1
8W-SWB8L	0.41	10.4	6.4	0.35	1.29	32.8	1.29	32.8								
8PBW1-SWB8L	0.44	11.2	8.2	0.26	1.35	34.3	1.35	34.3								
8PSW-SWB12L	0.52	13.2	13.5	0.34	1.35	34.3	1.35	34.3								
12Z(A)-SWB12L	0.56	14.2	14.7	0.28	2.03	51.6	2.03	51.6								
12F-SWB12L	0.56	14.2	14.7	0.28	1.39	35.3	1.39	35.3	1.06	26.9	1.81	46.0	2.59	65.8	3.94	100.1
12W-SWB12L	0.56	14.2	14.7	0.28	1.39	35.3	1.39	35.3								
12PBW1-SWB12L	0.56	14.2	14.7	0.28	1.37	34.8	1.37	34.8								
12PSW-SWB16L	0.88	22.4	35.0	0.29	1.95	49.5	1.95	49.5								
16Z(A)-SWB16L	0.88	22.4	35.0	0.29	2.68	68.1	2.68	68.1								
16F-SWB16L	0.88	22.4	35.0	0.29	1.79	45.5	1.79	45.5	1.25	31.8	2.30	58.4	3.00	76.2	5.71	145.0
16W-SWB16L	0.88	22.4	35.0	0.29	1.79	45.5	1.79	45.5								
16PBW1-SWB16L	0.88	22.4	35.0	0.29	1.81	46.0	1.81	46.0								

* Tested in accordance with ISA S75.02. Gas flow will be choked when $P_1 - P_2 / P_1 = x_T$.

† For CPI™ and A-LOK®, dimensions are measured with nuts in the finger tight position.

How to Order

The correct part number is easily derived from the following example and ordering chart. The four product characteristics required are coded as shown in the chart.

The example below describes a SWB8L Two-Way Ball Valve with 1/2" A-LOK® end connections for ports 1 and 2, reinforced PTFE seats, Nitrile rubber body seals, and stainless steel construction.

***Note:** If ports 1 and 2 are the same, eliminate the port 2 designator.

Example:

8A			-	SWB8L		-	RT	-	BN	-	SS
			-			-		-		-	
Port Size	Port 1*	Port 2*		Valve Series	Valve Configuration		Seat Material		Seal Material		Body Material
Port Size	Port 1*	Port 2*		Valve Series	Valve Configuration		Seat Material		Seal Material		Body Material
4	Z	CPI™ Tube 1/8" Female NPT		SWB4	L 2-Way	PKR	PTFE Lubricated	T	PTFE	SS	Stainless Steel
6	A	A-LOK® Tube		SWB8			PEEK (size 4 only)	BN	Nitrile Rubber		
8	F	Female NPT		SWB12		RT	Glass Reinforced PTFE	EPR	Ethylene Propylene Rubber		
12	W	Tube Socket Weld		SWB16				V	Fluorocarbon Rubber		
16	PSW	Pipe Socket Weld						G	Grafoil® Gasket (size 4 only)		
	PBW1	Pipe Buttweld (Schedule 10)									

If ports 1 and 2 are the same, eliminate the port 2 designator.

Note: Upper and Lower PTFE packing is replaced with PEEK when valves are ordered with Grafoil® Seals.

How to Order Options

Examples

Lever Lock-Out Devices –

Add the suffix -LD to the end of the part number to order directly on the valve.

For field installation, order part number as shown in the example.

4F-SWB8L-RT-V-SS-LD
SWB8L-HANDLE-LOCKING

Oval Handles – Add the suffix -S to the end of the part number.

8A-SWB8L-RT-T-SS-S

Oval Handle Lock-Out Devices –

Add the suffix -LD to the end of the part number to order directly on the valve.

For field installation, order part number as shown in the example.

6F-SWB8L-RT-V-SS-S-LD
SWB8L-OVAL-LOCKING- HANDLE

Pneumatic Actuators – For detailed actuator information, refer to the Pneumatic Actuators section of this catalog.

For factory assembly, add the actuator part number as the suffix to the valve part number.

For field installation, specify the the actuator desired.

The appropriate mounting hardware may be obtained by adding the valve series and actuator size to the prefix MK-.

8F-SWB8L-RT-BN-SS-61AC-2
61AC-2

MK-SWB8L-61

Electric Actuators – For detailed actuator information, refer to the Electric Actuators section of this catalog.

For factory assembly, add the actuator part number as the suffix to the valve part number.

For field installation, specify the actuator desired.

The appropriate mounting hardware may be obtained by adding the valve series and actuator series to the prefix MK-.

8A-SWB8L-RT-EPR-SS-71A
71A

MK-SWB8L-70.

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