

The SWL Series Swing Check Valves

- Meets AWWA C-508-01 Standards (Full Waterway)
 - Accepts Air Cushions
- Cost-effective Swing Check Valve Solution



Crispin
Since 1905

Crispin Multiplex Manufacturing Co. • 600 Fowler Avenue • Berwick, PA 18603 • 1-800-AIR-VALV
T: (570) 752-4524 • F: (570) 752-4962 • www.crispinvalve.com • sales@crispinvalve.com

SWL Swing Check Valve



SWL SERIES

Applications

- Water and Wastewater Systems
- Pump Discharge
- Valve Vaults

Features Include

- Both lever-and-weight and outside lever-and-spring designs available
- Optional Air Cushion
- Cast iron body with bronze or cast iron disc
- Valve Disc allows “full flow” through the valve
- Rubber faced Discs standard
- Meets AWWA C-508
- Optional double outside levers for weight or spring
- Available in sizes 2” thru 14”



The “SWL” Series Swing Check Valve from Crispin Valve is an ideal solution for standard check valve applications. Designed as a more cost-effective companion to our “SWC” engineered, heavy-duty swing check valve, the “SWL” offers the Crispin quality that you’ve come to expect in a smaller, “off-the-shelf” package.

The “SWL” is available in Outside lever/weight, lever/spring, and Air Cushion configurations. Only produced with #125 flanged ends, the “SWL” swing check valve is intended for the everyday swing check application. Upgradeable with stainless steel seats and a variety of industry-approved epoxy coatings, the “SWL” offers flexibility in approaching hard water and corrosive environments.

Operation:

Once pump pressure exceeds the backpressure on the downstream side of the valve disc, the swing check valve moves the disc out of the flow by displacing the seat disc to the upper portion of the valve. This creates full flow through the unit for both water and sewage.

Upon pump shut down, the disc will stroke closed when velocity begins to slow and stop. With the incorporation of a rubberized disc face, the resultant drip tight seating will protect the system from costly drain-back.

Design:

• Body Seat

The threaded in seat provides firm, water-tight retention in the body. This design can handle repeated stroking of the typical swing check application without vibration or loosening.

• Standard Rubber Faced Discs

Standard on all sizes, the rubber faced disc configuration provides drip-tight sealing.

• Adjustable Packing

Perfect for standard check valves where expensive maintenance rebuilds are not justified, the adjustable packing allows for fine tuning of sealing joints over time.

• Bronze Trim

Standard in all units, it provides excellent protection against corrosion.

• Limit Switches

Mountable on all valve sizes, electric limit switches are available upon customer’s request

• Full Waterway Flow Area

With a flow area that is greater than or equal to the nominal valve size, the “SWL” swing check valve has a lower head loss characteristic than a Silent Check valve, and can be mounted in both the Horizontal and Vertical positions.

• Serviceable

The disc and clapper of the “SWL” can be removed from the valve while it is still in line. ♦



Swing Check Valves

SWL Swing Check Valve

Manufactured in compliance with ANSI/AWWA C512

Date: November, 2003

Specifications for SWL Swing Check Valves

GENERAL:

Check valves shall be all iron body, bronze mounted, full opening swing type. Valve disc shall swing completely clear of the waterway when valve is full open, permitting a "full flow" thru the valve equal to the nominal pipe diameter. They shall comply with AWWA Standard C-508 latest revision.

RATING:

Check Valves shall be rated at 200 psi water working pressure, 350 psi hydrostatic test for structural soundness (2" through 12") and 150 psi waterworking pressure, 300 psi hydrostatic test (size 14"). Seat tightness at rated working pressure shall be in accordance with and fully conform to AWWA C508.

END CONFIGURATIONS:

Check valves shall be furnished with type of end connection as follows: 125# ANSI flanged ends.

MATERIALS:

All cast iron shall conform to ASTM-A-126 Class B.

Castings shall be clean and sound without defects that will impair their service. No plugging or welding of such defects will be allowed. Valve will be coated externally with phenolic primer

Discs shall be bronze and rubber faced for sizes through 2" - 3", and cast iron, rubber faced for sizes 4" and larger.

Hinge pins shall be 18-8 Stainless Steel rotating in bronze plugs.

Bolts shall be electro-zinc plated steel with hex heads and hex nuts in accordance with ASTM A-307 and A-563, respectively.

DESIGN:

Check valves shall be constructed to permit top entry for complete removal of internal components without removing the valve from the line.

Gaskets shall be O-rings-2"-12" sizes and conventional in size 14".

Bosses shall be provided on check valves which may be tapped for draining or used for by-pass. When tapping is required, boss designation and size of tap should be stated.

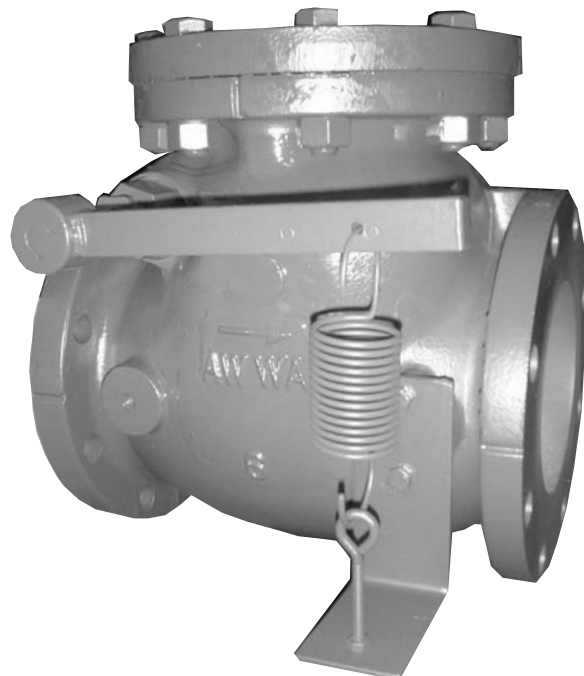
All valves 14" and larger shall have extended hinge pins for future addition of levers and springs if required. Valves shall be suitable for installation in either horizontal or vertical position. Increasing check valves shall be available in accordance with the provisions of this specification.

PAINTING:

The inside and outside of all valves, together with the working parts except bronze and machined surfaces, shall be coated in accordance with AWWA standards.

MARKING:

Marking shall be in accordance with AWWA C-508 and shall include size, working pressure, and cast arrow to indicate direction of flow, name of manufacturer.



SPECIFICATION SHEET FOR SWL SERIES

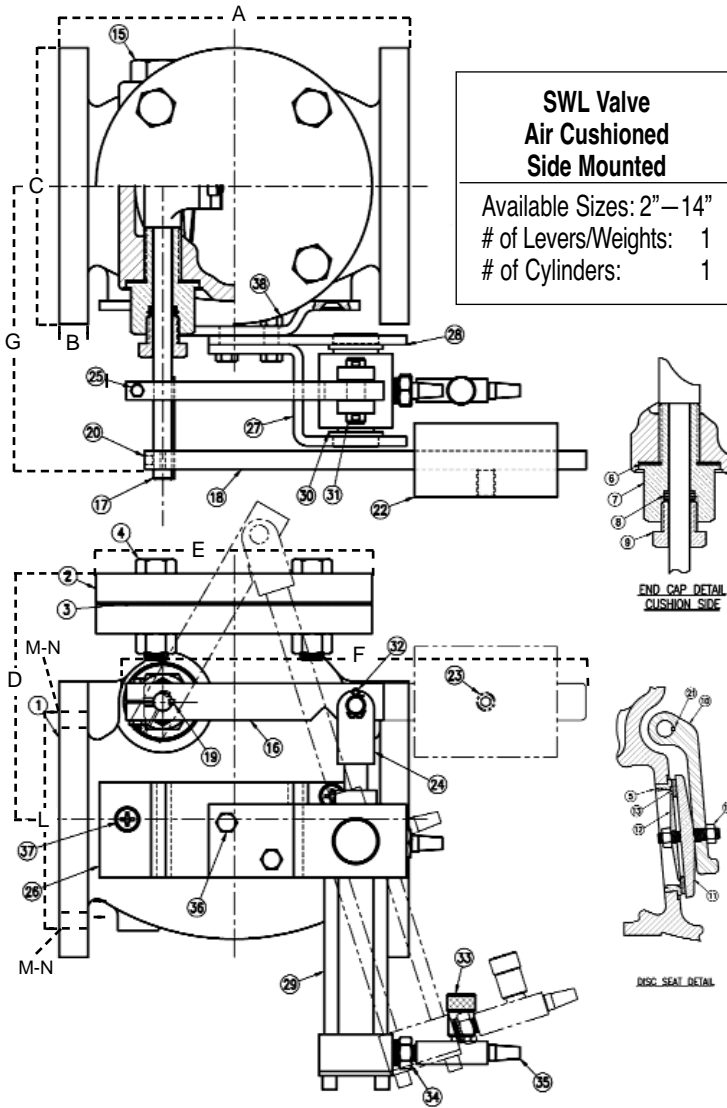
Swing Check Valves

SWL Swing Check Valve

SWL Air Cushioned Design Features



SWL SERIES



SWL-AC Parts (2"-14")

PART #	DESCRIPTION	MATERIAL
1	Body	A126 Class B Cast Iron
2	Cover	A126 Class B Cast Iron
3	Cover Gasket	Buna-N Rubber
4	Cover Bolt and Nut	Steel
5	Seat Ring	CDA 844 Bronze
6	Side Plug Gasket	Copper Non-Asbestos
7	Stuffing Box	B16 Bronze
8	Packing	Graphite Filled
9	Gland	B16 Bronze
10	Hinge	Bronze
11	Disc Holder	Bronze
12	Disc Plate	Bronze
13	Disc	Buna-N Rubber
14	Disc Nut	Rustproof Steel
15	Side Plug	B16 Bronze
16	Cylinder Arm	Steel
17	Hinge Pin	431 HT Stainless Steel
18	Lever Arm	Steel
19	Key	304 Stainless Steel
20	Arm Screw	Steel
21	Key	304 Stainless Steel
22	Weight	A126 Class B Cast Iron
23	Weight Screw	Carbon Steel
24	Rod Eye	Steel
25	Cylinder Arm Bolt&Nut	Steel
26	Body Bracket	Steel
27	Outer Bracket	Steel
28	Inner Bracket	Steel
29	Pneumatic Cylinder	Aluminum
30	Bushing	Bronze
31	Pivot Pin	Steel
32	Cotter Pin	Stainless Steel
33	Flow Control Valve	Steel
34	Bushing	Bronze
35	Filter	Stainless Steel
36	Bolt	Gr. 5 Plated Steel
37	Screw	Plated Steel
38	Nut	Gr. 5 Plated Steel

"SWL" Series Dimensions (Air Cushioned)

SIZE	MODEL #	A	B	C	D	E	F	G	H	L	M-N
2"	SWL21-LW-AC	8.00	.65	6.00	6.00	6.00	6.00	4.72	.50	4.75	4 x .75
2 1/2"	SWL251-LW-AC	8.50	.72	7.00	6.62	7.00	6.00	4.94	.50	5.50	4 x .75
3"	SWL31-LW-AC	9.50	.78	7.50	7.06	7.50	6.00	5.34	.50	6.00	4 x .75
4"	SWL41-LW-AC	11.50	1.00	9.00	8.31	9.00	8.25	8.19	.62	7.50	8 x .75
5"	SWL51-LW-AC	13.00	.94	10.00	8.31	10.00	9.50	8.50	.62	8.50	8 x .87
6"	SWL61-LW-AC	14.00	1.06	11.00	10.06	11.00	10.25	9.00	.75	9.50	8 x .87
8"	SWL81-LW-AC	19.50	1.25	13.50	12.38	13.50	14.50	10.18	.87	11.75	8 x .87
10"	SWL101-LW-AC	24.50	1.31	16.00	13.93	16.75	18.00	11.62	1.00	14.25	12 x 1.00
12"	SWL121-LW-AC	27.50	1.37	19.00	16.18	19.00	18.00	13.75	1.00	17.00	12 x 1.00
14"	SWL141-LW-AC										

please consult factory



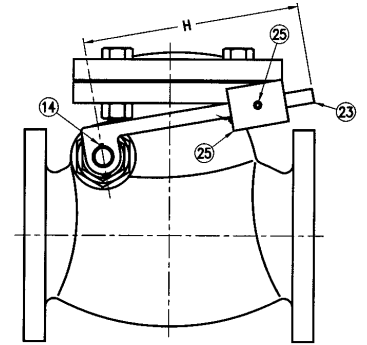
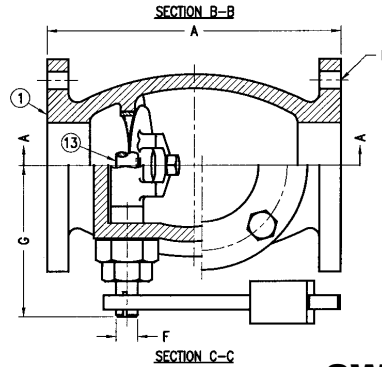
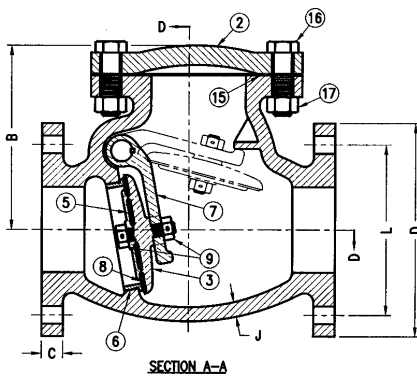


Swing Check Valves

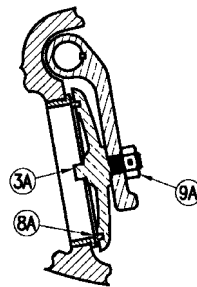
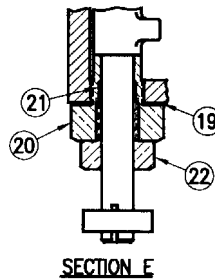
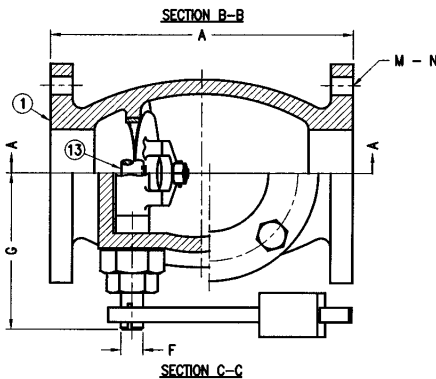
SWL Swing Check Valve

SWL Lever & Weight Design Features—Sizes 2”-4”

SWL SERIES



SWL-LW Parts (2”-4”)



BRONZE SEAT DISC DETAIL

Maximum Operating Pressure:

2-4" 175 PSIG

Hydrostatic Test Pressure

2-4" 350 PSIG

PART #	DESCRIPTION	MATERIAL
1	Body	A126 Class B Cast Iron
2	Cover	A126 Class B Cast Iron
3*	Resilient Disc	CDA 84400 Bronze
3A*	Disc	CDA 84400 Bronze
5	Clamping Ring	CDA 84400 Bronze
6	Body Seat Ring	CDA 84400 Bronze
7	Key'ed Clapper	CDA 84400 Bronze
8*	Disc Seat Ring	D2000 Buna-N Rubber
8A*	Disc Seat Ring	CDA 84400 Bronze
9*	Resilient Seat Nut	CDA 84400 Bronze
9A*	Bronze Seat Nut	CDA 84400 Bronze
12	Disc Cutter Pin	CDA 84400 Bronze
13	Key'ed Hinge Pin	A276 Stainless Steel
14	Key	A276 Stainless Steel
15	Cover Gasket	D2000 Buna-N Rubber
16	Cover Bolt	A307 Steel
17	Cover Nut	A563 Steel
18	Side Plug	CDA 84400 Bronze
19	Side Plug Gasket	D2000 Buna-N Rubber
20	Stuffing Box	CDA 84400 Bronze
21	Packing	Graphite Filled
22	Gland	CDA 84400 Bronze
23	LW Lever	A126 Class B Cast Iron
24	Lever Set Screw	A307 Steel
25	Weight Set Screw	A307 Steel
26	Weight	A126 Class B Cast Iron

* Parts are interchangeable at customer's request.

“SWL” Dimensions (Lever & Weight and Lever & Spring)

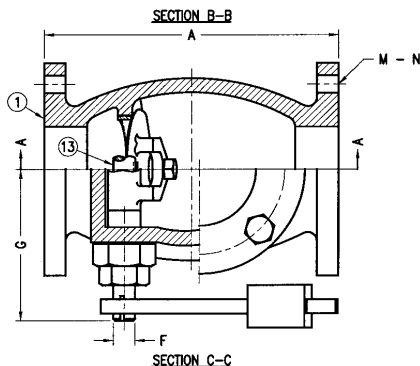
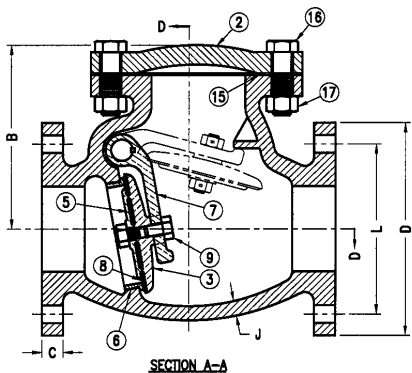
SIZE	MODEL #	A	B	C	D	E	F	G	H	J	L	M-N
2"	SWL21	8.00	6.00	0.65	6.00	6.00	0.50	4.72	6.00	0.34	4.75	0.75 x 4
2.5"	SWL251	8.50	6.62	0.72	7.00	7.00	0.50	4.94	6.00	0.41	5.50	0.75 x 4
3"	SWL31	9.50	7.06	0.78	7.50	7.50	0.50	5.34	6.00	0.44	6.00	0.75 x 4
4"	SWL41	11.50	8.31	1.00	9.00	9.00	0.62	8.19	8.25	0.50	7.50	0.75 x 8

Swing Check Valves



SWL Swing Check Valve

SWL Lever & Weight Design Features—Sizes 6”-14”



Maximum Operating Pressure:

6-12"	200 PSIG
14"	150 PSIG

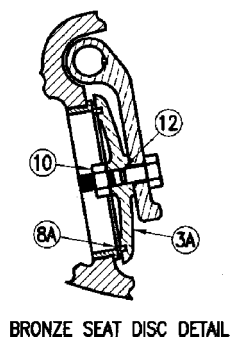
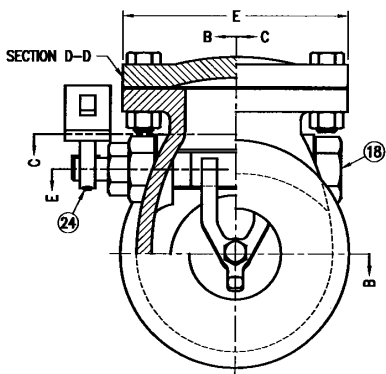
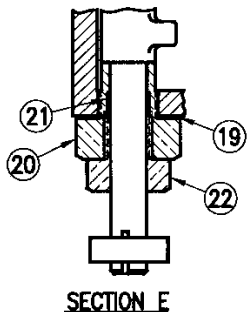
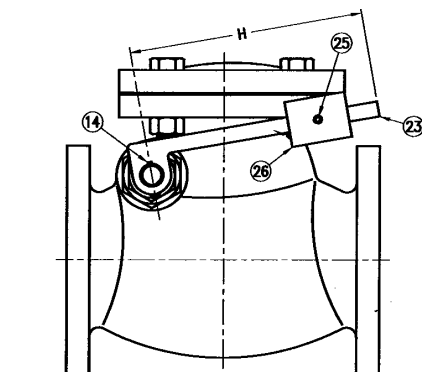
Hydrostatic Test Pressure

6-12"	350 PSIG
14"	300 PSIG

SWL-LW Parts (6”-14”)

PART #	DESCRIPTION	MATERIAL
1	Body	A126 Class B Cast Iron
2	Cover	A126 Class B Cast Iron
3	Resilient Disc	A126 Class B Cast Iron
3A*	Disc	A126 Class B Cast Iron
5	Clamping Ring	CDA 84400 Bronze
6	Body Seat Ring	CDA 84400 Bronze
7	Key'ed Clapper	A126 Class B Cast Iron
8*	Disc Seat Ring	D2000 Buna-N Rubber
8A*	Disc Seat Ring	CDA 84400 Bronze
9	Disc Nut	CDA 84400 Bronze
10	Disc Bolt	CDA 84400 Bronze
12	Disc Bolt O-Ring	D2000 Buna-N Rubber
13	Key'ed Hinge Pin	A276 Stainless Steel
14	Key	A276 Stainless Steel
15	Cover Gasket	D2000 Buna-N Rubber
16	Cover Bolt	A307 Steel
17	Cover Nut	A563 Steel
18	Side Plug	CDA 84400 Bronze
19	Side Plug Gasket	D2000 Buna-N Rubber
20	Stuffing Box	CDA 84400 Bronze
21	Packing	Graphite Filled
22	Gland	CDA 84400 Bronze
23	LW Lever	A126 Class B Cast Iron
24	Lever Set Screw	A307 Steel
25	Weight Set Screw	A307 Steel
26	Weight	A126 Class B Cast Iron

SWL SERIES



“SWL” Dimensions (Lever & Weight and Lever & Spring)

SIZE	MODEL #	A	B	C	D	E	F	G	H	J	L	M-N
6"	SWL61	14.00	10.06	1.06	11.00	11.00	0.75	9.00	10.25	0.62	9.50	0.88 x 8
8"	SWL81	19.50	12.38	1.25	13.50	13.50	0.87	10.18	14.50	0.75	11.75	0.88 x 8
10"	SWL101	24.50	13.93	1.31	16.00	16.75	1.00	11.62	18.00	0.81	14.25	1.00 x 12
12"	SWL121	27.50	16.18	1.37	19.00	19.00	1.00	13.75	18.00	0.87	17.00	1.00 x 12
14"					please consult factory							

