

The AL Series Air and Vacuum Valves

Sizes 1/2" thru 24" available
Peripheral Guide System • Drip Tight Closure



Crispin
Since 1905

Crispin Multiplex Manufacturing Co. • 600 Fowler Avenue • Berwick, PA 18603 • 1-800-247-VALV
T: (570) 752-4524 • F: (570) 752-4962 • www.crispinvalve.com • info@crispinvalve.com



AL SERIES

Air and Vacuum Valves

Crispin Air and Vacuum Valves

Valve Function

- Allows large quantities of air to be vented from systems being filled with liquid
- Features Vacuum Function

Features

- Meets AWWA C-512
- Peripheral guide system for unobstructed closure
- Drip tight closure
- Standard Buna-N seating material
- Available in sizes 1/2" thru 24"

With Stainless Steel Trim

The Crispin Air and Vacuum Unit, with its orifice the same diameter as its inlet, allows large quantities of air to be vented from systems being filled with liquid. The same holds true in reverse for vacuum conditions when the system is drained.

Its design is such that the velocity of air passing through the valve will not blow the float shut at normal design volumes. It will not close until the arrival of liquid in the valve, and will not open to vent accumulating air as long as the system is under pressure and in operation.

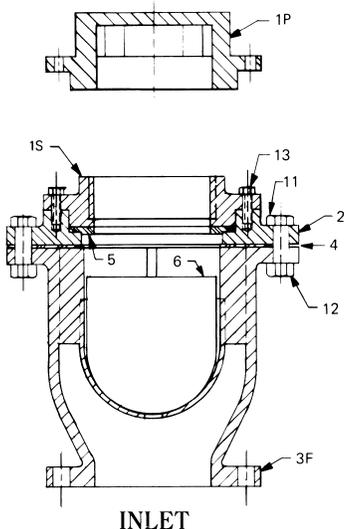
Air and Vacuum Valves are available with stainless steel floats and either standard top or protectop in sizes up to and including 24." All CRISPIN Air and Vacuum Valves also have guides which direct the float onto the seat upon closure. These guides are peripheral to the float, and fixed to the body or the cup and hanger assembly.

This peripheral guide system allows unobstructed closure because there are no guide bushings to collect dirt and then bind, and there are no shafts to bend or deform, which would prevent a drip tight seal.

Parts List for Air & Vacuum 1" – 24"

PART NO.	ITEM	MATERIAL (standard)
1S*	Top	Cast Iron
1P*	Protectop	Cast Iron
2	Flange	Cast Iron
3	Body, Screwed	Cast Iron
3F*	Body, 125 (1"-4" Threaded) ANSI Flanged	Cast Iron
3FH*	Body, 250 ANSI Flanged	Cast Iron
4	Gasket	Armstrong
5	Seat	Buna-N Rubber
6S	Float	Stainless Steel
11	Bolt	Steel
12	Nut	Steel
13	Bolt	Steel
14*	(not shown)Domed Screened Hood	HRCQ Steel

* Part No.'s 1P, 1S, 3F, 3H and 14 are at customer's option
 For ease of maintenance, some of the above parts are provided as kits or assemblies. Note: Prices and Materials are Subject to Change Without Notice



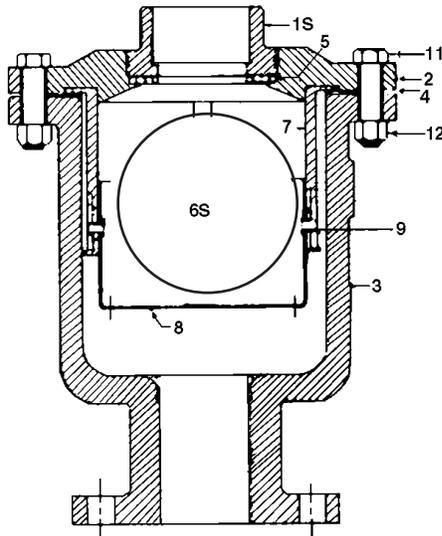
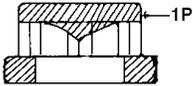


A SERIES

Crispin Air and Vacuum Valves

"A" Series With Bronze, Brass, Stainless Steel or Alloy Body

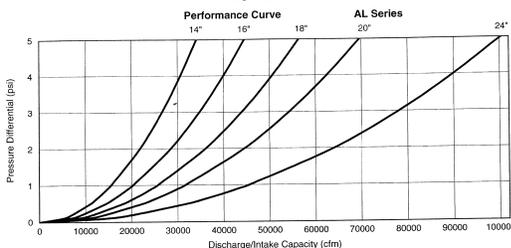
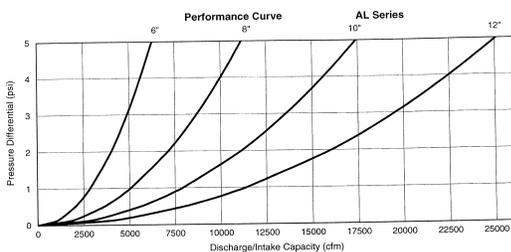
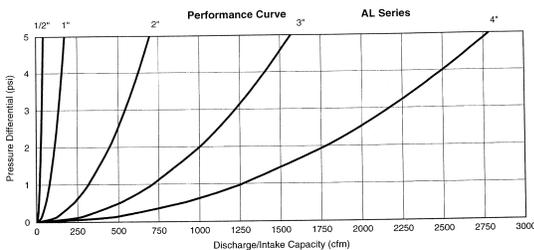
Parts List



PART NO.	ITEM	MATERIAL
1P*	Protectop	Optional
1S*	Std. Top	Optional
2	Flange	Optional
3*	Body, Screw Inlet	Optional
3F*	Body, 125 ANSI Flanged	Optional
3FH*	Body, 250 ANSI Flanged	Optional
4	Gasket	Armstrong
5	Seat	Buna-N Rubber
6S	Float	Stainless Steel
7	Hanger	Stainless Steel
8	Cup	Stainless Steel
9	Rivet	Stainless Steel
10	Screw	Stainless Steel
11	Bolt	Steel
12	Nut	Steel

*Part No's 1P, 1S, 3, 3F and 3H are at customer's option. **For ease of maintenance, some of the above parts are provided as kits or assemblies. ***Note: Prices and Materials are Subject to Change Without Notice

Performance Curves



All CRISPIN Air and Vacuum Valves have standard Buna-N seating material with a Shore durometer of 70-80. This standard seat allows drip tight closure beyond 4-5 PSIG. Occasionally, a gravity system operates at pressures less than 10 PSIG. These applications require a soft seating material which will prevent leakage down to 2 PSIG. This soft seating material should not be applied to systems with operating pressures greater than 50 PSIG, or high pressure leaks may occur around the seat.



Air and Vacuum Valves

Crispin Air and Vacuum Valves

Air and Vacuum Valve Detail*

AL SERIES

MODEL	INLET	OUTLET	TRIM	HEIGHT	WIDTH	WEIGHT (lbs)
A5	1/2" NPT	1/2" NPT	IBBT	4 7/8"	4 3/4"	7
AL10	1" NPT	1" NPT	S/S	6 1/8"	6 1/4"	16
AL20	2" NPT	2" NPT	S/S	9 1/2"	8 3/4"	42
AL21	2" 125# Flg.	2" NPT	S/S	13 1/8"	8 3/4"	48
AL22	2" 250# Flg.	2" NPT	S/S	13 3/8"	8 3/4"	48
AL30	3" NPT	3" NPT	S/S	11 5/8"	11 1/2"	92
AL31	3" 125# Flg.	3" NPT	S/S	15 3/4"	11 1/2"	112
AL32	3" 250# Flg.	3" NPT	S/S	15 15/16"	11 1/2"	120
AL40	4" NPT	4" NPT	S/S	14 1/2"	14"	154
AL41	4" 125# Flg.	4" NPT	S/S	17 5/16"	14"	170
AL42	4" 250# Flg.	4" NPT	S/S	17 13/16"	14"	181
AL61	6" 125# Flg.	6" NPT	S/S	15 13/16"	15"	174
AL62	6" 250# Flg.	6" NPT	S/S	16 1/4"	15"	195
AL81	8" 125# Flg.	8" NPT	S/S	18 1/16"	17 3/4"	265
AL82	8" 250# Flg.	8" NPT	S/S	18 9/16"	17 3/4"	295
AL101	10" 125# Flg.	10" NPT	S/S	22 1/16"	21"	500
AL102	10" 250# Flg.	10" NPT	S/S	22 3/4"	21"	550
AL121	12" 125# Flg.	12" hooded	S/S	28 1/2"	28"	725
AL122	12" 250# Flg.	12" hooded	S/S	30"	28"	778
AL141	14" 125# Flg.	14" hooded	S/S	31 1/2"	30"	970
AL142	14" 250# Flg.	14" hooded	S/S	32 1/4"	30"	1,157
AL161	16" 125# Flg.	16" hooded	S/S	36 1/2"	32 3/4"	1,025
AL162	16" 250# Flg.	16" hooded	S/S	37 1/2"	32 3/4"	1,115

Crispin valves are hydrostatically tested at 150% of their maximum working pressure.

**Consult factory for sizes above 16".*



Submittal Sheet for Crispin AL Series



1/2" Air & Vacuum Valve

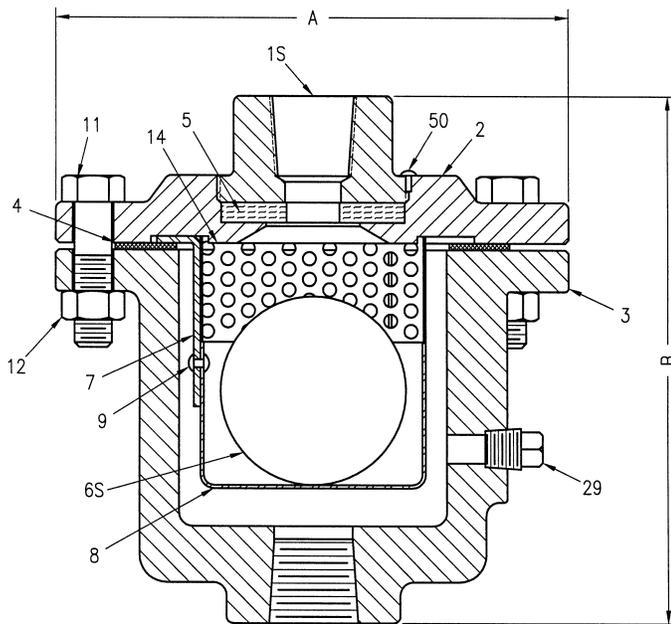
Manufactured in compliance with ANSI/AWWA C512

Date: October, 2001

Specifications

Air & Vacuum Valve(s) shall be installed at high points in the main line or as directed by the engineer to release the air in the main during filling, or allow it to enter the system when draining, or when the system is subject to negative pressure.

The valve(s) shall operate by sealing the Buna-N rubber outlet seat with a peripheral float as the liquid enters the valve chamber to raise the float. All Crispin Valves are hydrostatically tested at 150% of their maximum working pressure.



1/2"—The valve(s) shall be constructed with a cast iron body, and top flange with stainless steel and shall have a _____" NPT screwed inlet and outlet, or ANSI Class (125, 250) flanged inlet with NPT screwed outlet. The peripheral guided float shall be stainless steel.

The valve(s) shall be Crispin Model _____, as manufactured by Crispin-Multiplex Manufacturing Co., Berwick, PA.

Option: A vent cap shall be supplied to prevent debris from entering the outlet of the valve.

Option: [Where pressures are greater than 300 PSIG.] the valves shall be ANSI Class _____ flanged inlet connection and shall have a (steel, stainless steel, or ductile iron) body, top and inlet flange.

Standard operating pressure for Crispin Air Valves is 20 to 150 PSIG. Please check one of the following if your operating needs differ:

- _____ 2 to 40 PSIG
- _____ 151 to 300 PSIG

Size Specifications

MODEL	INLET SIZE	OUTLET SIZE	A	B	WEIGHT
A5	1/2" NPT	1/2" NPT	4.75	5.00	8

Air & Vacuum Parts List

ITEM	DESCRIPTION	MATERIAL	ASTM
1S	TOP	CAST IRON	A126 CL. B
2	FLANGE	CAST IRON	A126 CL. B
3	BODY	CAST IRON	A126 CL. B
4	GASKET	ARMSTRONG N—8092	N/A
5	SEAT	BUNA—N RUBBER	D2000
6S	FLOAT	STAINLESS STEEL	A240
7	HANGER	STAINLESS STEEL	A240
8	CUP	STAINLESS STEEL	A240
9	RIVET	STAINLESS STEEL	A582
11	BOLT	STEEL	A307
12	NUT	STEEL	A563
14	DIFFUSER	STAINLESS STEEL	A240
29	PLUG	BRASS	B505
50	INTERFERENCE PIN	STAINLESS STEEL	A582

SUBMITTAL SHEET FOR AL SERIES



Submittal Sheet for Crispin AL Series

1"–4" Air & Vacuum Valve

Manufactured in compliance with ANSI/AWWA C512

Date: October, 2001

Specifications

Air & Vacuum Valve(s) shall be installed at high points in the main line or as directed by the engineer to release the air in the main during filling, or allow it to enter the system when draining, or when the system is subject to negative pressure.

The valve(s) shall operate by sealing the Buna-N rubber outlet seat with a peripheral float as the liquid enters the valve chamber to raise the float. All Crispin Valves are hydrostatically tested at 150% of their maximum working pressure.

1"–4"—The valve(s) shall be constructed with a cast iron body, and top flange with stainless steel trim, and shall have a _____" NPT screwed inlet and outlet, or ANSI Class (125, 250) flanged inlet with NPT screwed outlet. The peripheral guided float shall be stainless steel.

The valve(s) shall be Crispin Model _____, as manufactured by Crispin-Multiplex Manufacturing Co., Berwick, PA.

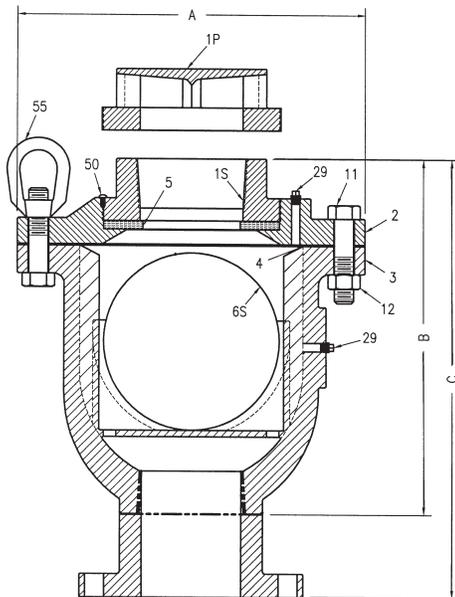
Option: A protectop shall be supplied to prevent debris from entering the outlet of the valve.

Option: [Where pressures are greater than 300 PSIG.] the valves shall be ANSI Class _____ flanged inlet connection and shall have a (steel, stainless steel, or ductile iron) body, top and inlet flange.

Standard operating pressure for Crispin Air Valves is 20 to 150 PSIG. Please check one of the following if your operating needs differ:

- _____ 2 to 40 PSIG
- _____ 151 to 300 PSIG

Size Specifications



MODEL	INLET SIZE	OUTLET SIZE	A	B	C	WEIGHT
*AL10	1" NPT	1" NPT	6.25	6.25		16
AL20	2" NPT	2" NPT	8.75	9.75		44
**AL21	2" 125# FLG	2" NPT	8.75		13.25	50
**AL22	2" 250# FLG	2" NPT	8.75		13.50	52
AL30	3" NPT	3" NPT	11.50	11.75		92
AL31	3" 125# FLG	3" NPT	11.50		15.75	112
AL32	3" 250# FLG	3" NPT	11.50		16.00	120
AL40	4" NPT	4" NPT	14.00	14.50		154
AL41	4" 125# FLG	4" NPT	14.00		17.50	170
AL42	4" 250# FLG	4" NPT	14.00		18.00	181

* Protectop not available ** Includes ANSI CL. 125 or 250 companion FLG & NPL *** Parts are interchangeable and optional at customer's request

Air & Vacuum Parts List

ITEM	DESCRIPTION	MATERIAL	ASTM
***1S	TOP	CAST IRON	A126 CL. B
**1P	PROTECTOP	CAST IRON	A126 CL. B
2	FLANGE	CAST IRON	A126 CL. B
3F	BODY	CAST IRON	A126 CL. B
4	GASKET	ARMSTRONG N—8092	N/A
5	SEAT	BUNA—N RUBBER	D2000
6S	FLOAT	STAINLESS STEEL	A240
11	BOLT	STEEL	A307
12	NUT	STEEL	A563
29	PLUG	BRASS	B505
50	INTERFERENCE PIN	STAINLESS STEEL	A582
55	EYE BOLT	STEEL	A563

Submittal Sheet for Crispin AL Series

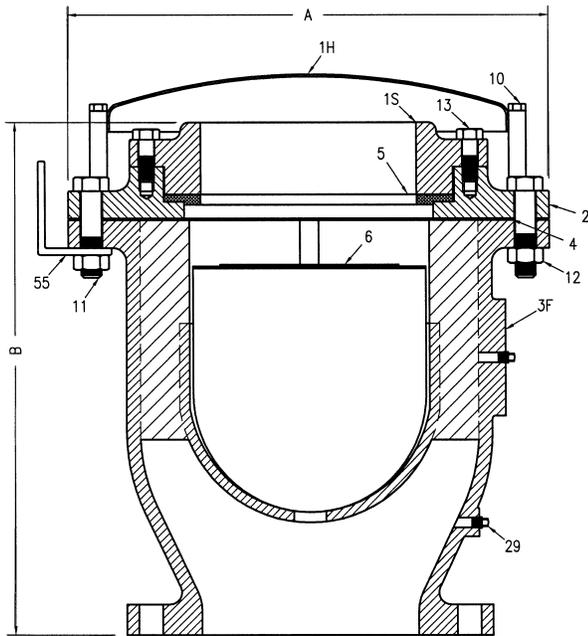
6"-10" Air & Vacuum Valve

Manufactured in compliance with ANSI/AWWA C512

Date: October, 2001



Specifications



Air & Vacuum Valve(s) shall be installed at high points in the main line or as directed by the engineer to release the air in the main during filling, or allow it to enter the system when draining, or when the system is subject to negative pressure.

The valve(s) shall operate by sealing the Buna-N rubber outlet seat with a peripheral float as the liquid enters the valve chamber to raise the float. All Crispin Valves are hydrostatically tested at 150% of their maximum working pressure.

6"-10"—The valve(s) shall be constructed with a cast iron body, and cover flange, stainless steel trim and shall be _____ ANSI Class (125, 250) flanged inlet.

The valve(s) shall be Crispin Model _____, as manufactured by Crispin-Multiplex Manufacturing Co., Berwick, PA.

Option: A protectop shall be supplied to prevent debris from entering the outlet of the valve.

Option: [Where pressures are greater than 300 PSIG.] the valves shall be ANSI Class _____ flanged inlet connection and shall have a (steel, stainless steel, or ductile iron) body, top and inlet flange.

Standard operating pressure for Crispin Air Valves is 20 to 150 PSIG. Please check one of the following if your operating needs differ:

_____ 2 to 40 PSIG _____ 151 to 300 PSIG

Size Specifications

MODEL	INLET SIZE	OUTLET SIZE	A	B	WEIGHT
AL61	6" 125# FLG	6" NPT	15.00	16.00	174
AL62	6" 250# FLG	6" NPT	15.00	16.25	197
AL81	8" 125# FLG	8" NPT	17.75	18.25	265
AL82	8" 250# FLG	8" NPT	17.75	18.75	295
AL101	10" 125# FLG	10" NPT	21.25	22.25	500
AL102	10" 250# FLG	10" NPT	21.25	22.75	550

Air & Vacuum Parts List

ITEM	DESCRIPTION	MATERIAL	ASTM
1H	HOOD	HRCQ STEEL	N/A
1S	TOP	CAST IRON	A126 CL. B
2	FLANGE	CAST IRON	A126 CL. B
3F	BODY	CAST IRON	A126 CL. B
4	GASKET	ARMSTRONG N—8092	N/A
5	SEAT	BUNA—N RUBBER	D2000
6	FLOAT	STAINLESS STEEL	A240
10	BOLT	STEEL	A307
11	BOLT	STEEL	A307
12	NUT	STEEL	A563
13	BOLT	STEEL	A307
29	PLUG	BRASS	B505
55	LUG	STEEL	A36

SUBMITTAL SHEET FOR AL SERIES



Submittal Sheet for Crispin AL Series

12"–24" Air & Vacuum Valve

Manufactured in compliance with ANSI/AWWA C512

Date: October, 2001

Specifications

Air & Vacuum Valve(s) shall be installed at high points in the main line or as directed by the engineer to release the air in the main during filling, or allow it to enter the system when draining, or when the system is subject to negative pressure.

The valve(s) shall operate by sealing the Buna-N rubber outlet seat with a peripheral float as the liquid enters the valve chamber to raise the float. All Crispin Valves are hydrostatically tested at 150% of their maximum working pressure.

12"–24"—The valve(s) shall be constructed with a cast iron body, cover flange, and stainless steel trim, and shall be _____ ANSI Class (125, 250) flanged inlet.

The valve(s) shall be Crispin Model _____, as manufactured by Crispin-Multiplex Manufacturing Co., Berwick, PA.

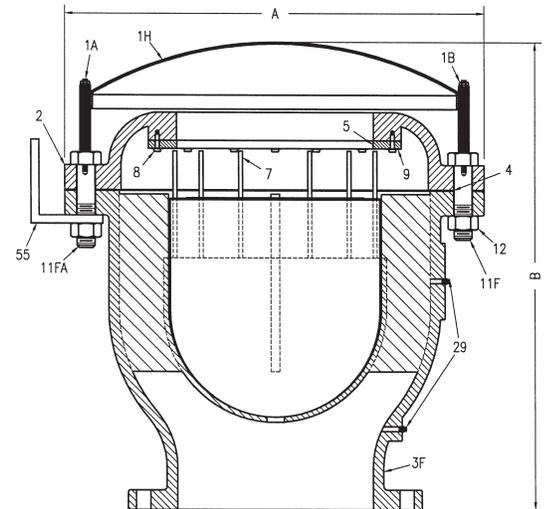
Option: A hood shall be supplied to prevent debris from entering the outlet of the valve.

Option: [Where pressures are greater than 300 PSIG.] the valves shall be ANSI Class _____ flanged inlet connection and shall have a (steel, stainless steel, or ductile iron) body, top and inlet flange.

Standard operating pressure for Crispin Air Valves is 20 to 150 PSIG. Please check one of the following if your operating needs differ: _____ 2 to 40 PSIG _____ 151 to 300 PSIG

Size Specifications

MODEL	INLET SIZE	OUTLET SIZE	A	B	WEIGHT
AL121	12" 125# FLG	12"	28.00	28.50	725
AL122	12" 250# FLG	12"	28.00	30.00	778
AL141	14" 125# FLG	14"	30.00	31.50	970
AL142	14" 250# FLG	14"	30.00	32.25	1157
AL161	16" 125# FLG	16"	32.75	36.50	1093
AL162	16" 250# FLG	16"	32.75	37.50	1276
AL181	18" 125# FLG	18"	35.00	44.50	1725
AL182	18" 250# FLG	18"	35.00	46.50	1925
*AL201	20" 125# FLG	20"	43.00	72.00	2625
*AL202	20" 250# FLG	20"	43.00	74.00	2773
*AL241	24" 125# FLG	24"	51.00	76.25	3474
*AL242	24" 250# FLG	24"	51.00	78.75	3559



* Please consult factory for details.

Air & Vacuum Parts List

ITEM	DESCRIPTION	MATERIAL	ASTM
1H	HOOD	HRCQ STEEL	N/A
1A	STUD	STEEL	A307
1B	FLANGE NUT	STEEL	A563
2F	FLANGE	CAST IRON	A126 CL. B
3F	BODY	CAST IRON	A126 CL. B
4	GASKET	ARMSTRONG N—8092	N/A
5	SEAT	BUNA—N RUBBER	D2000
6	FLOAT	STAINLESS STEEL	A240
7	FLOAT ROD GUIDE	STAINLESS STEEL	A582
8	SEAT BOLTS	STAINLESS STEEL	A193
9	WASHER	STAINLESS STEEL	A240
11F	BOLT	STEEL	A307
11FA	BOLT	STEEL	A307
12	NUT	STEEL	A563
29	PLUG	BRASS	B505
55	LUG	STEEL	A36