



C SERIES

Combination Air Valves

“C” Series Combination Air Valves

Valve Function
<ul style="list-style-type: none"> • Single unit integrity when both Air & Vacuum and Pressure Valves are required at one point on a pipeline • Meets AWWA C-512

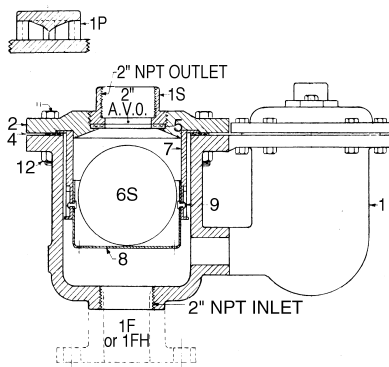
Please Refer to Air & Vacuum and Pressure Air Release Valve for Parts Lists.

The Crispin Combination Air Valve is a combination of an Air and Vacuum Unit and a Pressure Unit, designed with single unit integrity when both types of valves are required at one point. The air and vacuum unit operates the same as the standard air and vacuum valve. It releases a large quantity of air during the filling of the pipeline, and also permits a large quantity of air to reenter the pipeline to break the vacuum and eliminate any danger of collapse should the liquid suddenly leave the pipeline. The pressure unit operates independently and releases small accumulations of air which may collect while the line is in operation and under pressure. For further operating information, refer to Crispin Air and Vacuum Valve, Crispin Pressure Air Valve or Crispin Midget Air Valve literature.

All Crispin Valves are hydrostatically tested to 150% of their maximum working pressure. For pressures above 300 PSIG, steel, stainless steel or ductile iron may be used.

Dimensions and Weights

Size of Valve	1/2"	1"	2"	3"	4"	6"	8"	10"
Width	5"	6 1/4"	9 7/8"	11 1/2"	14"	15"	17 3/4"	21"
Length	8 3/4"	10 1/4"	15 5/8"	20"	22 1/8"	23"	25 5/8"	29"
Height Scwd. Connection	5 5/8"	6"	9 5/8"	13 1/2"	15 1/8"	—	—	—
Height Flgd. Connection	—	—	13 1/4"	17 1/2"	18"	16"	18 1/8"	22 1/8"
Weight Scwd. Connection	13lbs	21lbs	68lbs	120lbs	179lbs	—	—	—
Weight Flgd. Connection	—	—	73lbs	140lbs	195lbs	198lbs	290lbs	525lbs
Pressure Unit Size	Midget	Midget	1"	1"	1"	1"	1"	1"
Pressure Unit Outlet Connection	3/8" NPT	3/8" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
Air & Vacuum Unit Size	1/2"	1"	2"	3"	4"	6"	8"	10"
Air & Vacuum Unit Outlet Connection	1/2" NPT	1" NPT	2" NPT	3" NPT	4" NPT	6" NPT	8" NPT	10" NPT



Model Information

Size of Valve	1/2"	1"	2"	3"	4"	6"	8"	10"
Model No. Screwed Inlet	C5	C10	C20	C30	C40			
125# Flanged Inlet			C21	C31	C41	C61	C81	C101
250# Flanged Inlet			C22	C32	C42	C62	C82	C102

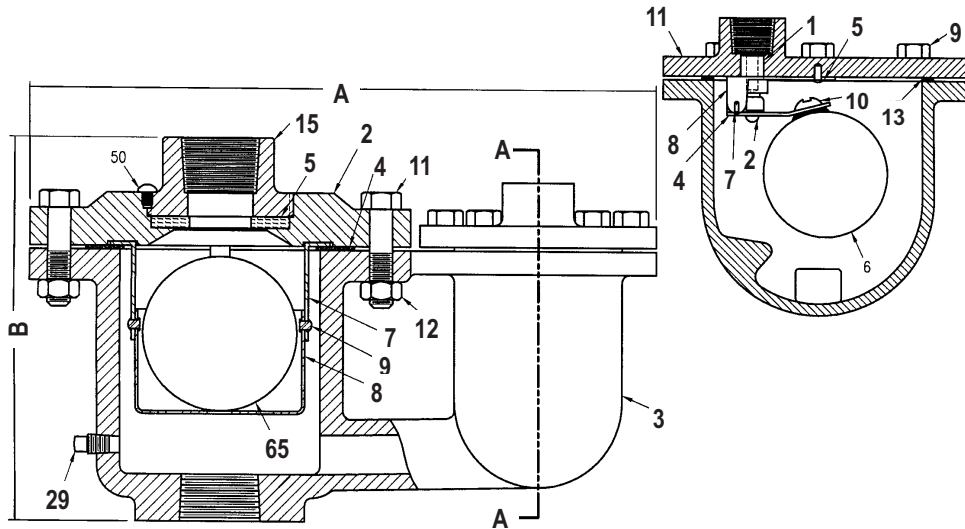
For sizes above 10", please contact the factory.

Submittal Sheet for Crispin C Series

1/2"–1" Combo. Air Release (1 of 2)

Manufactured in compliance with ANSI/AWWA C512

Date: 2016



Specifications

The combination air valve(s) shall be installed at high points in the system or at points selected by the engineer. This will permit discharging the surge of air from an empty line when filling and relieve the vacuum when draining, and also to release an accumulation of air when the system is under pressure.

The body of the valve shall be one integral casting or 2 valve bodies flange bolted together containing an air and vacuum valve and a separate pressure valve mechanism.

The Air and Vacuum Valve shall operate by sealing the BUNA-N rubber outlet seat with a peripherally guided 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.

The pressure air release valve shall operate through simple or compound levers to permit air to be released under operating conditions. The valve shall have a _____" orifice with valve sealing faces of an adjustable BUNA-N valve and (stainless steel or PVC) and shall operate at _____ PSIG and be capable of passing _____ SCFM of air.

The valve(s) shall be CRISPIN Model _____ Combination Air Valve, Type N, (PVC seat and BUNA-N rubber valve) or Type P (stainless steel seat and BUNA-N rubber valve) pressure valve as manufactured by Crispin-Multiplex Manufacturing Co., Berwick, Pa.

The valve(s) shall be _____" NPT screwed or ANSI Class (125,250) flanged inlet connection and shall be cast iron body, top, and inlet flange (where required), stainless steel floats with bronze and brass or stainless steel trim. Refer to Air & Vacuum and Pressure Air Release specifications for Valve description.

Option: A protectop shall be supplied to prevent debris from entering the outlet of the Air and Vacuum Valve.

Option: (Where pressures are greater than 300 psig), the valve(s) 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

SUBMITTAL SHEET FOR C SERIES



Submittal Sheet for Crispin C Series

1/2"–1" Combo. Air Release (2 of 2)

Manufactured in compliance with ANSI/AWWA C512

Date: 2016

Orifice Options

DIAMETER	MAX. PRES.	DISCHARGE RATE
1/8"	50 PSIG	9.6 SCFM
3/32"	85 PSIG	8.3 SCFM
1/16"	150 PSIG	6.1 SCFM
3/64"	200 PSIG	4.5 SCFM
1/32"	300 PSIG	3.2 SCFM

Size Specifications

MODEL	INLET SIZE	OUTLET SIZE	A	B	WHT.
C5	1/2" NPT	1/2" NPT	8.75	5.75	13
C10	1" NPT	1" NPT	10.25	6.00	21



Air & Vacuum Valve 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	A312
9	RIVET	STAINLESS STEEL	A582
9A	FLOAT ROD	STAINLESS STEEL	A582
11	BOLT	STEEL	A307
12	NUT	STEEL	A563
29	PLUG	BRASS	B505
50	INTERFERENCE PIN	STAINLESS STEEL	A582

Pressure Air Release Parts List

ITEM	DESCRIPTION	MATERIAL	ASTM
1	VALVE SEAT	STAINLESS STEEL	A240
2	PLUNGER BUTTON	VITON	D2000
4	VALVE LEVER	STAINLESS STEEL	A240
5	SCREW (DRIVE)	STAINLESS STEEL	A193
6	BALL FLOAT	STAINLESS STEEL	A240
7	HINGE PIN	STAINLESS STEEL	A580
8	HINGE BUTT	STAINLESS STEEL	A240
9	BOLT	STEEL	A307
10	SCREW	STAINLESS STEEL	A193
11	FLANGE	CAST IRON	A126 CL.B
13	FLANGE GASKET	ARMSTRONG N-8092	N/A

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