



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

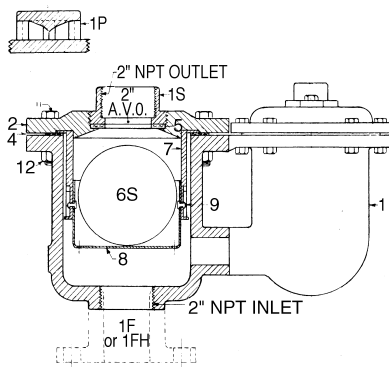
Please Refer to Air & Vacuum and Pressure Air Release Valve for Parts Lists.

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

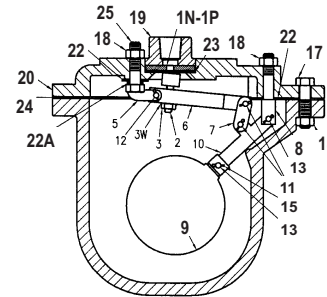
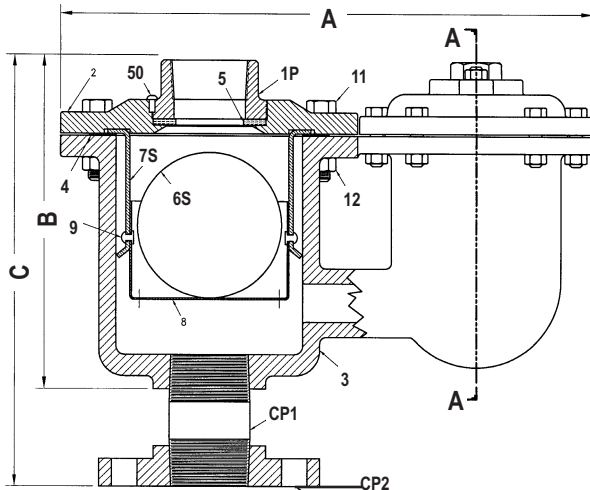
2" Combination Air Release Valve

Manufactured in compliance with ANSI/AWWA C512

Date: 2016



SUBMITTAL SHEET FOR C SERIES



Orifice Options

DIAMETER	MAX. PRESSURE	DISCHARGE RATE
5/16	100 PSIG	105 SCFM
1/4	150 PSIG	98 SCFM
3/16	200 PSIG	72 SCFM
5/32	250 PSIG	61.1 SCFM
1/8	300 PSIG	46.7 SCFM

Size Specifications

MODEL	INLET SIZE	OUTLET SIZE	A	B	C	WHT.
C20	2" NPT	2" NPT	15.75	9.50		64
**C21	2" 125" FLG	2" NPT	15.75		13.25	70
**C22	2" 250# FLG	2" NPT	15.75		14.00	72

**Includes ANSI CL. 125 or 250 Companion FLG. & NPL.

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 accumulated air when the system is under pressure. The valve body 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 to 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

PARTS LIST FOR AIR & VACUUM

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	N UT	STEEL	A563
29	PLUG	BRASS	B505
50	INTERFERENCE PIN	STAINLESS STEEL	A582

PARTS LIST FOR PRESSURE UNIT

*1 N	VALVE SEAT	PVC	1784
*1 P	VALVE SEAT	STAINLESS STEEL	A582
2	VALVE PLUNGER	BUNA-N RUBBER	D2000
3	PLUNGER NUT	STAINLESS STEEL	A563
3W	LOCK WASHER	STAINLESS STEEL	A240
5	VALVE FULCRUM	STAINLESS STEEL	A240
6	VALVE LEVER	STAINLESS STEEL	A582
7	LINK	STAINLESS STEEL	A240
8	BALL FULCRUM	STAINLESS STEEL	A582
9	BALL FLOAT	STAINLESS STEEL	A240
10	BALL LEVER	STAINLESS STEEL	A240
11	BEARING PIN	STAINLESS STEEL	A582
12	BEARING PIN	STAINLESS STEEL	A582
13	BEARING PIN	STAINLESS STEEL	A582
15	COTTER PIN	STAINLESS STEEL	A493
17	BOLT	STEEL	A307
18	NUT	STEEL	A563
19	TOP	CAST IRON	A126 CL.B
20	FLANGE	CAST IRON	A126 CL.B
22	FULCRUM WASHER	FIBER	D710
22A	FULCRUM WASHER	FIBER	D710
23	SEAT GASKET	BUNA-N RUBBER	D2000
24	FLANGE GASKET	ARMSTRONG N-8092	N/A
25	BOLT	STAINLESS STEEL	A193
29	PLUG	BRASS	B505

PARTS LIST FOR FLANGE CONNECTION

CP1	NIPPLE	STEEL	A53
CP2	COMPANION FLANGE	CAST IRON	A126 CL.B

* Parts are interchangeable and optional at customer's request