



AL/PL SERIES

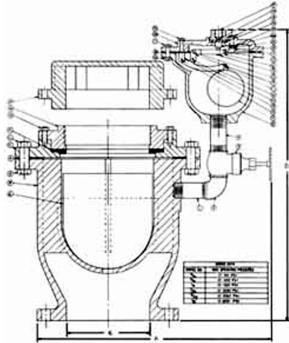
Dual Air Valves

AL/PL Series Dual Air Valves

Valve Function

- **Single pipeline location 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



Customize Your Air Release Requirements

The sizing of a Dual or Combination Valve requires the same data and parameters of the Air & Vacuum Valve and Pressure Air Release Valve. Subsequently, if the required pressure orifice size varies from the standard pressure orifice offered with each Combination, then a Dual Valve, with its flexibility, can be applied to accommodate specific orifice requirements.

The flexibility of the Dual Valve allows a wide variety of conditions to be addressed. For example: if the system pump capacity were to dictate the air and vacuum sizing of 2" for air release, then that same capacity would normally require a Pressure Air Release Valve in the Midget size.

However, if a greater amount of air was expected to be entrained in the liquid, because of siphoning through leaky joints or packing, or because of turbulence, etc., then a larger Pressure Valve with a greater orifice size could be provided.

Also, should vacuum relief be the deciding Air and Vacuum sizing parameter, because of pipe slope, size, and/or materials of construction, then the corresponding Universal or Combination Pressure Air Release orifice could be larger than would actually be required for the system.

In this case, the flexibility of the Dual Valve would accommodate the system performance requirements.

Dimensions and Weights*

Model	Valve Size (C)	Height (B)	Width (A)	Weight
AL10/M5	1"	13 1/4"	9 3/4"	24lbs
AL20/M5	2"	14 3/4"	12 1/4"	53
*AL21/M5	2"	18 1/4"	12 1/4"	59
*AL22/M5	2"	18 1/2"	12 1/4"	61
AL30/M5	3"	16"	16"	103
AL31/M5	3"	19 3/4"	16"	120
AL32/M5	3"	20 1/4"	16"	128
AL40/PL10	4"	20 1/4"	20"	178
AL41/PL10	4"	23 3/4"	20"	194
AL42/PL10	4"	24 1/4"	20"	205
AL61/PL10	6"	22 1/4"	21"	198
AL62/PL10	6"	22 1/2"	21"	221
AL81/PL10	8"	25 1/2"	24 1/2"	289
AL82/PL10	8"	26"	24 1/2"	319
AL101/PL10	10"	29"	33 3/4"	524
AL102/PL10	10"	29 3/4"	33 3/4"	574
AL121/PL20	12"	32 1/2"	34 1/2"	775
AL122/PL20	12"	33 1/4"	34 1/2"	828
AL141/PL20	14"	34 1/4"	36 1/2"	1023
AL142/PL20	14"	35"	36 1/2"	1210
AL161/PL20	16"	36 1/2"	39 1/4"	1143
AL162/PL20	16"	37 1/2"	39 1/4"	1326

* Available up through 24". Please contact factory for sizes 18" and larger.



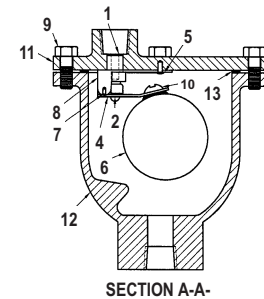
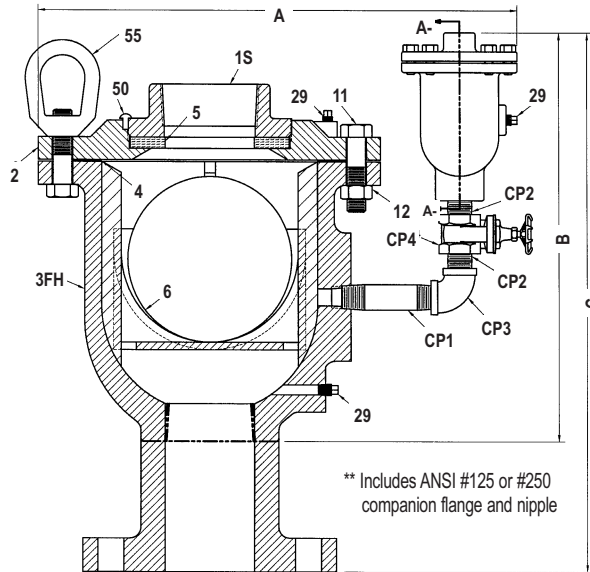
SUBMITTAL SHEET FOR AL/M SERIES

Submittal Sheet for Crispin AL/M Series

1"-3" Dual Body Combination Air Release

Manufactured in compliance with ANSI/AWWA C512

Date: 2016



Orifice Options

DIAMETER	MAX. PRESSURE	DISCHARGE RATE
5/32	40 PSIG	12.6 SCFM
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

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 the line is draining, or is under negative pressure. The valve(s) shall also release the accumulation of air when the system is under pressure.

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 Valve shall operate through a compound lever system and shall have a _____" orifice with valve sealing faces, of an adjustable BUNA-N rubber valve (stainless steel or PVC) and shall operate at _____ PSIG and be capable of passing _____ SCFM of air. Valves which use a needle valve to seal the orifice will not be acceptable.

Valve construction 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 float with bronze and (brass or stainless steel) trim. Refer to Air & Vacuum and Pressure Air Release specifications for Valve description.

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

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

SIZE SPECIFICATIONS

MODEL	INLET SIZE	OUTLET SIZE	A	B	C	WHT.
AL10/M5	1" NPT	1" NPT	9.75	13.25		24
AL20/M5	2" NPT	2" NPT	12.25	14.75		53
**AL21/M5	2" 125# FLG	2" NPT	12.25		18.25	59
*AL22/M5	2" 250# FLG	2" NPT	12.25		18.50	61
AL30/M5	3" NPT	3" NPT	16.00	16.00		103
AL31/M5	3" 125# FLG	3" NPT	16.00		19.75	120
AL32/M5	3" 250# FLG	3" NPT	16.00		20.25	128

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
6	FLOAT	STAINLESS-STEEL	A240
11	BOLT	STEEL	A307
12	NUT	STEEL	A563
29	PLUG	BRASS	B505
50	INTERFERENCE PIN	STAINLESS STEEL	A58
55	EYE NUT	FORGED STEEL	A563

PARTS LIST FOR PRESSURE RELEASE UNIT

ITEM	DESCRIPTION	MATERIAL	ASTM
1	VALVE SEAT	STAINLESS STEEL	A276
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
12	BODY	CAST IRON	A126 CL. B
13	FLANGE GASKET	ARMSTRONG N-8092	N/A

PARTS LIST FOR CONNECTING PARTS

ITEM	DESCRIPTION	MATERIAL	ASTM
29	PLUG (NOT SHOWN)	BRASS	B505
CP1	NIPPLE	STEEL	A53
CP2	NIPPLE	STEEL	A53
CP3	ELBOW	MALLEABLE IRON	A338
CP4	1/2" GATE VALVE	BRASS	N/A