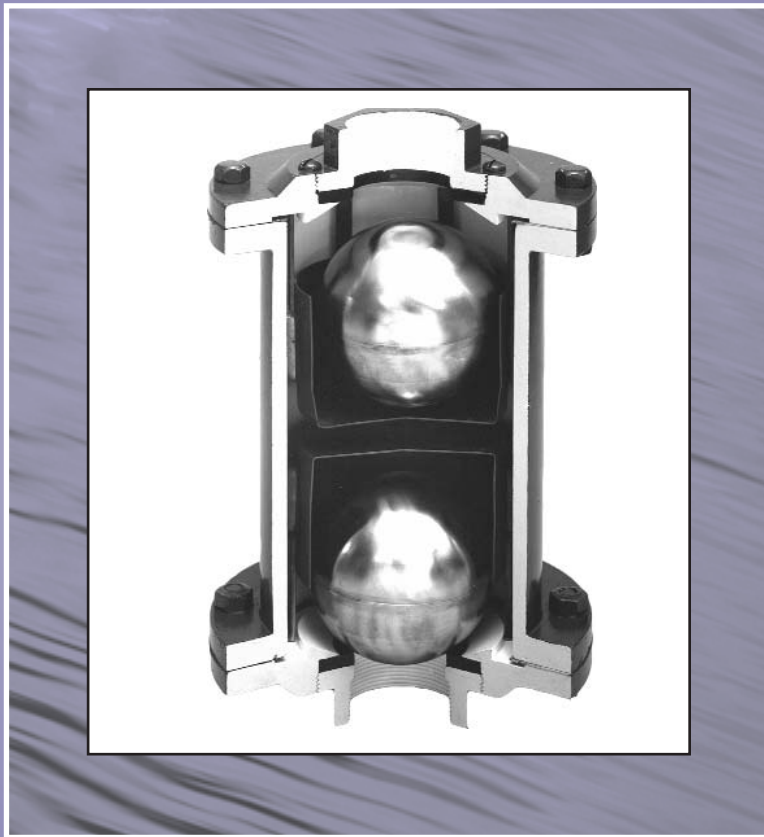


# The N Series Negative Pressure Valves

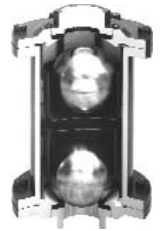
**Sizes 1/2" thru 4" Available • Peripherally Guided Floats  
Releases Air Automatically from Pipeline Siphons**



**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](http://www.crispinvalve.com) • [sales@crispinvalve.com](mailto:sales@crispinvalve.com)

# Negative Pressure Valves



# N SERIES

## Negative Pressure Valves

### Valve Function

- Valves vent air to the atmosphere

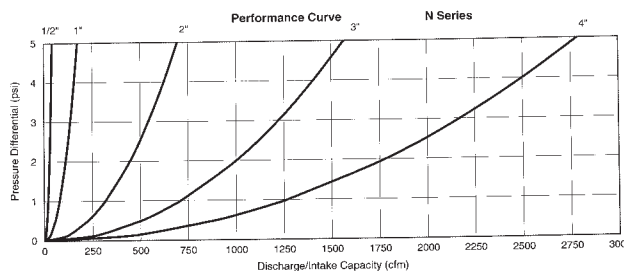
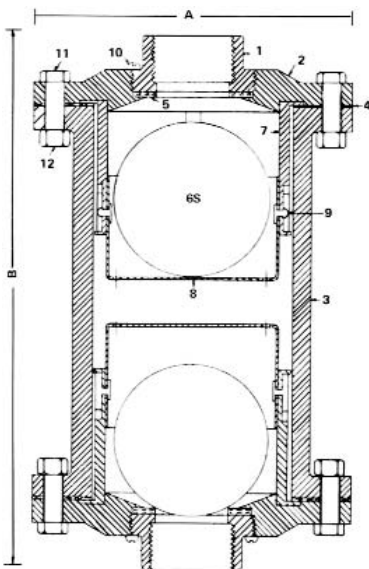
### Features Include

- Meets AWWA C-512
- Peripherally guided floats
- Available in sizes 1/2" thru 4"

The CRISPIN Negative Pressure Valve is designed to release air automatically from pipeline siphons. When the siphon is in normal operation, the two floats are in the position shown in the cutaway view. The greater the vacuum, the more tightly the lower float seats to prevent air leaking into the pipe. Under vacuum, air from the water usually accumulates in the siphon, gradually throttling the flow.

If the hydraulic grade is raised above the siphon, for example by closing the valve at the outlet of the pipeline, the lower float lifts with a few ounces of positive pressure and releases entrapped air.

Water entering the valve raises the upper float to its seat to prevent leakage from the line. The siphon may be restored to perfect operation by operating the outlet valve of the line. In siphons alternating between vacuum and pressure, the action becomes fully automatic.



### Dimensions & Weight

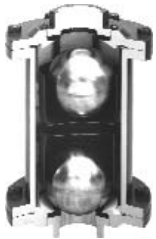
Size of Valve	1/2"	1"	2"	3"	4"
A	4 3/4"	6 1/4"	8 3/4"	11 1/2"	14"
B	7 3/4"	10 1/8"	15"	17 3/4"	23 3/4"
Weight	12lbs	29lbs	66lbs	127lbs	204lbs
Model #	N5	N10	N20	N30	N40

### Parts List

Part No.	Item	Material
1	TOP	Cast Iron
2	FLANGE	Cast Iron
3	BODY	Cast Iron
4	GASKET	Armstrong
5	SEAT	Buna-N
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

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

Sizes 6" and greater are not available

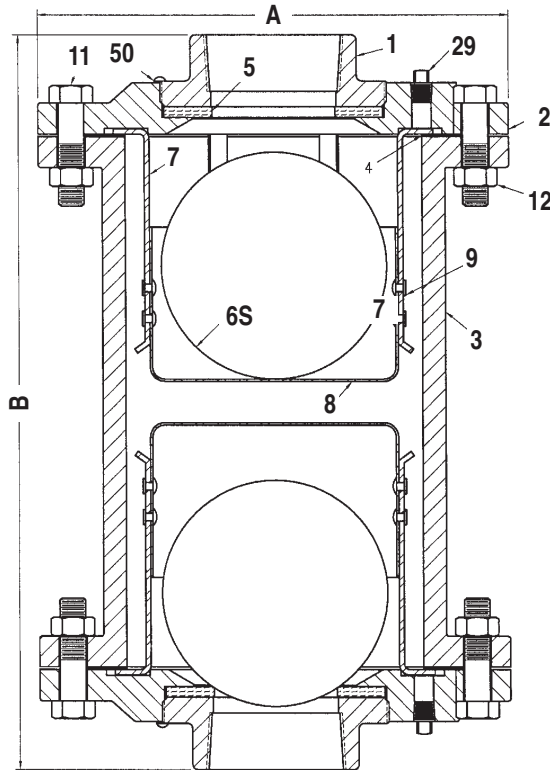


## Submittal Sheet for Crispin N Series

# 1/2"–4" Negative Pressure Air Release

Manufactured in compliance with ANSI/AWWA C512

Date: October, 2001



### Negative Pressure Specifications

The Negative Pressure Valve(s) shall be installed at high points in the system to release accumulating air and prevent air from reentering the system.

The valve(s) shall be operated by two floats. The upper float will permit the release of accumulated air but will seal the outlet as liquid enters the valve as the float buoys the float. The lower float seals the inlet to prevent atmospheric air from reentering the line when the system is under negative pressure.

The valve(s) shall be cast iron body and top with stainless steel trim and shall be \_\_\_\_\_" NPT screwed inlet connection. The floats shall be stainless steel and the seats shall be Buna-N.

The valve(s) shall be Crispin Model \_\_\_\_\_ Negative Pressure Valve 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 pressure are greater than 300 PSIG, the valve(s) 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

ITEM	DESCRIPTION	MATERIAL	ASTM
1	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	A193
11	BOLT	STEEL	A307
12	NUT	STEEL	A563
29	PLUG	BRASS	B505
50	INTERFERENCE PIN	STAINLESS STEEL	A582

### Size Specifications

MODEL	INLET SIZE	OUTLET SIZE	A	B	WHT.
N5	1/2" NPT	1/2" NPT	4.75	7.75	12
N10	1" NPT	1" NPT	6.25	10.25	29
N20	2" NPT	2" NPT	8.75	15.00	66
N30	3" NPT	3" NPT	11.50	17.75	127
N40	4" NPT	4" NPT	14.00	23.75	232