

CAV-D / CAV-S MODEL

Combination Air Release & Vacuum Breaker Valve

Benefits

- Pressure & Vacuum relief function
- Anti-Surge & Anti-Shocks
- Surge and waterhammer protection
- Liquid overflow protection
- Provides high capacity venting for pipeline protection
- Increasing of pump efficiency
- Less system energy
- Maintenance free
- Release small pockets under operation pressure



Dual Body



Single Body

Introduction

Combination air valves are normally installed at high points where air would naturally rise ahead of the incoming liquid during filling and collect during operation and/or where negative pressure first occurs during draining.

The large (air & vacuum) and the small (air release) orifices are both open during filling with the majority of the air is passes through the large orifice.

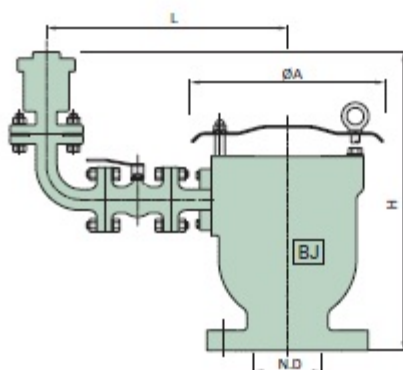
The rate at which air is discharged is a function of the differential pressure across the air & vacuum valve.

During filling, incoming water compresses the air in the "empty" pipe until the pressure differential across the air valve is sufficient that air is discharged at the same volumetric rate as water is entering the pipe.

After all the air has been purged, liquid enters the valve and lifts the floats and closes both orifices.

While the large orifice remains closed, the small orifice reopens as necessary to release any air that collects in the valve after it has closed. Should the internal pressure fall below atmospheric, both orifices open to allow air to flow through the valve into the system at the same volumetric rate at which the liquid is draining thus avoiding critical vacuum and damage to the pipe.

CAV-D MODEL



Dimension Table

Unit = mm

SIZE	2"	3"	4"	6"	8"	10"	10"	12"
N.D	50	80	100	150	200	250	300	350
Ø A	170	210	260	340	460	565	635	760
H	340	370	380	435	494	750	845	949
L	305	330	350	383	420	473	498	553

Note: Standard flange connection is ANSI 150 lb and others are available on request.

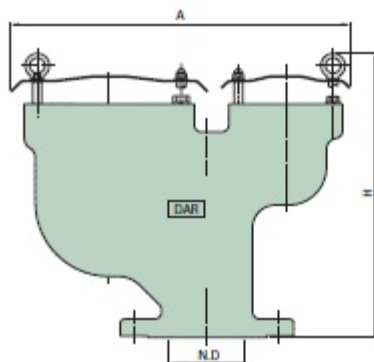
Materials of Construction

No.	Description	Material		
		Spec. 1	Spec. 2	Spec. 3
1	Air Release Valve			
1-1	Body	A216-WCB	B148-C95800	A351-CF3M
1-2	Float & Disc	HDPE	HDPE	HDPE
1-3	Seat	NBR	NBR	NBR
2	Air Release & Vacuum Breaker Valve			
2-1	Body	A216-WCB	B148-C95800	A351-CF3M
2-2	Cover	SS400	B148-C95800	A351-CF3M
2-3	Ball	A240-316L	Monel-K400	A240-316L
2-4	Gasket	NBR	NBR	NBR

NOTICE !!

Air Release Valve & Vacuum Breaker Valves can be add another function such as Anti-surge, pressure/vacuum relief in according to operation condition. In this case, You can make good choice PROSAFE's venous model.

CAV-S MODEL



Dimension Table

Unit = mm

SIZE	4"	6"	8"	10"	12"	14"
N.D	100	150	200	250	300	350
Ø A	448	520	650	760	840	950
H	375	450	550	620	920	1050

Note: Standard flange connection is ANSI 150 lb and others are available on request.

Materials of Construction

No.	Description	Material		
		Spec. 1	Spec. 2	Spec. 3
1	Body	A216-WCB	B148-C95800	A351-CF3M
2	Float & Disc	HDPE	HDPE	HDPE
3	Seat	NBR	NBR	NBR

NOTICE !!

Air Release Valve & Vacuum Breaker Valves can be add another function such as Anti-surge, pressure/vacuum relief in according to operation condition. In this case, You can make good choice PROSAFE's venous model.