



Series 38VB/AR

Vacuum Breaker / Air Release Valves for Water Applications

Vacuum Prevention And Slow Air Release For Pressure Surge Control

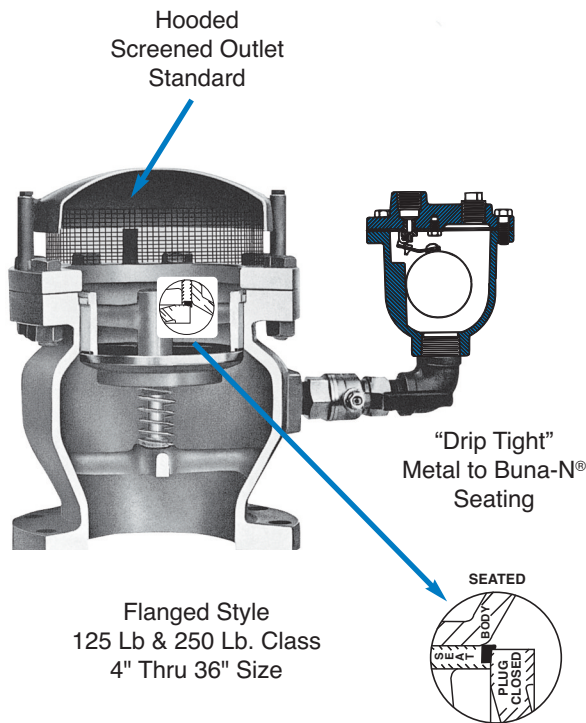
Cla-Val Vacuum Breakers are reliable and economical pipeline surge control components, requiring no regular maintenance.

Standard valves are designed to open with minimal (1/4 psi) pressure differential across the orifice. Higher or lower relief settings are available.

The Vacuum Breaker Valve (Large orifice combined with Air Release Valve (small orifice) are normally closed. But when installed at points where water column separation can occur, both orifices open admitting air into pipeline, then instantly close to trap air and thereby cushioning rejoining of the water column. In this manner severe pressure surge/water hammer is prevented as the system returns to normal operation.

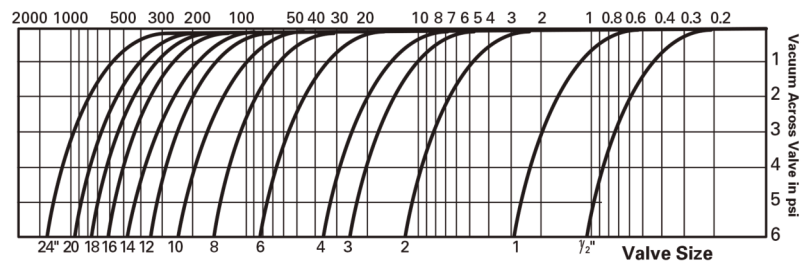
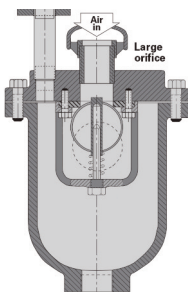
Simultaneously the small orifice Air Release Valve opened due to vacuum and stays open venting the discharge of trapped air from pipeline slowly until gradual normal pipeline pressure is achieved. Various small orifice are available. See small orifice chart.

Water column separation in a pipeline may create high levels of vacuum only momentarily, but severe damage, such as a pipeline rupture can occur when the water column rejoins. Also momentarily vacuum conditions can easily cause a thin wall pipeline or sealed water tank to collapse due to vacuum when draining fluid. Metal to Buna-N® insures "drop tight" seal at any pressure. For these reasons it is sound engineering practice to use Cla-Val Vacuum Breaker Air Release Valves to prevent water column separation in pipelines and collapse of tanks.

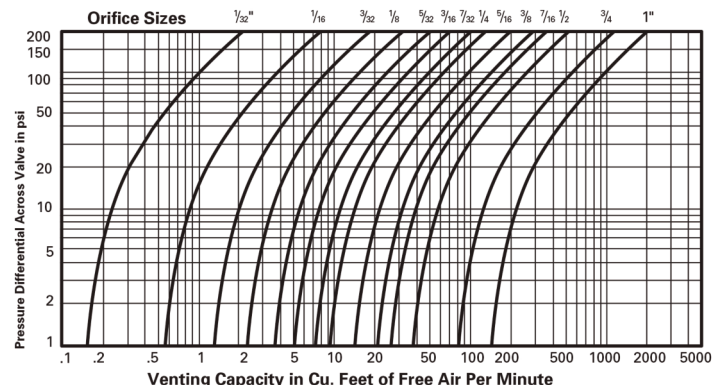
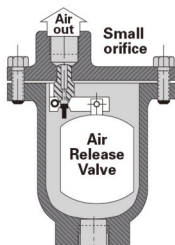


Air Inflow through Valve in Standard Cubic Feet of Free Air/Second (scfs)

Inflow: Large Orifice Air Inlet/Vacuum Valves



Outflow: Small Orifice Air Release Valves

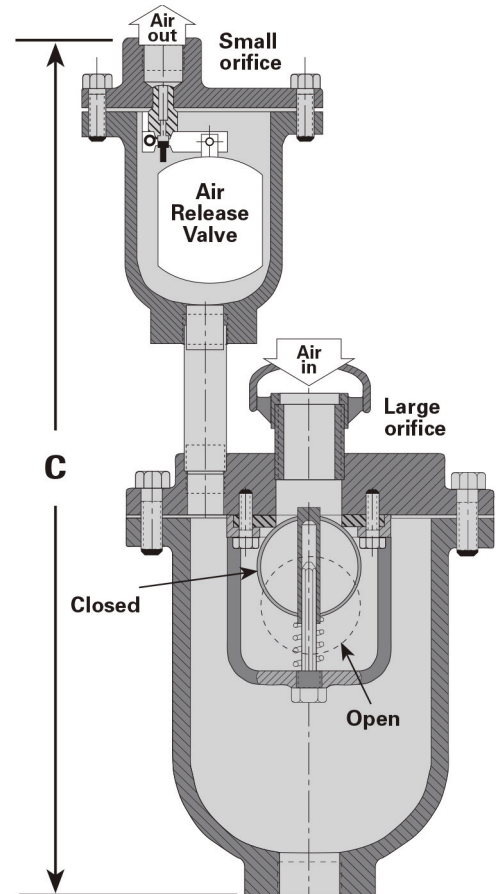
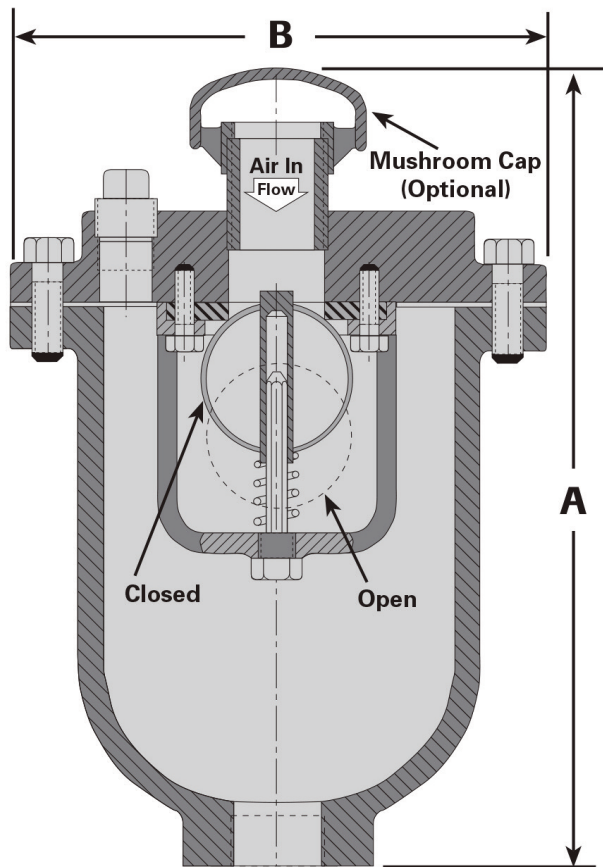




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Vacuum Breaker / Air Release Valves for Water Applications

Sizing



Dimensions

Valve Size and Orifice (inches)	Model	A	B	C
0.5	380VBT	12.5"	5"	--
1	381VBT	14"	7"	20"
2	382VBT	17"	9.5"	23"
3	383VBT	20"	9.5"	26"

Orifice Selection Chart

Pressure Range (psi)		Air Release Valve
0 - 150	0 - 300	
.094"	.063"	34AR116

visit www.cla-val.com to see our complete line of air and check valves.

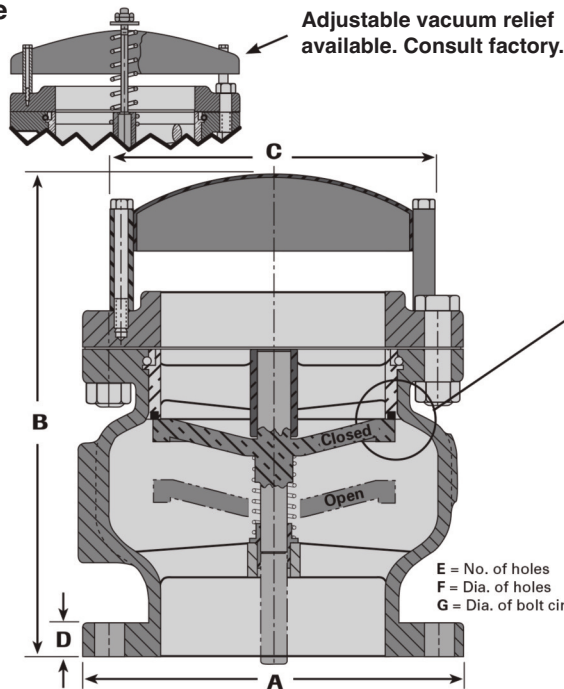


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Vacuum Breaker / Air Release Valves for Water Applications

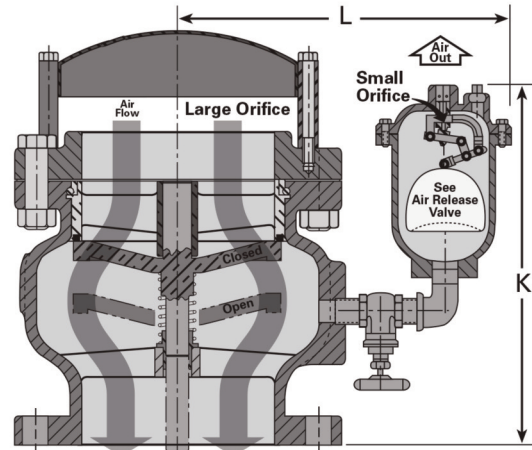
Size	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	
Model Number	383VB	384VB	385VB	386VB	388VB	3810VB	3812VB	3814VB	3816VB	3818VB	3820VB	3824VB	3830VB	3836VB	
	383VB/AR	384VB/AR	385VB/AR	386VB/AR	388VB/AR	3810VB/AR	3812VB/AR	3814VB/AR	3816VB/AR	3818VB/AR	3820VB/AR	3824VB/AR	3830VB/AR	3836VB/AR	
125# Class	A	7.5"	9"	10"	11"	13.5"	16"	19"	21"	23.5"	25"	27.5"	32"	38.75"	46"
	B	11"	12.5"	13.5"	14"	15.75"	18"	20.75"	23"	27.5"	28.5"	30.5"	36"	43.3135"	57"
	C	6"	7"	10"	10"	12"	16"	18"	18"	18"	24"	28"	32"	38"	44"
	D	1.313"	1.313"	1.313"	1"	1.125"	1.188"	1.25"	1.375"	1.438"	1.563"	1.688"	1.875"	2.125"	2.375"
	E	4"	8"	8"	8"	8"	12"	12"	12"	16"	16"	20"	20"	28"	32"
	F	.75"	.75"	.875"	.875"	.875"	1"	1"	1.125"	1.125"	1.25"	1.25"	1.375"	1.375"	1.625"
	G	6"	7.5"	8.5"	9.5"	11.75"	14.25"	17"	18.75"	21.25"	22.75"	25"	29.5"	36"	42.75"
K	34AR	12.25"	14.25"	15"	15.25"	17.25"	19.25"	20.75"	22"	23.75"	24.5"	26.25"	29"	32.75"	37"
L	34AR	14.75"	15.5"	16"	16.25"	17.75"	19"	19.5"	20.75"	21.25"	22.25"	23.75"	26.5"	34.25"	

38BV Flanged Type



Compression molded seat seal is guaranteed not to come out for the life of the valve. The unique shape of the molded seat will not be damaged from extrusion when seated.

38BV/AR Vacuum Breaker with Air Release



Orifice Selection Chart

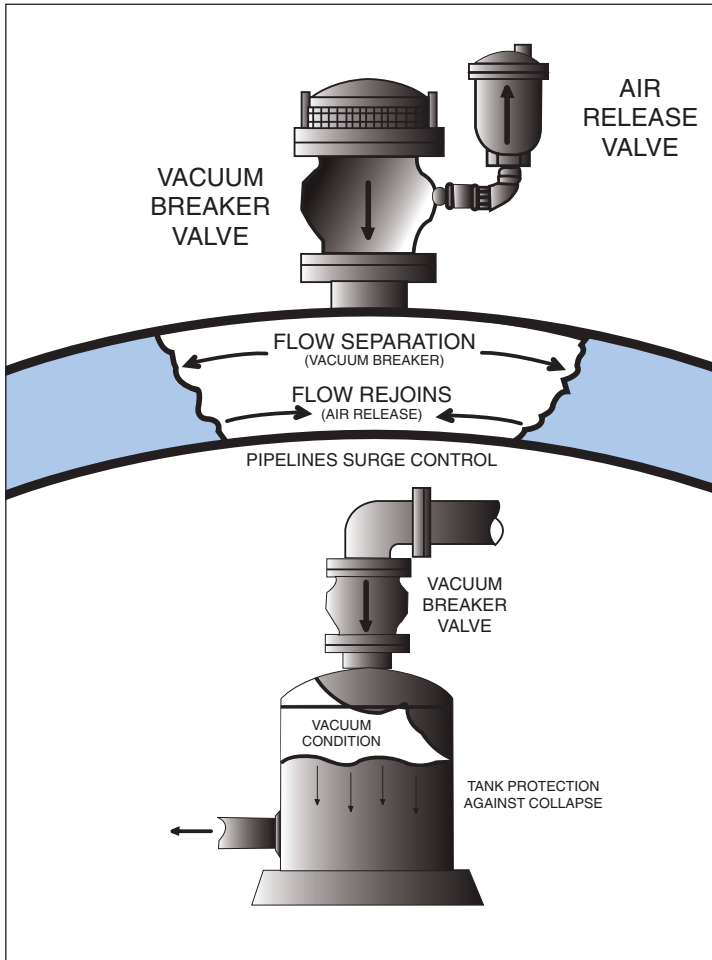
	Pressure Range (psi)		Air Release Valve
	0 - 150	0 - 300	
	.094"	.063"	34AR116
	.188"	.156"	34AR316
	.375"	.219"	34AR316



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Vacuum Breaker / Air Release Valves for Water Applications

Typical Applications



Other typical applications include:

1. Centrifugal pumps
2. Hydropneumatic tanks
3. Enclosed systems
4. Sewage lines

When Ordering, Please Specify:

1. Model Number
2. Inlet Size (NPT)
3. Inlet Pressure Rating
4. Orifice Size

Materials of Construction

Description	Material	Specification
Body and Cover	Ductile Iron	ASTM A 536 GR 65-45-12
Baffle 1/2", 1" and 2"	Delrin	ASTM D4181
Baffle 3"	Cast Iron	ASTM A48 Cl. 30
Plug and Seat	Lead-Compliant Bronze	ASTM B584
Plug - 30" and 36"	Ductile Iron	ASTM A536 65-45-12
Exterior Paint	Universal Metal Primer	FDA Approved for Potable Water
Float	Stainless Steel	ASTM A240
Seat Needle	Buna-N	Nitrile rubber
Spring	Stainless Steel	ASTM A276
Hood	Galvanized Iron or Steel	Commercial Grade
Lever Mechanism	Stainless Steel	ASTM A351 T316