CLA-VAL 33ATD

Air Release & Vacuum Breaker Valve (Threaded & Flanged) with Throttling Air Control Device Sizes 1" - 2" - 3" - 4" - 6"

Simple, Reliable and Accurate

Flanged Inlet shown
Threaded Inlet also available

- **Standard Maximum Operating Pressure 300 psi**
- **Standard Epoxy coated Ductile Iron Body**
- **Automatically Eliminates Air Pockets**
- **Easily Serviced without Removal from Pipeline**
- **Engineered for Lasting Service**

Designed to protect pipelines from air lock and vacuum collapse, the CLA-VAL Model 33ATD Air Release and Vacuum Breaker Valve eliminates air and prevents vacuum formations in pipelines. A large venting orifice and large float clearances freely exhaust or admits air during pipeline filling or draining.

During normal pipeline operation, air accumulation and buoyancy cause the floats to lower or lift. As the water level lowers inside the valve, small amounts of accumulated air are released through the small orifice. Once air is released, the float poppet system closes drip tight.

Valve servicing is simple because the entire float poppet system, can be replaced without removal of the valve body from the pipeline.

Installation

Series 33ATD is often installed upstream of check valves in vertical pump discharges to throttle air out during start-up and to allow full air reentry when the pump stops.

Operation

Air Release Mode - Valve is normally open:

When line is filled or pump started, air is throttled through the air control device TD. As liquid fills the valve, float ball rises to form a drip-tight closure and remaining air is exhausted through small orifice. Air throttling can be adjusted by mean of adjusting the screw.

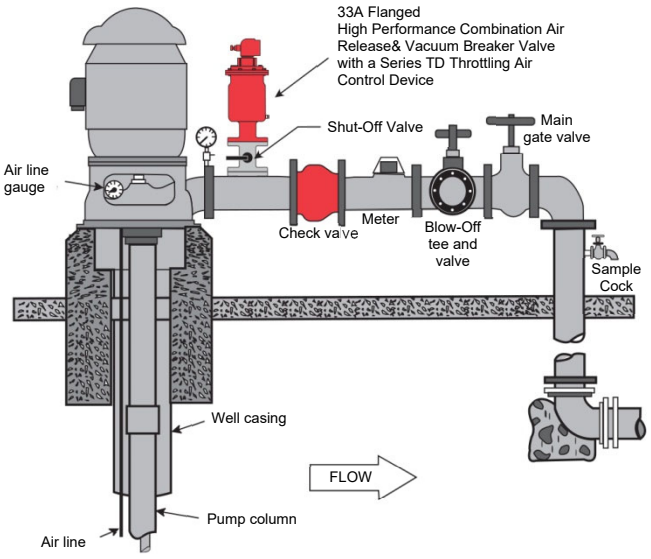
Vacuum Prevent Mode:

When line pressure drops below positive pressure and the liquid level lowers, the float drops, unseating the valve and allowing air into the line, thus preventing a vacuum. The spring loaded disc in the TD throttling air control device is moved to the air intake position due to the negative pressure.

Note: Available for Sea Water Service (see material specifications).

Typical Application

- **Standard Max. D.W.P. 300 psi for UL Listed Assemblies (For Higher Operating Pressure Consult Factory)**
- **Transmission Pipeline High Points**
- **Water Treatment Plant Piping High Points**
- **Offshore Platforms**
- **Vertical Turbine Pump Discharge**



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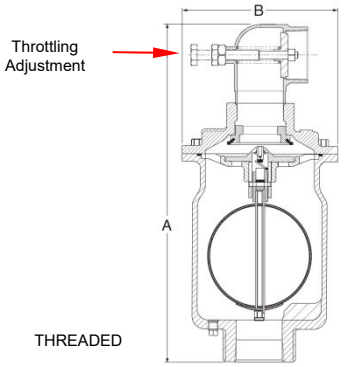
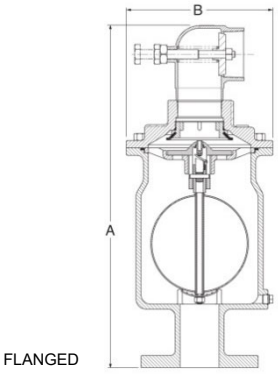
Dimensions



	33A Pressure Class 300 Lb Threaded			
Valve size [inches]	**(**)1"**	**2"**	**3"**	**4"**
A [mm]	300	419	470	500
B [mm]	105	191	235	235
Inlet [ANSI]*	1" NPT	2" NPT	3" NPT	4" NPT
Outlet [NPT]*	1" NPT	2" NPT	3" NPT	4" NPT
Number of Holes	-	-	-	-
Diameter of Bolts	-	-	-	-
Approximate calculated shipping weight [kg]	12	15	18	24



	33A Pressure Class 150 Lb Flanged (INLET)			
Valve size [inches]	**2"**	**3"**	**4"**	**6"**
A [mm]	451	552	597	☎ CLA-VAL
B [mm]	191	235	235	☎ CLA-VAL
Inlet [ANSI]*	2"	3"	4"	6"
Outlet [NPT]*	2" NPT	3" NPT	4" NPT	6" NPT
Number of Holes	4	4	8	8
Diameter of Bolts	16	16	16	19
Approximate calculated shipping weight [kg]	18	22	23	☎ CLA-VAL

	33A Pressure Class 300 Lb Flanged (INLET)		
Valve size [inches]	**2"**	**3"**	**4"**
A [mm]	457	559	603
B [mm]	191	235	235
Inlet [ANSI]*	2"	3"	4"
Outlet [NPT]*	2" NPT	3" NPT	4" NPT
Number of Holes	8	8	8
Diameter of Bolts	19	19	19
Approximate calculated shipping weight [kg]	19	25	27

Pressure Ratings

Valve Size [inch]	Orifice Ø [inch]	Standard Max. Pressure	Materials of construction
1"	.076"	300 psi	• Nickel Aluminum Bronze (NAB) - ASTM B148 Alloy C95800 • Monel - QQ-N-288 Comp B - ASTM A494 Grade M30H • Cast Steel - ASTM A216 Grade WCB • 316 Stainless steel - ASTM A743 Grades CF3M and CFM8 • Super Austenitic Stainless Steel - ASTM A351 Grade CK3MCuN (SMO 254) • Super duplex stainless steel - ASTM A890 Grade 5A (CE3MN)
2"	.076"	300 psi	
3" & 4"	.076"	300 psi	
6"	.076"	300 psi	
3" & 4"	Optional upon request .125"	300 psi	

Note: Maximum pressure rating for UL listed 33ATD = 300 psi