



S-050

PAT. PEND.



Automatic Air Release Valve “SEGEV”

Description

The Automatic Air Release valve discharges accumulated air from the system while it is under pressure.

The presence of air in water systems can reduce the effective cross sectional flow area resulting in increased pressure loss and decreased flow.

Unwanted air may also cause water hammer and metering inaccuracies, while hastening corrosion.

In spite of its compact and light weight structure, the S-050 Air Release valve has a 0.014 sq.in orifice that enables it to discharge air at high flow rates and is not exposed to obstruction by debris.

Operation

The Automatic Air Release valve releases entrapped air from pressurized systems.

Without air valves pockets of accumulated air may cause the following destructive phenomena:

- Obstruction to effective flow and hydraulic conductivity of the system along with a throttling effect similar to a partially closed valve. In extreme cases this will cause complete flow stoppage.
- Accelerate cavitation damages.
- High-pressure surges.
- Accelerate corrosion.
- Danger of a high-energy burst of compressed air.

The valve functions while the system is under pressure, according to the following stages:

1. Liquid fills the system and enters the valve.
2. The float rises and rolls the rubber sealing band to its sealing position.
3. Entrapped air, which accumulates at peaks along the system, rises to the top of the valve, which in turn displaces the liquid in the valve's body.
4. The float descends, peeling the rolling seal, the orifice opens, and the accumulated air is released.
5. Liquid re-enters the valve and the float rises, rolling the rubber sealing band to its sealing position.

Note: Automatic Air Release valves are designed to release air as it accumulates at peaks of pressurized systems. They are not normally recommended for vacuum protection to valve large volumes of air, because of the inherently small orifices. For this purpose air & vacuum air valves have much larger orifices. However, automatic air release valves will permit air to re-enter under vacuum conditions. If this is not desirable, specify Vacuum check valves.

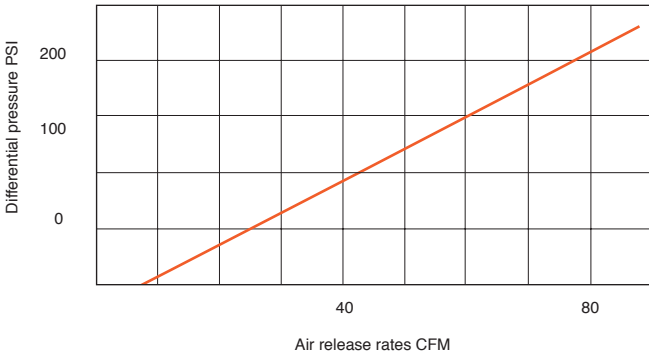
Main Features

- Working pressure range:
S-050: 3 - 250 psi. Testing pressure: 360 psi.
S-050-C: 3 - 250 psi. Testing pressure: 360 psi.
S-052: 3 - 360 psi. Testing pressure: 580 psi.
- Working Temperature: 140° f.
- Maximum working temperature for short time period: 194° f.
- The larger than usual orifice enables it to discharge air at higher flow rates than other Automatic Air Release valves of its kind.
- The enlarged orifice is not exposed to obstruction by debris.
- The valve's design Rolling Seal Mechanism, is less sensitive to pressure differentials than a direct float seal. It accomplishes a comparably large orifice for a wide pressure range (up to 250/360 psi).
- Light weight, simple and reliable structure.
- The body is made of high strength composite materials and all operating parts are made of specially selected corrosion resistant materials.
- A discharge outlet enables removal of excess fluids.

Valve Selection

- Available in male threaded sizes: 1/2", 3/4", 1" - NPT
- Available with base made of nylon or stainless steel.
- S-050 V -with vacuum check valve. The valve is available as a valve that will only release air from the system and will not admit air to the system when negative pressure conditions occur. This characteristic is obtained by adding a check valve to the air outlet.

AUTOMATIC AIR RELEASE

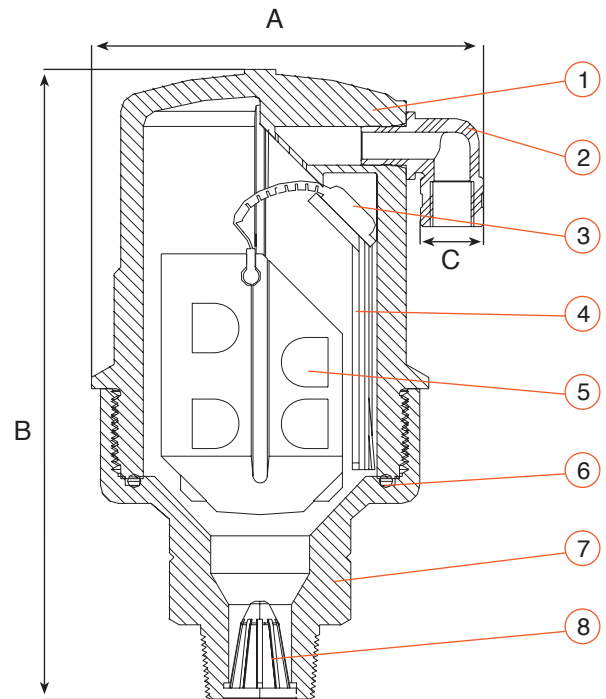


DIMENSIONS AND WEIGHT

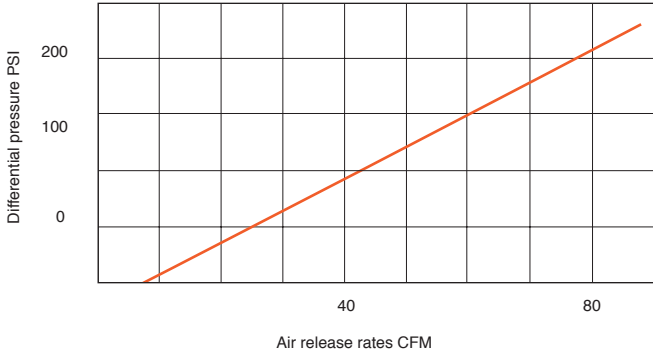
Model	Dimensions				Weight Lbs.	Orifice Area Sq.in
	A	B	internal C	external		
S-050	3.9	5.5	1/8	0.7	0.66	0.0186
S-050 ST	3.9	5.5	1/8	0.7	1.43	0.0186
S-050 V	4	5.5	1/4	0.7	0.7	0.0186

PARTS LIST AND SPECIFICATION

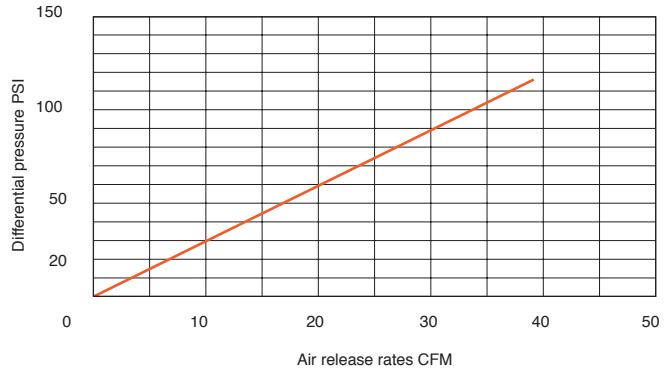
No.	Part	Material
1.	Body	NSF 61 Certified Reinforced Nylon
2.	Discharge Outlet	NSF 61 Certified Polypropylene
3.	Rolling Seal	NSF 61 Certified E.P.D.M
4.	Clamping Stem	NSF 61 Certified Reinforced Nylon
5.	Float	NSF 61 Certified Foamed Polypropylene
6.	O-Ring	NSF 61 Certified NBR 70
7.	Base	NSF 61 Certified Reinforced Nylon
8.	Strainer	Nylon



S-050-C AUTOMATIC AIR RELEASE



S-052 AUTOMATIC AIR RELEASE



DIMENSIONS AND WEIGHT

Model	Dimensions				Weight Lbs.	Orifice Area Sq.in
	A	B	internal C	external		
S-050-C	3.3	5.8	1/8	0.7	3.63	0.0186
S-052	3.3	5.8	1/8	0.7	3.63	0.014
S-050-C V	4.1	5.8	1/4	0.7	3.85	0.0186



S-050-C



S-052

PARTS LIST AND SPECIFICATION

No.	Part	Material
1.	Body S-050-C	Cast Iron ASTM A48 CL35B
	S-052	Ductile Iron ASTM A-536 60-40-18
2.	Discharge Outlet	Brass
3.	O-Ring	NSF 61 Certified NBR 70
4.	Sleeve	NSF 61 Certified Reinforced Nylon
5.	Rolling Seal	NSF 61 Certified E.P.D.M. 61
6.	Clamping Stem	NSF 61 Certified Reinforced Nylon
7.	Float	NSF 61 Certified Foamed Polypropylene
8.	O-Ring	NSF 61 Certified NBR 70
9.	Base	Stainless Steel ASTM A744 CF84
10.	Strainer	Nylon

