



S-050



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: 0.2-16 bar Testing pressure: 25 bar
- Working Temperature: 60⁰ C.
- Maximum working temperature for short time period: 90⁰ C.
- 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 16 bar).
- 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" - BSP/NPT
- 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.

PARTS LIST AND SPECIFICATION



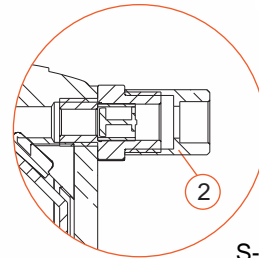
No.	Part	Food Ind., Desalination	Mines	Oil Fuel	Hot Water	Industry
1.	Body	PA/PP	PA	PA	PA	PVDF
2.	Drainage Outlet	PP	PP	PP	PP	PP+PA
3.	Rolling Seal	EPDM	Viton	BUNA-N	Viton	Viton
4.	Clamping Stem	PP / PA	PP / PA	PP	PA	ASA
5.	Float	Foamed PP	Foamed PP	Foamed PP	Foamed PP	Foamed ASA
6.	O-Ring	EPDM	Viton	BUNA-N	Viton	Viton
7.	Base	STST 316/ 317/PP/PA	STST 316/ 317/PP/PA	STST 316/PP	STST 316/PA/Brass	PVDF
8.	Strainer	PA	PA/--	PA	PA	-

PP=Polypropylene **PA**=Reinforced Nylon **STST**=Stainless Steel

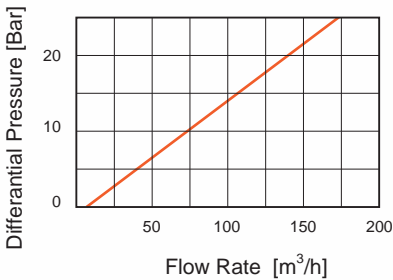
For best adjustment, it is recommended to send the fluids chemical properties along with the requirement.

DIMENSIONS AND WEIGHT

Base Material	Dimensions mm				Weight Kg.	Orifice Area mm ²
	A	B	internal C	externa		
PP / PA	87	140	1/8"	18	0.3	12
BRASS	87	140	1/8"	18	0.65	12
STST	87	140	1/8"	18	0.65	12
PVDF	87	140	1/8"	18	0.4	12
S-050 V	101	140			0.4	12



AUTOMATIC AIR DISCHARGE



S-050-V

One Way Check Valve

AUTOMATIC AIR DISCHARGE FOR S-050-V

