

S-014 PN 40

S-015 PN 40

S-016 PN 64



Automatic Air Release Valve for High-Pressure Systems

Description

The S-014 / S-015 / S-016 Automatic Air Release Valves release accumulated air from the system while it is under pressure.

The presence of air in a water system can reduce the effective cross sectional flow area resulting in increased head loss and flow. Unwanted air may also cause water hammer and metering inaccuracies, while hastening corrosion.

Applications

- On high-pressure pumps.
- On high-pressure delivery pipelines.

Operation

The automatic air release valve releases entrapped air from pressurized systems.

Without air release valves, pockets of accumulated air may cause the following hydraulic disturbances:

- Restriction of effective flow due to a reduction of the flow area. In extreme cases this will cause complete flow stoppage.
- Obstruction of efficient hydraulic transmission due to air flow disturbances.
- Acceleration of cavitation damages.
- Increase in pressure transients and surges.
- Internal corrosion of pipes, fittings and accessories.
- Dangerous high-energy bursts of compressed air.
- Inaccuracies in flow metering.

As the system fills and is pressurized, the automatic air release valve functions according to the following stages:

1. Entrapped air, which accumulates at peaks and along the system, rises to the top of the air valve, which in turn displaces the liquid in the air valve body.
2. The float drops, unsealing the rolling seal. The automatic air release orifice opens and the accumulated air is released.
3. Liquid enters the valve and the float rises, pushing the rolling seal back to its sealing position.

Note: Automatic air release valves are designed to release air as it accumulates in pressurized systems. They are not normally recommended for vacuum protection or for discharging large volumes of air, because of their inherently small orifices. For this purpose, air & vacuum valves are recommended as they have much larger orifices.

However, air release valves will permit air to enter the system under vacuum conditions. If this is not desirable, specify the one-way out check valve.

Main Features

- Working pressure range:
 - S-014: 0.2 - 40 bar
 - S-015: 0.2 - 25 bar / 0.2 - 40 bar
 - S-016: 0.2 - 64 bar
- Test pressure for the air valve is 1.5 times its working pressure.
- Maximum working temperature: 60°C.
- Maximum intermittent temperature: 90°C.
- All operating parts are made of specially selected corrosion-resistant materials.
- Unique rolling seal mechanism:
 - Dramatically reduces the possibility of obstruction by debris.
 - One size orifice for a wide pressure range up to 64 bar.
 - Self-cleaning.
- Lightweight, small dimensions, simple and reliable structure.

Valve Selection

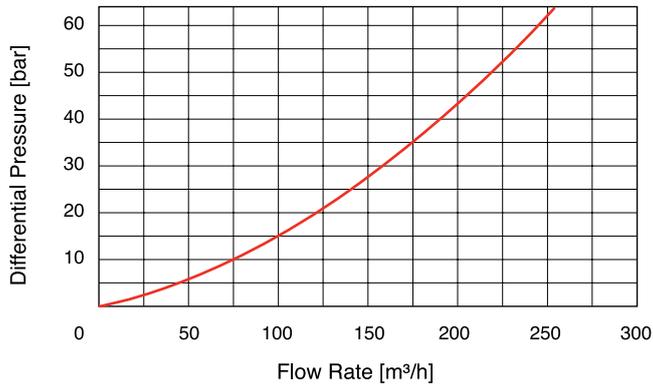
- S-014 (40 bar), S-015 (25 / 40 bar), S-016 (64 bar) are available in 3/4", 1", male threaded BSP and NPT connections / flanged.
- Standard metal body - FBE coating according to the standard DIN 30677-2.
- Other coatings are available upon request.
- For best suitability, it is recommended to send the fluid chemical properties along with the valve request.

Note

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Upon ordering, please specify: model, size, working pressure, thread and flange standard and type of liquid.

AUTOMATIC AIR RELEASE FLOW RATE

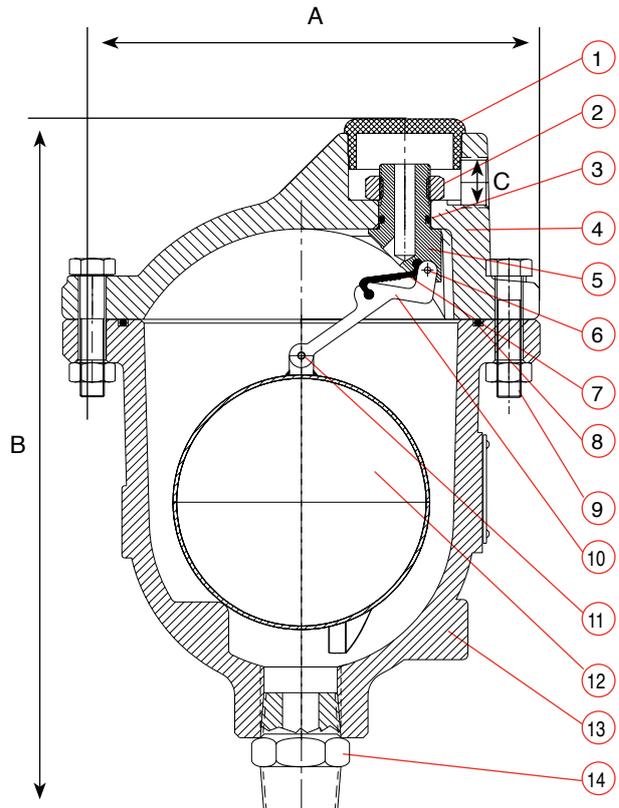


DIMENSIONS AND WEIGHT

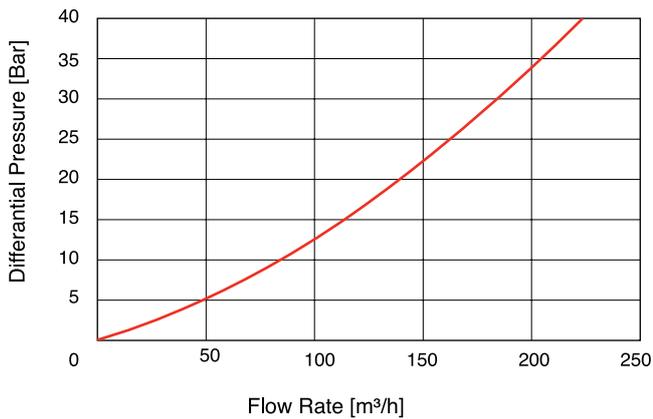
Dimensions mm		Connection C	Weight Kg.	Orifice Area mm ²
A	B			
197	295	1/2" BSP Female	13	15

PARTS LIST AND SPECIFICATION

No.	Part	Material
1.	Orifice Cover	Polypropylene
2.	Nut	Brass
3.	O-Ring	BUNA-N
4.	Cover	Cast Steel
5.	Orifice	Reinforced Nylon
6.	Rollpin	Stainless Steel 304
7.	Rolling Seal	EPDM
8.	O-Ring	BUNA-N
9.	Bolt and Nut	Steel Zinc Cobalt Plated
10.	Lever	Reinforced Nylon
11.	Rollpin	Stainless Steel 304
12.	Float	Polycarbonate / Stainless Steel SAE 316L
13.	Body	Cast Steel
14.	Adapter	Brass



AUTOMATIC AIR RELEASE FLOW RATE



DIMENSIONS AND WEIGHT

Dimensions mm		Connection	Weight	Orifice Area
A	B	C	Kg.	mm ²
158	292	1/2" BSP Female	5.4	15

PARTS LIST AND SPECIFICATION

No.	Part	Material
1.	Air Release Outlet	PVC
2.	Rollpin	Stainless Steel 304
3.	O-RING	BUNA-N
4.	Orifice	Reinforced Nylon
5.	Cover	Ductile Iron
6.	Rollpin	Stainless Steel 304
7.	Rolling Seal	EPDM
8.	Lever	Reinforced Nylon
9.	Rollpin	Stainless Steel 304
10.	O-RING	BUNA-N
11.	Bolt, Nut & Washer	Steel, Zinc Cobalt Coated
12.	Float	Polypropylene / Stainless Steel 316
13.	Body	Ductile Iron
14.	Adapter	Brass

