



# S-016 PN 64



## Automatic Air Release Valve for High-Pressure Systems

### Description

The automatic air release valve discharges 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 pressure loss and decreased flow.

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

### 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 release large volumes of air, because of the inherently small orifices. For this purpose air & vacuum 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: 0.2-64 bar
- Test pressure for the air valve is 1.5 times its working pressure.
- Working Temperature: 60<sup>o</sup> C.
- Maximum short-term temperature: 90<sup>o</sup> C.
- A.R.I. patent, rolling seal mechanism:
  1. Dramatically reduces the possibility of obstruction by debris.
  2. One size orifice for a wide pressure range up to 64 bar.
  3. Self cleaning mechanism.
- Lightweight, small dimensions, simple and reliable structure.
- Standard metal body - baked FBE coating.
- All operating parts are made of specially selected corrosion resistant materials.

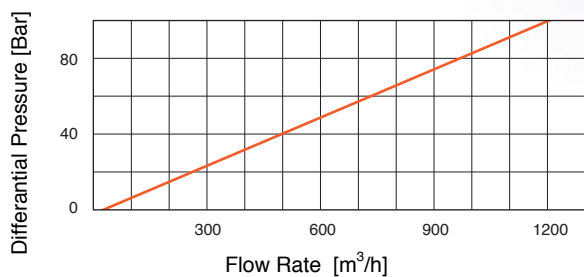
### Valve Selection

- Available in 3/4", 1", male threaded BSP / flanged.

### Ordering

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

## AUTOMATIC AIR DISCHARGE



## DIMENSIONS AND WEIGHT

Model	Dimensions mm		Weight Kg.	Orifice Area mm <sup>2</sup>
	A	B		
S-016	197	295	13	15

## PARTS LIST AND SPECIFICATION FOR S-016

No.	Part	Material
1.	Plastic Cover	Polypropylene
2.	Washer	Brass ASTM B124
3.	O-Ring	BUNA-N
4.	Cover	Cast Steel ASTM A216 WCB
5.	Nozzle	Acetal
6.	Rolling Seal	Rubber E.P.D.M
7.	O-Ring	BUNA-N
8.	Bolt and Nut	Steel Zinc Cobalt Plated
9.	Lever Seal	Acetal
10.	Pin	Stainless Steel SAE 303
11.	Float	Polycarbonate / Stainless Steel SAE 316L
12.	Body	Cast Steel ASTM A216 WCB
13.	Male Adaptor	Brass ASTM B124

