D-023 SB 250 PSI

Wastewater

ISO 9001:2008 IQC

Underground Air Valve System for Wastewater

Description

The D-023SB is a complete product package that combines the reliable and efficient properties of the A.R.I. D-023** combination air valve for wastewater with the added feature of a sub-surface valve that can be buried below ground. A specially designed horizontal sliding disc valve - situated at the base of the D-023 SB assembly - allows for the air valve disconnection and maintenance from ground level.

This shut-off valve is equipped with a safety mechanism, enabling disconnection and removal of the D-023 air valve from its subsurface housing, even when the system is under pressure. Since service and maintenance operations of the unit are performed entirely from the surface, there is no need for safety considerations associated with confined space entry.

**Note: For additional information on the D-023 air valve, please review our catalog technical sheet UsC-D023SBSWG-10.

Main Features

- Working pressure range: 3 - 250 psi .
- Testing pressure: 360 psi.
- Maximum working temperature: 140° F.
- Maximum intermittent temperature: 194° F.
- A combination air valve for wastewater with a large air & vacuum orifice and a small air release orifice integrated into one body.
- The D-023 incorporates a unique external disc lever assembly, isolating and protecting its parts from the corrosive environment found inside the valve body.
- The air valve's inlet diameter is 3".
- Pipe connections: 3" threaded or flanged, in accordance with all standards.
- The D-023 SB incorporates an integral, flat, quarter-turn, horizontal sliding disc valve with a 3" full bore passage.
- This shut-off valve is operated from the surface.
- All connections utilize quick connectors to facilitate easy usage during:
  • Handling (quick connector from adaptor to shut-off valve)
  • Maintenance operations (quick connectors on both the inlet & outlet flushing positions).
- **Safety elements:** Disengaging the air valve is safeguarded: unless the shut-off valve is in the "closed" position and the internal pressure is released, it is not possible to extract the air valve.
- **All parts are corrosion resistant:** Metal parts made of Stainless Steel, Ductile Iron or Steel, Composite material parts made of Nylon, PA, and PVC.
- **Drainage system:** a special one-way valve that drains the water from the valve box and does not admit water.

Advantages and Benefits

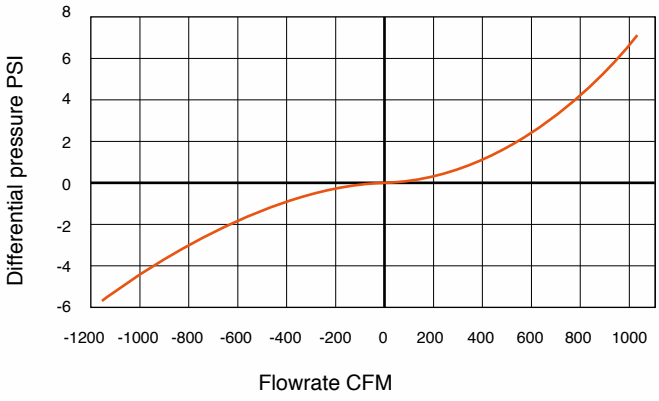
- Relatively lightweight and convenient to install.
- Sub-surface installation.
- **Low installation costs:**
  • No need for expensive, large excavation.
  • No need for expensive, human-accessible manholes.
- **Low Maintenance costs:**
  • No need for specialized tools or safety equipment.
  • One person needed for operation and maintenance.
  • Clean and environmentally friendly.
  • Complete service and maintenance system, including an integral disassembly mechanism to ensure easy back flushing and servicing, while reducing the need for spare changeable valves.
- **Safe in operation:**
  • Greatly reduces the danger of contact with local fauna – snakes and scorpions, etc!
  • Entirely operated and maintained from ground level.
- Reliable and efficient operation:
  • Dynamic design allows high velocity air discharge while preventing premature closure.
  • A.R.I. patented rolling seal mechanism.
  • Since the valve is a sub-surface (underground), it is more resistant to frost conditions.

Valve Selection

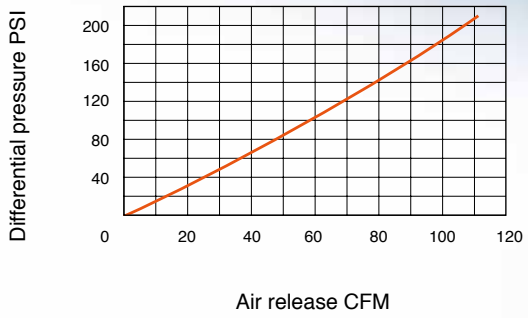
- The main part of the air valve's body is made of Stainless Steel SAE 316 or Steel DIN St.37
- The cover and top of the air valve are made of Stainless Steel SAE 316 or Ductile Iron.
- Additional Accessories
  - One-way out-only attachment, allows for air discharge only, prevents air intake.
  - One-way in-only attachment, allows for air intake only, prevents air discharge.

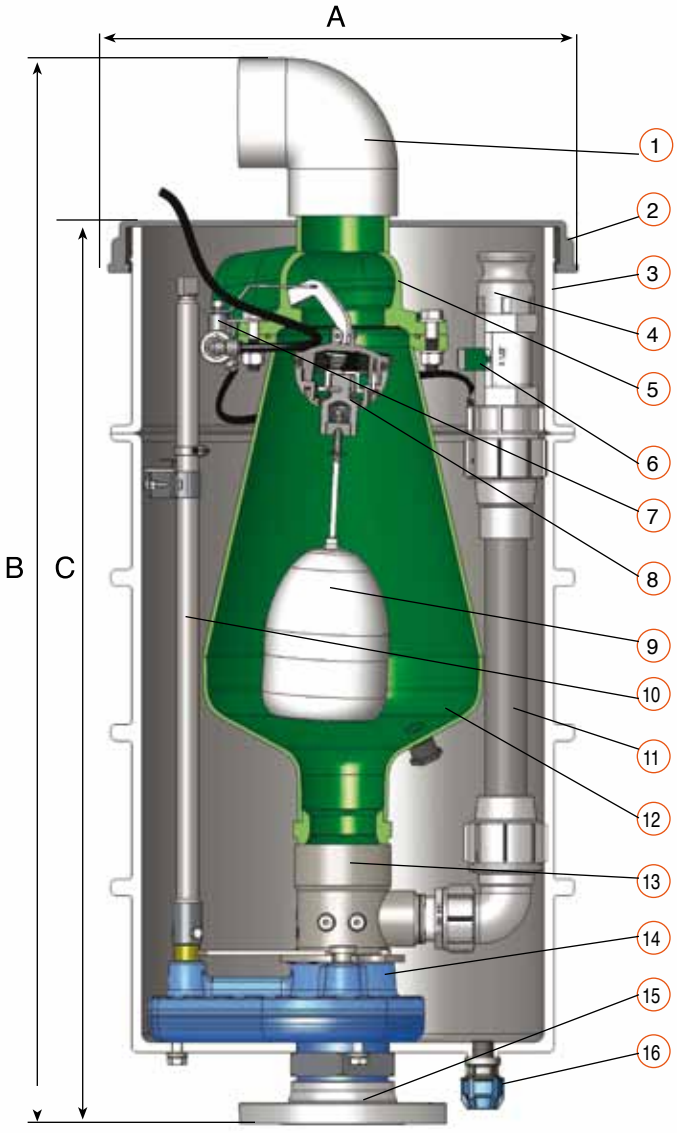
D-023 SB

AIR & VACUUM FLOWRATE



AUTOMATIC AIR RELEASE





DIMENSIONS AND WEIGHTS

Dimensions inch			Weight
A	B	C	Lbs.
17.87	40.7	34.5	135.6

PARTS LIST AND SPECIFICATION

No	Part	Material
1.	Discharge Outlet	Galvanized Steel
2.	Air Valve Shell Cover	Polyethylene
3.	Air Valve Shell	Polyethylene
4.	Drainage Outlet	Polypropylene
5.	Cover	Stainless Steel SAE 316
6.	Ball Valve 1 1/2'' F/F 1/4'' Outlet	Stainless Steel SAE 304
7.	Pressure Relief Cock	Stainless Steel SAE 316
8.	Sealing Assembly	Polycarbonate + ST.ST. / ST.ST. SAE 316
9.	Float	Polycarbonate / ST.ST.
10.	Operating Rod	Stainless Steel SAE 304
11.	Back Flush Drainage Pipe	Polyethylene
12.	Body	Steel Din St.37
13.	Adaptor - Quick Connection	Polycarbonate + ST.ST. / ST.ST. SAE 316
14.	Horizontal Sliding Disc Valve 3''	DI+ST.ST.+E.P.D.M
15.	Flange	PA/ ST.ST. SAE 316
16.	Drainage Valve	Polypropylene
17.	T Key	Stainless Steel SAE 304

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