

AIR VALVE

Triple Function - Underground

Description: Our Triple Function Underground Air Valve is a strong, adaptable solution, meticulously crafted for optimal pipeline functionality. It proficiently expels air during the system's initialization, draws in air during shutdown, and releases pressurized air pockets throughout the operational phase. With choices for flexible setup, an integrated check mechanism, and a water drainage plug, this compact and efficient solution is perfectly suited for challenging subterranean applications.

Material Specification

| Parts | Main Materials | Optional Materials |
|-------------------|-----------------|--------------------|
| Body | Ductile Iron | |
| Air Valve Body | POM | |
| Air Valve Float | | |
| Air Valve Sleeve | Aluminum | |
| Protection Sleeve | SS 304 | SS 316, PE |
| Cover | Ductile Iron | |
| Shaft | X20Cr13 | SS 304, SS 316 |
| Pipe | Galvanized Pipe | SS 304, SS 316 |
| Sealings | EPDM | NBR |
| Fasteners | SS 304 | SS 316 |

Notes:

1. Different flange drillings are available, including ISO, EN, ANSI, and others.
2. The standard operating temperature range is -10°C to +80°C.
3. All RAL Colors are available.
4. Potable water certified coating is available.
5. Both thermoset and thermoplastic coatings are available.

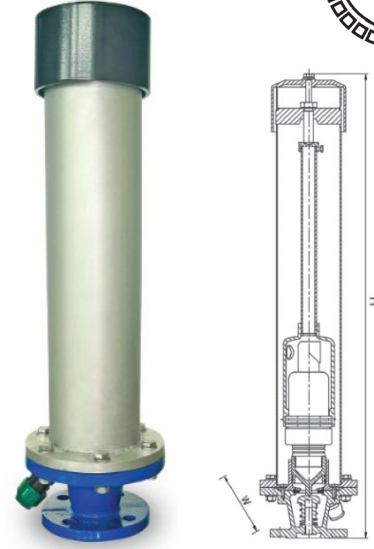
Application:

Underground Air Valves are designed to perform three functions:

1. Venting of air on the start-up of the system, while pipelines are filled.
2. Intake of air on shut-off of the system, while pipelines are drained.
3. Discharge of pressurized air pockets during the operation of the system.

Features:

- **Length Flexibility:** The valve is available in three different length options, providing adaptability to various pipeline configurations.
- **Check Mechanism:** The valve's integral check mechanism eliminates the need for an additional isolation valve, simplifying installation and maintenance.
- **Water Drain Plug:** The valve includes an integral water drain plug, enhancing its utility and efficiency.
- **Surface Box Option:** A surface box for the valve can be provided upon request, adding an extra layer of protection and ease of access.



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Space-Efficient Underground Design:

Our Underground Air Valves are ingeniously engineered to be placed directly below the surface, bypassing the need for voluminous concrete valve chambers commonly present in urban networks. The Protective Sleeve shields the air valve from soil while ensuring sufficient room for air intake and discharge. A built-in drain plug facilitates the expulsion of potential water accumulation within the sleeve.

Self-Sufficient Maintenance System:

Our Underground Air Valves integrate a check-isolation feature at their base. This user-friendly function allows the operator to conduct maintenance or cleaning procedures by simply removing the cap and extracting the air valve assembly from the sleeve. This action automatically triggers the check-isolation mechanism, impeding water from escaping the pipeline. Upon reinstalling the air valve, the check-isolation mechanism is disengaged, eliminating the need for external isolation valve installation.

Pipeline Protection and Stability:

The Underground Air Valves are designed to protect against pipeline ruptures, skillfully regulating air intake and discharge during the system's start-up, shut-down, and operation. The valves contain a POM body with a float, strategically positioned at a preset height and guided by the ribbed body to adjust to water level fluctuations. Thanks to its aerodynamic structure, the float stays stable during air intake and discharge, preventing early closure. The float moves to close or open the valve only when water levels shift, facilitating the intake of large volumes of air. The float's sealing design operates under dynamic conditions, releasing small pressurized air pockets.

Chamber-Free Design:

The protective sleeve encompassing the valve body creates an enclosed space for the air valve, eliminating the need for a distinct valve chamber. The check-isolation mechanism also acts as a safeguard against water leakage in case the valve mechanism is removed from the sleeve.

DIMENSIONS (mm)

| DN | 50 | 50 | 50 | 50 | 65 | 65 | 65 | 65 | 80 | 80 | 80 | 80 | 100 | 100 | 100 | 100 |
|-------------------|-----|------|------|------|-----|------|------|------|-----|------|------|------|-----|------|------|------|
| Height (PN 10/16) | 755 | 1055 | 1355 | 1555 | 735 | 1065 | 1355 | 1555 | 755 | 1055 | 1355 | 1555 | 755 | 1055 | 1355 | 1555 |
| Width (PN 10/16) | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 220 | 2202 | 220 | 220 |
| Weight (PN 10/16) | 21 | 25 | 27 | 29 | 21 | 25 | 27 | 29 | 22 | 26 | 28 | 30 | 23 | 27 | 29 | 31 |

