

AIR VALVE

Vacuum Valve

Description: The Vacuum Air Valve is a resilient, high-efficiency solution engineered for efficient air intake during instances of pipe drainage or abrupt pipeline bursts. This valve upholds system integrity by averting the creation of a vacuum inside the pipeline, thereby protecting against possible damage and operational disturbances. Despite its compact size, it plays a crucial role in enhancing system durability and effectiveness.

Material Specification

Parts	Main Materials	Optional Materials
Body Cover Lever	Ductile Iron	Carbon Steel Stainless Steel Nickel Aluminum Bronze
Disc	Steel + EPDM (Ø 40-400) Ductile Iron (Ø 40-400)	NAB
Shaft	X20Cr13	SS 304, SS 316, NAB
Nuts	Bronze	Brass, SS 304, SS 316, NAB
Ring	Bronze	Brass, SS 304, SS 316, NAB
Seals	EPDM	NBR
Fasteners	8:8 (Galv.)	SS 304, SS 316
Strainer	SS 304	SS 316

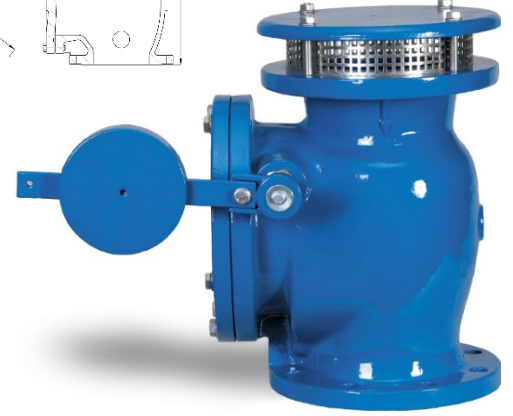
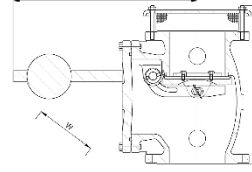
Application:

Vacuum Valves are designed to perform one main function:
Intake of large quantities air of in short time

- on shut-off of the system, while pipelines are drained.
- on column separation due to pipeline burst or flow fluctuation.

Features:

- **Versatile Usage:** Designed for both potable water and sewage applications, ensuring flexibility and adaptability.
- **Isolation Valves:** Provision for the addition of isolation valves as per customer requirements, enhancing safety and operational control.
- **Integrated Installation:** Integral Air Release Valve installation options available upon request, ensuring seamless and efficient integration within systems.
- **Operational Customization:** Offering options for single or double-sided lever &



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.

Air Intake-Discharge Capacity

Vacuum Valves are specifically designed to accommodate the substantial air intake capacity demands of a transmission line, which typically exceed the air discharge capacity requirements. Combining these with smaller air release valves results in an ideal balance, ensuring a rapid response to vacuum conditions. These valves are tactically positioned at critical points susceptible to column separation due to sudden pump shutdowns, valve closure, or pipeline breaches.

Valve Design Options

We offer two design choices for Vacuum Valves: the lever and counterweight design, which facilitates indication and alarm output, and the more compact, safeguarded, internal spring-driven design.

Valve Function and Combination

Vacuum Valves are principally designed to admit significant volumes of air, not for air release. However, for those requiring air release functionality, we can install air release valves directly onto the Vacuum Valve at the factory, generating a comprehensive unit for high intake capacity and moderate air discharge capacity. If required, Isolation Valves can be positioned upstream of these integrated air release valves.

Prevention of Pipeline Collapse

Engineered to combat vacuum conditions that could result in pipeline collapse, Vacuum Valves feature a freely moving disc linked to a lever and weight, offering a quick response to pressure shifts in the system. In vacuum scenarios, the disc descends, permitting large volumes of air into the system. Once critical conditions are mitigated and water flow recommences, the ascending pressure enables the disc to close securely, preventing leaks.

DIMENSIONS (mm)

DN	40	50	65	80	100	125	150	200	250	300	350	400	450	500
Height	120	150	200	225	300	375	500	600	825	990	1150	1320	1485	1650
Width (PN 10)	150	165	185	200	220	250	285	340	395	445	505	565	615	670
Width (PN 16)	150	165	185	200	220	250	285	340	405	460	520	580	640	715
Width (PN 25)	150	165	185	200	235	270	300	360	425	485	555	620	670	730
Width (PN 40)	150	165	185	200	235	270	300	375	450	515	580	660	685	755
Length	200	230	275	295	370	420	485	650	750	800	1000	1050	1150	1235
Weight (PN 10/16)	14	20	24	27	33	45	60	115	140	185	415	600	660	900
Weight (PN 25)	14	20	24	27	36	50	65	122	149	200	435	633	695	920
Weight (PN 40)	14	20	24	27	36	50	65	128	161	218	452	670-	700	960