

Val-Matic

Air Valves

Application, Function, Purpose and Features

Legend

Air Release (1)	HighFlow Vacuum(2)
Air/Vacuum(2)	Well Service(2)
Combination Air(3)	Sewage Air Release(1)
Combination Anti-Slam(4)	Sewage Air/Vacuum(2)
Anti-Slam Device	Sewage Combination(3)

Pipeline Applications

1. Water distribution and transmission	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Municipal wastewater collection	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Force main	✓	✓	✓	✓	✓	✓	✓	✓	✓

Pump Applications

4. Centrifugal pump volute	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Lift station	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Pump station high points	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Turbine well pump discharge	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Booster pump station	✓	✓	✓	✓	✓	✓	✓	✓	✓
9. Fire pumps (FM Approved)	✓	✓	✓	✓	✓	✓	✓	✓	✓

Water Wastewater Treatment Plant Applications

10. High points	✓	✓	✓	✓	✓	✓	✓	✓	✓
11. Filter backwash piping	✓	✓	✓	✓	✓	✓	✓	✓	✓
12. Pressure filters	✓	✓	✓	✓	✓	✓	✓	✓	✓
13. Venturi meters	✓	✓	✓	✓	✓	✓	✓	✓	✓

Tank Applications

14. Storage tank altitude valves	✓	✓	✓	✓	✓	✓	✓	✓	✓
15. Hydropneumatic tanks	✓	✓	✓	✓	✓	✓	✓	✓	✓

Function

Venting of accumulated air during system operation	✓	✓	✓	✓	✓	✓	✓	✓	✓
Admitting of large volumes of air during shut down and draining operations (Power failure)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vacuum protection (pipe joints, gaskets, packing, etc.)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Exhausting of large volumes of air during start-up and filling operations	✓	✓	✓	✓	✓	✓	✓	✓	✓

Purpose

Main pipeline efficiency	✓	✓	✓	✓	✓	✓	✓	✓	✓
Provide protection from pipeline collapse due to vacuum	✓	✓	✓	✓	✓	✓	✓	✓	✓
Air related surge protection	✓	✓	✓	✓	✓	✓	✓	✓	✓
Air related head loss protection (efficiency)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Column separation vacuum protection	✓	✓	✓	✓	✓	✓	✓	✓	✓
Air bound pump protection	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extend Air Valve life	✓	✓	✓	✓	✓	✓	✓	✓	✓
Minimize Air/Vacuum Valve slam	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reduce Air/Vacuum Valve size requirement	✓	✓	✓	✓	✓	✓	✓	✓	✓

Features

All Val-Matic Air Valves feature heavy duty body construction, drop tight synthetic seating designed to seal at high and low pressures and all stainless steel trim and floats. All Air Release Valve floats are *unconditionally guaranteed*.

Notes:

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| 1. Single small venting orifices | 4. Small and large orifices with Anti-Slam device |
| 2. Single large venting orifices | 5. Where applicable, Air Valve type not included in standard |
| 3. Small and large orifices | |