



Designed Network Solutions

The DNS Plastic Air Valve Range Air Release and Vacuum Break Valves

The Designed Network Solutions (DNS) Plastic Air Valve range is unique in its construction and operation. With its built in internal filter system it protects from any potential operational failures.

DNS Plastic Air Valves come in a range of sizes from 1/2" through to 3" BSP and can be supplied with a PA (Polymide) Inlet Connection or a Brass Inlet Connection (brass inlet connection available in sizes 1", 2" and 3").



DNS Plastic Air Valves come with a PN16 flange connection available in either Ductile Iron or Reinforced PVC plastic and there is also the option of supply with an Isolating Ball Valve. Ball Valves are offered in Stainless Steel or PPFV (Glass Reinforced Polypropylene).

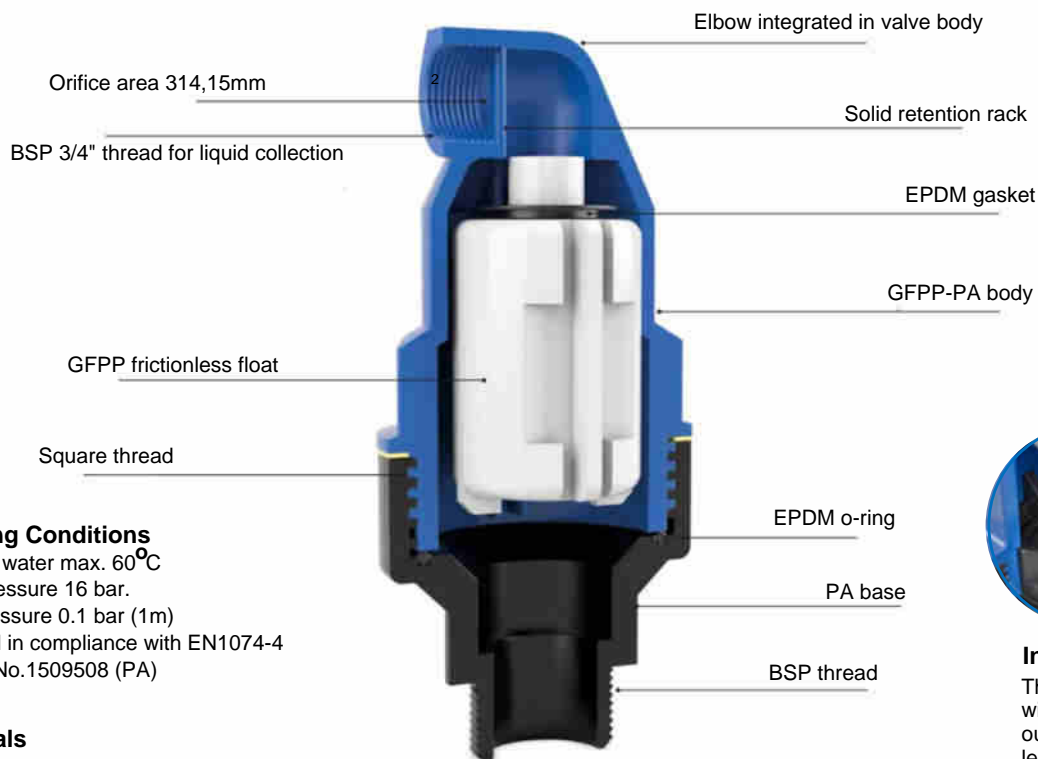
The DNS Plastic Air Valve range, whether its constructed from Ductile Iron or Plastic, for a Potable Water or Sewage application, can be fully backed up with our air valve analysis and surge analysis design solutions. This gives complete piece of mind that the air valve installed is of the right type in the right location to protect the main and application.



DNS Plastic Air Valve Product Range Specification



3D Internal Images

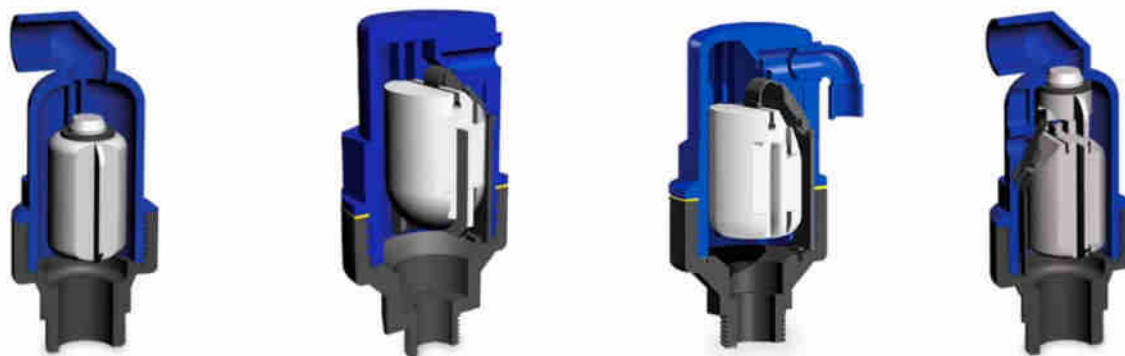


Working Conditions

Treated water max. 60°C
 Max. pressure 16 bar.
 Min. pressure 0.1 bar (1m)
 Certified in compliance with EN1074-4
 WRAS No.1509508 (PA)

Materials

PPFV - Glass-Reinforced Polypropylene
 EPDM - Ethylene-propylene-dieneterpolymers
 PA - Polyimide



DNS Kinetic Plastic Potable Water Air Valve

DNS Single Orifice Plastic Potable Water Air Valve

DNS Double Orifice Plastic Potable Water Air Valve

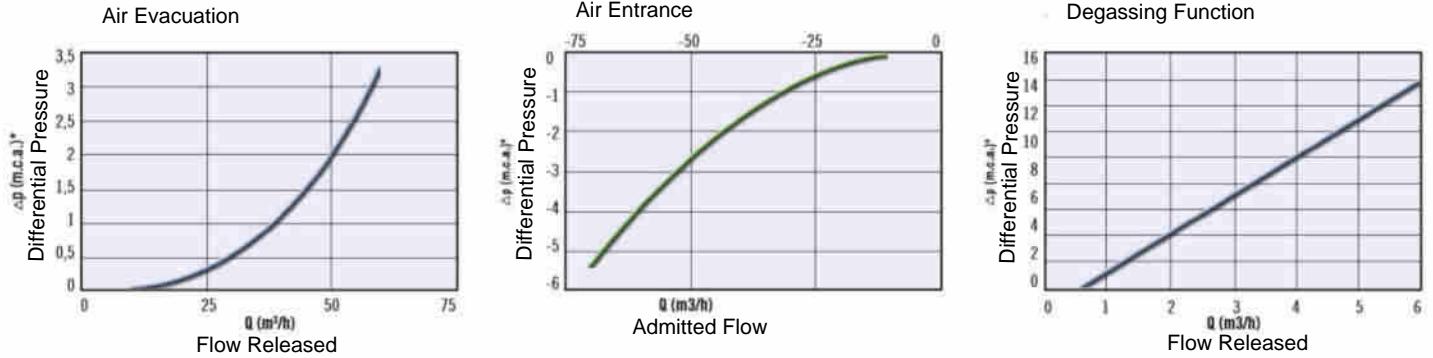
DNS Triple Function Plastic Potable Water Air valve

Vacuum breaker version

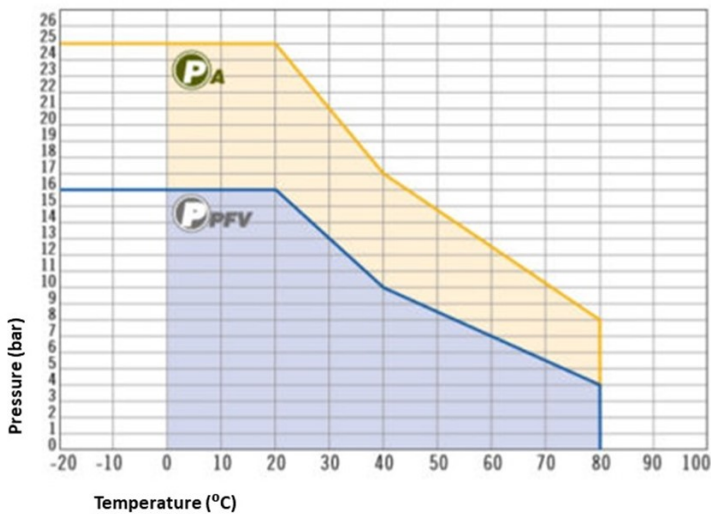
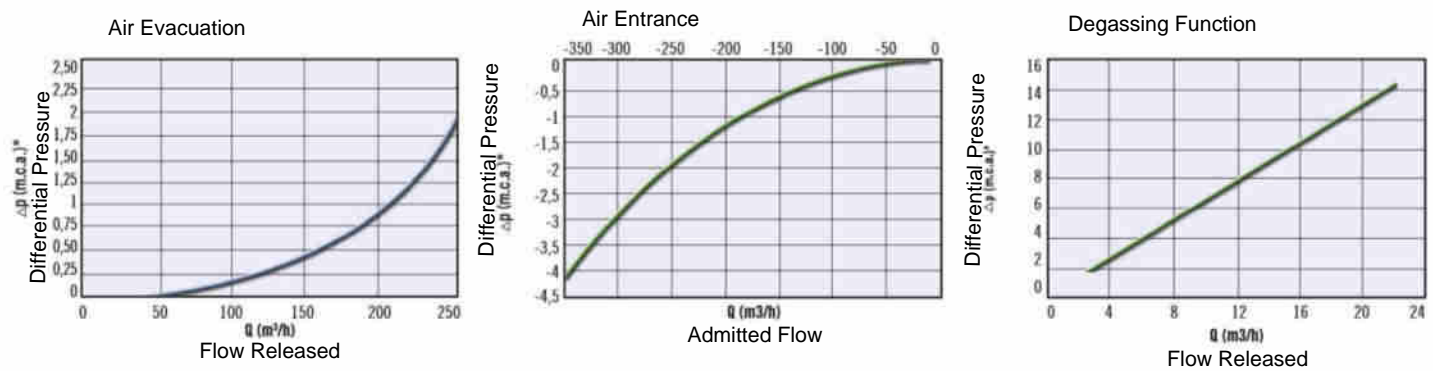
To allow the entrance and discharge of large volumes of air only. This model is normally recommended in changes in slope ascending, long ascending segments, dry fire systems, and wherever the air release won't be required.

Technical Data

DOUBLE ORIFICE 1/2", 3/4", 1"



DOUBLE ORIFICE 2", 3"



Operating principle

Discharge of large volumes of air

During the pipe filling it is necessary to discharge air as water flows in. The air valve Max, thanks to the aerodynamic full port body, will make sure to avoid premature closures of the mobile block during this phase.

Air release during working conditions

During operation the air produced by the pipeline is accumulated in the upper part of the air valve. Little by little it is compressed and the pressure arrives to water pressure, therefore its volume increases pushing the water level downwards allowing the air release through the high capacity nozzle.

Entrance of large volumes of air

During pipeline draining, or pipe bursts, it is necessary to bring in as much air as the quantity of outflowing water to avoid negative pressure and serious damages to the pipeline, and to the entire system.