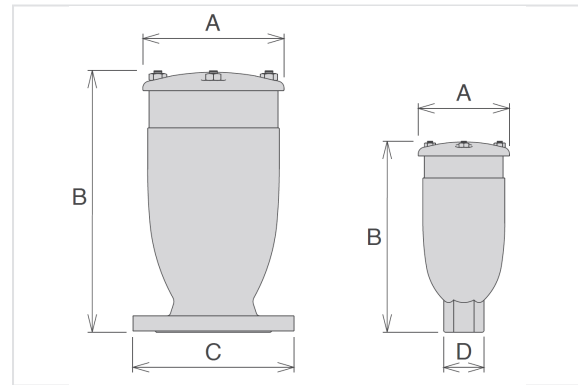


Air Valve Triple Functions TYPE FBA Full Bore Version with anti-slam anti-water hammer device



3 FUNCTIONS + ANTI-HAMMER AIR VALVE — MODEL FBA

The anti-water hammer air valve Model FBA will ensure the proper operation of the pipeline network by allowing the release of air pockets during working conditions, the evacuation and entrance of large volumes during filling and draining operations. This air valve is fitted with a mechanical device protecting pipes against water hammer.

APPLICATION

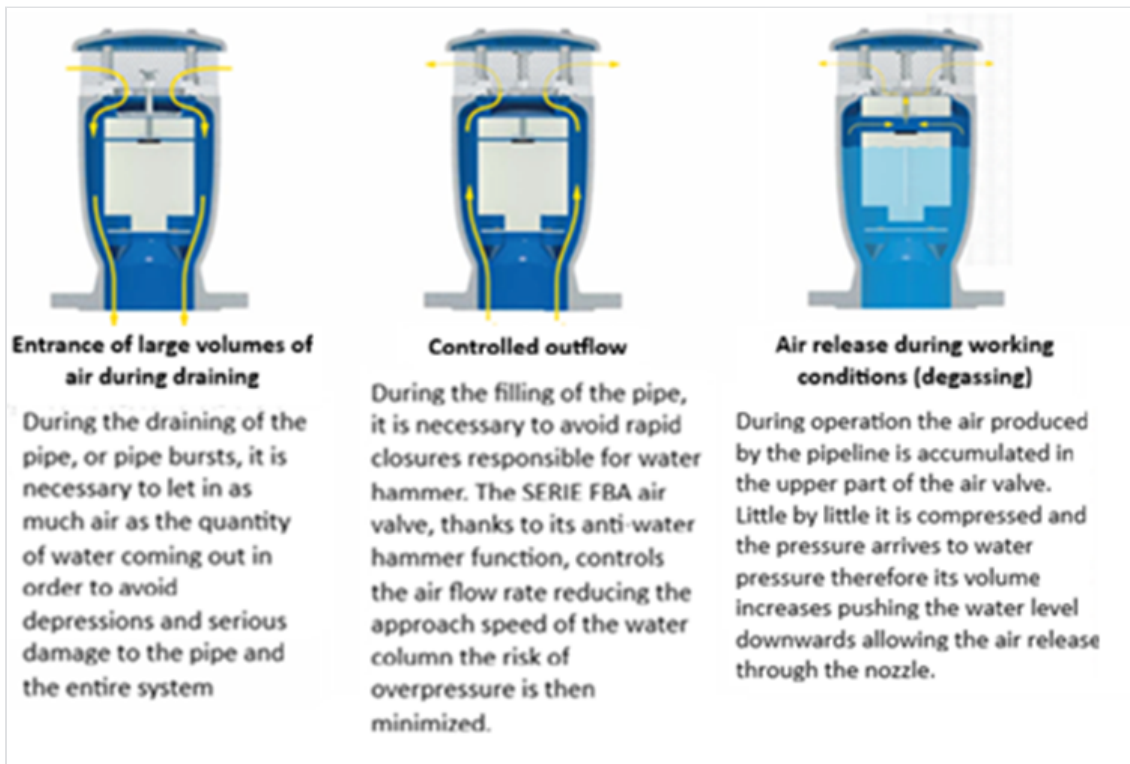
- Supply, treatment and distribution ductile iron pipes
- Water distribution networks
- Irrigation networks

In general, this model is used with pumps at upward slope changes and at critical points of the pipeline subject to water hammer and water column separation.

DN	A (mm)	B (mm)	C (mm)	D (mm)	PN 10		PN 16		PN 25		PN 40	
					Mass (kg)	References	Mass (kg)	References	Mass (kg)	References	Mass (kg)	References
1 "	117	240	-	CH45	4.00	FBAA2510	4.00	FBAA2510	4.00	FBAA2525	4.00	FBAA2540
2 "	141	295	-	CH70	8.00	FBAA5110	8.00	FBAA5110	8.00	FBAA5125	8.00	FBAA5140
50 mm	141	305	165	-	10.00	FBAA5010	10.00	FBAA5010	10.00	FBAA5025	10.00	FBAA5040
80 mm	172	322	210-205	-	14.00	FBAA8010	14.00	FBAA8010	14.00	FBAA8025	14.00	FBAA8040
100 mm	206	370	235-220	-	22.00	FBAB1010	22.00	FBAB1010	22.00	FBAB1025	22.00	FBAB1040
150 mm	285	555	305-285	-	45.00	FBAB1510	45.00	FBAB1510	45.00	FBAB1525	45.00	FBAB1540
200 mm	365	635	375-340	-	85.00	FBAB2010	85.00	FBAB2016	85.00	FBAB2025	85.00	FBAB2040

DN	A (mm)	B (mm)	C (mm)	D (mm)	PN 10		PN 16		PN 25		PN 40	
					Mass (kg)	References	Mass (kg)	References	Mass (kg)	References	Mass (kg)	References
250 mm	450	785	450-405	-	134.00	FBAB2510	134.00	FBAB2516	134.00	FBAB2525	134.00	FBAB2540

Operating principle



Technical features

- Single chamber body in ductile iron PN40, fitted with ribs for uniform and precise guidance of the moving assembly.
- Blue epoxy coating RAL 5005.
- Drainage valve, for chamber control and pressure relief during maintenance.
- Mobile block composed of a cylindrical float and an upper disk in solid polypropylene, joined together by the stainless steel air exhaust system. The solid cylindrical floats obtained by CNC machining; avoid deformations and ensure great sliding precision inside the body processed ribs and a perfectly vertical thrust.
- Nozzle and seal holder, part of the exhaust system, entirely made of stainless steel AISI 316.
- Maintenance can be performed from the top without removing the air valve from the pipe

- Anti-water hammer system, never in contact with water, achieved by the combination of a stainless steel spring and shaft and a disc with adjustable nozzles to control the air flow.
- Ductile iron cover and stainless steel screen as a standard execution to prevent insect entrance, with other air outlet options available (for submerged applications, air inlet only, air outlet only).

Optional



Breather version



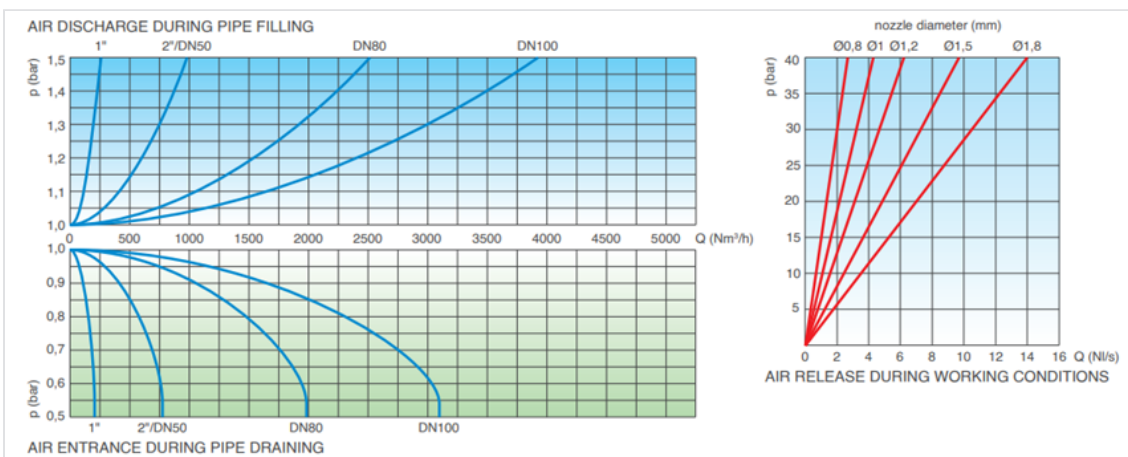
Version for Submerged application

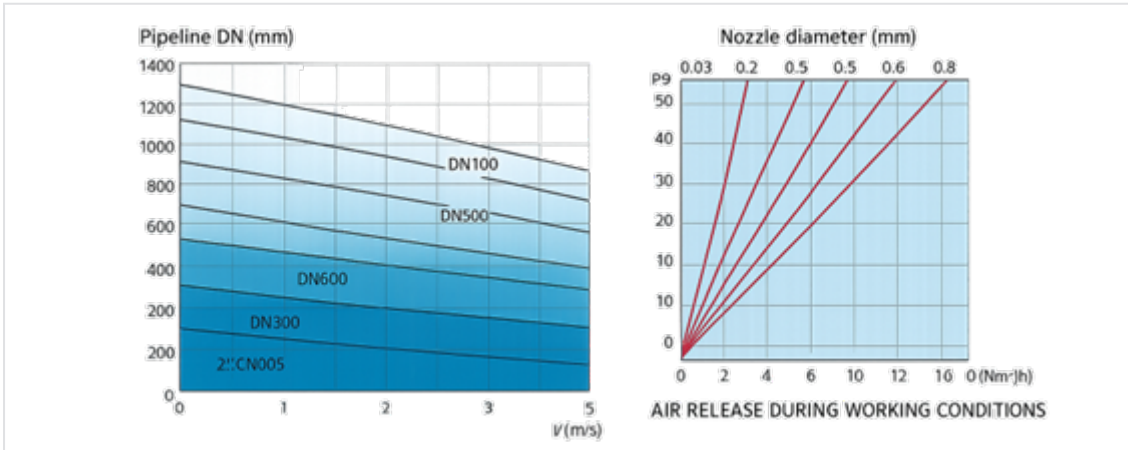


Spring and nozzle

1. **The breather version** allows only for high-flow air intake and air release. This model is recommended for upward slope changes, long ascending sections and wherever degassing is not required.
2. **The version for submerged applications** allows for operation even in the event of flooding of the chamber. It enables channel jets caused by fast closure of the air valve.
3. **Spring and nozzles** are responsible for the correct operation of the AS function; it can be modified on request depending on hydraulic conditions and the results of water hammer analyses.

Air flow performances - Aeraulic technical features





Technical data

Working conditions

- Fluid: treated water. Max. temp.: 60°C.
- Maximum pressure: 40 bar.
- Min. pressure: 0.2 bar, lower on request.

Nozzle

Nozzle diameter according to the size of the air valve and the pressure.

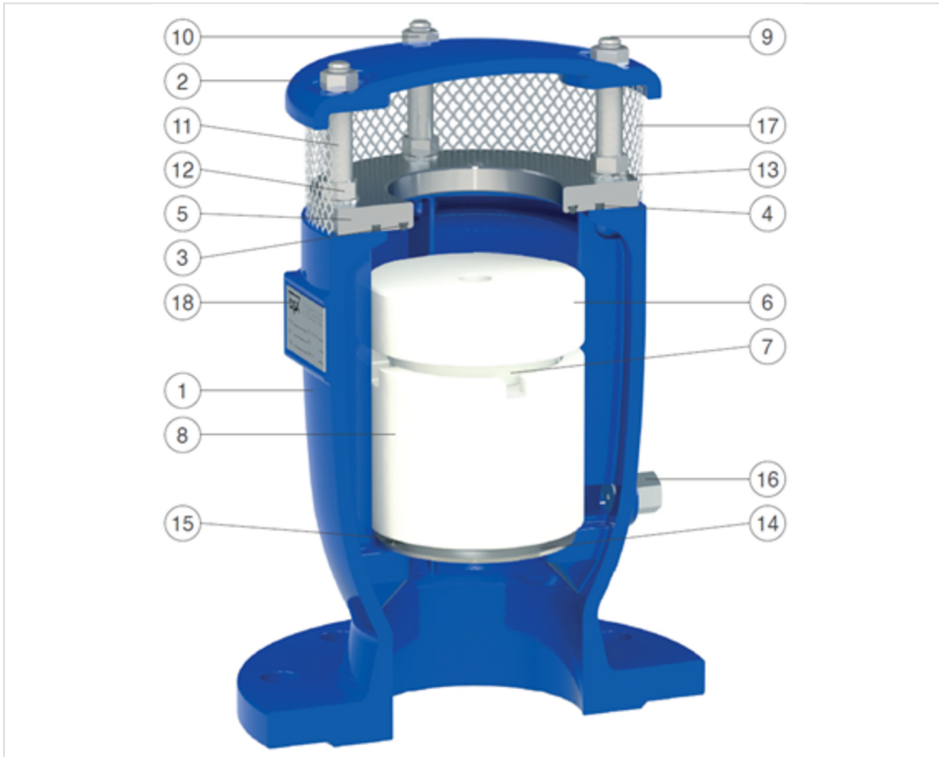
	PN10	PN16	PN25	PN40
1"	1,2	1,2	1	0,8
2" DN50	1,5	1,2	1	0,8
DN80	1,8	1,5	1,2	1
DN100	2,4	1,8	1,8	1,2
DN150	4	3	2,4	1,8
DN200	4	4	4	3
DN250	4	4	4	4

Standards

- In compliance with EN-1074/4 and AWWA C-512.
- Flange drilling according to EN 1092/2 or ANSI 150.

Other drillings and coatings on demand.

Materials



N°	Composant	Matériau Standard	Option
1	Body	Ductile iron GJS 450-10	
2	Cap	Ductile iron GJS 450-10	
3	O-ring	NBR	EPDM/Viton/Silicone
4	O-ring	NBR	EPDM/Viton/Silicone
5	Seat	Polypropylene and NBR	Stainless steel AISI 316
6	Nozzle	Stainless steel AISI 316	
7	Upper plate	Polypropylene	
8	Float	Stainless steel AISI 304	
9	Studs	Stainless steel AISI 304	Stainless steel AISI 316
10	Nuts	Stainless steel AISI 304	Stainless steel AISI 316
11	Spacer	Stainless steel AISI 304	Stainless steel AISI 316
12	Nuts	Stainless steel AISI 304	Stainless steel AISI 316
13	Washer	Stainless steel AISI 304	Stainless steel AISI 316
14	Deflector (not in 1")	Stainless steel AISI 304	Stainless steel AISI 316

N°	Composant	Matériau Standard	Option
15	Screw	Stainless steel AISI 304	Stainless steel AISI 316
16	Drain valve	Stainless steel AISI 303	Stainless steel AISI 316
17	Grate	Stainless steel AISI 304	
18	Spring guide nut (from DN100)	Stainless steel AISI 303	Stainless steel AISI 316
19	Spring	Stainless steel AISI 302	
20	Shaft AS	Stainless steel AISI 303	Stainless steel AISI 316
21	Disc AS	Stainless steel AISI 304	Stainless steel AISI 316
22	Sticker	Stainless steel AISI 304	

The list of materials and components is subject to change without notice in accordance with technical developments.

The information on this sketch is, to the best of our knowledge correct at the time of printing. However Saint-Gobain are constantly looking at ways of improving their products and services therefore reserve the right to change without prior notice, any of the data shown. Any orders placed will be subject to our Standard Conditions of Sale, available on request.