

# Anti-shock Air Release Valve

## Functions:

- Suitable Restricted air release during filling of the pipeline.
- Small air release under pressurized pipeline.
- Large air intake during draining of the pipeline.
- Protected against water hammer in the pipeline.

## Features:

- ✦ Advanced design with simple mechanism along with strong float to prevent cracking during sudden water hammer & quick closure.
- ✦ Aerokinetic mechanism to resist blow shut under high air velocity even up to sonic velocity of air.
- ✦ For the potential water hammer area or transmission pipeline, it is recommended to use anti-shock combination air valve to prevent from damage or impact of severe water hammer.
- ✦ Anti-shock device is installed on top of bonnet, it will slow down the exhausting air flow during filling to prevent hammer impact, under vacuum condition, the device will drop down and let large air into the pipeline.
- ✦ No arms or levers. This prevents vibrating, bending, direct closure of the float.
- ✦ Smooth barrel outside of the float, controls float movements within specified guide rail.
- ✦ Guide Barrel is equipped with a rubber buffer to prevent collision between the float and the barrel. Draining is facilitated by addition of holes on the side of the barrel.
- ✦ All iron parts are coated inside & outside with fusion bonded epoxy for corrosion resistance as per AWWA C550.
- ✦ Anti-shock Air Release Valve fully complies with manufacturing standard AWWA C512 and BS EN 1074-4.



## Service Field:

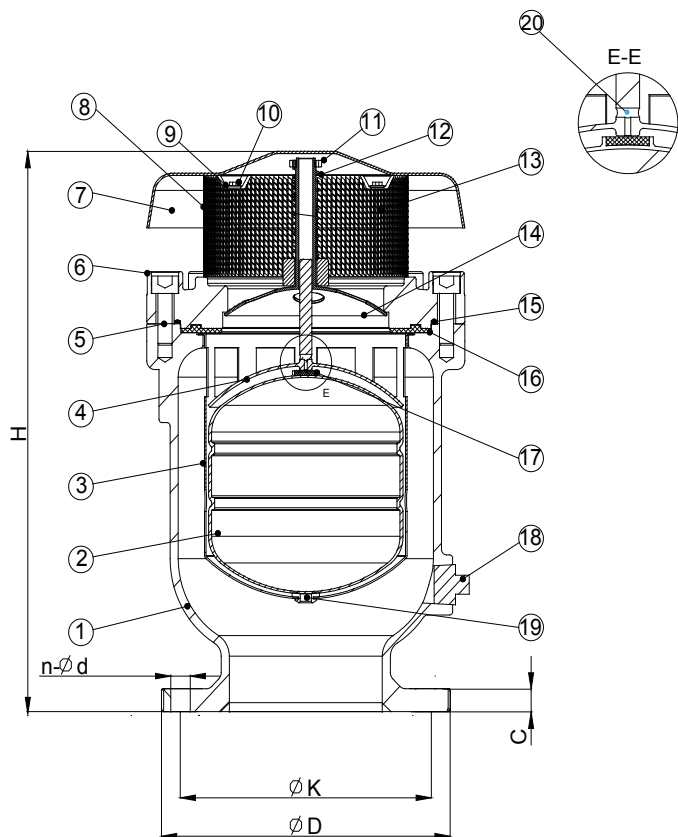
Clean Water System, Transmission and Distribution, Irrigation System

## Technical Data:

Design Standard:	AWWA C512 / BS EN 1074-4
Size Range:	2" - 12"
Pressure Rating:	200 psi / 300 psi
Working Temperature:	-10°C – 80°C
End Connection:	ANSI B16.1 / B16.5
Test & Inspection:	AWWA C512

## Anti-shock Air Release Valves

### Parts List & Materials



No.	Parts Name	Materials	Standards
1	Body	Ductile Iron	ASTM A536
2	Float	Stainless Steel	SS304
3	Guide Barrel	Stainless Steel	SS304
4	Sealing Arc	Stainless Steel	SS304
5	Hexagon Bolt	Carbon Steel / Stainless Steel	G.1 / SS304
6	Bonnet	Ductile Iron	ASTM A536
7	Cover	Carbon Steel	Commercial / Epoxy Coated
8	Screen	Stainless Steel	SS304
9	Washer	Carbon Steel / Stainless Steel	G.1 / SS304
10	Hexagon Bolt	Carbon Steel / Stainless Steel	G.1 / SS304
11	Nut	Carbon Steel / Stainless Steel	G.1 / SS304
12	Spring	Stainless Steel	SS304
13	Pillar	Aluminum	Commercial
14	Anti-Shock	Stainless Steel	SS304
♦ 15	O-Ring	Rubber	EPDM / NBR
16	Seat	Rubber	EPDM / NBR
17	Nozzle Seat	Rubber	EPDM
♦♦ 18	Drain Plug	Stainless Steel	SS304
19	Buffer	Rubber	EPDM
20	Small Nozzle	Stainless Steel	SS304

♦ For Size ≥ DN150.

♦♦ Drain plug can be added upon request.

### Main Dimensions

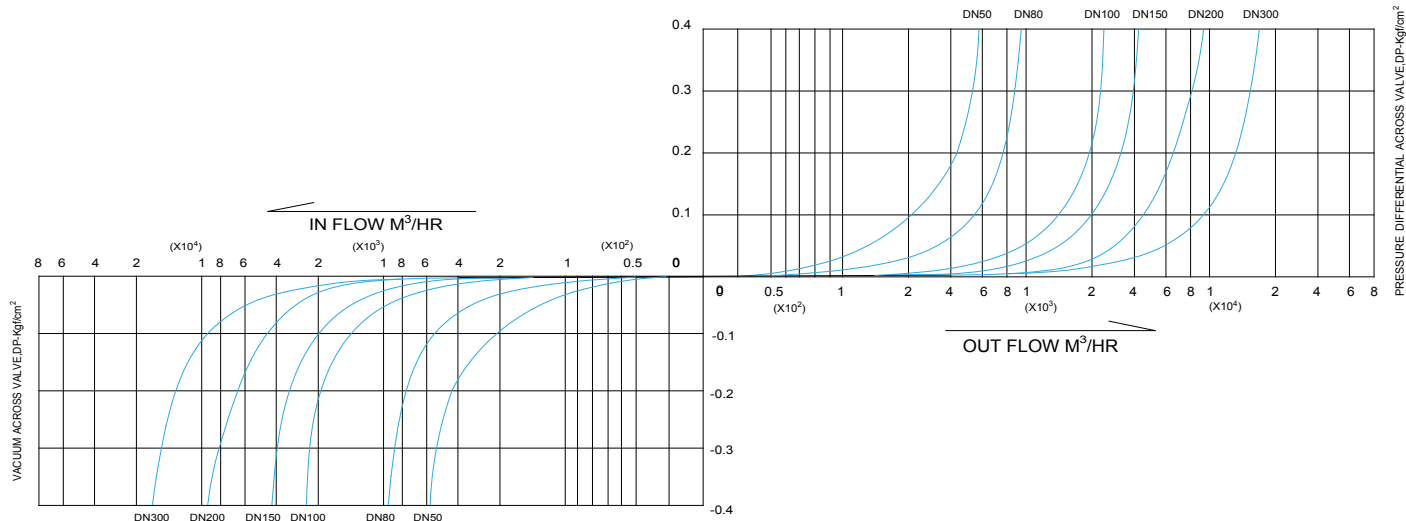
unit: inch

NPS	H	ØD	ØK	N	Ød	C
2"	12 ¼	6	4 ¾	4	¾	¾
3"	15	7 ½	6	4	¾	¾
4"	16 ¾	9	7 ½	8	¾	1
6"	20 ¾	11	9 ½	8	7/8	1
8"	24 ¾	13 ½	11 ¾	8	7/8	1 1/8
12"	31 ¾	19	17	12	1	1 ¼

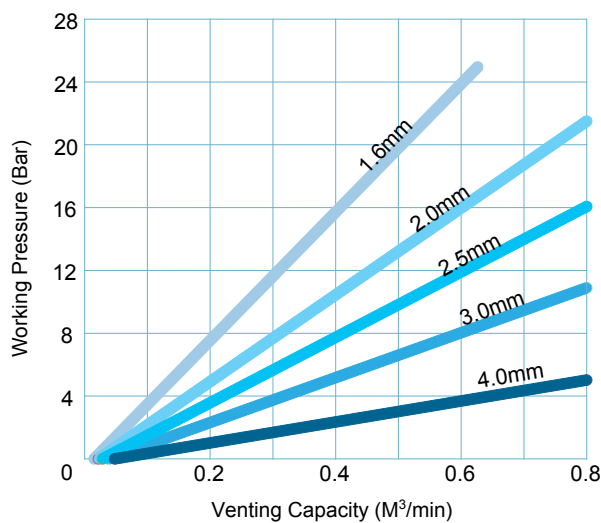
unit: mm

DN	H	ØD	ØK	N	Ød	C
50	310	152	120.7	4	19	19
80	382	191	152.4	4	19	19
100	420	229	190.5	8	19	25
150	520	279	241.3	8	22	25
200	630	343	298.5	8	22	29
300	800	483	431.8	12	25	32

## Flow Performance



### Air release during working conditions



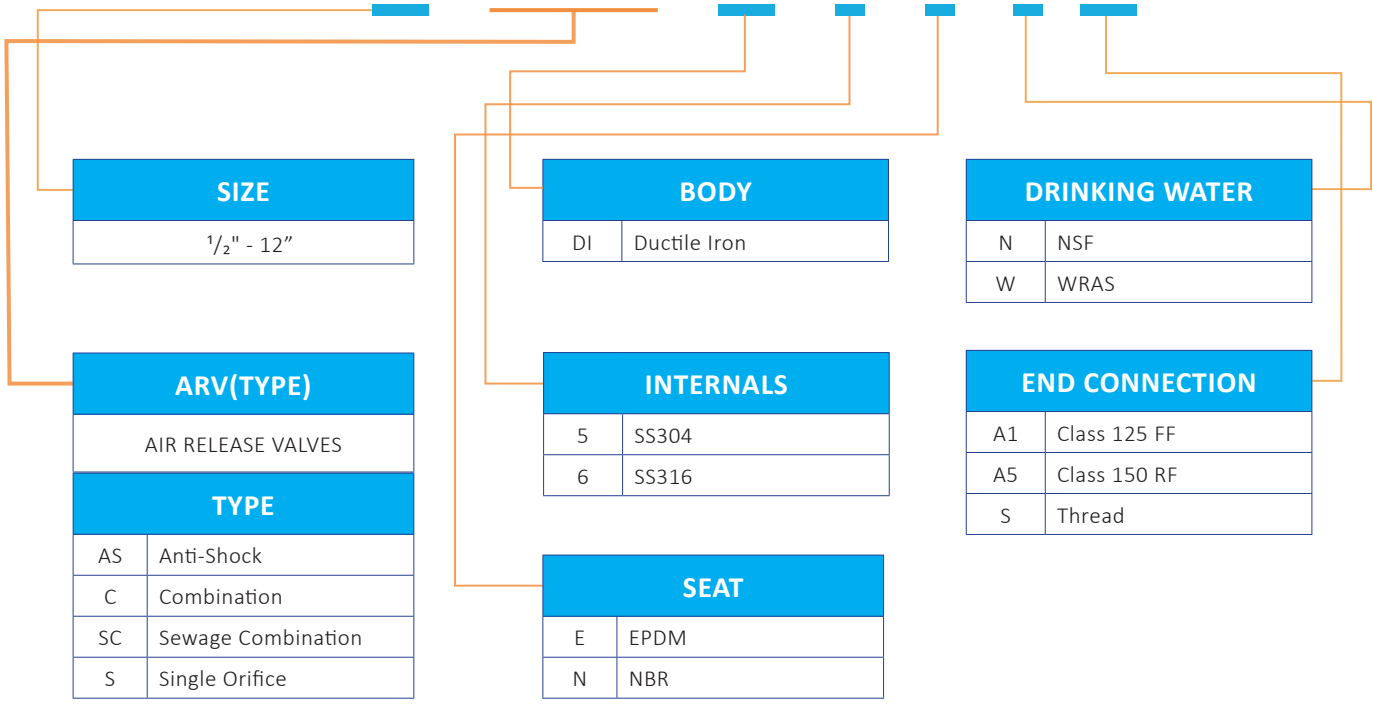
## Selection Criteria

Water Flow Rate Range max. cmh (m <sup>3</sup> /hour)	760	1360	4160	8500	19100	33400	76300
Main Pipe Size (mm)	80-300	200-400	400-700	750-1000	1050-1500	1500-200	2100-300
Inlet Size (mm)	25 / 32 / 40 / 50	50	80	100	150	200	300
Outlet Bore (mm)	50	75	95	130	170	230	330
Small Orifice Size (mm)	1.6	1.6	2	2.5	3	4	4

♦ Flange type (2" to 12") are designed for 350 psi max. operating pressure.

## PRODUCT SELECTION

**VT - XX - ARV(XX) - XX - X - X - X- XX**



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