



AB VALVES GmbH

Manufacturer of Industrial Valves
and Relevant Equipments

**Single Chamber - Double Orifice
Triple Function Air Valves (AVSC)**





Single Chamber - Double Orifice Triple Function Air Valves (AVSC)

Size: DN 50 - 200 mm

Pressure: PN10 - 40 bars

Flange: drilling according to DIN EN 1092-2 (DIN 2501)

Product features:

Automatic air venting of the fluid in the main and supply lines. In these types of valves the fluid flow activates the venting operation. Large venting orifice allows large volumes of air to be released on start-up and enter the pipe for vacuum breaking on shut down. Small venting orifice allows volumes of air to be released under the fluid pressure.

Advantages:

- Reliable design.
- Small dimension.
- Sealing: NBR or EPDM.
- Screws of corrosion resistant steel A2.
- Electrostatic epoxy powder coating.
- Internal parts made of corrosion resistant steel.
- Higher capacity than double chamber valves.

Application:

For working pressure of minimum 0.3 bar and fluid temperature up 70°C (for other conditions on request).

Corrosion protection:

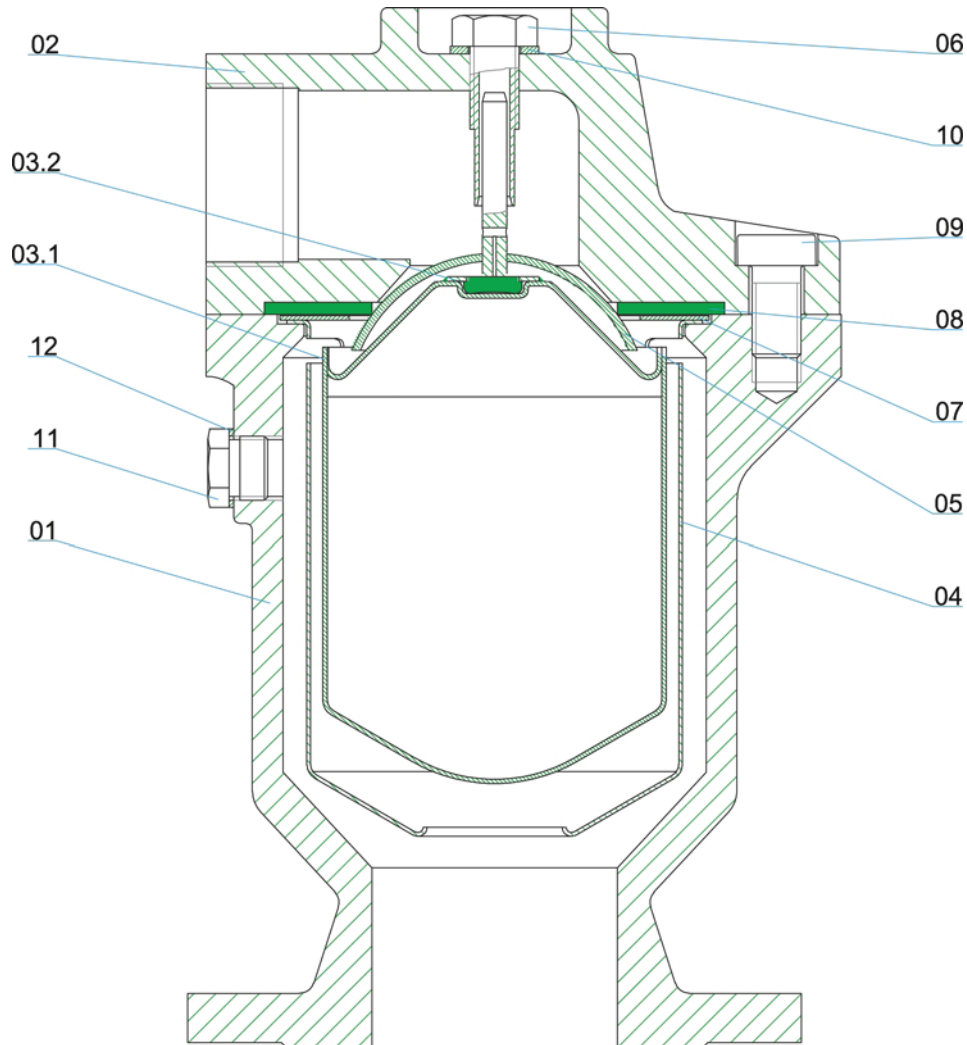
All casting parts, internal and outside, are covered with electrostatic epoxy powder coating.min.250 µm.

Testing:

DN (mm)	PN (bar)	Permissible Working Pressure (bar)	Permissible Working Temperature	Test pressure according to DIN EN 12266-1 in bar Hydrostatic test
				body
50 - 200	10	10	70°C	17
50 - 200	16	16	70°C	25
50 - 200	25	25	70°C	37.5



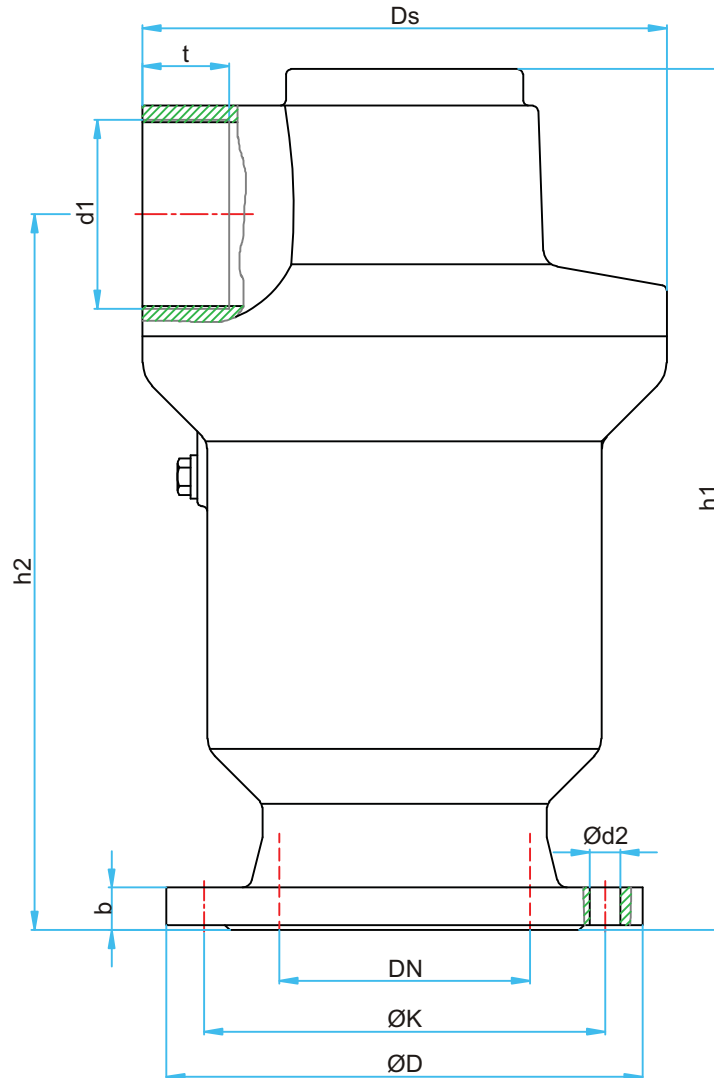
Parts list



Part	Description	Material	Spare parts
1	Body	EN-GJS-400-15 (1)	
2	Cover	EN-GJS-400-15 (1)	
3.1	Float	1.4301	●
3.2	Gasket	EPDM / NBR	●
4	Shell body	1.4301	
5	Hood	1.4301	
6	Guide screw	A2	●
7	Disc	1.4301	●
8	Sealing ring	EPDM / NBR	●
9	Hexagonal Head Screw	A2 / Galvanized Steel	
10	Washer	A2 / Galvanized Steel	
11	Plug screw	S.Steel	
12	Gasket	CU	

(1) EN-GJS-500-7 can be product as requested.

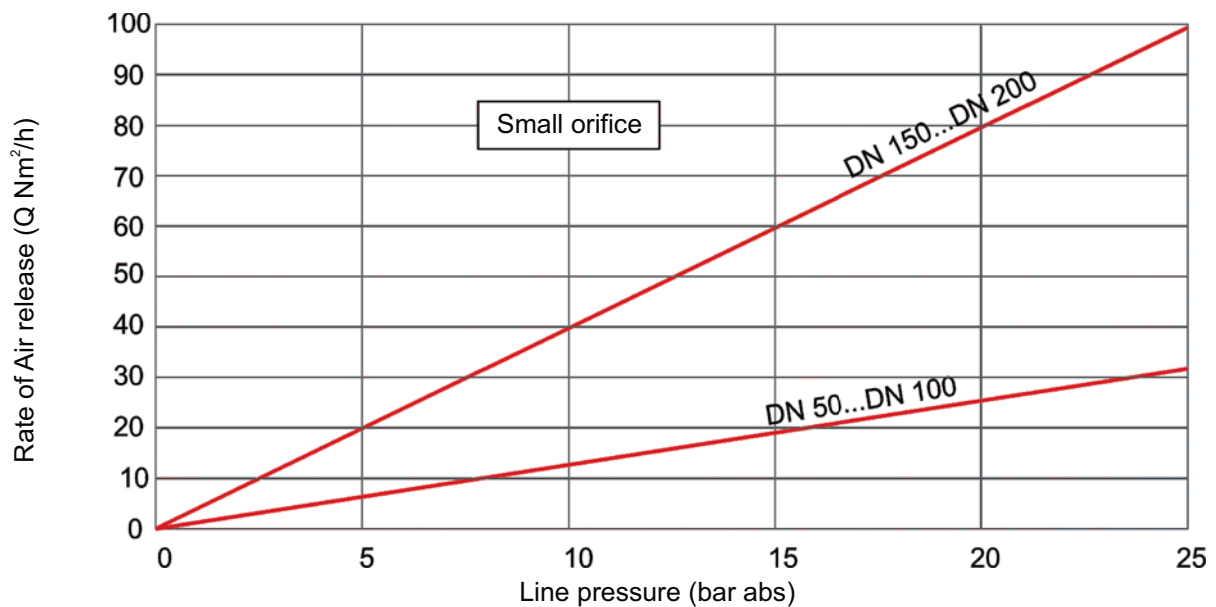
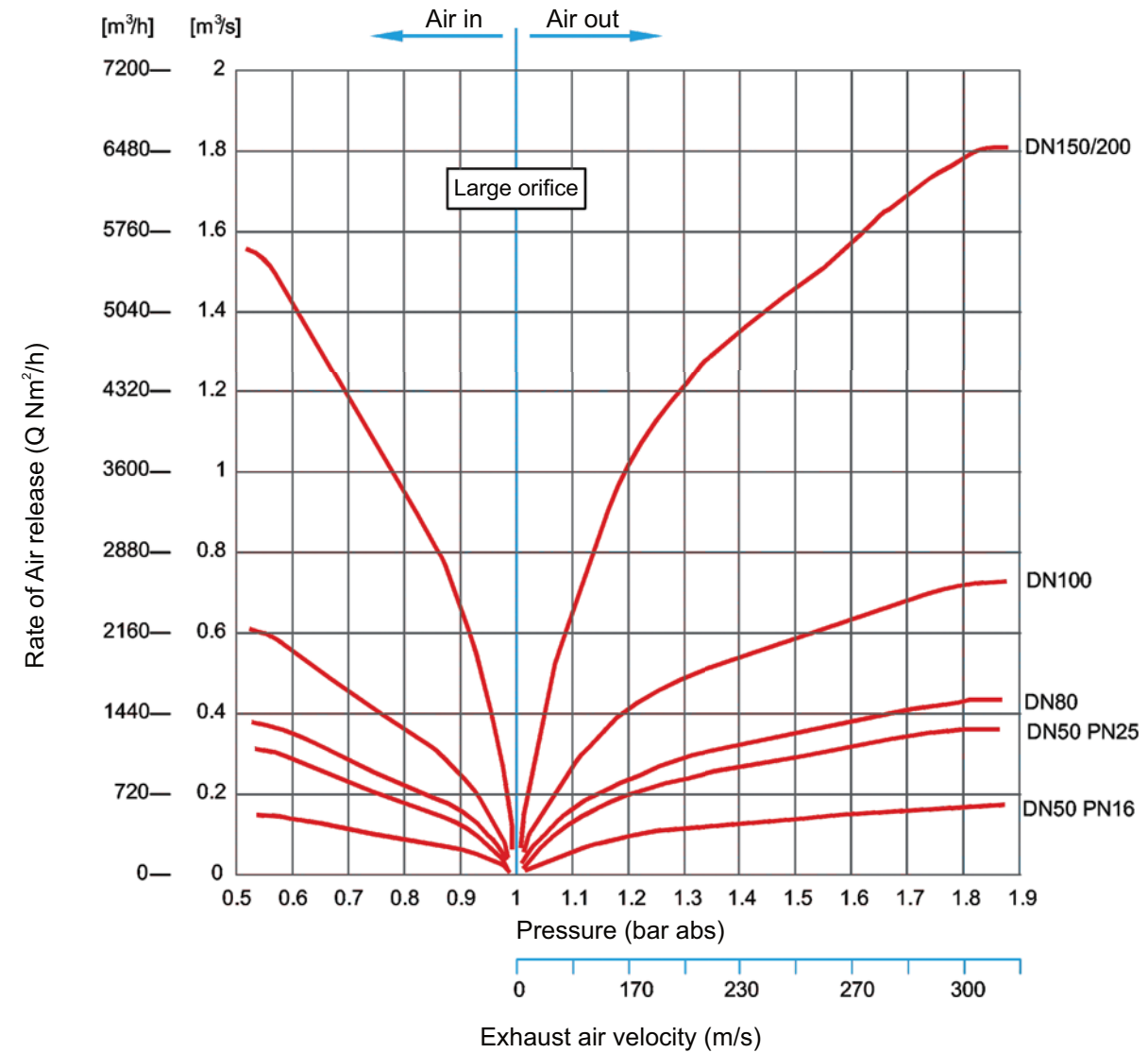
Dimensions and weight



• DIN EN 1092-2 (DIN 2501)

DN mm	PN bar	• D mm	• K mm	• d2 mm	• n	• b mm	h1 mm	h2 mm	Ds mm	d1 mm	t mm	~W (Kg)	~V (dm ³)
50	10.16.25	165	125	19	4	19	280	240	157	R1 ¼"	20	15	10
65	10.16.25	185	145	19	4	19	280	240	157	R1 ¼"	20	15	10
80	10.16.25	200	160	19	8	19	340	285	188	R2"	25	25	15
100	10.16	220	180	19	8	19	384	319	205	R2 ½"	30	28	20
	25	235	190	23		19						34	
150	10.16	285	240	23	8	19	510	423	266	R4"	52	56	40
	25	300	250	28		20						60	
200	10.16	340	295	23	PN10=8 PN16=12 PN25=12	20	510	423	266	R4"	52	75	40
	25	360	310	28		22						80	

Flow rate of inlet and outlet air



Operation

Air venting in shut-down

(Fig-1)

When the pipe pressure drops below atmosphere pressure, in the pipe drainage, the hood drops by its weight and opens the large orifice.

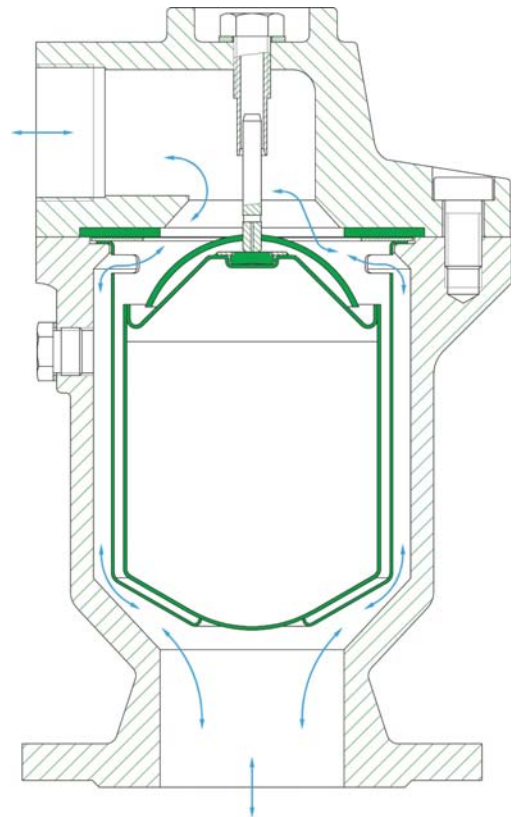


Fig-1

Air release in start-up

(Fig-2)

When the pipe line is filling up, the hood (for its geometrical shape) stays down until the air is completely released from the pipe. The air exhaust speed could reach up to the speed of sound.

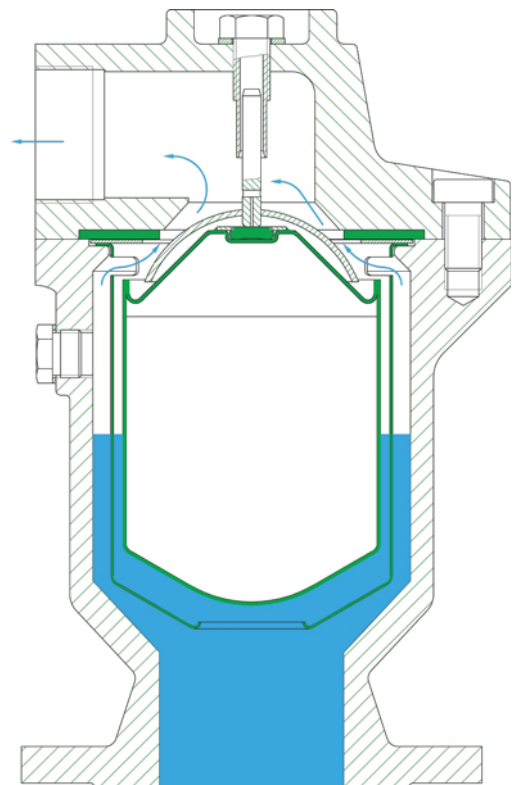


Fig-2

Filling up pipe

(Fig 2-3)

When the pipe is filled up, water level rises in the air valve & forces the float and the hood to rise and close the orifice.

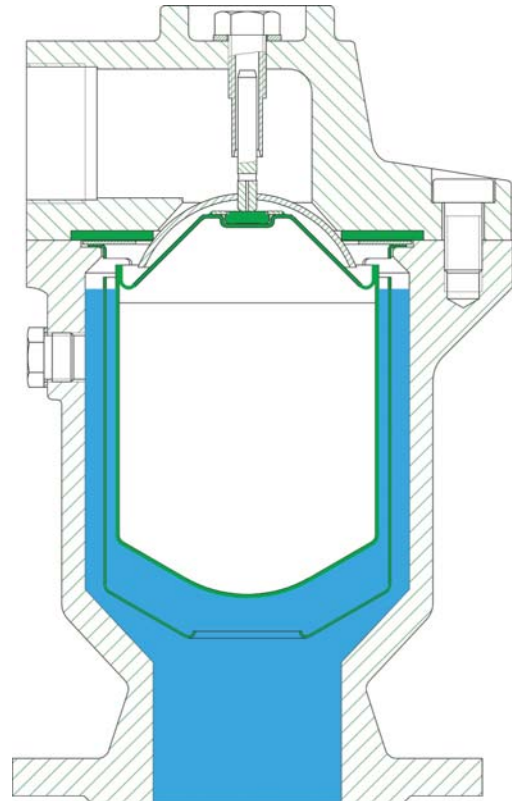


Fig-3

Air release during the line operation and under working pressure

(Fig-4)

In pumping condition, air traps start to accumulate at high points in the pipe line, forcing the water level down, so that the float and the hood of the air valve stay down to allow the air out of the pipeline. The float closes the orifice when the air is completely released from the line, and stays closed under the line pressure.

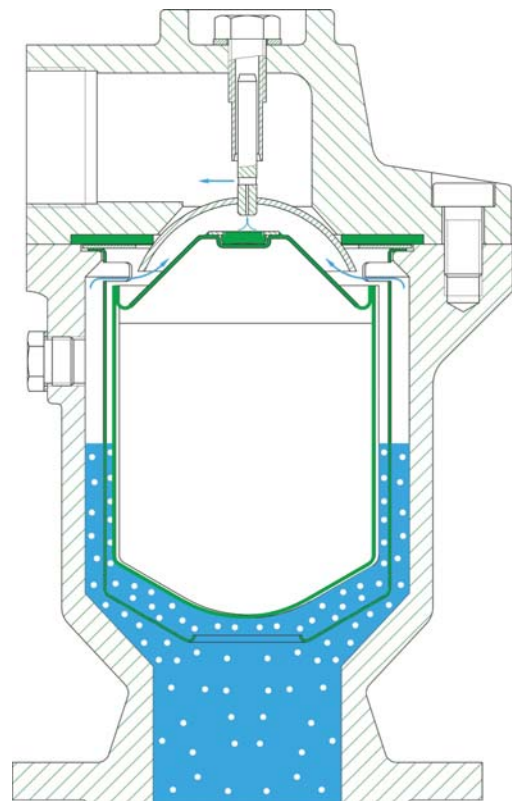


Fig-4

AB VALVES' PRODUCTS

Butterfly Valves Flange Type (BVF)
Butterfly Valves Wafer Type (BVW)
Butterfly Valves Wafer Type for Sea Water (BVS)
Gate Valves (GV)
Valves for Special Applications
Air Valves (AV)
Hydrants (HT)
Automatic Control Valves (RV)
Non-Return Valves (NV)
Strainers (STR)
Accessories
Actuators



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