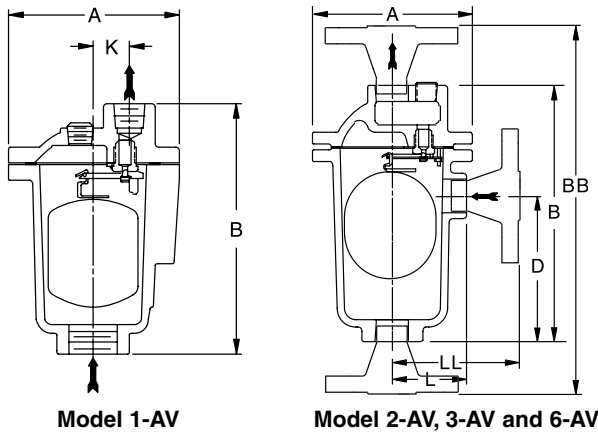




# Free Floating Lever Air/Gas Vents – Cast Iron

For Pressures to 21 bar or Specific Gravity Down to 0,40



Armstrong free floating lever Air/Gas Vents use the same bodies, caps, lever mechanisms, valves and seats of Armstrong inverted bucket steam traps that have been proven in years of service.

Elliptical floats and high leverage make it possible to open large orifices to provide adequate capacity for vent size and weight. The hemispherical valve, seat and leverage are identical in design, materials and workmanship to those for saturated steam service up to 69 bar, with the exception of the addition of a guidepost to assure a positive, leaktight valve closing under all conditions.

**1-AV** – A cast iron air vent that uses a positive-closing free floating lever to ensure leaktight closing under all conditions. This vent is good for low capacity air/gas venting up to 21 bar.

**2-AV, 3-AV and 6-AV** – Cast iron vents using the same proven free floating lever mechanisms used in Armstrong steam traps. For applications where high air/gas venting capacity is required up to 17 bar.

**Table AV-398-1. Physical Data**

Model No.	Cast Iron			
	1-AV**	2-AV	3-AV	6-AV
Pipe Connections	mm	mm	mm	mm
	15* – 20*	15 – 20	20 – 25	40 – 50
“A”	89	133	162	259
“B”	140	203	273	432
“BB” (PN40***)	N/A	320 – 330	400 – 392	562 – 568
“D”	–	111	155	213
“K”	21	–	–	–
“L”	–	62	73	123
“LL” (PN40***)	N/A	179 – 189	203 – 195	180 – 186
Weight in kg (screwed)	1,8	6	10	36
Weight in kg (flanged PN40***)	N/A	8,7 – 9,6	13,6 – 14,2	42,6 – 45,0
Maximum Allowable Pressure (Vessel Design)	21 bar @ 93°C 17 bar @ 232°C	17 bar @ 232°C	17 bar @ 232°C	17 bar @ 232°C

\* Outlet connection 1/4".

\*\* 1-AV available with side connection if specified on order. On models 2-AV, 3-AV and 6-AV, pipe size of side connections is same as that of inlet and outlet connections. Some floats are oil filled. Consult factory for details.

\*\*\* Other flange sizes, ratings and face-to-face dimensions are available on request.

Shade indicates products that are CE Marked according to the PED (97/23/EC). All the other models comply with the Article 3.3 of the same directive.

**Table AV-398-2. List of Materials**

Model No.	Valve & Seat	Leverage System	Float	Body & Cap	Gasket	Bolts	Nuts
1-AV	Stainless Steel			ASTM A48 Class 30 Cast Iron	Non-asbestos	ASTM A193 Gr. B7	ASTM A563 Gr. A
2-AV						SAE Gr. 2	
3-AV							
6-AV							

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

# Free Floating Lever Air/Gas Vents – Cast Iron

For Pressures to 21 bar or Specific Gravity Down to 0,40



Table AV-399-1. Maximum Operating Pressures	
Minimum Specific Gravity	0,80
Orifice Size (in)	Maximum Operating Pressure in bar
1/8"	10
7/64"	12
#38	15
5/64"	21

Maximum Operating Pressures of free floating lever vents with weighted floats for different orifice sizes, and the specific gravities on which they can be used.

Table AV-399-2. 2-AV Maximum Operating Pressures											
Specific Gravity*	1,00	0,95	0,90	0,85	0,80	0,75	0,70	0,65	0,60	0,55	0,50
Float weight in grams	217	206	195	184	174	163	152	141	130	119	109
Orifice Size (in)	Maximum Operating Pressure in bar										
5/46"	1,8	1,8	1,7	1,6	1,5	1,4	1,3	1,2	1,1	1,0	0,9
1/4"	3,0	2,9	2,7	2,6	2,4	2,3	2,1	2,0	1,8	1,7	1,5
3/16"	6,7	6,4	6,0	5,7	5,4	5,0	4,7	4,4	4,1	3,7	3,4
5/32"	12,0	11,0	10,4	9,8	9,3	8,7	8,1	7,6	7,0	6,4	5,8
1/8"	17,0	17,0	17,0	17,0	16,0	15,0	14,0	13,0	12,0	11,0	10,0
7/64"	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	15,0	14,0	13,0
#38	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	16,0
5/64"	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0

Table AV-399-3. 3-AV Maximum Operating Pressures										
Specific Gravity	1,00	0,95	0,90	0,85	0,80	0,75	0,70	0,65	0,60	
Float weight in grams	423	402	381	360	339	318	296	275	254	
Orifice Size (in)	Maximum Operating Pressure in bar									
1/2"	1,5	1,4	1,3	1,3	1,2	1,1	1,0	1,0	0,9	
3/8"	3,1	3,0	2,8	2,7	2,5	2,3	2,2	2,0	1,9	
5/16"	5,0	4,7	4,5	4,2	4,0	3,8	3,5	3,3	3,0	
9/32"	6,6	6,3	6,0	5,6	5,3	5,0	4,7	4,3	4,0	
1/4"	9,9	9,4	8,9	8,5	8,0	7,5	7,0	6,5	6,0	
7/32"	14,0	13,0	13,0	12,0	11,0	10,7	10,0	9,3	8,6	
3/16"	17,0	17,0	17,0	17,0	17,0	16,0	15,0	14,0	13,0	
5/32"	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	

Table AV-399-4. 6-AV Maximum Operating Pressures													
Specific Gravity*	1,00	0,95	0,90	0,85	0,80	0,75	0,70	0,65	0,60	0,55	0,50	0,45	0,40
Float weight in grams	2 084	1 979	1 875	1 771	1 667	1 563	1 459	1 354	1 250	1 146	1 042	938	833
Orifice Size (in)	Maximum Operating Pressure in bar												
1 1/6"	1,5	1,5	1,4	1,3	1,2	1,2	1,1	1,0	0,9	0,8	0,8	0,7	0,62
7/8"	2,4	2,3	2,2	2,0	1,9	1,8	1,7	1,6	1,5	1,3	1,2	1,1	1,0
3/4"	3,5	3,3	3,1	3,0	2,8	2,6	2,4	2,3	2,1	1,9	1,8	1,6	1,4
5/8"	5,3	5,0	4,8	4,5	4,3	4,0	3,7	3,5	3,2	2,9	2,7	2,4	2,2
9/16"	7,0	6,7	6,3	6,0	5,6	5,3	4,9	4,6	4,2	3,9	3,6	3,2	3,9
1/2"	10,2	9,7	9,2	8,7	8,2	7,7	7,2	6,7	6,2	5,6	5,1	4,6	4,1
7/16"	14,0	14,0	13,0	12,0	12,0	11,0	10,2	9,5	8,7	8,0	7,3	6,6	5,9
3/8"	17,0	17,0	17,0	17,0	17,0	17,0	16,0	15,0	14,0	13,0	12,0	10,4	9,3
11/32"	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	15,0	14,0	12,0
5/16"	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	16,0
9/32"	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0
1/4"	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0

\* If specific gravity falls between those shown, use next lowest: e.g., if actual gravity is 0,73, use 0,70 specific gravity data.

Air Vents