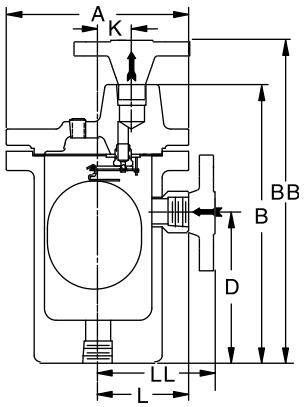
Free Floating Lever Air/Gas Vents – Forged Steel

For Pressures to 69 bar or Specific Gravity Down to 0,40



Model 32-AV, 33-AV and 36-AV

32-AV, 33-AV and 36-AV – Forged steel 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 69 bar. Available with screwed, socketweld or flanged connections.

Table AV-400-1. 30-AV Series List of Materials

Model No.	Valve & Seat	Leverage System	Float	Body & Cap	Gasket	Bolting
32-AV	Stainless Steel			ASTM A105 Forged Steel	Non-asbestos	Bolts ASTM A193 Gr. B7 Nuts ASTM A194 Gr. 2H
33-AV						
36-AV						

Table AV-400-2. 30-AV Series Physical Data

Model No.	Forged Steel		
	32-AV †	33-AV †	36-AV †
Pipe Connections	15 – 20	20 – 25	40 – 50
"A"	171	203	301
"B"	259	295	435
"BB" (PN100*)	300 – 305	343 – 349 – 355	500 – 505
"D"	141	154	229
"K"	32	37	54
"L"	86	98	154
"LL" (PN100*)	127 – 132	145 – 153 – 159	198 – 204
Weight in kg (screwed & SW)	14	22	74
Weight in kg (flanged PN100*)	15,8 – 17,8	25,0 – 26,0	83,2 – 87,2
Maximum Allowable Pressure (Vessel Design)	41 bar @ 38°C 34 bar @ 399°C	69 bar @ 38°C 41 bar @ 399°C	

† Available in Type 316 SS. Consult factory. Pipe size of side connections if provided 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.

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

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High-Temperature Service

Maximum allowable working pressures of **floats** decrease at temperatures above 38°C. Allow for approximately:

- 10% decrease at 93°C
- 15% decrease at 147°C
- 20% decrease at 204°C

The float is not always the limiting factor, however. Consult with Armstrong Application Engineering if you have a high-temperature application that also requires maximum operating pressures.

Sour Gas Service

Forged steel and stainless steel traps can be modified to resist hydrogen sulfide stress corrosion. These modifications involve annealing the float, which will reduce the maximum working pressure of the float to about half of its normal value. Consult Armstrong Application Engineering for allowable working pressures.

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-401-1. 32-AV Maximum Operating Pressures

Specific Gravity	1,00	0,95	0,90	0,85	0,80	0,75	0,70	0,65
Float weight in grams	335	318	301	285	268	251	234	218
Orifice Size (in)	Maximum Operating Pressure in bar							
5/16"	2,8	2,7	2,6	2,4	2,3	2,1	2,0	1,9
1/4"	4,7	4,4	4,2	4,0	3,7	3,5	3,3	3,0
3/16"	10,3	9,8	9,3	8,8	8,2	7,7	7,2	6,7
5/32"	18,0	17,0	16,0	15,0	14,0	13,0	12,0	12,0
1/8"	30,0	29,0	27,0	26,0	24,0	23,0	21,0	20,0
7/64"	39,0	37,0	35,0	33,0	31,0	29,0	27,0	25,0
#38	41,0	41,0	41,0	41,0	39,0	36,0	34,0	31,0
5/64"	41,0	41,0	41,0	41,0	41,0	41,0	41,0	41,0

Table AV-401-2. 33-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"	21,0	20,0	19,0	18,0	17,0	16,0	15,0	14,0	13,0
5/32"	33,0	32,0	30,0	28,0	27,0	25,0	24,0	22,0	20,0
1/8"	62,0	62,0	61,0	58,0	54,0	51,0	48,0	44,0	41,0
7/64"	62,0	62,0	62,0	62,0	62,0	62,0	61,0	57,0	52,0

Table AV-401-3. 36-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 1/16"	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"	23,0	22,0	21,0	19,0	18,0	17,0	16,0	15,0	14,0	13,0	12,0	10,4	9,3
11/32"	30,0	29,0	27,0	26,0	24,0	23,0	21,0	20,0	18,0	17,0	15,0	14,0	12,0
5/16"	39,0	37,0	35,0	33,0	31,0	29,0	27,0	26,0	24,0	17,0	17,0	17,0	16,0
9/32"	51,0	49,0	46,0	44,0	41,0	39,0	36,0	33,0	31,0	17,0	17,0	17,0	17,0
1/4"	69,0	69,0	67,0	64,0	60,0	56,0	53,0	49,0	45,0	17,0	17,0	17,0	17,0
7/32"	69,0	69,0	69,0	69,0	69,0	69,0	69,0	69,0	64,0	17,0	17,0	17,0	17,0
3/16"	69,0	69,0	69,0	69,0	69,0	69,0	69,0	69,0	69,0	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.