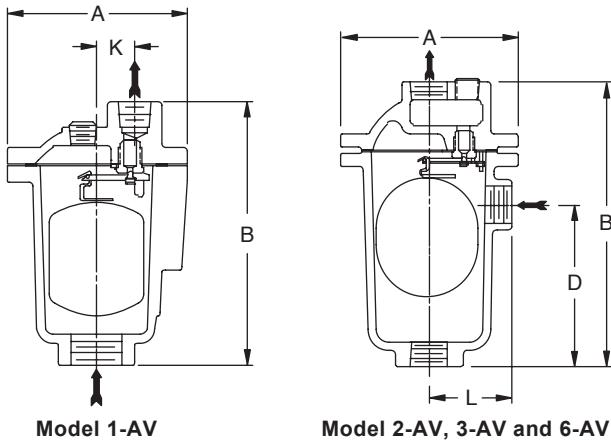




Free Floating Lever Air/Gas Vents—Cast Iron

For Pressures to 300 psig (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 1,000 psig, 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 300 psi.

For a fully detailed certified drawing, refer to CD #1070.

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 250 psi.

For a fully detailed certified drawing, refer to CD #1034.

Physical Data								
Model No.	Cast Iron							
	1-AV**		2-AV		3-AV		6-AV	
	in	mm	in	mm	in	mm	in	mm
Pipe Connections	1/2*, 3/4*	15, 20	1/2, 3/4	15, 20	3/4, 1		1-1/2, 2	40, 50
"A"	3-3/4	89	5-1/4	133	6-3/8	162	10-3/16	259
"B"	5-1/2	140	8-3/4	222	11-1/2	292	18	457
"D"	-	-	5-1/8	130	7	188	9-3/8	238
"K"	13/16	21	-	-	-	-	-	-
"L"	-	-	2-7/16	62	2-7/8	73	4-5/8	-
Weight, lb (kg)	4 (1.8)		12 (5.5)		21 (9.5)		78 (35.5)	
Max. Allowable Pressure (Vessel Design)	300 psig @ 200°F (21 bar @ 93°C) 250 psig @ 450°F (17 bar @ 232°C)		250 psig @ 450°F (17 bar @ 232°C)					

*Outlet connection 1/4" (7 mm). **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.

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							

*last updated 11/15



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1-AV Maximum Operating Pressures		
Minimum Specific Gravity	0.80	
Orifice Size (in)	Maximum Operating Pressure	
	psi	bar
1/8	146	10
7/64	173	12
#38	219	15
5/64	300	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.

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 wt., oz (g)	7.7 (217)	7.3 (206)	6.9 (195)	6.5 (184)	6.1 (174)	5.7 (163)	5.4 (152)	5.0 (141)	4.6 (130)	4.2 (119)	3.8 (109)												
Orifice Size (in)	Maximum Operating Pressure																						
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	
5/16	27	1.8	25	1.8	24	1.7	23	1.6	22	1.5	20	1.4	19	1.3	18	1.2	16	1.1	15	1.0	14	0.9	
1/4	44	3.0	42	2.9	40	2.7	38	2.6	35	2.4	33	2.3	31	2.1	29	2.0	27	1.8	24	1.7	22	1.5	
3/16	97	6.7	92	6.4	88	6.0	83	5.7	78	5.4	73	5.0	68	4.7	64	4.4	59	4.1	54	3.7	49	3.4	
5/32	167	12	159	11	151	10.4	142	9.8	134	9.3	126	8.7	118	8.1	110	7.6	101	7.0	93	6.4	85	5.8	
1/8	250	17	250	17	250	17	244	17	230	16	216	15	202	14	187	13	173	12	159	11	145	10.0	
7/64	250	17	250	17	250	17	250	17	250	17	250	17	250	17	240	17	222	15	204	14	186	13	
#38	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	231	16	
5/64	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	

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 wt., oz (g)	14.9 (423)	14.2 (402)	13.4 (381)	12.7 (360)	12.0 (339)	11.2 (318)	10.5 (296)	9.7 (275)	9.0 (254)													
Orifice Size (in)	Maximum Operating Pressure																					
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar		
1/2	21	1.5	20	1.4	19	1.3	18	1.3	17	1.2	16	1.1	15	1.0	14	1.0	13	0.9				
3/8	45	3.1	43	3.0	41	2.8	38	2.7	36	2.5	34	2.3	32	2.2	30	2.0	27	1.9				
5/16	72	5.0	69	4.7	65	4.5	61	4.2	58	4.0	54	3.8	51	3.5	47	3.3	44	3.0				
9/32	96	6.6	91	6.3	87	6.0	82	5.6	77	5.3	72	5.0	68	4.7	63	4.3	58	4.0				
1/4	144	9.9	137	9.4	130	8.9	123	8.5	116	8.0	109	7.5	102	7.0	94	6.5	87	6.0				
7/32	206	14	196	13	186	13	176	12	165	11	155	10.7	145	10.0	135	9.3	125	8.6				
3/16	250	17	250	17	250	17	250	17	249	17	234	16	218	15	203	14	188	13				
5/32	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17

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 wt., oz (g)	73.5 (2,084)	69.8 (1,979)	66.2 (1,875)	62.5 (1,771)	58.8 (1,667)	55.1 (1,563)	51.5 (1,459)	47.8 (1,354)	44.1 (1,250)	40.4 (1,146)	36.8 (1,042)	33.1 (938)	29.4 (833)													
Orifice Size (in)	Maximum Operating Pressure																									
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar		
1-1/16	22	1.5	21	1.5	20	1.4	19	1.3	18	1.2	17	1.2	16	1.1	14	1.0	13	0.9	12	0.8	11	0.8	10	0.70	9	0.62
7/8	35	2.4	33	2.3	31	2.2	30	2.0	28	1.9	26	1.8	24	1.7	23	1.6	21	1.5	19	1.3	18	1.2	16	1.1	14	1
3/4	50	3.5	48	3.3	45	3.1	43	3.0	40	2.8	38	2.6	35	2.4	33	2.3	30	2.1	28	1.9	25	1.8	23	1.6	20	1.4
5/8	77	5.3	73	5.0	69	4.8	66	4.5	62	4.3	58	4.0	54	3.7	50	3.5	46	3.2	43	2.9	39	2.7	35	2.4	31	2.2
9/16	102	7.0	97	6.7	92	6.3	87	6.0	82	5.6	77	5.3	72	4.9	67	4.6	62	4.2	57	3.9	51	3.6	46	3.2	41	3.9
1/2	148	10.2	140	9.7	133	9.2	126	8.7	119	8.2	111	7.7	104	7.2	97	6.7	89	6.2	82	5.6	75	5.1	67	4.6	60	4.1
7/16	210	14	200	14	189	13	179	12	168	12	158	11	148	10.2	137	9.5	127	8.7	116	8.0	106	7.3	96	6.6	85	5.9
3/8	250	17	250	17	250	17	250	17	250	17	249	17	233	16	216	15	200	14	184	13	167	12	151	10.4	134	9.3
11/32	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	245	17	223	15	201	14	179	12
5/16	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	230	16
9/32	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17
1/4	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17	250	17

*If specific gravity falls between those shown, use next lowest: e.g., if actual gravity is 0.73, use 0.70 specific gravity data.

*last updated 11/15