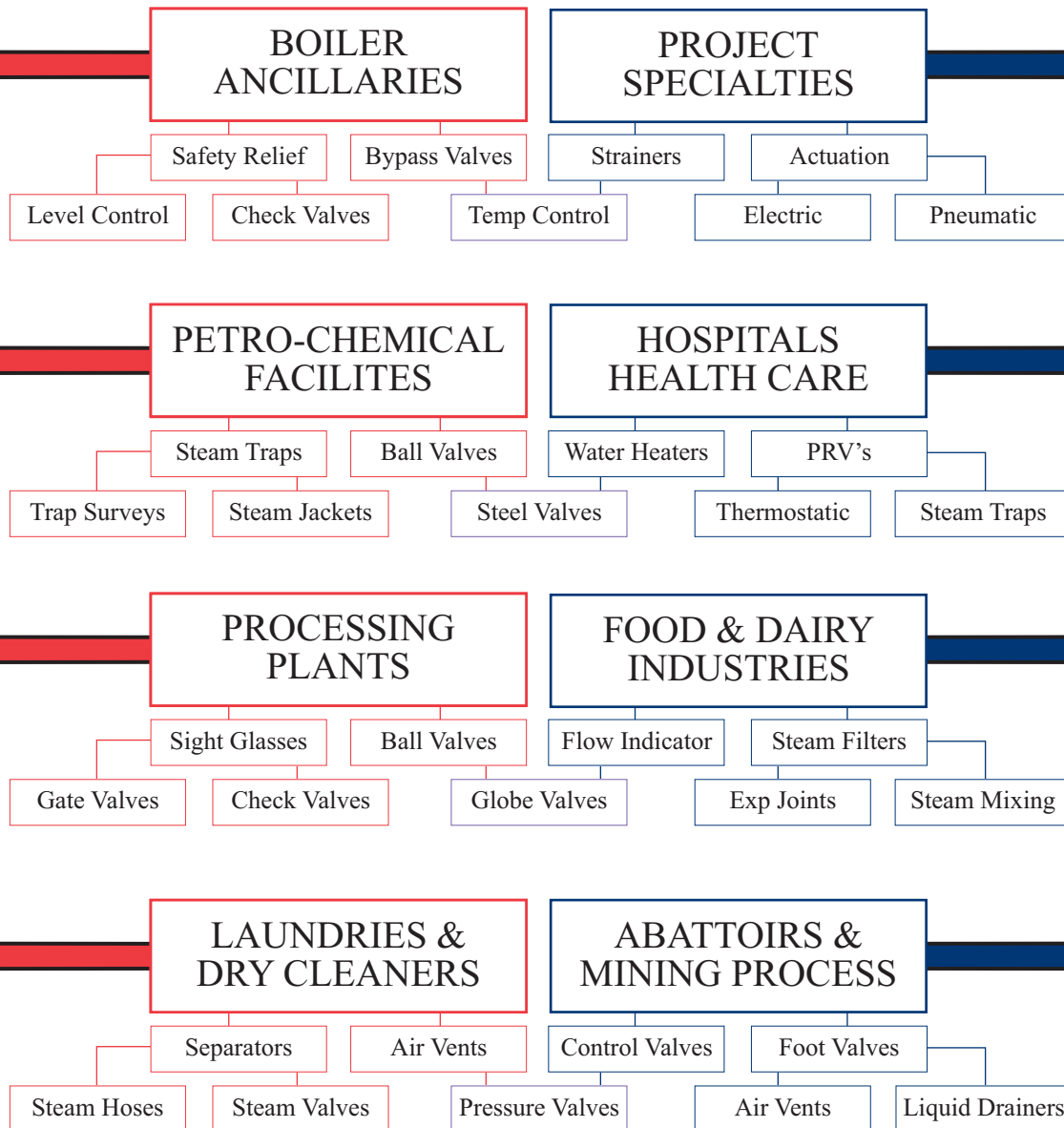


# ARMSTRONG STEAM & ENGINEERING

Pty. Ltd.

## Valves, Actuators & Pipeline Specialties

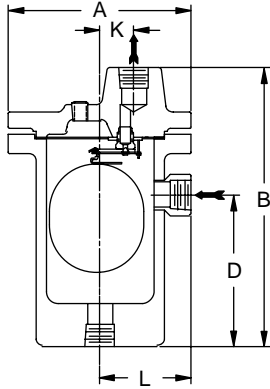


### From Concept to Conclusion



# Free Floating Lever Air/Gas Vents—Forged Steel

For Pressures to 1,000 psig (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 1,000 psi. Available with screwed, socketweld or flanged connections.

### 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						

### Physical Data

Model No.	Forged Steel					
	32-AV†		33-AV†		36-AV†	
Pipe Connections	1/2, 3/4	15, 20	3/4, 1	20, 25	1-1/2, 2	40, 50
"A"	6-3/4	171	8	203	11-7/8	301
"B"	10-3/16	259	11-9/16	294	17-1/8	435
"D"	5-9/16	141	6-1/16	154	9	229
"K"	1-1/4	32	1-7/16	37	2-1/8	54
"L"	3-3/8	86	3-7/8	98	6-1/16	154
Approx. Wt. lb (kg)	31 (14)		49 (22)		163 (74)	
Max. Allow. Pressure (Vessel Design)	600 psig @ 100°F (41 bar @ 38°C) 500 psi @ 750°F (34 bar @ 399°C)		1000 psig @ 100°F (69 bar @ 38°C) 600 psi @ 750°F (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.

Air Vents

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—Forged Steel

For Pressures to 1,000 psig (69 bar) or Specific Gravity Down to 0.40



## High-Temperature Service

Maximum allowable working pressures of floats decrease at temperatures above 100°F. Allow for approximately:

- 10% decrease at 200°F
- 15% decrease at 300°F
- 20% decrease at 400°F

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.

32-AV Maximum Operating Pressures																	
Specific Gravity*	1.00		0.95		0.90		0.85		0.80		0.75		0.70		0.65		
Float wt., oz (g)	11.8 (335)		11.2 (318)		10.6 (301)		10.0 (285)		9.4 (268)		8.9 (251)		8.3 (234)		7.7 (218)		
Orifice Size (in)	Maximum Operating Pressure																
	psi		bar		psi		bar		psi		bar		psi		bar		psi
5/16	41	2.8	39	2.7	37	2.6	35	2.4	33	2.3	31	2.1	29	2.0	27	1.9	
1/4	68	4.7	64	4.4	61	4.2	58	4.0	54	3.7	51	3.5	47	3.3	44	3.0	
3/16	149	10.3	142	9.8	134	9.3	127	8.8	120	8.2	112	7.7	105	7.2	97	6.7	
5/32	257	18	244	17	231	16	219	15	206	14	193	13	180	12	168	12	
1/8	439	30	417	29	396	27	374	26	352	24	330	23	309	21	287	20	
7/64	562	39	534	37	506	35	478	33	450	31	423	29	395	27	367	25	
#38	600	41	600	41	600	41	595	41	561	39	526	36	491	34	457	31	
5/64	600	41	600	41	600	41	600	41	600	41	600	41	600	41	600	41	

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 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	
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	309	21	294	20	279	19	264	18	249	17	234	16	218	15	203	14	188	13
5/32	484	33	460	32	437	30	413	28	389	27	365	25	342	24	318	22	294	20
1/8	900	62	900	62	883	61	835	58	787	54	739	51	691	48	643	44	595	41
7/64	900	62	900	62	900	62	900	62	900	62	900	62	883	61	822	57	760	52

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 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	
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	331	23	315	22	299	21	282	19	266	18	249	17	233	16	216	15	200	14	184	13	167	12	151	10.4	134	9.3
11/32	441	30	419	29	398	27	376	26	354	24	332	23	310	21	288	20	266	18	245	17	223	15	201	14	179	12
5/16	567	39	539	37	511	35	483	33	455	31	427	29	399	27	371	26	342	24	250	17	250	17	250	17	230	16
9/32	743	51	706	49	669	46	633	44	596	41	559	39	522	36	485	33	449	31	250	17	250	17	250	17	250	17
1/4	1,000	69	1,000	69	979	67	925	64	871	60	817	56	763	53	710	49	656	45	250	17	250	17	250	17	250	17
7/32	1,000	69	1,000	69	1,000	69	1,000	69	1,000	69	1,000	69	1,000	69	1,000	69	926	64	250	17	250	17	250	17	250	17
3/16	1,000	69	1,000	69	1,000	69	1,000	69	1,000	69	1,000	69	1,000	69	1,000	69	1,000	69	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.