

Commercial ASME Models

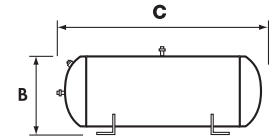


AX Series EXTROL® Horizontal & Vertical Models

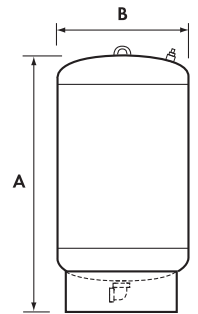
- Proven diaphragm design since 1954
- Designed and constructed per ASME Section VIII, Division 1 standards
- Horizontal models are available with optional saddles
- Factory pre-charged to 12 psig
- Maximum working pressure is 125 psig
- Maximum operating temperature is 240°F

AX Series Specifications

Model Number	Tank Volume (Gallons)	Max. Accept. (Gallons)	A – Vert. Height (Inches)	C – Horiz. Length (Inches)	B Diameter (Inches)	System Conn. ¹ (Inches)	Horiz. Ship. Wt. lbs. (w/o saddles)	Ship Wt. lbs. (w/saddles)	Vertical Ship. Wt. (lbs.)
AX-15(V)*	8	2.4	19 ½	19 ¼	12	½	37	41	43
AX-20(V)	10.9	2.4	26 ½	26 ¼	12	½	46	50	45
AX-40(V)	21.7	11.3	29 ½	29	16 ¼	½	82	96	90
AX-60(V)	33.6	11.3	45 ½	43	16 ¼	½	103	116	110
AX-80(V)	44.5	22.6	27 ¾	27 ¼	24	1	104	127	146
AX-100(V)	55.7	22.6	32 ¾	31 ⅞	24	1	114	137	167
AX-120(V)	68.0	34.0	43 ⅞	39 ⅞	24	1	210	235	224
AX-144(V)	77.0	34.0	48 ¾	44 ¾	24	1	240	246	244
AX-180(V)	90.0	34.0	56 ⅞	52 ⅞	24	1	242	248	266
AX-200(V)	110.0	34.0	62 ⅞	62 ⅞	24	1	275	306	296
AX-240(V)	132.0	46.0	53 ½	49 ⅞	30	1	398	428	427
AX-260(V)	158.0	56.0	60 ½	58	30	1 ¼	449	480	476
AX-280(V)	211.0	84.0	78 ¼	75 ¾	30	1 ¼	630	660	645



AX Horizontal Series



AX Vertical Series

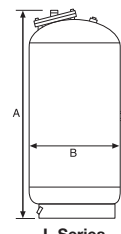
¹System Connection for models AX-15 through AX-100 (vertical and horizontal) and models AX-120V through AX-240V are NPTF, models AX-260 through AX-280 (vertical and horizontal) and AX-120 through AX-240 are NPTM.

* To specify vertical models AX -15V – AX-280V, include V after the model number; other options available on horizontal models: • BullsEye Sight Glass • Seismic Anchor Brackets

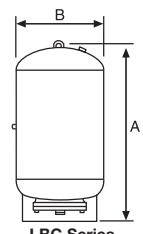


L Series EXTROL® & LBC Series EXTROL®

- Replaceable bladder design
- Designed and constructed per ASME Section VIII, Division 1 standards
- Free-standing on integral floor stands
- Easily installed
- Factory pre-charged to 12 psig
- Maximum working pressure is 125 psig
- Available with optional 175 or 250 psig for high-pressure applications (L Series only)
- Maximum operating temperature is 240°F
- LBC Series are partial acceptance tanks



L Series



LBC Series

L-Series Specifications

Model Number	Tank Volume (Gallons)	A Height (Inches)	B Diameter (Inches)	C Standard (Diameter)	System Conn. ¹ (Inches)	Shipping Weight (lbs.)
200-L	53	36 ⅞	24	19	1	192
300-L	80	50 ⅞	24	19	1	268
400-L	106	64 ¾	24	19	1	309
500-L	132	79 ½	24	19	1	328
600-L	158	64	30	24	1 ½	510
800-L	211	81 ¾	30	24	1 ½	565
1000-L	264	73	36	30	1 ½	691
1200-L	317	85 ⅞	36	30	1 ½	779
1400-L	370	97 ¾	36	30	1 ½	905
1600-L	422	69 ⅞	48	42	1 ½	1,183
2000-L	528	84	48	42	1 ½	1,264
2500-L	660	100 ⅞	48	42	2	1,445
3000-L	792	118 ⅞	48	42	2	1,630
3500-L	925	111	54	42	2	2,110
4000-L	1057	124 ½	54	42	2	2,230

¹System Connection is NPTF

LBC-Series Specifications

Model Number	Tank Volume (Gallons)	Accept. Volume (Gallons)	A Height (Inches)	B Diameter (Inches)	System Conn. ¹ (Inches)	Shipping Weight (lbs.)
35-LBC	10	10	38 ⅞	10	1	65
50-LBC	13	11	38 ⅞	12	1	72
85-LBC	22	11	37 ⅞	16	1	88
100-LBC	26	11	42 ½	16	1	94
130-LBC	34	27	37 ⅞	20	1	130
165-LBC	44	27	42 ⅞	20	1	140
200-LBC	53	27	40 ⅞	24	1	192
300-LBC	80	27	56	24	1	230
400-LBC	106	53	68 ⅞	24	1	274
500-LBC	132	53	82 ½	24	1	308
600-LBC	158	53	67	30	1	442

¹System Connection is NPTF

Precise Sizing

Precise Sizing of EXTROL® & RADIANT EXTROL®

Things you must know:

1. Total System Volume(1)____ gallons
2. Minimum System Temperature(2)____ °F
3. Maximum System Temperature(3)____ °F
4. Minimum Operating Pressure at Expansion Tank(4)____ psig
5. Maximum Operating Pressure at Expansion Tank(5)____ psig

Selection of Expansion Tank:

6. Find and enter "Net Expansion Factor"(6)____ (see table 1)
7. Amount of Expanded Water = line (1) x line (6)(7)____ gallon
8. Find and enter "Acceptance Factor"(8)____ (see table 2)
9. Minimum Total Tank Volume = line (7) ÷ line (8)(9)____ gallons
10. Using Specifications on pages 6 and 7, select an Expansion Tank that is at least equal to line (9) for "Total Volume" and line (7) for Max. Expanded Water Acceptance Gallons. Multiple tanks may be required.

Table 1. Net Expansion of Water

Max.Sys. Temp. °F	Minimum System Temperature °F						
	40°F	50°F	60°F	70°F	80°F	90°F	100°F
60°F	.0005	.0049	—	—	—	—	—
70°F	.00149	.00143	.00094	—	—	—	—
80°F	.00260	.00254	.00204	.00111	—	—	—
90°F	.00405	.00399	.00350	.00256	.00145	—	—
100°F	.00575	.00569	.00520	.00426	.00315	.00170	—
110°F	.00771	.00765	.00716	.00622	.00511	.00366	.00196
120°F	.0100	.0099	.0095	.0086	.0074	.0060	.0043
130°F	.0124	.0123	.0118	.0109	.0098	.0083	.0066
140°F	.0150	.0149	.0145	.0135	.0124	.0110	.0093
150°F	.0179	.0178	.0173	.0164	.0153	.0133	.0121
160°F	.0209	.0208	.0204	.0194	.0181	.0165	.0148
170°F	.0242	.0241	.0236	.0227	.0216	.0201	.0184
180°F	.0276	.0275	.0271	.0261	.0250	.0236	.0219
190°F	.0313	.0312	.0307	.0298	.0287	.0272	.0255
200°F	.0351	.0350	.0346	.0336	.0325	.0311	.0294
210°F	.0391	.0390	.0386	.0376	.0365	.0351	.0334
220°F	.0434	.0433	.0428	.0419	.0408	.0393	.0376
230°F	.0476	.0475	.0471	.0461	.0450	.0436	.0419
240°F	.0522	.0521	.0517	.0507	.0496	.0482	.0465

Note: For ethylene glycol and for propylene glycol contact AMTROL® technical services.

Table 2. Acceptance Factors*

Max. Oper. Pressure at Tank (psig)	Minimum Operating Pressure at Tank (psig)										
	5	10	12	15	20	30	40	50	60	70	80
27	0.527	0.408	0.360	0.288	0.168	—	—	—	—	—	—
30	0.560	0.447	0.403	0.336	0.224	—	—	—	—	—	—
35	0.604	0.503	0.463	0.403	0.302	0.101	—	—	—	—	—
40	0.640	0.548	0.512	0.457	0.366	0.183	—	—	—	—	—
45	0.670	0.586	0.553	0.503	0.419	0.251	0.084	—	—	—	—
50	0.696	0.618	0.587	0.541	0.464	0.309	0.155	—	—	—	—
55	0.717	0.646	0.617	0.574	0.502	0.359	0.215	0.072	—	—	—
60	0.736	0.669	0.643	0.602	0.536	0.402	0.268	0.134	—	—	—
65	0.753	0.690	0.665	0.627	0.565	0.439	0.314	0.188	0.062	—	—
70	0.767	0.708	0.685	0.649	0.590	0.472	0.354	0.236	0.118	—	—
75	0.780	0.725	0.702	0.669	0.613	0.502	0.390	0.279	0.167	0.056	—
80	0.792	0.739	0.718	0.686	0.634	0.528	0.422	0.317	0.211	0.106	—
90	0.812	0.764	0.745	0.716	0.669	0.573	0.478	0.382	0.287	0.191	0.096
100	0.828	0.785	0.767	0.741	0.698	0.610	0.523	0.436	0.347	0.261	0.174
110	0.842	0.802	0.786	0.762	0.723	0.642	0.561	0.481	0.401	0.321	0.241

* Acceptance factors based on expansion tank being charged to minimum operating pressure while empty of liquid.



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