

Table 5-2

 $F_y = 36 \text{ ksi}$
 $F_u = 58 \text{ ksi}$

Shape	Ag in ²	A _e =0.75Ag in ³	Yielding		Rupture	
			ASD	LRFD	ASD	LRFD
			P _n /Ω	φP _n	P _n /Ω	φP _n
			kips	kips	kips	kips
L8X8X1-1/8	16.7	12.5	360	541	363	545
L8X8X1	15.0	11.3	323	486	326	489
L8X8X7/8	13.2	9.90	285	428	287	431
L8X8X3/4	11.4	8.55	246	369	248	372
L8X8X5/8	9.61	7.21	207	311	209	314
L8X8X9/16	8.68	6.51	187	281	189	283
L8X8X1/2	7.75	5.81	167	251	169	253
L8X6X1	13.0	9.75	280	421	283	424
L8X6X7/8	11.5	8.63	248	373	250	375
L8X6X3/4	9.94	7.46	214	322	216	324
L8X6X5/8	8.36	6.27	180	271	182	273
L8X6X9/16	7.56	5.67	163	245	164	247
L8X6X1/2	6.75	5.06	146	219	147	220
L8X6X7/16	5.93	4.45	128	192	129	193
L8X4X1	11.0	8.25	237	356	239	359
L8X4X7/8	9.73	7.30	210	315	212	317
L8X4X3/4	8.44	6.33	182	273	184	275
L8X4X5/8	7.11	5.33	153	230	155	232
L8X4X9/16	6.43	4.82	139	208	140	210
L8X4X1/2	5.75	4.31	124	186	125	188
L8X4X7/16	5.06	3.80	109	164	110	165
L7X4X3/4	7.69	5.77	166	249	167	251
L7X4X5/8	6.48	4.86	140	210	141	211
L7X4X1/2	5.25	3.94	113	170	114	171
L7X4X7/16	4.62	3.47	100	150	100	151
L7X4X3/8	3.98	2.99	86	129	87	130
L6X6X1	11.0	8.25	237	356	239	359
L6X6X7/8	9.75	7.31	210	316	212	318
L6X6X3/4	8.46	6.35	182	274	184	276
L6X6X5/8	7.13	5.35	154	231	155	233
L6X6X9/16	6.45	4.84	139	209	140	210
L6X6X1/2	5.77	4.33	124	187	125	188
L6X6X7/16	5.08	3.81	110	165	110	166
L6X6X3/8	4.38	3.29	94.4	142	95.3	143
L6X6X5/16	3.67	2.75	79.1	119	79.8	120
L6X4X7/8	7.98	5.99	172	259	174	260
L6X4X3/4	6.94	5.21	150	225	151	226

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Shape	Ag in ²	A _e =0.75Ag in ³	Yielding		Rupture	
			ASD	LRFD	ASD	LRFD
			P _n /Ω	φP _n	P _n /Ω	φP _n
			kips	kips	kips	kips
L6X4X5/8	5.86	4.40	126	190	127	191
L6X4X9/16	5.31	3.98	114	172	115	173
L6X4X1/2	4.75	3.56	102	154	103	155
L6X4X7/16	4.18	3.14	90.1	135	90.9	136
L6X4X3/8	3.61	2.71	77.8	117	78.5	118
L6X4X5/16	3.03	2.27	65.3	98.2	65.9	98.9
L6X3-1/2X1/2	4.50	3.38	97.0	146	97.9	147
L6X3-1/2X3/8	3.42	2.57	73.7	111	74.4	112
L6X3-1/2X5/16	2.87	2.15	61.9	93.0	62.4	93.6
L5X5X7/8	7.98	5.99	172	259	174	260
L5X5X3/4	6.94	5.21	150	225	151	226
L5X5X5/8	5.86	4.40	126	190	127	191
L5X5X1/2	4.75	3.56	102	154	103	155
L5X5X7/16	4.18	3.14	90.1	135	90.9	136
L5X5X3/8	3.61	2.71	77.8	117	78.5	118
L5X5X5/16	3.03	2.27	65.3	98.2	65.9	98.9
L5X3-1/2X3/4	5.81	4.36	125	188	126	190
L5X3-1/2X5/8	4.92	3.69	106	159	107	161
L5X3-1/2X1/2	4.00	3.00	86.2	130	87.0	131
L5X3-1/2X3/8	3.05	2.29	65.7	98.8	66.3	100
L5X3-1/2X5/16	2.56	1.92	55.2	82.9	55.7	83.5
L5X3-1/2X1/4	2.06	1.55	44.4	66.7	44.8	67.2
L5X3X1/2	3.75	2.81	80.8	122	81.6	122
L5X3X7/16	3.31	2.48	71.4	107	72.0	108
L5X3X3/8	2.86	2.15	61.7	92.7	62.2	93.3
L5X3X5/16	2.40	1.80	51.7	77.8	52.2	78.3
L5X3X1/4	1.94	1.46	41.8	62.9	42.2	63.3
L4X4X3/4	5.44	4.08	117	176	118	177
L4X4X5/8	4.61	3.46	99.4	149	100	150
L4X4X1/2	3.75	2.81	80.8	122	81.6	122
L4X4X7/16	3.31	2.48	71.4	107	72.0	108
L4X4X3/8	2.86	2.15	61.7	92.7	62.2	93.3
L4X4X5/16	2.40	1.80	51.7	77.8	52.2	78.3
L4X4X1/4	1.94	1.46	41.8	62.9	42.2	63.3
L4X3-1/2X1/2	3.50	2.63	75.4	113	76.1	114
L4X3-1/2X3/8	2.67	2.00	57.6	86.5	58.1	87.1
L4X3-1/2X5/16	2.25	1.69	48.5	72.9	48.9	73.4
L4X3-1/2X1/4	1.81	1.36	39.0	58.6	39.4	59.1

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 $F_u = 58$ ksi

Shape	Ag in ²	A _e =0.75Ag in ³	Yielding		Rupture	
			ASD	LRFD	ASD	LRFD
			P _n /Ω	φP _n	P _n /Ω	φP _n
			kips	kips	kips	kips
L4X3X5/8	3.89	2.92	83.9	126	84.6	127
L4X3X1/2	3.25	2.44	70.1	105	70.7	106
L4X3X3/8	2.48	1.86	53.5	80.4	53.9	80.9
L4X3X5/16	2.09	1.57	45.1	67.7	45.5	68.2
L4X3X1/4	1.69	1.27	36.4	54.8	36.8	55.1
L3-1/2X3-1/2X1/2	3.25	2.44	70.1	105	70.7	106
L3-1/2X3-1/2X7/16	2.87	2.15	61.9	93.0	62.4	93.6
L3-1/2X3-1/2X3/8	2.48	1.86	53.5	80.4	53.9	80.9
L3-1/2X3-1/2X5/16	2.09	1.57	45.1	67.7	45.5	68.2
L3-1/2X3-1/2X1/4	1.69	1.27	36.4	54.8	36.8	55.1
L3-1/2X3X1/2	3.00	2.25	64.7	97.2	65.3	97.9
L3-1/2X3X7/16	2.65	1.99	57.1	85.9	57.6	86.5
L3-1/2X3X3/8	2.30	1.73	49.6	74.5	50.0	75.0
L3-1/2X3X5/16	1.93	1.45	41.6	62.5	42.0	63.0
L3-1/2X3X1/4	1.56	1.17	33.6	50.5	33.9	50.9
L3-1/2X2-1/2X1/2	2.75	2.06	59.3	89.1	59.8	89.7
L3-1/2X2-1/2X3/8	2.11	1.58	45.5	68.4	45.9	68.8
L3-1/2X2-1/2X5/16	1.78	1.34	38.4	57.7	38.7	58.1
L3-1/2X2-1/2X1/4	1.44	1.08	31.0	46.7	31.3	47.0
L3X3X1/2	2.75	2.06	59.3	89.1	59.8	89.7
L3X3X7/16	2.43	1.82	52.4	78.7	52.9	79.3
L3X3X3/8	2.11	1.58	45.5	68.4	45.9	68.8
L3X3X5/16	1.78	1.34	38.4	57.7	38.7	58.1
L3X3X1/4	1.44	1.08	31.0	46.7	31.3	47.0
L3X3X3/16	1.09	0.818	23.5	35.3	23.7	35.6
L3X2-1/2X1/2	2.50	1.88	53.9	81.0	54.4	81.6
L3X2-1/2X7/16	2.21	1.66	47.6	71.6	48.1	72.1
L3X2-1/2X3/8	1.92	1.44	41.4	62.2	41.8	62.6
L3X2-1/2X5/16	1.67	1.25	36.0	54.1	36.3	54.5
L3X2-1/2X1/4	1.31	0.98	28.2	42.4	28.5	42.7
L3X2-1/2X3/16	0.996	0.747	21.5	32.3	21.7	32.5
L3X2X1/2	2.25	1.69	48.5	72.9	48.9	73.4
L3X2X3/8	1.73	1.30	37.3	56.1	37.6	56.4
L3X2X5/16	1.46	1.10	31.5	47.3	31.8	47.6
L3X2X1/4	1.19	0.893	25.7	38.6	25.9	38.8
L3X2X3/16	0.902	0.677	19.4	29.2	19.6	29.4
L2-1/2X2-1/2X1/2	2.25	1.69	48.5	72.9	48.9	73.4
L2-1/2X2-1/2X3/8	1.73	1.30	37.3	56.1	37.6	56.4

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Shape	A_g in ²	$A_e = 0.75A_g$ in ³	Yielding		Rupture	
			ASD	LRFD	ASD	LRFD
			P_n/Ω kips	ϕP_n kips	P_n/Ω kips	ϕP_n kips
L2-1/2X2-1/2X5/16	1.46	1.10	31.5	47.3	31.8	47.6
L2-1/2X2-1/2X1/4	1.19	0.893	25.7	38.6	25.9	38.8
L2-1/2X2-1/2X3/16	0.900	0.675	19.4	29.2	19.6	29.4
L2-1/2X2X3/8	1.55	1.16	33.4	50.2	33.7	50.6
L2-1/2X2X5/16	1.31	0.98	28.2	42.4	28.5	42.7
L2-1/2X2X1/4	1.06	0.795	22.9	34.3	23.1	34.6
L2-1/2X2X3/16	0.809	0.607	17.4	26.2	17.6	26.4
L2-1/2X1-1/2X1/4	0.938	0.704	20.2	30.4	20.4	30.6
L2-1/2X1-1/2X3/16	0.715	0.536	15.4	23.2	15.6	23.3
L2X2X3/8	1.36	1.02	29.3	44.1	29.6	44.4
L2X2X5/16	1.15	0.863	24.8	37.3	25.0	37.5
L2X2X1/4	0.938	0.704	20.2	30.4	20.4	30.6
L2X2X3/16	0.715	0.536	15.4	23.2	15.6	23.3
L2X2X1/8	0.484	0.363	10.4	15.7	10.5	15.8