



PRODUCT DATA SHEET

HSLA High-Strength Low Alloy Structural Tubing

Theoretical Weight Per Foot in Pounds

CHART A – HSLA Structural Tubing — O.D. sizes & wall thicknesses **ROUNDS**

Outside Diameter		Nominal Wall Thickness																		O D Decimal			
		.083 14 Ga.	.095 13 Ga.	.109 12 Ga.	¹ / ₈	.134 10 Ga.	.148 9 Ga.	.165 8 Ga.	³ / ₁₆	.203 6 Ga.	.220 5 Ga.	.237 4 Ga.	¹ / ₄	.277 -	.280 -	.313 -	.322 -	⁵ / ₁₆	³ / ₈		.406 -	.432 -	¹ / ₂
Decimal	Fraction																						
2.875	2 ⁷ / ₈	2.48	2.82	3.22	3.67	3.92	4.31	4.78	5.40	5.79	6.24	6.68	7.01										2.875
3.000	3	2.59	2.95	3.37	3.84	4.10	4.51	5.00	5.65	6.06	6.53	6.99	7.34										3.000
3.500	3 ¹ / ₂	3.03	3.45	3.95	4.51	4.82	5.30	5.88	6.65	7.15	7.71	8.26	8.68										3.500
4.000	4	3.47	3.96	4.53	5.18	5.53	6.09	6.76	7.65	8.23	8.88	9.52	10.01	11.01	11.12	12.33	12.65	14.52					4.000
4.500	4 ¹ / ₂	3.92	4.47	5.11	5.85	6.25	6.88	7.64	8.66	9.32	10.06	10.79	11.35	12.49	12.62	14.00	14.37	16.52	17.75	18.77	21.36		4.500
5.000	5	4.36	4.98	5.69	6.51	6.96	7.67	8.52	9.66	10.40	11.23	12.06	12.68	13.97	14.11	15.67	16.09	18.52	19.92	21.08	24.03		5.000
5.500	5 ¹ / ₂								10.67	11.48	12.41	13.32	14.02	15.45	15.61	17.34	17.81	20.53	22.09	23.38	26.70		5.500
5.563	5 ⁹ / ₁₆								10.79	11.62	12.55	13.48	14.19	15.64	15.80	17.55	18.02	20.78	22.36	23.67	27.04		5.563
6.000	6								11.67	12.57	13.58	14.59	15.35	16.93	17.11	19.01	19.53	22.53	24.26	25.69	29.37		6.000
6.625	6 ⁵ / ₈								12.92	13.92	15.05	16.17	17.02	18.78	18.97	21.10	21.68	25.03	26.97	28.57	32.71		6.625
7.000	7								13.68	14.74	15.93	17.12	18.02	19.89	20.10	22.35	22.97	26.53	28.59	30.30	34.71		7.000
7.625	7 ⁵ / ₈								14.93	16.09	17.40	18.70	19.69	21.74	21.96	24.44	25.11	29.04	31.30	33.19	38.05		7.625
8.625	8 ⁵ / ₈								16.94	18.26	19.75	21.23	22.36	24.70	24.95	27.79	28.55	33.04	35.64	37.80	43.39		8.625
9.625	9 ⁵ / ₈								18.95	20.43	22.10	23.76	25.03	27.65	27.95	31.13	31.99	37.05	39.97	42.41	48.73		9.625

CHART A – HSLA Structural Tubing — O.D. sizes & wall thicknesses **SQUARE & RECTANGULAR**

Outside Diameter		Nominal Wall Thickness													
SQUARES	RECTANGLES	.083 14 Ga.	.095 13 Ga.	.109 12 Ga.	1/8	.134 10 Ga.	.148 9 Ga.	.165 8 Ga.	3/16	.203 6 Ga.	.220 5 Ga.	1/4	5/16	3/8	1/2
1-1/2 x 1-1/2						2.33	2.53	2.76	3.04						
2 x 2	1 x 3	2.16	2.46	2.80	3.05	3.25	3.54	3.88	4.32	4.60	4.91	5.41			
	2-1/16 x 2-1/8	2.21	2.51	2.84	3.21	3.42	3.73	4.09	4.56	4.86	5.19	5.73			
2-1/8 x 2-1/8	1-1/4 x 3	2.25	2.55	2.89	3.27	3.47	3.79	4.16							
2.17 x 2.17		2.30	2.60	2.95	3.34	3.56	3.88	4.26	4.75	5.07	5.42	5.99			
	1-1/2 x 3	2.39	2.71	3.07	3.48	3.70	4.04	4.44	4.96	5.29	5.65	6.26			
2-1/2 x 2-1/2	1-1/2 x 3-1/2	2.67	3.03	3.44	3.90	4.16	4.55	5.01	5.59	5.99	6.40	7.11			
	2-1/2 x 3	2.95	3.35	3.81	4.33	4.61	5.05	5.57	6.23	6.68	7.15	7.96			
3 x 3	2 x 4	3.24	3.68	4.19	4.75	5.07	5.55	6.13	6.87	7.37	7.90	8.81	10.58		
	2 x 4-1/2	3.52	4.00	4.56	5.18	5.53	6.06	6.69	7.51	8.06	8.65	9.66			
3-1/2 x 3-1/2	2 x 5	3.80	4.32	4.93	5.61	5.98	6.56	7.25	8.15	8.75	9.40	10.51	12.71		
	2 x 6	4.36	4.97	5.67	6.46	6.89	7.57	8.37	9.42	10.13	10.89	12.21	14.83	17.27	21.63
	3 x 6								10.70	11.51	12.39	13.91	16.96	19.82	25.03
5 x 5	3 x 7		4 x 6	2 x 8					11.97	12.89	13.89	15.62	19.08	22.37	28.43
	3 x 8		4 x 7						13.25	14.27	15.39	17.32	21.21	24.93	31.84
6 x 6	4 x 8		5 x 7	2 x 10					14.53	15.66	16.88	19.02	23.34	27.48	35.24
7 x 7	4 x 10		6 x 8	2 x 12					17.08	18.42	19.88	22.42	27.59	32.58	42.05
8 x 8	4 x 12		6 x 10						19.63	21.18	22.87	25.82	31.84	37.69	48.85
	6 x 12		8 x 10									29.23	36.10	42.79	55.66
10 x 10	8 x 12											32.63	40.35	47.90	62.46

This table is based on commonly used sizes. Other sizes are within Leavitt Tube Company's production capabilities. We invite your inquiry.



PRODUCT DATA SHEET

HSLA High-Strength Low Alloy Structural Tubing

Leavitt Tube Company can manufacture high-strength, low-alloy (HSLA) round, square and rectangular structural tubing from a variety of high-strength steels. Depending on the specific grade of steel used, improved properties can be developed in the finished tubing. These are as follows:

- Yield and tensile strength
- Impact strength
- Abrasion Resistance
- Corrosion Resistance
- Weldability
- Formability

Typically HSLA tubing is specified when a weight reduction, without loss of load bearing capacity, is desirable. This is accomplished through a reduction in the wall thickness.

HSLA tubing is also specified when the desired result is an increase in load bearing capacity without a corresponding increase in weight. Simply stated, HSLA tubing possesses a

significantly higher strength to weight ratio as compared to tubing manufactured to ASTM Specification A500 Grades B and C.

Leavitt Tube Company produces HSLA structural tubing in rounds, with diameters of 2.875 to 12-3/4 ; in squares from 2 x 2 to 10 x 10 ; and in rectangles from 1 x 3 to 8 x 12 ; in gauges from (.072 nom.) to (.500 nom.). Chart A details the sizes and thicknesses commonly manufactured by the Leavitt Tube Company. Other sizes, including NPS pipe sizes are within Leavitt Tube Company's capabilities. We invite your inquiry.

Leavitt's HSLA tubing is manufactured to the dimensional tolerances specified by ASTM Specification A500.

Chart B, compares yield and tensile strength properties of ASTM A500. Grade A, B and C and typical HSLA structural tubing. Other tensile properties may be available — please consult one of Leavitt Tube Company's "Tube People" to discuss your specific needs.

CHART B — Comparison of Typical Mechanical Properties				
ROUND STRUCTURAL TUBING				
	ASTM A500 Grade A	ASTM A500 Grade B	ASTM A500 Grade C	High-Strength, Low-Alloy HSLA (Typical Properties)
Tensile Strength Min. psi.	45,000	58,000	62,000	70-80,000
Yield Strength Min. psi.	33,000	42,000	46,000	60-70,000
SQUARE AND RECTANGULAR STRUCTURAL TUBING				
	ASTM A500 Grade A	ASTM A500 Grade B	ASTM A500 Grade C	High-Strength, Low-Alloy HSLA (Typical Properties)
Tensile Strength Min. psi.	45,000	58,000	62,000	70-80,000
Yield Strength Min. psi.	39,000	46,000	50,000	60-70,000



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