



Carbon Resource Guide

TUBING PRODUCTS

WEIGHTS & TYPES



Tubing Products

The steel for square and rectangular structural tubing is made by a basic steelmaking process. The flat strip is cold formed into the final shape and electric resistance welded. Square and rectangular structural tubing is manufactured to the chemical and mechanical requirements of ASTM A-500 Grade A, ASTM A-500 Grade B or ASTM A-500 Grade C. Some ornamental sizes of square and rectangular tubing are made to the chemical requirements of ASTM A-513.

Analysis (Ladle)

	Carbon	Phosphorus	Sulphur	Manganese
A-500 A/B	.26 Max.	.04 Max.	.05 Max.	-----
A-500 C	.23 Max.	.035 Max.	.035 Max.	1.35 Max.
A-513	.15-.25	.035 Max.	.035 Max.	.30-.60

Applications

Hollow Structural Tubing offers maximum strength and compactness with low cost design features for general building construction. These carbon steel square and rectangular section can be used as columns, posts or spandrel beams, and in complete load bearing panels, window walls and entry structures.

Mechanical Properties

	Tensile Strength (P.S.I.)	Yield Point (P.S.I.)	Elongation Percent in 2"
Grade A	45,000 Min.	39,000 Min.	25 Min.
Grade B	58,000 Min.	46,000 Min.	23 Min.
Grade C	62,000 Min.	50,000 Min.	21 Min.
A-513	N.A.	N.A.	N.A.

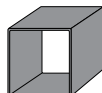
Workability & Weldability

Hollow Structural Tubing can be subjected to the usual fabricating operations. The ductility of tubing products is good. It bends well, flattens, cuts, punches, flares and flanges easily and can be welded by the commonly employed techniques and practices.

Availability of Lengths

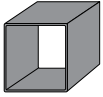
Ornamental Tubing is generally available in 20' and 24' lengths. Structural Tubing is generally available in 20', 24', 30', 32', 34', 40' and 48' lengths. Call for availability of particular sizes and lengths.

Ornamental Tubing



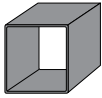
Outside Dims.				Wall Thickness	Wt./ Foot	Outside Dims.				Wall Thickness	Wt./ Foot
1/2	x	1/2	x	.049	.301					.083	1.036
				.065	.385					.095	1.170
5/8	x	5/8	x	.049	.367					.120	1.437
				.065	.495	1 1/4	x	1 1/4	x	.049	.793
3/4	x	3/4	x	.049	.467					.065	1.049
				.065	.607					.075	1.200
				.075	.690					.083	1.318
				.083	.753					.095	1.493
				.095	.840					.120	1.846
				.120	1.029	1 1/2	x	1 1/2	x	.049	.957
1	x	1	x	.049	.630					.065	1.270
				.065	.828					.075	1.455
				.075	.945					.083	1.602

Ornamental Tubing (Continued)



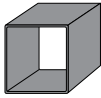
Outside Dims.				Wall Thickness	Wt./ Foot	Outside Dims.				Wall Thickness	Wt./ Foot
				.095	1.817					.083	1.602
				.120	2.254					.095	1.817
1 ¼	x	1 ¼	x	.065	1.491					.120	2.254
				.083	1.884	2	x	1 ½	x	.065	1.491
				.095	2.140					.075	1.744
				.120	2.663					.095	2.140
2	x	2	x	.065	1.713					.120	2.663
				.075	1.966	2 ½	x	1	x	.120	2.663
				.083	2.166	2 ½	x	1 ½	x	.065	1.692
				.095	2.463					.075	1.945
				.120	2.940					.095	2.442
1	x	1/2	x	.065	.607					.120	2.940
				.075	.679	3	x	1	x	.065	1.711
1 ½	x	1/2	x	.065	.824					.075	1.945
1 ½	x	3/4	x	.065	.938					.083	2.166
				.075	1.072					.095	2.442
				.083	1.176					.120	2.947
				.120	1.640	3	x	1 ½	x	.065	1.932
1 ½	x	1	x	.049	.793					.083	2.448
				.065	1.049					.120	.479
				.075	1.200	3	x	2	x	.083	2.756
				.083	1.318					.120	3.890
				.095	1.440	4	x	1 ½	x	.120	4.292
				.120	1.846	4	x	2	x	.083	3.296
2	x	1	x	.065	1.270					.095	3.757
				.075	1.455					.120	4.700

Square Structural Tubing



Outside Dims.				Wall Thickness	Wt./ Foot	Outside Dims.				Wall Thickness	Wt./ Foot
1 ¼	x	1 ¼	x	.188	2.40					.375	19.82
1 ½	x	1 ½	x	.188	3.23	5	x	5	x	.120	7.84
				.250	3.70					.188	11.97
2	x	2	x	.188	4.32					.250	15.62
				.250	5.41					.313	19.08
				.313	6.32					.375	22.37
2 ½	x	2 ½	x	.095	3.03					.500	28.43
				.120	3.89	6	x	6	x	.188	14.53
				.188	5.59					.250	19.02
				.250	7.11					.313	23.34
				.313	8.45					.375	27.48
3	x	3	x	.120	4.70					.500	35.24
				.188	6.87					.625	42.30
				.250	8.81	7	x	7	x	.188	17.08
				.313	10.58					.250	22.42
				.375	11.75					.313	27.59
3 ½	x	3 ½	x	.120	5.52					.375	32.58
				.188	8.15					.500	42.05
				.250	10.51					.625	50.76
				.313	12.70	8	x	8	x	.188	25.82
				.375	14.71					.313	31.84
4	x	4	x	.120	6.34					.375	37.69
				.188	9.42					.500	48.85
				.250	12.21					.625	59.32
				.313	14.83	9	x	9	x	.250	29.23
				.375	17.27					.313	36.10
				.500	21.63					.375	42.79
4 ½	x	4 ½	x	.120	7.31					.500	55.66
				.188	10.70					.625	67.82
4 ½	x	4 ½	x	.250	13.91	10	x	10	x	.188	24.75
				.313	16.98					.250	32.63

Square Structural Tubing (Continued)



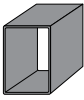
Outside Dims.				Wall Thickness	Wt./ Foot	Outside Dims.				Wall Thickness	Wt./ Foot
10	x	10	x	.313	40.35	14	x	14	x	.313	57.36
				.375	47.90					.375	68.31
				.500	62.46					.500	89.68
				.625	76.33					.625	110.23
12	x	12	x	.250	39.43	16	x	16	x	.313	65.87
				.313	48.86					.375	78.52
				.375	58.10					.500	103.30
				.500	76.07					.625	127.34
				.625	93.34						

Rectangular Structural Tubing



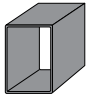
Outside Dims.				Wall Thickness	Wt./ Foot	Outside Dims.				Wall Thickness	Wt./ Foot
2 ½	x	1 ½	x	.188	4.32					.313	12.70
				.250	5.41					3.75	14.71
3	x	1 ½	x	.188	4.96	5	x	2	x	.120	5.52
3	x	2	x	.188	5.59					.188	8.15
				.250	7.11					.250	10.51
				.313	8.45					.313	12.70
3 ½	x	1 ½	x	.188	5.59	5	x	3	x	.120	6.34
3 ½	x	2 ½	x	.188	7.05					.188	9.42
				.250	8.81					.250	12.21
4	x	1 ½	x	.188	6.21					.313	14.83
4	x	2	x	.188	6.87					.375	17.27
				.250	8.81					.500	21.63
				.313	10.58	5	x	4	x	.120	7.15
4	x	2 ½	x	.120	5.11					.188	10.70
4	x	3	x	.120	5.52					.250	13.91
				.188	8.15					.313	16.96
				.250	10.51					.375	19.82

Rectangular Structural Tubing (Continued)



Outside Dims.				Wall Thickness	Wt./ Foot	Outside Dims.				Wall Thicknes	Wt./ Foot				
6	x	2	x	.120	6.34	8	x	2	x	.188	11.97				
				.188	9.42					.250	15.62				
6	x	2	x	.250	12.21					.313	19.08				
				.313	14.83					.375	22.37				
				.375	17.27					8	x	3	x	.188	13.25
6	x	3	x	.120	7.16					.250	17.32				
				.188	10.70					.313	21.21				
				.250	13.91					.375	24.93				
				.313	16.96					.500	31.84				
				.375	19.82					8	x	4	x	.188	14.53
6	x	4	x	.120	7.97					.250	19.02				
				.188	11.97					.313	23.34				
				.250	15.62					.375	27.48				
				.313	19.08					.500	35.24				
				.375	22.37					8	x	6	x	.188	17.08
7	x	3	x	.188	11.97					.250	22.42				
				.250	15.62					.313	27.59				
				.313	19.08					.375	32.58				
				.375	22.37					.500	42.05				
7	x	4	x	.188	13.25					.625	50.81				
				.250	17.32					10	x	2	x	.188	14.53
				.313	21.21					.250	19.20				
				.375	24.93					.313	23.34				
7	x	5	x	.188	14.53					.375	32.58				
				.250	19.02					.500	42.05				
				.313	23.34					.625	50.77				
				.375	27.48					10	x	3	x	.188	15.80
				.500	35.24					.250	19.20				
10	x	2	x	.188	14.53					.313	23.34				
				.250	17.32					.375	32.58				
				.313	21.21					.500	42.05				
10	x	3	x	.188	15.80					.625	50.77				
				.250	19.02					10	x	4	x	.188	17.08
				.375	27.48					.250	22.42				
10	x	4	x	.188	17.08					.313	27.59				
				.250	19.02					.375	32.58				
				.375	27.48					.500	42.05				
10	x	5	x	.188	14.53					.625	50.77				
				.250	19.02					10	x	5	x	.188	17.08
				.375	27.48					.250	22.42				
10	x	6	x	.188	14.53					.313	27.59				
				.250	19.02					.375	32.58				
				.375	27.48					.500	42.05				
10	x	7	x	.188	14.53					.625	50.77				
				.250	19.02					10	x	6	x	.188	17.08
				.375	27.48					.250	22.42				
10	x	8	x	.188	14.53					.313	27.59				
				.250	19.02					.375	32.58				
				.375	27.48					.500	42.05				
10	x	9	x	.188	14.53					.625	50.77				
				.250	19.02					10	x	7	x	.188	17.08
				.375	27.48					.250	22.42				
10	x	10	x	.188	14.53					.313	27.59				
				.250	19.02					.375	32.58				
				.375	27.48					.500	42.05				

Rectangular Structural Tubing (Continued)



Outside Dims.				Wall Thickness	Wt./ Foot	Outside Dims.				Wall Thickness	Wt./ Foot
10	x	5	x	.188	18.35	12	x	8	x	.250	32.63
				.250	24.12					.313	40.35
				.313	29.72					.375	47.90
				.375	35.14					.500	63.97
10	x	6	x	.188	19.62					.625	76.33
				.250	25.82	12	x	10	x	.250	36.03
				.313	31.84					.313	44.60
				.375	37.69					.375	53.00
				.500	48.85					.500	69.27
				.625	59.32	14	x	4	x	.250	29.23
10	x	8	x	.188	22.18					.313	36.10
				.250	29.23					.375	42.79
				.313	36.10					.500	55.66
				.375	42.79	14	x	6	x	.250	32.63
				.500	55.66					.313	40.35
12	x	2	x	.188	17.08					.375	47.90
				.250	22.42					.500	62.46
12	x	3	x	.188	18.35	14	x	10	x	.313	48.86
				.250	24.12					.375	58.10
				.313	29.72					.500	76.07
12	x	4	x	.188	19.63					.625	93.25
				.250	25.82	16	x	4	x	.313	40.35
				.313	31.84					.375	47.90
				.375	37.69					.500	62.46
12	x	4	x	.500	48.85	16	x	8	x	.250	40.84
				.625	59.32					.313	48.86
12	x	6	x	.188	22.18					.375	58.10
				.250	29.23					.500	76.07
				.313	36.10	16	x	12	x	.313	57.36
				.375	42.79					.375	68.31
				.500	55.66					.500	89.68

Rectangular Structural Tubing (Continued)



Outside Dims.				Wall Thickness	Wt./ Foot	Outside Dims.				Wall Thickness	Wt./ Foot
18	x	6	x	.250	39.43	20	x	8	x	.313	57.36
				.313	48.86					.375	68.31
				.375	58.10					.500	89.68
				.500	76.07	20	x	12	x	.313	65.87
20	x	4	x	.313	48.86					.375	78.52
				.375	58.10					.500	103.30
				.500	76.06						

Round H.R.E.W. Tubing (A513 T1)



Outside Dims.			Wt./ Foot	Wt./ 20'	Outside Dims.			Wt./ Foot	Wt./ 20'
1/2	x	.049	.236	4.72	1 ¼	x	.095	1.17	23.40
		.065	.302	6.04			.120	1.45	29.00
5/8	x	.049	.301	6.02	1 ½	x	.065	.966	19.92
		.065	.398	7.78			.083	1.26	25.20
		.083	.481	9.62			.095	1.43	28.60
3/4	x	.049	.367	7.34			.120	1.77	35.40
		.065	.476	9.52	1 ¾	x	.065	1.17	23.40
		.083	.591	11.82			.083	1.48	29.56
		.095	.665	13.30			.095	1.68	33.60
7/8	x	.049	.432	8.646			.120	2.09	41.80
		.065	.562	11.24	2	x	.065	1.34	26.80
		.083	.702	14.04			.083	1.70	34.00
1	x	.049	.498	9.96			.095	1.99	39.80
		.065	.649	12.98			.120	2.41	48.20
		.075	.741	14.82	2 ½	x	.049	1.28	25.60
		.083	.813	16.26			.065	1.69	33.80
		.095	.918	18.36			.083	2.14	42.80
		.120	1.13	22.60			.120	3.05	61.00
1 ¼	x	.049	.629	12.58	3	x	.065	2.04	40.80
		.065	.823	16.46			.095	2.95	59.00
		.083	1.03	20.60			.120	3.69	73.80



7405 E Slauson Ave, Commerce, CA 90040

(562) 216-4000

Toll Free: 800-388-8998

www.paragonsteel.com