

STOCK SIZES AND ELEMENTS OF SECTIONS



Our extensive stock of tubing, bars and shapes in aluminum, bronze, nickel-silver, steel and stainless steel has been selected especially to meet the requirements of ornamental and miscellaneous metal work. All items are carried in stock in substantial quantities and shipment is usually made promptly upon receipt of order. All tubing, bars and shapes are supplied in stock lengths with a mill finish, except as noted. **Julius Blum & Co., Inc.** does not provide cutting or metal finishing services.

● **Aluminum** architectural shapes, bars and tubes are extruded from alloy 6063-T52, except as noted. These items have a smooth, uniform surface and, when properly fabricated, are suitable for anodizing—including most of the hard coat anodic processes. Black anodizing may result in inconsistent matches. Consult your anodizer before specifying. Aluminum extrusions are packed in bundles of approximately 100 lbs. which are wrapped and paper interleaved at the mill. Ordering in full bundles ensures surface quality and speeds shipping from our warehouse. Aluminum Structural shapes are extruded from alloy 6061-T6.

● **Bronze** tubing, bars and shapes are of extruded alloy C38500, architectural bronze. Round pipe is drawn alloy C23000, red brass. When polished, red brass will provide a generally acceptable match to architectural bronze.

● **Nickel-Silver** shapes are extruded from C79800. Nickel-silver is a copper/nickel alloy and contains no silver. When polished, nickel-silver has the appearance of stainless steel with golden highlights.

● **Stainless Steel** shapes are type 304 (18-8), except as noted. True bars have sharp corners and are not sheared from plate. Stainless steel tubing is of ornamental grade with a smooth surface which is simple to polish.

● **Steel** angles and channels are carbon steel C1010, except as noted. Cold rolled channel and angle have a square root and square edge.

All extrusions are produced and handled with great care to assure a product well suited for architectural finishing. Items are thoroughly protected for shipment by wrapping and/or crating, with the exception of aluminum structural and steel shapes, which are normally shipped in strapped bundles. Elements of sections are shown alongside each item in this section. This data has been ascertained with care but cannot be guaranteed. For additional engineering information, see pages 123 to 130.

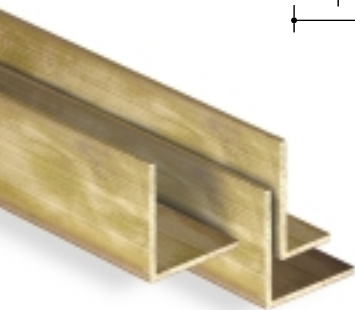
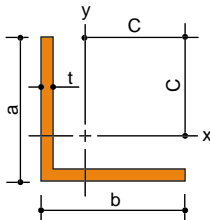
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

BRONZE Alloy C38500, except as noted

ANGLES

Sharp Corners
20' lengths, except as noted



Unequal Legs

a	b	t	lb/ft	Area	Ix	Sx	Cx	Iy	Sy	Cy
3/4	3/8	1/8	.45	.125	.007	.015	.453	.001	.004	.266
1	1/2	1/8	.65	.172	.017	.027	.619	.003	.008	.369
1	3/4	1/8	.75	.203	.020	.029	.668	.009	.017	.543
1 1/4	3/4	1/8	.88	.234	.037	.045	.812	.010	.018	.562
1 1/2	3/4	1/8	.97	.266	.061	.064	.952	.010	.018	.577
1 1/2	1	1/8	1.10	.300	.068	.068	1.003	.024	.032	.753
2	1	1/8	1.33	.359	.150	.117	1.285	.026	.033	.785
3*	2	1/4	4.32	1.187	1.087	.542	2.007	.392	.260	1.507
4*	2 1/2	1/4	5.70	1.562	2.602	.973	2.675	.805	.418	1.925

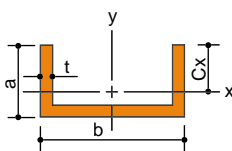
Equal Legs

1/2	1/2	1/8	.42	.109	.002	.006	.330			
5/8	5/8	1/8	.52	.141	.005	.011	.424			
3/4	3/4	1/8	.64	.172	.009	.017	.517			
1	1	1/8	.89	.234	.022	.031	.704			
1	1	3/16	1.24	.341	.030	.044	.682			
1 1/4	1 1/4	1/8	1.09	.297	.044	.049	.891			
1 1/4	1 1/4	3/16	1.60	.435	.062	.071	.869			
1 1/4	1 1/4	1/4	2.05	.562	.077	.091	.847			
1 1/2	1 1/2	1/8	1.35	.359	.078	.072	1.079			
1 1/2	1 1/2	3/16	1.92	.529	.110	.104	1.056			
1 1/2	1 1/2	1/4	2.52	.688	.139	.134	1.034			
2	2	1/8	1.79	.484	.190	.131	1.454			
2	2	3/16	2.61	.717	.273	.191	1.431			
2	2	1/4	3.37	.938	.348	.247	1.408			
2 1/2	2 1/2	1/8	2.24	.609	.378	.206	1.829			
2 1/2	2 1/2	1/4	4.33	1.187	.703	.394	1.783			
3*	3	1/4	5.25	1.437	1.244	.577	2.160			

* 16' lengths

CHANNELS

Sharp Corners
20' lengths



Equal Sides

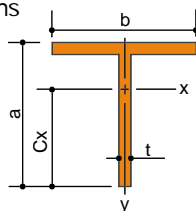
b	a	t	lb/ft	Area	Ix	Sx	Cx	Iy	Sy
1/2	1/2	3/32	.44	.126	.003	.009	.348	.004	.017
3/4	3/4	1/8	.90	.250	.014	.030	.453	.020	.053
1	1	1/8	1.25	.344	.034	.055	.619	.053	.105
1 1/4	1 1/4	1/8	1.60	.438	.069	.088	.853	.110	.176
1 1/2	1 1/2	1/8	1.94	.531	.123	.129	.952	.198	.264

Unequal Sides

5/8	5/16	3/32	.36	.099	.001	.004	.201	.005	.015
3/4	3/8	1/8	.57	.159	.002	.009	.238	.011	.028
1	1/2	1/8	.85	.219	.005	.014	.330	.028	.057
1	3/4	1/8	1.04	.281	.015	.031	.479	.040	.081
1 1/4	1/2	1/8	.91	.250	.005	.015	.344	.050	.080
1 1/4	5/8	1/8	1.06	.281	.010	.023	.424	.060	.096
1 1/2	1/2	1/8	1.02	.281	.005	.015	.354	.080	.106
1 1/2	5/8	1/8	1.12	.312	.010	.023	.437	.094	.126
1 1/2	1	1/8	1.47	.406	.039	.059	.668	.139	.185
2	3/4	1/8	1.47	.406	.025	.039	.543	.221	.221
2 1/4	7/8	1/8	1.75	.469	.031	.048	.637	.331	.294
2 1/2	1	1/8	1.94	.531	.046	.064	.732	.471	.377

TEES

Sharp Corners
20' lengths



b	a	t	lb/ft	Area	Ix	Sx	Cx	Iy	Sy
3/4	3/4	1/8	.64	.171	.009	.017	.518	.004	.012
1	1	1/8	.89	.233	.022	.031	.705	.011	.021
1 1/2	1 1/2	1/8	1.35	.358	.077	.072	1.080	.035	.047
1 1/2	1 1/2	3/16	1.94	.529	.110	.104	1.056	.054	.071
2	2	3/16	2.61	.717	.271	.190	1.430	.126	.126

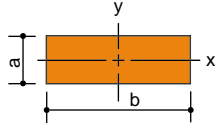
● TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

● BRONZE Alloy C38500, except as noted

FLAT BARS

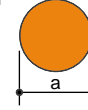
Sharp Corners
16' lengths



a	b	lb/ft	Area	Ix	Sx	ly	Sy
1/8	1/2	.23	.063	.000	.001	.001	.005
1/8	5/8	.29	.078	.000	.002	.003	.008
1/8	3/4	.35	.094	.000	.002	.004	.012
1/8	1	.46	.125	.000	.003	.010	.020
1/8	1 1/4	.58	.156	.000	.003	.020	.032
1/8	1 1/2	.69	.188	.000	.004	.035	.047
1/8	2	.92	.250	.000	.005	.083	.083
1/8	3	1.38	.375	.000	.008	.281	.187
3/16	1/2	.35	.094	.000	.002	.002	.008
3/16	5/8	.43	.118	.000	.004	.004	.012
3/16	3/4	.52	.141	.000	.004	.007	.018
3/16	1	.69	.188	.001	.006	.016	.032
3/16	1 1/2	1.04	.282	.001	.009	.053	.071
3/16	2	1.38	.376	.001	.012	.125	.125
3/16	2 1/2	1.73	.470	.001	.015	.244	.195
3/16	3	2.08	.564	.002	.018	.422	.281
3/16	3 1/2	2.42	.658	.002	.021	.670	.383
3/16	4	2.76	.752	.002	.023	1.000	.500
1/4	3/8	.34	.094	.000	.004	.001	.006
1/4	1/2	.46	.125	.001	.005	.003	.010
1/4	5/8	.58	.156	.001	.007	.005	.016
1/4	3/4	.69	.188	.001	.008	.009	.023
1/4	1	.92	.250	.001	.008	.021	.042
1/4	1 1/4	1.15	.313	.002	.016	.041	.066
1/4	1 1/2	1.38	.375	.002	.016	.070	.093
1/4	2	1.84	.500	.003	.024	.167	.167
1/4	2 1/2	2.30	.625	.003	.024	.326	.261
1/4	3	2.77	.750	.004	.032	.563	.375
1/4	4	3.65	1.000	.005	.040	1.333	.667
5/16	6	6.67	1.875	.015	.096	5.625	1.875
3/8	1/2	.68	.188	.002	.012	.004	.016
3/8	5/8	.87	.234	.003	.015	.008	.024
3/8	3/4	1.04	.281	.003	.018	.013	.035
3/8	1	1.38	.375	.004	.021	.031	.062
3/8	1 1/4	1.73	.469	.005	.027	.061	.098
3/8	1 1/2	2.07	.563	.007	.037	.106	.141
3/8	2	2.76	.750	.009	.048	.250	.250
3/8	2 1/2	3.42	.938	.011	.059	.488	.390
3/8	3	4.11	1.125	.013	.069	.844	.563
3/8	4	5.53	1.500	.018	.096	2.000	1.000
1/2	3/4	1.37	.375	.008	.031	.018	.047
1/2	1	1.84	.500	.010	.040	.042	.084
1/2	1 1/4	2.28	.625	.013	.052	.081	.130
1/2	1 1/2	2.76	.750	.016	.064	.141	.188
1/2	2	3.68	1.000	.021	.084	.333	.333
1/2	2 1/2	4.60	1.250	.026	.104	.651	.520
1/2	3	5.48	1.500	.031	.124	1.125	.750
1/2	4	7.36	2.000	.042	.168	2.667	1.333
3/4	1	2.74	.750	.035	.094	.063	.125
3/4	1 1/2	4.11	1.125	.053	.141	.210	.281
3/4	2	5.53	1.500	.070	.188	.500	.500

ROUND BARS

16' lengths,
except as noted



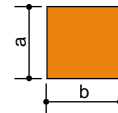
a	lb/ft	Area	I	S
3/8	.41	.110	.001	.005
1/2	.72	.196	.003	.012
5/8	1.13	.307	.008	.024
3/4	1.63	.442	.016	.041
7/8*	2.22	.601	.029	.066
1	2.89	.785	.049	.098
1 1/8	3.66	.994	.079	.140
1 1/4	4.52	1.227	.120	.192
1 1/2	6.51	1.767	.249	.331
2*	11.57	3.142	.785	.785
2 1/2**	18.00	4.906	1.917	1.530
3**	26.10	7.069	3.974	2.649

* 12' lengths ** 10' lengths



SQUARE BARS

Sharp Corners
16' lengths



a	b	lb/ft	Area	I	S
1/4	1/4	.23	.063	.000	.003
3/8	3/8	.52	.141	.002	.009
1/2	1/2	.92	.250	.005	.021
5/8	5/8	1.44	.391	.013	.041
3/4	3/4	2.08	.563	.026	.070
1	1	3.69	1.000	.083	.167
1 1/4	1 1/4	5.76	1.563	.204	.326
1 1/2	1 1/2	8.28	2.250	.422	.563

TUBING, BARS, AND SHAPES

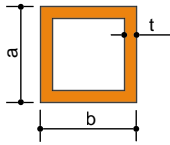
All dimensions in inches and weight in pounds per lineal foot

BRONZE Alloy C38500, except as noted

TUBING

Square

Sharp Corners
16' lengths

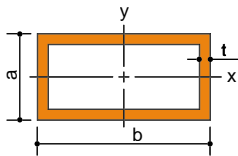


a	b	t	lb/ft	Area	I	S
1/2	1/2	.093	.56	.151	.004	.018
5/8	5/8	.093	.73	.198	.010	.031
3/4	3/4	.093	.90	.244	.018	.048
1	1	.100	1.32	.360	.049	.098
1 1/4	1 1/4	.100	1.70	.460	.102	.163
1 1/2	1 1/2	.100	2.07	.560	.184	.245
1 3/4	1 3/4	.100	2.43	.660	.300	.344
2	2	.125	3.46	.937	.552	.552
2 1/2	2 1/2	.100	3.48	.960	.923	.740
3	3	.125*	5.27	1.437	1.984	1.323

* Rounded inside corners, r = 1/4"

Rectangular

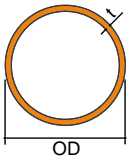
Sharp Corners
16' lengths



a	b	t	lb/ft	Area	Minor Axis		Major Axis	
					I _x	S _x	I _y	S _y
1/2	1	.100	.95	.260	.009	.034	.029	.058
3/4	1 1/2	.100	1.50	.410	.035	.093	.110	.147
1	1 1/2	.100	1.70	.460	.070	.139	.135	.180
1/2	2	.100	1.70	.460	.017	.068	.252	.252
1	2	.100	2.07	.560	.090	.180	.278	.278
1 1/4	2 1/2	.125	3.23	.875	.219	.351	.678	.543
1	3	.125	3.46	.937	.153	.307	.950	.633
1 1/4	3	.125	3.69	1.000	.259	.415	1.071	.720
1 1/2	3	.125	3.88	1.022	.384	.512	1.167	.778
1 3/4	3	.125	4.15	1.125	.566	.647	1.338	.892
2	3	.125	4.48	1.187	.772	.772	1.467	.978
1 3/4	4	.125	5.28	1.375	.732	.836	2.742	1.371

Round

20' lengths

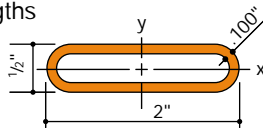


OD	t	lb/ft	Area	I	S
1 1/2	.100	1.75	.440	.108	.144
1.900	.100	2.07	.565	.230	.242
2 1/2	.125	3.44	.933	.659	.527
3	.125	4.40	1.129	1.169	.779
3 1/2**	.125	4.85	1.325	1.890	1.080

Item No. 6489 ** 12' length

Oval

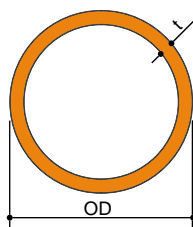
16' lengths



	lb/ft	Area	Major Axis		Minor Axis	
			I _x	S _x	I _y	S _y
6488 ● Bronze	1.56	.426	.011	.044	.152	.152

HANDRAIL PIPE

Red Brass Alloy C23000
Standard Pipe Sizes 20' lengths



Nominal Pipe Size	Sched.	OD	ID	t	lb/ft	Area	I	S	r
1 1/4	40	1.660	1.368	.146	2.63	.695	.201	.242	.538
1 1/2	40	1.900	1.600	.150	3.13	.825	.318	.335	.621

This pipe is furnished with plain ends, unmarked, and with a smooth finish suitable for polishing.

See pages 14-30 for stock pipe fittings.

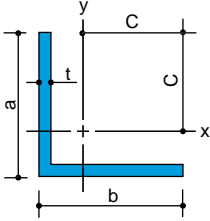
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6063-T52

ANGLES

Sharp Corners
16' lengths



Equal Legs

a	b	t	lb/ft	Bars per Bundle†	Area	I	S	C
1/2	1/2	1/16	.070	78	.058	.001	.004	.352
1/2	1/2	1/8	.131	40	.109	.002	.006	.330
5/8	5/8	1/8	.168	39	.141	.005	.011	.424
3/4	3/4	1/16	.108	47	.089	.005	.009	.540
3/4	3/4	1/8	.206	30	.172	.009	.017	.517
1	1	1/16	.145	40	.120	.012	.016	.727
1	1	1/8	.281	20	.234	.022	.031	.704
1	1	3/16	.408	15	.341	.030	.044	.682
1 1/4	1 1/4	1/8	.356	15	.297	.044	.049	.891
1 1/4	1 1/4	3/16	.519	11	.435	.062	.071	.869
1 1/2	1 1/2	1/8	.431	14	.359	.078	.072	1.079
1 1/2	1 1/2	3/16	.633	10	.529	.110	.104	1.056
1 1/2	1 1/2	1/4	.824	7	.688	.139	.134	1.034
1 3/4	1 3/4	1/8	.506	12	.422	.126	.099	1.266
2	2	1/8	.581	11	.484	.190	.131	1.454
2	2	3/16	.857	6	.717	.273	.191	1.431
2	2	1/4	1.124	5	.938	.348	.247	1.408
2 1/2	2 1/2	1/8	.731	8	.609	.378	.206	1.829
3	3	1/8	.881	6	.734	.661	.300	2.203
3	3	3/16	1.308	5	1.093	.964	.442	2.180
3 1/2	3 1/2	1/8	1.031	6	.859	1.059	.411	2.578
4	4	1/8	1.181	5	.984	1.591	.539	2.953

Unequal Legs

b	a	t	lb/ft	Bars per Bundle†	Area	I _x	S _x	C _x	I _y	S _y	C _y
3/8	3/4	3/32	.116	60	.096	.003	.007	.465	.001	.001	.277
1/2	1	1/8	.206	29	.172	.017	.027	.619	.003	.008	.369
1/2	1 1/4	1/8	.244	25	.203	.032	.042	.755	.003	.008	.380
1/2	1 1/2	1/8	.281	25	.234	.053	.060	.888	.003	.008	.388
1/2	2	1/8	.355	20	.297	.118	.103	1.148	.003	.008	.398
3/4	1	1/8	.244	25	.203	.020	.029	.668	.009	.017	.543
3/4	1 1/2	1/8	.319	18	.266	.061	.064	.952	.010	.018	.577
3/4	2	1/8	.394	15	.328	.136	.111	1.223	.011	.019	.598
1	1 1/2	1/8	.356	15	.300	.068	.068	1.003	.024	.032	.753
1	1 3/4	1/8	.394	16	.328	.104	.091	1.146	.025	.033	.771
1	2	1/8	.431	15	.359	.150	.117	1.285	.026	.033	.785
1	2	3/16	.633	10	.529	.215	.170	1.262	.037	.048	.762
1	2 1/2	1/8	.506	12	.422	.277	.178	1.558	.028	.034	.808
1	3	1/8	.581	10	.484	.456	.250	1.825	.029	.035	.825
1 1/4	3 1/2	1/8	.694	9	.578	.750	.347	2.160	.057	.055	1.035
1 1/2	1 3/4	1/8	.469	14	.391	.120	.097	1.233	.081	.073	1.108
1 1/2	2	1/8	.506	12	.422	.173	.125	1.382	.085	.075	1.132
1 1/2	2 1/2	1/8	.581	10	.484	.319	.191	1.671	.090	.077	1.171
2	2 1/2	1/8	.656	10	.554	.344	.194	1.779	.196	.129	1.523
2	3	1/8	.731	9	.609	.580	.282	2.053	.213	.137	1.553
2	3 1/2	1/8	.806	8	.672	.881	.377	2.339	.222	.140	1.589
2	4	1/8	.881	7	.734	1.266	.483	2.618	.229	.141	1.382
2 1/4	5 1/4	1/8	1.106	6	.992	2.749	.817	3.363	.340	.182	1.863
2 1/2	3 1/2	1/8	.881	7	.734	.951	.391	2.432	.416	.215	1.932
3	3 1/2	1/8	.956	6	.797	1.009	.402	2.511	.692	.306	2.261
3	4	1/8	1.031	6	.859	1.452	.517	2.810	.719	.311	2.310
3	5	1/8	1.181	5	.984	2.658	.784	3.390	.762	.319	2.390
4	5	1/8	1.331	5	1.109	2.924	.820	3.564	1.698	.554	3.064



† Aluminum extrusions are pre-wrapped in 100-lb. paper interleaved bundles to speed shipment and prevent damage. Quantities are subject to change without notice.

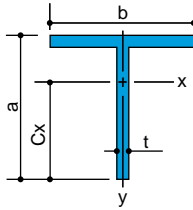
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6063-T52

TEES

Sharp Corners
16' lengths

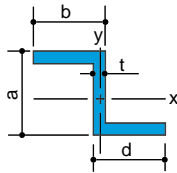


b	a	t	lb/ft	Bars per Bundle†	Area	Ix	Sx	Cx	Iy	Sy
3/4	3/4	1/8	.206	30	.171	.009	.017	.518	.004	.012
3/4	1 1/4	1/8	.280	20	.233	.037	.045	.814	.004	.012
1	3/4	1/8	.244	23	.202	.009	.017	.544	.010	.021
1	1	1/8	.281	20	.233	.022	.031	.705	.011	.021
1 1/8	1/2	1/8	.338	20	.282	.005	.016	.318	.020	.032
1 1/8	1 1/8	1/8	.319	19	.265	.031	.039	.924	.015	.027
1 1/4	7/8	1/8	.300	21	.249	.016	.024	.649	.020	.033
1 1/2	1 1/2	1/8	.431	12	.358	.077	.072	1.080	.035	.047
2	3/4	1/8	.394	16	.322	.010	.017	.600	.083	.083
2	2	3/16	.856	6	.717	.271	.190	1.430	.126	.126

Item No. 6958 Table 1/8", Leg 3/8"

ZEEES

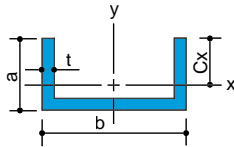
Sharp Corners
16' lengths



a	b	d	t	lb/ft	Bars per Bundle†	Area	Minor Axis Ix	Sx	Major Axis Iy	Sy
1/2	1/2	1/2	3/32	.148	40	.169	.004	.017	.006	.016
3/4	3/4	3/4	1/8	.300	21	.250	.020	.053	.027	.039
7/8	3/4	3/4	1/8	.319	20	.266	.029	.067	.027	.039
1	5/8	7/8	1/8	.337	18	.281	.056	.063	.015	.047
1	1 1/8	1 1/8	1/8	.450	14	.375	.058	.117	.100	.094

CHANNELS

Sharp Corners
16' lengths,
except as noted



b	a	t	lb/ft	Bars per Bundle†	Area	Ix	Sx	Cx	Iy	Sy
1/2	3/8	1/8	.150	38	.128	.002	.007	.219	.004	.014
1/2	1/2	3/32	.148	35	.126	.003	.009	.348	.004	.017
1/2	3/4	1/8	.263	22	.224	.011	.027	.402	.007	.028
5/8	5/8	1/8	.244	23	.207	.007	.020	.370	.011	.034
5/8	1	1/8	.356	16	.297	.028	.050	.569	.017	.053
3/4	3/8	1/8	.187	35	.159	.002	.009	.238	.011	.028
3/4	1/2	1/8	.225	30	.191	.004	.013	.323	.014	.037
3/4	3/4	1/8	.300	20	.250	.014	.030	.453	.020	.053
1*	1/2	1/8	.263	18	.219	.005	.014	.330	.028	.057
1	5/8	1/8	.304	25	.250	.009	.022	.406	.035	.069
1	3/4	1/8	.337	20	.281	.015	.031	.479	.040	.081
1	1	1/8	.413	12	.344	.034	.055	.619	.053	.105
1	2	1/8	.713	8	.594	.236	.200	1.148	.101	.202
1 1/4*	1/2	1/8	.300	16	.250	.005	.015	.344	.050	.080
1 1/4*	5/8	1/8	.337	12	.281	.010	.023	.424	.060	.096
1 1/4*	3/4	1/8	.374	12	.312	.016	.032	.500	.070	.112
1 1/4	1 1/4	1/8	.526	12	.438	.069	.088	.853	.110	.176
1 1/2*	1/2	1/8	.337	16	.281	.005	.015	.354	.080	.106
1 1/2*	5/8	1/8	.374	12	.312	.010	.023	.437	.094	.126
1 1/2	3/4	1/8	.413	16	.344	.017	.033	.517	.109	.146
1 1/2	1	1/8	.487	12	.406	.039	.059	.668	.139	.185
1 1/2	1 1/2	1/8	.637	8	.531	.123	.129	.952	.198	.264
1 3/4	1/2	1/8	.374	15	.312	.005	.015	.362	.118	.135
1 3/4	3/4	1/8	.450	12	.375	.018	.034	.531	.159	.182
1 3/4	1	1/8	.524	12	.438	.042	.060	.688	.200	.229
2	1/2	1/8	.413	14	.344	.006	.015	.369	.166	.166
2*	1	1/8	.564	8	.469	.043	.062	.704	.276	.276
2	2	1/8	.863	6	.719	.301	.234	1.285	.496	.496
2 1/4	7/8	1/8	.563	11	.469	.031	.048	.637	.331	.294
2 1/2	3/4	1/8	.564	10	.469	.020	.036	.562	.383	.307
2 1/2	1 1/2	1/8	.787	8	.656	.147	.140	1.045	.648	.518
2 1/2	2 1/2	1/8	1.062	6	.906	.599	.370	1.619	1.001	.801
3	1/2	1/8	.563	11	.469	.006	.017	.387	.475	.317
3	1	1/8	.713	8	.594	.049	.065	.753	.734	.489
3	2	1/8	.955	6	.844	.346	.250	1.382	1.250	.834
3	3	1/8	1.293	4	1.094	1.050	.538	1.952	1.767	1.178
4	1 1/2	1/8	1.013	6	.844	.169	.150	1.132	1.960	.979
4 1/2**	2	1/8	1.238	4	1.031	.394	.265	1.483	3.190	1.420
5	2	3/16	1.940	2	1.621	.584	.393	1.486	5.900	2.360

* 20' lengths ** For glass block

† Aluminum extrusions are pre-wrapped in 100-lb. paper interleaved bundles to speed shipment and prevent damage. Quantities are subject to change without notice.

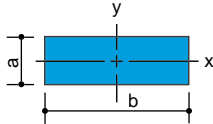
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6063-T52

FLAT BARS

Sharp Corners
16' lengths



a	b	lb/ft	Bars per Bundle†	Area	I _x	S _x	I _y	S _y
1/8	1/2	.075	60	.063	.000	.001	.001	.005
1/8	5/8	.094	48	.078	.000	.002	.003	.008
1/8	3/4	.113	59	.094	.000	.002	.004	.012
1/8	1	.150	48	.125	.000	.003	.010	.020
1/8	1 1/8	.169	29	.141	.000	.003	.015	.026
1/8	1 1/4	.187	29	.156	.000	.003	.020	.032
1/8	1 1/2	.226	27	.188	.000	.004	.035	.047
1/8	1 3/4	.263	19	.219	.000	.005	.056	.064
1/8	2	.300	20	.250	.000	.005	.083	.083
1/8	2 1/2	.376	15	.313	.000	.007	.163	.130
1/8	3	.450	12	.375	.000	.008	.281	.187
1/8	3 1/2	.526	12	.438	.001	.009	.447	.255
1/8	4	.600	10	.500	.001	.010	.667	.334
1/8	5	.750	8	.625	.001	.013	1.302	.521
3/16	1/2	.113	60	.094	.000	.002	.002	.008
3/16	3/4	.169	37	.141	.000	.004	.007	.018
3/16	1	.226	30	.188	.001	.006	.016	.032
3/16	1 1/4	.282	23	.235	.001	.007	.031	.050
3/16	1 1/2	.337	19	.282	.001	.009	.053	.071
3/16	1 3/4	.394	16	.329	.001	.010	.084	.096
3/16	2	.450	12	.376	.001	.012	.125	.125
3/16	2 1/2	.564	12	.470	.001	.015	.244	.195
3/16	3	.677	10	.564	.002	.018	.422	.281
3/16	4	.900	7	.752	.002	.023	1.000	.500
1/4	1/2	.150	50	.125	.001	.005	.003	.010
1/4	5/8	.187	31	.156	.001	.007	.005	.016
1/4	3/4	.224	28	.188	.001	.008	.009	.023
1/4	1	.300	20	.250	.001	.008	.021	.042
1/4	1 1/4	.374	16	.313	.002	.016	.041	.066
1/4	1 1/2	.450	12	.375	.002	.016	.070	.093
1/4	1 3/4	.525	12	.438	.002	.016	.112	.128
1/4	2	.600	10	.500	.003	.024	.167	.167
1/4	2 1/2	.750	9	.625	.003	.024	.326	.261
1/4	3	.900	7	.750	.004	.032	.563	.375
1/4	3 1/2	1.050	5	.875	.005	.040	.893	.510
1/4	4	1.200	5	1.000	.005	.040	1.333	.667
1/4	5	1.500	4	1.250	.007	.056	2.604	1.042
1/4	6	1.800	3	1.500	.008	.064	4.500	1.500
5/16	1	.374	20	.313	.003	.019	.026	.052
5/16	1 1/2	.562	11	.469	.004	.026	.088	.117
5/16	2	.749	8	.625	.005	.032	.208	.208
5/16	6	2.170	3	1.875	.015	.096	5.625	1.875
3/8	1/2	.224	24	.188	.002	.012	.004	.016
3/8	5/8	.281	20	.234	.003	.015	.008	.024
3/8	3/4	.338	15	.281	.003	.018	.013	.035
3/8	1	.450	12	.375	.004	.021	.031	.062
3/8	1 1/4	.563	10	.469	.005	.027	.061	.098
3/8	1 1/2	.674	9	.563	.007	.037	.106	.141
3/8	1 3/4	.784	7	.656	.008	.043	.168	.192
3/8	2	.900	7	.750	.009	.048	.250	.250
3/8	2 1/2	1.126	5	.938	.011	.059	.488	.390
3/8	3	1.350	4	1.125	.013	.069	.844	.563
3/8	3 1/2	1.576	4	1.313	.015	.080	1.340	.767
3/8	4	1.800	3	1.500	.018	.096	2.000	1.000
3/8	5	2.260	3	1.875	.022	.177	3.906	1.563
1/2	3/4	.450	14	.375	.008	.031	.018	.047
1/2	1	.600	10	.500	.010	.040	.042	.084
1/2	1 1/4	.750	8	.625	.013	.052	.081	.130
1/2	1 1/2	.900	6	.750	.016	.064	.141	.188
1/2	1 3/4	1.050	5	.875	.018	.072	.223	.255

† Aluminum extrusions are pre-wrapped in 100-lb. paper interleaved bundles to speed shipment and prevent damage. Quantities are subject to change without notice.

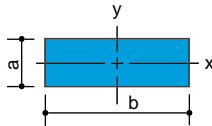
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6063-T52

FLAT BARS (continued)

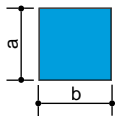
Sharp Corners
16' lengths



a	b	lb/ft	Bars per Bundle†	Area	I _x	S _x	I _y	S _y
1/2	2	1.200	6	1.000	.021	.084	.333	.333
1/2	2 1/2	1.500	4	1.250	.026	.104	.651	.520
1/2	3	1.800	3	1.500	.031	.124	1.125	.750
1/2	3 1/2	2.100	3	1.750	.036	.144	1.787	1.020
1/2	4	2.400	2	2.000	.042	.168	2.667	1.333
5/8	1	.750	8	.625	.020	.064	.052	.104
5/8	1 1/4	.937	6	.781	.025	.080	.102	.163
5/8	1 1/2	1.124	5	.938	.031	.099	.176	.235
5/8	2	1.500	4	1.250	.041	.131	.417	.417
5/8	3	2.250	2	1.875	.061	.195	1.406	.937
3/4	1	.900	6	.750	.035	.094	.063	.125
3/4	1 1/4	1.126	5	.938	.044	.117	.122	.195
3/4	1 1/2	1.350	5	1.125	.053	.141	.210	.281
3/4	1 3/4	1.576	4	1.313	.062	.166	.335	.388
3/4	2	1.800	3	1.500	.070	.188	.500	.500
3/4	2 1/2	2.250	2	1.875	.088	.234	.977	.781
3/4	3	2.700	2	2.250	.106	.281	1.688	1.125
3/4	3 1/2	3.150	2	2.625	.123	.329	2.680	1.530
3/4	4	3.600	1	3.000	.141	.375	4.000	2.000
1	1 1/4	1.500	4	1.250	.104	.208	.163	.261
1	1 1/2	1.800	3	1.500	.125	.250	.281	.375
1	1 3/4	2.100	3	1.750	.146	.292	.447	.510
1	2	2.400	2	2.000	.167	.333	.667	.667
1	2 1/2	3.000	2	2.500	.208	.417	1.302	1.042
1	3	3.600	1	3.000	.250	.500	2.250	1.500
1	4	4.800	1	4.000	.333	.667	5.333	2.667

SQUARE BARS

Sharp Corners
16' lengths,
except as noted

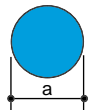


a	b	lb/ft	Bars per Bundle†	Area	I	S
1/4	1/4	.075	88	.063	.000	.003
5/16	5/16	.116	48	.097	.001	.005
3/8	3/8	.169	40	.141	.002	.009
1/2*	1/2	.300	20	.250	.005	.021
5/8*	5/8	.468	12	.391	.013	.041
3/4	3/4	.674	10	.563	.026	.070
1	1	1.200	5	1.000	.083	.167
1 1/4	1 1/4	1.875	3	1.563	.204	.326
1 1/2	1 1/2	2.700	2	2.250	.422	.563
1 3/4	1 3/4	3.676	1	3.063	.782	.893
2	2	4.800	2	4.000	1.333	1.333

* 16' & 20' lengths

ROUND BARS

16' lengths,
except as noted



a	lb/ft	Bars per Bundle†	Area	I	S
3/8	.132	50	.110	.001	.005
1/2	.235	25	.196	.003	.012
5/8	.368	18	.307	.008	.024
3/4	.530	12	.442	.016	.041
7/8*†	.727	12	.601	.029	.066
1*†	.942	7	.785	.049	.098
1 1/8**†	1.192	7	.994	.079	.140
1 1/4*	1.472	3	1.227	.120	.192
1 1/2	2.120	3	1.767	.249	.331
1.600**	2.415		2.010	.322	.402
1.680**	2.662		2.216	.391	.465
1.688*†	2.684		2.237	.398	.470
1 3/4	2.886		2.404	.460	.526
2*	3.770		3.142	.785	.785
2 5/8†	6.500		5.412	2.331	1.030
3*†	8.483		7.069	3.974	2.649

* 6063-T6 ** 6061-T6 † 12' lengths



† Aluminum extrusions are pre-wrapped in 100-lb. paper interleaved bundles to speed shipment and prevent damage. Quantities are subject to change without notice.

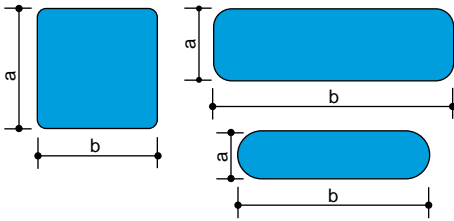
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6063-T52, except as noted

FLAT BARS

20' lengths

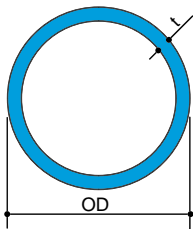


	a	b	Corner Radius	lb/ft		Bars per Bundle†	Area	Ix	Sx	Iy	Sy
6988	1/2	2	1/4	1.138	Oval	4	.946	.019	.075	.285	.285
6939	3/4	2 1/2	3/16	2.214	Rect.	2	1.845	.085	.225	.932	.746
6986	3/4	3	1/8	2.684	Rect.	2	2.237	.104	.277	1.658	1.106
6423	1 1/4	1 1/4	3/32	1.876	Sq.	2	1.555	.201	.321	.201	.321
6424	1 1/4	2 3/4	3/32	4.124	Rect.	1	3.430	.445	.712	2.153	1.566

EXTRUDED HANDRAIL PIPE

Alloy 6063-T52

20' lengths



Nominal Size	Sched.	OD	ID	t	lb/ft	Bars per Bundle†	Area	I	S	r
3/4	40	1.050	.824	.113	.391	14	.333	.037	.071	.334
1	40	1.315	1.049	.133	.581	9	.494	.087	.133	.421
1 1/4*	10	1.660	1.442	.109	.625	6	.531	.161	.193	.550
1 1/4*	40	1.660	1.380	.140	.785	6	.669	.195	.235	.540
1 1/2*	10	1.900	1.682	.109	.721	5	.614	.247	.260	.634
1 1/2*	40	1.900	1.610	.145	.940	5	.800	.310	.326	.623
2	40	2.375	2.067	.154	1.264	3	1.075	.666	.561	.787

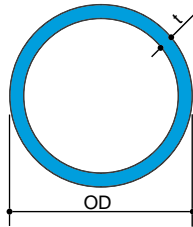
* Carried in stock with mill finish and with a clear anodized - AA-M10-C22-A31 (204R1) - finish.

This pipe is of tubing quality and has a smooth, clean surface and close dimensional tolerances which make it suitable for architectural work and for anodizing. It is easy to bend. Pipe is furnished and carefully wrapped for protection in handling and shipping. See pages 14-30 for stock pipe fittings.

DRAWN HANDRAIL PIPE

Alloy 6063-T832

20' lengths



Nominal Size	Sched.	OD	ID	t	lb/ft	Area	I	S	r
1 1/4*	10	1.660	1.442	.109	.625	.531	.161	.193	.550
1 1/4*	40	1.660	1.380	.140	.785	.669	.195	.235	.540
1 1/2*	10	1.900	1.682	.109	.721	.614	.247	.260	.634
1 1/2*	40	1.900	1.610	.145	.940	.800	.310	.326	.623

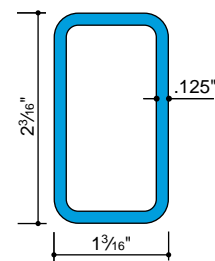
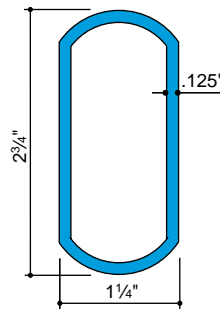
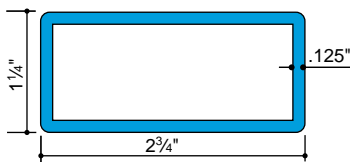
* Carried in stock with mill finish and with a clear anodized - AA-M10-C22-A31 (204R1) - finish.

This premium quality drawn pipe has an extra smooth surface. Its harder temper gives it high strength. See pages 14-30 for stock pipe fittings.

TUBING

Round Corner

20' lengths



	lb/ft	Bars per Bundle†
6434* Aluminum	1.123	5

	lb/ft	Bars per Bundle†
6435* Aluminum	1.075	5

	lb/ft	Bars per Bundle†
6436* Aluminum	.888	6

* 6063-T6 For elements of section, see page 124.

† Aluminum extrusions are pre-wrapped in 100-lb. paper interleaved bundles to speed shipment and prevent damage. Quantities are subject to change without notice.

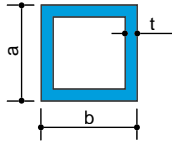
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6063-T52

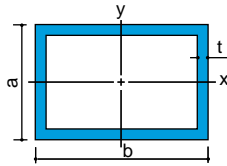
TUBING

Square
Sharp Corners
21'-1" lengths



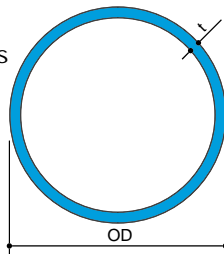
a	b	t	lb/ft	Bars per Bundle†	Area	I	S
1/2	1/2	.062	.130	36	.109	.003	.014
5/8	5/8	.062	.167	31	.142	.007	.024
3/4	3/4	.062	.205	24	.171	.013	.036
3/4	3/4	.125	.374	10	.312	.021	.056
1	1	.062	.278	16	.233	.034	.068
1	1	.125	.525	8	.437	.057	.114
1 1/4	1 1/4	.078	.438	9	.366	.084	.134
1 1/4	1 1/4	.125	.675	8	.562	.120	.192
1 1/2	1 1/2	.078	.532	8	.444	.150	.200
1 1/2	1 1/2	.125	.825	6	.687	.218	.291
1 3/4	1 3/4	.125	.975	4	.812	.360	.411
2	2	.078	.720	6	.600	.370	.370
2	2	.125	1.124	4	.937	.552	.552
2 1/2	2 1/2	.125	1.424	3	1.187	1.119	.896
3	3	.125	1.724	2	1.437	1.984	1.323
4	4	.125	2.324	2	1.937	4.854	2.427

Rectangular
Sharp Corners
21'-1" lengths



b	a	t	lb/ft	Bars per Bundle†	Area	Minor Axis		Major Axis	
						Ix	Sx	Iy	Sy
1/2	1	.125	.374	12	.312	.009	.003	.033	.066
3/4	1 1/2	.125	.588	8	.500	.040	.106	.130	.173
1	1 1/2	.125	.661	6	.562	.081	.162	.159	.212
1	2	.125	.825	6	.687	.105	.210	.332	.332
1	3	.125	1.119	4	.937	.153	.307	.950	.633
1 1/4	2 1/2	.125	1.050	4	.875	.219	.351	.678	.543
1 1/4	3	.125	1.200	4	1.000	.259	.415	1.079	.720
1 1/2	2	.125	.967	4	.812	.278	.370	.442	.442
1 1/2	2 1/2	.125	1.124	4	.937	.337	.449	.767	.613
1 1/2	3	.125	1.276	4	1.022	.384	.512	1.167	.778
1 1/2	6	.125	2.135	2	1.812	.752	1.002	7.197	2.399
1 3/4	2 1/4	.125	1.125	4	.937	.442	.505	.661	.588
1 3/4	3	.125	1.323	3	1.125	.566	.647	1.338	.892
1 3/4	3 1/2	.125	1.470	3	1.250	.649	.742	1.962	1.121
1 3/4	4	.125	1.650	3	1.375	.732	.836	2.742	1.371
1 3/4	4 1/2	.125	1.765	2	1.500	.814	.931	3.693	1.641
1 3/4	5	.125	1.910	2	1.625	.897	1.025	4.833	1.933
2	2 1/2	.125	1.280		1.063	.662	.529	.943	.754
2	3	.125	1.395	3	1.187	.772	.772	1.467	.978
2	4	.125	1.710	3	1.438	.992	.992	2.976	1.488
2	5	.125	2.025	2	1.687	1.212	1.212	5.204	2.082
2	6	.125	2.326	2	1.937	1.432	1.432	8.276	2.759
3	5	.125	2.326	2	1.937	3.018	2.012	6.690	2.676
3	6	.188	3.882		3.226	5.010	3.340	15.032	5.010

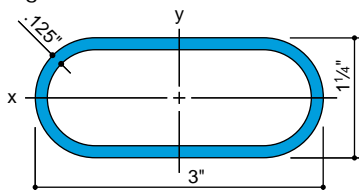
Round
20' lengths



OD	t	lb/ft	Bars per Bundle†	Area	I	S
2 1/2	.125	1.119	6	.933	.659	.527
3	.125	1.330		1.129	1.169	.779
3 1/2	.125	1.560		1.325	1.890	1.080

See page 30 for fittings.

Oval
20' lengths



	lb/ft	Bars per Bundle†	Area	Ix	Sx	Iy	Sy
6437	1.057	5	.879	.210	.336	.799	.532

† Aluminum extrusions are pre-wrapped in 100-lb. paper interleaved bundles to speed shipment and prevent damage. Quantities are subject to change without notice.

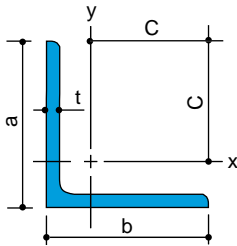
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6061-T6

STRUCTURAL ANGLES

25' lengths



Equal Legs

a	b	t	lb/ft	Area	I	S	r	C
3/4	3/4	1/8	.20	.17	.008	.016	.219	.52
1	1	1/8	.28	.23	.021	.029	.298	.71
1	1	3/16	.40	.34	.029	.042	.293	.69
1	1	1/4	.51	.44	.036	.054	.287	.66
1 1/4	1 1/4	1/8	.35	.30	.042	.046	.37	.90
1 1/4	1 1/4	3/16	.51	.43	.059	.068	.37	.88
1 1/4	1 1/4	1/4	.66	.56	.074	.087	.36	.85
1 1/2	1 1/2	1/8	.43	.36	.074	.068	.45	1.09
1 1/2	1 1/2	3/16	.62	.53	.107	.100	.45	1.06
1 1/2	1 1/2	1/4	.83	.69	.135	.130	.44	1.04
1 3/4	1 3/4	1/8	.51	.42	.121	.094	.53	1.28
1 3/4	1 3/4	3/16	.74	.63	.174	.139	.53	1.25
1 3/4	1 3/4	1/4	.96	.81	.223	.181	.52	1.23
2	2	1/8	.57	.49	.18	.13	.61	1.47
2	2	3/16	.85	.72	.27	.19	.61	1.44
2	2	1/4	1.11	.94	.34	.24	.60	1.42
2	2	5/16	1.36	1.16	.41	.30	.60	1.39
2	2	3/8	1.59	1.37	.47	.35	.59	1.37
2 1/2	2 1/2	1/8	.72	.62	.37	.20	.77	1.85
2 1/2	2 1/2	3/16	1.07	.91	.54	.30	.77	1.82
2 1/2	2 1/2	1/4	1.40	1.19	.69	.39	.76	1.79
2 1/2	2 1/2	5/16	1.73	1.47	.84	.48	.76	1.77
2 1/2	2 1/2	3/8	2.05	1.74	.98	.56	.75	1.74
3	3	3/16	1.28	1.09	.91	.41	.91	2.21
3	3	1/4	1.68	1.43	1.18	.54	.91	2.18
3	3	5/16	2.08	1.77	1.45	.67	.91	2.15
3	3	3/8	2.47	2.10	1.70	.80	.90	2.13
3	3	1/2	3.41	2.74	2.16	1.04	.89	2.08
3 1/2	3 1/2	1/4	1.99	1.69	1.93	.76	1.07	2.56
3 1/2	3 1/2	3/8	2.93	2.49	2.79	1.11	1.06	2.50
3 1/2	3 1/2	1/2	3.83	3.25	3.56	1.45	1.05	2.45
4	4	1/4	2.28	1.94	2.94	1.00	1.23	2.93
4	4	5/16	2.83	2.41	3.61	1.24	1.23	2.90
4	4	3/8	3.38	2.86	4.26	1.48	1.22	2.88
4	4	1/2	4.41	3.75	5.46	1.93	1.21	2.83
5	5	3/8	4.28	3.60	8.37	2.30	1.52	3.64
5	5	1/2	5.58	4.74	10.89	3.03	1.52	3.59
6	6	3/8	5.12	4.35	14.85	3.38	1.85	4.40
6	6	1/2	6.75	5.74	19.38	4.46	1.84	4.34
8	8	1/2	9.14	7.77	47.74	8.16	2.48	5.85



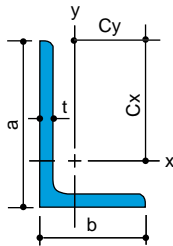
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6061-T6

STRUCTURAL ANGLES

25' lengths



Unequal Legs

a	b	t	lb/ft	Area	Ix	Sx	rx	Cx	Iy	Sy	ry	Cy
1½	1¼	¼	.74	.63	.127	.126	.45	1.13	.079	.090	.36	.76
1¾	1¼	⅛	.42	.36	.108	.090	.55	1.45	.046	.048	.36	.71
1¾	1¼	⅜	.62	.53	.156	.132	.54	1.43	.066	.071	.35	.68
<hr/>												
2	1½	⅛	.50	.42	.17	.12	.63	1.64	.08	.07	.44	.90
2	1½	⅜	.73	.62	.24	.18	.62	1.62	.12	.10	.43	.87
2	1½	¼	.96	.81	.31	.23	.62	1.59	.15	.14	.43	.84
2½	1½	¼	1.11	.94	.59	.36	.79	1.13	.16	.14	.41	1.64
2½	2	⅜	.96	.82	.50	.29	.78	1.99	.29	.19	.59	1.25
2½	2	¼	1.26	1.07	.65	.38	.78	1.97	.37	.25	.58	1.22
2½	2	⅝	1.55	1.32	.78	.46	.77	1.95	.44	.30	.58	1.20
<hr/>												
3	2	⅜	1.07	.91	.82	.40	.95	2.54	.29	.19	.56	1.06
3	2	¼	1.40	1.19	1.06	.52	.94	2.52	.38	.25	.56	1.03
3	2½	¼	1.54	1.31	1.12	.53	.92	2.36	.70	.38	.73	1.61
3	2½	⅜	2.25	1.92	1.60	.78	.91	2.31	1.00	.55	.72	1.56
3½	2½	¼	1.68	1.43	1.73	.72	1.10	2.90	.73	.38	.71	1.41
3½	2½	⅝	2.08	1.77	2.12	.89	1.09	2.88	.89	.48	.71	1.38
3½	2½	⅜	2.47	2.10	2.49	1.06	1.09	2.85	1.05	.57	.71	1.36
3½	3	¼	1.84	1.57	1.84	.74	1.08	2.74	1.28	.57	.90	1.91
<hr/>												
4	3	¼	1.99	1.69	2.68	.96	1.26	3.28	1.29	.56	.87	1.79
4	3	⅜	2.93	2.49	3.88	1.42	1.25	3.23	1.86	.83	.86	1.74
4	3	½	3.83	3.25	4.96	1.85	1.24	3.18	2.36	1.08	.85	1.69
<hr/>												
5	3	⅜	3.35	2.85	7.15	2.15	1.59	4.31	1.93	.84	.82	1.32
5	3	½	4.40	3.74	9.24	2.83	1.57	4.26	2.48	1.10	.81	1.27
5	3½	⅝	3.01	2.56	6.39	1.85	1.58	4.19	2.58	.96	1.00	1.95
5	3½	⅜	3.58	3.05	7.56	2.21	1.58	4.16	3.04	1.15	1.00	1.92
5	3½	½	4.70	4.00	9.77	2.90	1.56	4.11	3.91	1.50	.99	1.87
<hr/>												
6	3½	⅝	3.39	2.88	10.64	2.64	1.92	5.26	2.70	.98	.97	1.53
6	3½	½	5.31	4.51	16.34	4.14	1.90	5.18	4.11	1.53	.95	1.44
6	4	⅜	4.24	3.60	13.02	3.17	1.90	5.09	4.63	1.50	1.13	2.10
6	4	½	5.58	4.74	16.95	4.19	1.89	5.03	6.01	1.98	1.13	2.04
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8	6	¾	11.68	9.93	62.60	11.47	2.51	6.45	30.15	6.77	1.74	3.46



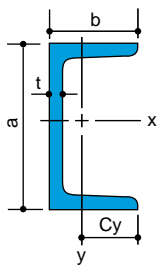
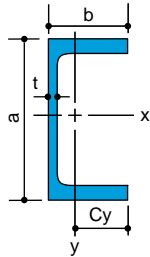
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6061-T6

STRUCTURAL CHANNELS

25' lengths



Aluminum Association Standard

a	b	t	lb/ft	Area	Ix	Sx	rx	Iy	Sy	ry	Cy
2.00	1.00	.13	.577	.491	.288	.288	.766	.045	.064	.303	.70
2.00	1.25	.17	1.071	.911	.546	.546	.774	.139	.178	.391	.78
3.00	1.50	.13	1.135	.965	1.41	.94	1.21	.22	.22	.47	1.01
3.00	1.75	.17	1.597	1.358	1.97	1.31	1.20	.42	.37	.55	1.13
4.00	2.00	.15	1.738	1.478	3.91	1.95	1.63	.60	.45	.64	1.35
4.00	2.25	.19	2.331	1.982	5.21	2.60	1.62	1.02	.69	.72	1.47
5.00	2.25	.15	2.212	1.881	7.88	3.15	2.05	.98	.64	.72	1.52
5.00	2.75	.19	3.089	2.627	11.14	4.45	2.06	2.05	1.14	.88	1.80
6.00	2.50	.17	2.834	2.410	14.35	4.78	2.44	1.53	.90	.80	1.71
6.00	3.25	.21	4.030	3.427	21.04	7.01	2.48	3.76	1.76	1.05	2.13
7.00	2.75	.17	3.205	2.725	22.09	6.31	2.85	2.10	1.10	.88	1.91
7.00	3.50	.21	4.715	4.009	33.79	9.65	2.90	5.13	2.23	1.13	2.30
8.00	3.00	.19	4.147	3.526	37.40	9.35	3.26	3.25	1.57	.96	2.07
8.00	3.75	.25	5.789	4.923	52.69	13.17	3.27	7.13	2.82	1.20	2.53
9.00	4.00	.29	6.970	5.927	78.31	17.40	3.63	9.61	3.49	1.27	2.75
10.00	3.50	.25	6.136	5.218	83.22	16.64	3.99	6.33	2.56	1.10	2.48
10.00	4.25	.31	8.360	7.109	116.15	23.23	4.04	13.02	4.47	1.35	2.91
12.00	4.00	.29	8.274	7.036	159.76	26.63	4.77	11.03	3.86	1.25	2.86
12.00	5.00	.35	11.822	10.053	239.69	39.95	4.88	25.74	7.60	1.60	3.39

American Standard

a	b	t	lb/ft	Area	Ix	Sx	rx	Iy	Sy	ry	Cy
3	1.410	.170	1.420	1.21	1.66	1.10	1.17	.20	.20	.40	.970
3	1.498	.258	1.730	1.47	1.85	1.24	1.12	.25	.23	.41	1.058
3	1.596	.356	2.070	1.76	2.07	1.38	1.08	.31	.27	.42	1.136
4	1.580	.180	1.850	1.57	3.83	1.92	1.56	.32	.28	.45	1.120
4	1.647	.247	2.160	1.84	4.19	2.10	1.51	.37	.31	.45	1.197
4	1.720	.320	2.500	2.13	4.58	2.29	1.47	.43	.34	.45	1.260
5	1.750	.190	2.320	1.97	7.49	3.00	1.95	.48	.38	.49	1.270
5	1.885	.325	3.110	2.64	8.90	3.56	1.83	.63	.45	.49	1.405
5	2.032	.472	3.970	3.38	10.43	4.17	1.76	.81	.53	.49	1.522
6	1.920	.200	2.830	2.40	13.12	4.37	2.34	.69	.49	.54	1.410
6	1.945	.225	3.000	2.55	13.57	4.52	2.31	.73	.51	.54	1.435
6	2.034	.314	3.630	3.09	15.18	5.06	2.22	.87	.56	.53	1.534
6	2.157	.437	4.480	3.82	17.39	5.80	2.13	1.05	.64	.52	1.647
7	2.110	.230	3.540	3.01	21.84	6.24	2.69	1.01	.64	.58	1.570
7	2.194	.314	4.230	3.60	24.24	6.93	2.60	1.17	.70	.57	1.674
8	2.290	.250	4.250	3.62	33.85	8.46	3.06	1.40	.81	.62	1.730
8	2.343	.303	4.750	4.04	36.11	9.03	2.99	1.53	.85	.61	1.793
8	2.435	.395	5.620	4.78	40.04	10.01	2.90	1.75	.93	.61	1.885
8	2.527	.487	6.480	5.51	43.96	10.99	2.82	1.98	1.01	.60	1.957
9	2.430	.230	4.600	3.91	47.68	10.60	3.49	1.75	.96	.67	1.830
9	2.648	.448	6.910	5.88	60.92	13.54	3.22	2.42	1.17	.64	2.068
10	2.600	.240	5.280	4.49	67.37	13.47	3.87	2.28	1.16	.71	1.970
10	2.886	.526	8.640	7.35	91.20	18.24	3.52	3.36	1.48	.68	2.266
12	2.960	.300	7.410	6.30	131.84	21.97	4.57	3.99	1.76	.80	2.250
12	3.047	.387	8.640	7.35	144.37	24.06	4.43	4.47	1.89	.78	2.377
12	3.170	.510	10.370	8.82	162.08	27.01	4.29	5.14	2.06	.76	2.500
15	3.400	.400	11.710	9.96	314.76	41.97	5.62	9.63	3.11	.90	2.610



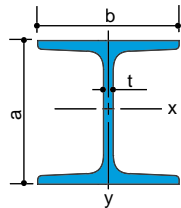
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

ALUMINUM Alloy 6061-T6

STRUCTURAL H-COLUMNS

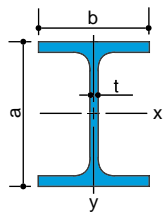
Alloy 6061-T6
25' lengths



a	b	t	lb/ft	Area	lx	Sx	rx	ly	Sy	ry
4	4	.313	4.76	4.05	10.80	5.40	1.63	3.52	1.76	.93
5	5	.313	6.49	5.52	23.94	9.58	2.08	7.73	3.09	1.18
6	6	.250	7.85	6.68	44.25	14.75	2.57	14.02	4.67	1.45

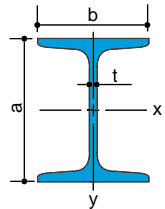
STRUCTURAL I-BEAMS

Alloy 6061-T6
25' lengths



Aluminum Association Standard

a	b	t	lb/ft	Area	lx	Sx	rx	ly	Sy	ry
3.00	2.50	.13	1.637	1.392	2.24	1.49	1.27	.52	.42	.61
3.00	2.50	.15	2.030	1.726	2.71	1.81	1.25	.68	.54	.63
4.00	3.00	.15	2.310	1.965	5.62	2.81	1.69	1.04	.69	.73
4.00	3.00	.17	2.793	2.375	6.71	3.36	1.68	1.31	.87	.74
5.00	3.50	.19	3.699	3.146	13.94	5.58	2.11	2.29	1.31	.85
6.00	4.00	.19	4.030	3.427	21.99	7.33	2.53	3.10	1.55	.95
6.00	4.00	.21	4.693	3.990	25.50	8.50	2.53	3.74	1.87	.97
7.00	4.50	.23	5.800	4.932	42.89	12.25	2.95	5.78	2.57	1.08
8.00	5.00	.23	6.181	5.256	59.69	14.92	3.37	7.30	2.92	1.18
8.00	5.00	.25	7.023	5.972	67.78	16.94	3.37	8.55	3.42	1.20
10.00	6.00	.25	8.646	7.352	132.09	26.42	4.24	14.78	4.93	1.42
10.00	6.00	.29	10.286	8.747	155.79	31.16	4.22	18.03	6.01	1.44
12.00	7.00	.29	11.671	9.925	255.57	42.60	5.07	26.90	7.69	1.65



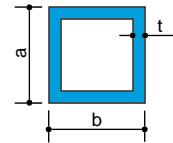
American Standard

a	b	t	lb/ft	Area	lx	Sx	rx	ly	Sy	ry
3	2.330	.170	1.960	1.67	2.52	1.68	1.23	.46	.39	.52
3	2.509	.349	2.590	2.21	2.93	1.95	1.15	.59	.47	.52
4	2.660	.190	2.640	2.25	6.06	3.03	1.64	.76	.57	.58
4	2.796	.326	3.280	2.79	6.79	3.39	1.56	.90	.65	.57
5	3.000	.210	3.430	2.92	12.26	4.90	2.05	1.21	.81	.64
5	3.284	.494	5.100	4.34	15.22	6.09	1.87	1.66	1.01	.62
6	3.330	.230	4.300	3.66	22.08	7.36	2.46	1.82	1.09	.71
6	3.443	.343	5.100	4.34	24.11	8.04	2.36	2.04	1.19	.69
8	4.000	.270	6.350	5.40	57.55	14.39	3.27	3.73	1.86	.83
8	4.262	.532	8.810	7.49	68.73	17.18	3.03	4.66	2.19	.79
10	4.600	.310	8.760	7.45	123.39	24.68	4.07	6.78	2.91	.95
12	5.000	.350	10.990	9.35	218.13	36.35	4.83	9.35	3.74	1.00

STRUCTURAL TUBING

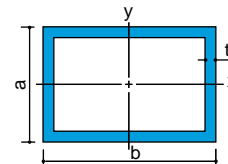
Alloy 6061-T6
24' lengths

Square



a	b	t	lb/ft	Area	I	S
2	2	1/8	1.126	.937	.552	.552
2	2	3/16	1.627	1.343	.743	.745
2 1/2	2 1/2	3/16	2.087	1.739	1.559	1.247
3	3	3/16	2.538	2.115	2.798	1.865
4	4	3/16	3.440	2.867	6.957	3.479

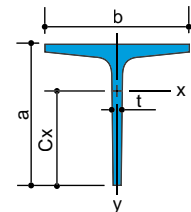
Rectangular



a	b	t	lb/ft	Area	lx	Sx	ly	Sy
2	3	3/16	2.123	1.739	1.064	1.064	2.055	1.370
2	4	3/16	2.538	2.115	1.374	1.374	4.226	2.113
3	6	3/16	3.892	3.226	5.010	3.340	15.032	5.010

STRUCTURAL TEES

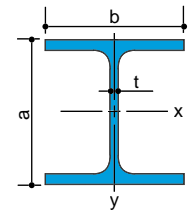
Alloy 6061-T6
25' lengths



a	b	t	lb/ft	Area	lx	Sx	rx	Cx	ly	Sy	ry
2	2	1/4	1.26	1.26	1.07	.37	.26				
.59	1.42	.18	.18	.18	.41						
3	3	3/8	2.72	2.72	2.31	1.83	.86				
.89	2.12	.90	.60	.60	.63						

STRUCTURAL WIDE FLANGE BEAM

Alloy 6061-T6
25' lengths



a	b	t	lb/ft	Area	lx	Sx	rx	ly	Sy	ry
6	4	.230	4.16	3.54	21.75	7.25	2.48	2.98	1.49	.92
6	6	.240	5.40	4.59	30.17	10.06	2.56	9.69	3.23	1.45
8	5 1/4	.230	5.90	5.02	56.73	14.18	3.36	7.44	2.83	1.22
8	6 1/2	.245	8.32	7.08	84.15	21.04	3.44	18.23	5.61	1.61
8	8	.288	10.72	9.12	109.66	27.41	3.47	36.97	9.24	2.01
10(9.90)	5 3/4	.240	7.30	6.21	106.74	21.56	4.15	10.77	3.75	1.32

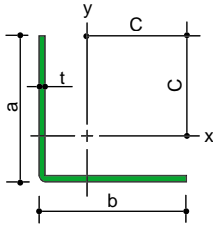
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

● **STAINLESS** Type 304 (18-8) Mill finish, smooth surface, suitable for polishing, except as noted

ROLLED ANGLES

20' lengths

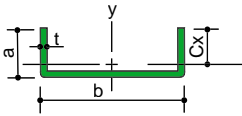


Equal Legs

a	b	t	lb/ft	Area	I	S	C
1/2	1/2	.062	.192	.058	.001	.004	.352
5/8	5/8	.062	.247	.074	.003	.006	.446
3/4	3/4	.062	.296	.089	.005	.009	.539
3/4	3/4	.125	.596	.172	.009	.017	.517
1	1	.062	.410	.120	.012	.016	.727
1	1	.125	.808	.234	.022	.031	.704
1 1/4	1 1/4	.062	.507	.151	.023	.025	.914
1 1/4	1 1/4	.125	1.020	.297	.044	.049	.891
1 1/2	1 1/2	.062	.605	.182	.041	.037	1.102
1 1/2	1 1/2	.125	1.240	.359	.078	.072	1.079

ROLLED CHANNELS

20' lengths, except as noted

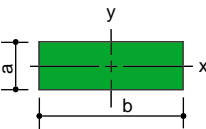


b	a	t	lb/ft	Area	Ix	Sx	Cx	Iy	Sy
1/2	1/2	.062	.284	.085	.002	.007	.310	.003	.013
5/8*	5/16	.078	.293	.085	.001	.003	.206	.004	.014
3/4	3/8	.062	.279	.085	.001	.004	.259	.001	.003
3/4	3/4	.062	.451	.132	.015	.024	.621	.012	.033
1	1/2	.062	.385	.116	.003	.007	.350	.017	.034
1	1	.062	.591	.178	.019	.029	.643	.031	.062
1 1/4	1/2	.062	.452	.132	.003	.008	.366	.029	.047
1 1/2	1/2	.062	.492	.147	.003	.008	.377	.046	.061

* 22' lengths

TRUE BARS

Sharp Corners
12' to 14' lengths



a	b	lb/ft	Area	Ix	Sx	Iy	Sy
3/16	3/4	.478	.141	.000	.004	.007	.018
3/16	1	.638	.188	.001	.006	.016	.032
3/16	1 1/4	.797	.235	.001	.007	.031	.050
3/16	1 1/2	.957	.282	.001	.009	.053	.071
3/16	2	1.280	.376	.001	.012	.125	.125
3/16	3	1.990	.564	.002	.018	.422	.281
1/4	3/4	.636	.188	.001	.008	.009	.023
1/4	1	.850	.250	.001	.008	.021	.042
1/4	1 1/4	1.060	.313	.002	.016	.041	.066
1/4	1 1/2	1.280	.375	.002	.016	.070	.093
1/4	2	1.700	.500	.003	.024	.167	.167
1/4	2 1/2	2.120	.625	.003	.024	.326	.261
1/4	3	2.550	.750	.004	.032	.563	.375
1/4	4	3.400	1.000	.005	.040	1.333	.667
3/8	1	1.280	.375	.004	.021	.031	.062
3/8	1 1/4	1.590	.469	.005	.027	.061	.098
3/8	1 1/2	1.920	.563	.007	.037	.106	.141
3/8	2	2.550	.750	.009	.048	.250	.250
3/8	2 1/2	3.190	.938	.011	.059	.488	.390
3/8	3	3.830	1.125	.013	.069	.844	.563
3/8	4	5.100	1.500	.018	.096	2.000	1.000
1/2	3/4	1.280	.375	.008	.031	.018	.047
1/2	1	1.700	.500	.010	.040	.042	.084
1/2	1 1/2	2.550	.750	.016	.064	.141	.188
1/2	2	3.400	1.000	.021	.084	.333	.333
1/2	2 1/2	4.250	1.250	.026	.104	.651	.520
1/2	3	5.100	1.500	.031	.124	1.125	.750
1/2	4	6.800	2.000	.042	.168	2.667	1.333
3/4	1	2.550	.750	.035	.094	.063	.125
3/4	1 1/2	3.830	1.125	.053	.141	.210	.281
3/4	2	5.100	1.500	.070	.188	.500	.500
3/4	3	7.650	2.250	.106	.281	1.688	1.125
1	1 1/2	5.100	1.500	.125	.250	.281	.375

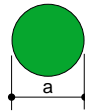
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

● **STAINLESS** Type 304 (18-8) Mill finish, smooth surface, suitable for polishing, except as noted

ROUND BARS

12'-14' lengths



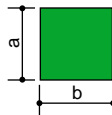
a	lb/ft	Area	I	S
3/8	.378	.110	.001	.005
1/2	.671	.196	.003	.012
9/16*	.850	.249	.005	.018
5/8	1.050	.307	.008	.024
3/4	1.510	.442	.016	.041
7/8*	2.060	.601	.029	.066
1*	2.680	.785	.049	.098
1 1/4*	4.200	1.227	.120	.192

* Type 303

SQUARE BARS

Sharp Corners

12'-14' lengths



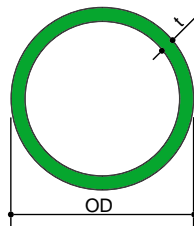
a	b	lb/ft	Area	I	S
1/2	1/2	.855	.250	.005	.021
5/8	5/8	1.330	.391	.013	.041
3/4	3/4	1.920	.563	.026	.070
1	1	3.420	1.000	.083	.167
1 1/4	1 1/4	5.310	1.563	.204	.326

HANDRAIL PIPE

Cold-rolled Ornamental Grade

20' lengths

No. 4, 180 grit, satin finish, paper-wrapped



Nominal Pipe Size	Sched	OD	t	lb/ft	Area	I	S	r
3/4	40	1.050	.113	1.200	.333	.037	.071	.334
1	40	1.315	.120	1.460	.494	.087	.133	.421
1 1/4	5	1.660	.062	1.110	.326	.104	.125	.564
1 1/4	40	1.660	.148	2.150	.669	.195	.235	.540
1 1/2†	5	1.900	.062	1.274	.375	.158	.166	.649
1 1/2	40	1.900	.148	2.550	.800	.310	.326	.623

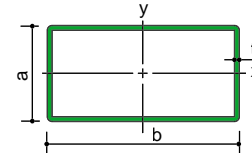
† Also available 2B mill finish

TUBING

Rectangular

Ornamental Grade

20' lengths, except as noted



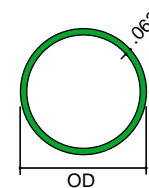
a	b	t	lb/ft	Area	I _x	S _x	r _x	I _y	S _y	r _y
3/4	1 1/2	.062	.946	.266	.025	.066	.305	.076	.101	.533
1	1 1/2	.062	1.048	.297	.048	.096	.403	.092	.122	.556
1	2	.062	1.281	.359	.062	.124	.415	.186	.186	.719
1	3	.062	1.728	.484	.089	.179	.430	.517	.345	1.033
1 1/4	2 1/2	.062	1.616	.453	.125	.200	.525	.372	.297	.906
1 3/4* 3		.062	2.062	.578	.312	.356	.734	.720	.480	1.116
1 3/4* 4		.062	2.683	.703	.401	.458	.755	1.454	.727	1.438

* 21'-1" lengths

Round

Ornamental Grade

20' lengths

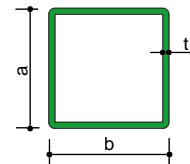


OD	ID	lb/ft	Area	I	S
2 1/2	2.375	1.691	.497	.369	.295
3	2.875	1.930	.577	.622	.415
4	3.875	2.550	.804	1.556	.778

Square

Ornamental Grade

20' lengths

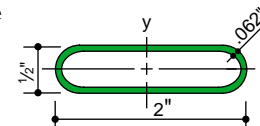


a	b	t	lb/ft	Area	I	S
3/4	3/4	.049	.472	.137	.011	.030
1	1	.062	.835	.234	.034	.069
1 1/4	1 1/4	.062	1.058	.297	.070	.112
1 1/2	1 1/2	.062	1.281	.359	.124	.166
1 3/4	1 3/4	.062	1.505	.422	.200	.230
2	2	.062	1.728	.484	.303	.304

Oval

Ornamental Grade

20' lengths



	lb/ft	Area	I _x	S _x	I _y	S _y
4488	.944	.284	.011	.046	.107	.107

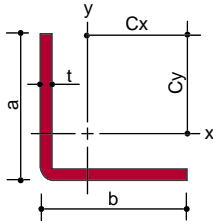
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

STEEL C1010

COLD-ROLLED ANGLES

Square Root and Square Edge
20' lengths



Equal Legs

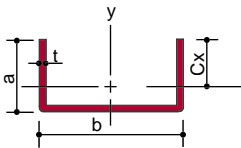
a	b	t	lb/ft	Area	I	S	C
1/2	1/2	1/8	.38	.109	.002	.007	.330
5/8	5/8	1/8	.48	.141	.005	.011	.424
3/4	3/4	1/16	.30	.089	.005	.009	.539
3/4	3/4	1/8	.59	.172	.009	.017	.517
1	1	1/8	.81	.234	.022	.031	.704
1	1	3/16	1.16	.341	.030	.044	.682
1 1/4	1 1/4	1/8	1.02	.297	.044	.049	.891
1 1/4	1 1/4	3/16	1.48	.435	.062	.071	.869
1 1/2	1 1/2	1/8	1.24	.359	.078	.072	1.079
1 1/2	1 1/2	3/16	1.80	.529	.110	.104	1.056
2	2	1/8	1.65	.484	.190	.131	1.454
2	2	3/16	2.44	.717	.273	.191	1.431

Unequal Legs

a	b	t	lb/ft	Area	Ix	Sx	Cx	Iy	Sy	Cy
1	5/8	1/8	.64	.187	.018	.029	.646	.005	.012	.163
1 1/4	3/4	1/8	.80	.234	.037	.045	.812	.010	.018	.562
1 1/2	1	1/8	1.01	.297	.068	.068	1.003	.024	.032	.753
2	1	1/8	1.23	.359	.149	.116	1.285	.026	.033	.785

COLD-ROLLED CHANNELS

Square Root and Square Edge
20' lengths, except as noted



Equal Sides

	b	a	t	lb/ft	Area	Ix	Sx	Cx	Iy	Sy
4730	1/2	1/2	.093	.40	.122	.003	.010	.299	.004	.016
4732	3/4	3/4	.093	.57	.192	.011	.023	.465	.017	.044
4734	1	1	.109	1.03	.303	.030	.049	.625	.048	.096
4744	1 1/4	1 1/4	.109	1.32	.385	.061	.078	.792	.099	.158
4750	1 1/2	1 1/2	.109	1.59	.467	.109	.114	.958	.178	.237
4752	2	2	.125	2.41	.719	.309	.240	1.285	.496	.496

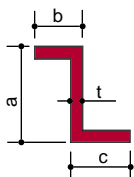
Unequal Sides

	b	a	t	lb/ft	Area	Ix	Sx	Cx	Iy	Sy
4735*	5/8	5/16	.078	.29	.085	.001	.003	.206	.004	.014
4736*	3/4	3/8	.083	.40	.111	.001	.005	.252	.008	.022
4753	2 3/8	2 3/16	.156	3.41	1.005	.499	.351	1.420	1.880	1.583
4754	1 1/2	1	.109	1.22	.358	.035	.052	.674	.117	.155
4759	1 3/4	1 1/8	.109	1.40	.412	.052	.067	.768	.198	.226
4760	2	1	.125	1.59	.469	.044	.062	.704	.276	.276

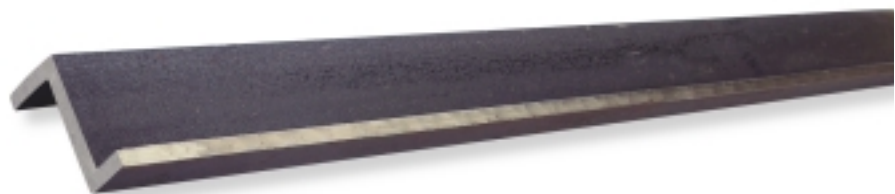
* 22 lengths

HOT-ROLLED ZEES

Square Root
20' lengths



	a	b	c	t	lb/ft
4721	1 3/16	5/8	3/4	1/8	.94
4722	1	1/2	5/8	1/8	.74



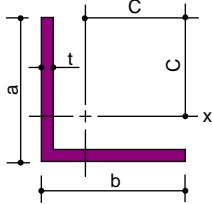
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

NICKEL-SILVER C79800

ANGLES

Sharp Corners
20' lengths



Equal Legs

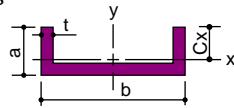
a	b	t	lb/ft	Area	I	S	C
1	1	1/8	.89	.234	.022	.031	.704
1 1/2	1 1/2	1/8	1.35	.359	.780	.072	1.079
1 1/2	1 1/2	1/4	2.52	.688	.139	.134	1.034

Unequal Legs

a	b	t	lb/ft	Area	Ix	Sx	Cx	Iy	Sy	Cy
2	1	1/8	1.33	.359	.150	.117	1.285	.026	.033	.785

CHANNELS

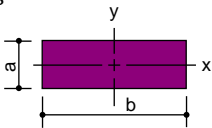
Sharp Corners
20' lengths



b	a	t	lb/ft	Area	Ix	Sx	Cx	Iy	Sy
1/2	1/2	3/32	.44	.126	.003	.009	.348	.004	.017
3/4	3/4	1/8	.90	.250	.014	.030	.453	.020	.053
1 1/4	1/2	1/8	.91	.250	.005	.015	.344	.050	.080
1 1/2	1/2	1/8	1.02	.281	.005	.015	.354	.080	.106

FLAT BARS

Sharp Corners
16' lengths

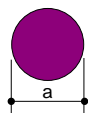


a	b	lb/ft	Area	Ix	Sx	Iy	Sy
1/8	1 1/4	.58	.156	.000	.003	.020	.032
1/8	1 1/2	.69	.188	.000	.004	.035	.047
1/4	3/4	.69	.188	.001	.008	.009	.023
1/4	1 1/4	1.15	.313	.002	.016	.041	.066
1/4	2	1.84	.500	.003	.024	.167	.167
1/4	3	2.77	.750	.004	.032	.563	.375
3/8	3/4	1.04	.281	.003	.018	.013	.035
3/8	1	1.38	.375	.004	.021	.031	.062
3/8	1 1/4	1.73	.469	.005	.027	.061	.098
3/8	1 1/2	2.07	.563	.007	.037	.106	.141
3/8	2	2.76	.750	.009	.048	.250	.250
3/8	3	4.11	1.125	.013	.069	.844	.563
5/16	6	6.67	1.875	.015	.096	5.625	1.875
1/2	3/4	1.37	.375	.008	.031	.018	.047
1/2	1 1/2	2.76	.750	.016	.064	.141	.188
1/2	2	3.68	1.000	.021	.084	.333	.333
1/2	3	5.48	1.500	.031	.124	1.125	.750
3/4	1	2.74	.750	.035	.094	.063	.125
3/4	1 1/2	4.11	1.125	.053	.141	.210	.281
3/4	2	5.53	1.500	.070	.188	.500	.500



ROUND BARS

16' lengths,
except as noted



a	lb/ft	Area	I	S
1/2	.72	.196	.003	.012
5/8	1.13	.307	.008	.024
3/4	1.63	.442	.016	.041
7/8	2.22	.601	.029	.066
1	2.89	.785	.049	.098
1 1/4	4.52	1.227	.120	.192
1 1/2	6.51	1.767	.249	.331
1 5/8	7.50	2.074	.342	.421
2*	11.57	3.142	.785	.785
3**	26.10	7.069	3.974	2.649
3 1/2†	35.00	9.621	7.362	4.209

* 12' lengths
** 10' lengths
† 8' lengths

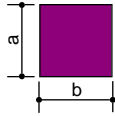
TUBING, BARS, AND SHAPES

All dimensions in inches and weight in pounds per lineal foot

NICKEL-SILVER C79800

SQUARE BARS

Sharp Corners
16' lengths, except as noted

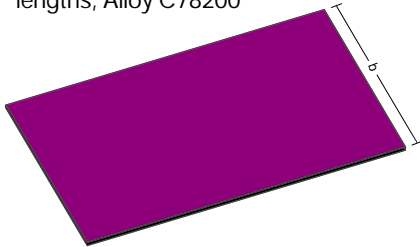


a	b	lb/ft	Area	I	S
1/2	1/2	.92	.250	.005	.021
3/4	3/4	2.08	.563	.026	.070
1	1	3.69	1.000	.083	.167
1 1/4	1 1/4	5.76	1.563	.204	.326
1 1/2**	1 1/2	8.28	2.250	.422	.563

** 10' lengths

NICKEL-SILVER SHEET

Satin Finish and masked one side
7' lengths, Alloy C78200



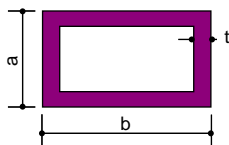
b	Thickness
5 3/8	18ga
8	18ga
19	18ga



TUBING

Rectangular

Sharp Corners, except as noted
16' lengths, except as noted

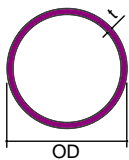


a	b	t	lb/ft	Area	I _x	S _x	C _x	I _y	S _y	C _y
3/4	1 1/2	.100	1.50	.410	.035	.093		.110	.147	
1	2	.100	2.07	.560	.090	.180		.278	.278	
1 1/2	3	.125	3.88	1.022	.384	.512		1.167	.778	
1 3/4	3	.125	4.15	1.125	.566	.647		1.338	.892	
1 3/4	4	.125	5.28	1.375	.732	.836		2.742	1.371	
2 3/4	1 1/4	.125	3.40	.930	.237	.379	.625	.851	.619	1.375

Item No. 1334 Rounded Corners

Round

16' lengths, except as noted

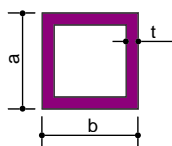


OD	t	lb/ft	Area	I	S
1 1/2*	.100	1.75	.440	.108	.144
1.900*	.109	2.25	.721	.641	.247
2 1/2	.125	3.44	.933	.659	.527
3	.125	4.50	1.129	1.169	.779

* 20' lengths Item No. 5289

Square

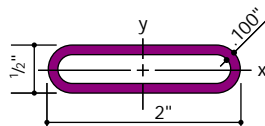
Sharp Corners
16' lengths



a	b	t	lb/ft	Area	I	S
3/4	3/4	.093	.90	.244	.018	.048
1	1	.100	1.32	.360	.049	.098
1 1/4	1 1/4	.100	1.70	.460	.102	.163
1 1/2	1 1/2	.100	2.07	.560	.184	.245
2	2	.100	2.83	.760	.458	.459

Oval

20' lengths



	lb/ft	Area	Major Axis I _x	S _x	Minor Axis I _y	S _y
5288 Nickel-Silver	1.56	.426	.011	.044	.152	.152