



SERVICE STEEL
A VAN PELT COMPANY



PRODUCT CATALOG and Reference Guide





Founded in September 1920, Service Steel has been a leader in steel tubing distribution since the early days of the Ford Model T.

The Van Pelt family lineage runs rich and deep within the framework of the core values and beliefs at Service Steel. Providing world class products and services to our customers is more than a promise, it's a way of life!

Over the course of the past 90 years we have crafted our line of world class products and services around the needs of our customers and we will continue to do so well into the future. We

believe that this level of relentless commitment is not just the mark of a steel tubing distributor but that of an industry leader.

Timely delivery is a standard at Service Steel. Our mission is about delivering an unparalleled level of technical expertise and customer service that comes along with every timely delivery. We engage our mission by exceeding our customers expectations, not just meeting them.

At the end of the day, we think our name says it all, that's why we put service in front of steel!

Table of Contents

Click section titles to go directly to page.

Mechanical Tubing	2-22
Cold Drawn Seamless	
Cold and Hot Rolled Electric Welded	
Drawn Over Mandrel (DOM)	
Propeller Shaft	
Welded Steel Tubing	
Gun Drill Tubing	
Special Mechanical Tubing	23
Square Tubing	24-25
Mechanical and Structural	
Rectangular Tubing	26-27
Mechanical and Structural	
Fluid Power Tubing	28-29
Seamless Mechanical Drawn to OD and ID Tolerances	
Seamless Honed Tubing ID Surface Finish RMS 7-14	
Cold Drawn Cylinder Finish Welded Special Smooth ID	
Hydraulic Line Tubing	30-31
Seamless and Welded	
With Theoretical Bursting Pressure	
Pressure Tubing	32
Cold Drawn Steel Condenser and Heat Exchanger	
Diesel Injection	
Electric Resistance Welded Boiler Tubing	
Hydraulic Line Tubing Specs	33
Commercial Alloy Tubing	34-38
Cold Drawn-Hot Finished, Annealed-Heat Treated	
Aircraft Tubing	39-42
Carbon and Alloy	
Aircraft Stainless Tubing	43
Seamless and Welded	
Commercial Stainless Tubing	44-47
Aluminum Tubing	48-49
Cold Drawn Seamless and Welded	
Carbon Steel Pipe	50-52
Stainless Pipe	53
Pipe Dimensions and Weights	54
Cold Finish Carbon Steel Bar	55
Rounds, Squares, Flats	
Hot Rolled Alloy Steel Bar	56

Table of Contents

Click section titles to go directly to page.

Metric Square Welded and Hollow Tube	57-59
Metric Rectangular Welded and Hollow Tube	60-64
Metric Round Hydraulic Tube, Welded and Seamless	65-66
Specifications	67-79
Square and Rectangular Steel Tubing	
Electric Welded Mechanical Steel Tubing	
Cold Drawn Buttweld Mechanical Steel Tubing	
Cut Lengths	
Tolerances	
Drawn Over Mandrel	
Typical Properties: Carbon & Alloy Steel	
Pipe Specifications: Carbon & Alloy Steel	
Decimal Equivalents and Birmingham Wire Gauge (BWG) Equivalents	
Hardness Conversion Table	
Theoretical Weight-Per-Foot Formulas	
Inches and Fractions of Inches to Decimal Parts of a Foot	

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1/8"	24	.022	.081	.0242
	22	.028	.069	.0290
	20	.035	.055	.0336
51/32"	22	.028	.100	.0383
	21	.032	.092	.0427
	20	.035	.086	.0452
3/16"	24	.022	.144	.0390
	22	.028	.131	.0478
	B22	.028	.131	.0478
	CB22	.028	.131	.0478
	20	.035	.117	.0572
	18	.049	.089	.0727
	DOM18	.049	.089	.0727
	16	.065	.058	.0854
	DOM16	.065	.088	.1079
7/32"	20	.035	.148	.0688
	18	.049	.120	.0890
	DOM18	.049	.120	.0890
	16	.065	.088	.1079
1/4"	24	.022	.206	.0536
	DOM24	.022	.206	.0536
	22	.028	.194	.0664
	W22	.028	.194	.0664
	B22	.028	.194	.0664
	CB22	.028	.194	.0664
	21	.032	.187	.0745
	20	.035	.180	.0804
	W20	.035	.180	.0804
	CB20	.035	.180	.0804
	18	.049	.152	.1052
	DOM18	.049	.152	.1052
	W18	.049	.152	.1052
	17	.058	.134	.1189
	16	.065	.120	.1284
	W16	.065	.120	.1284
	15	.072	.106	.1369
14	.083	.084	.1480	
13	.095	.060	.1573	
9/32"	18	.049	.183	.1214
	W18	.049	.183	.1214
5/16"	24	.022	.268	.0684
	DOM24	.022	.268	.0684
	22	.028	.256	.0852
	W22	.028	.256	.0852
	DOM22	.028	.256	.0852
	CB22	.028	.256	.0852
	21	.032	.249	.0960
	20	.035	.242	.1039
	W20	.035	.242	.1039
	18	.049	.214	.1382
	W18	.049	.214	.1382
	17	.058	.196	.1580
16	.065	.182	.1722	
DOM16	.065	.182	.1722	

O.D.	WALL	DEC.WALL	I.D.	WT./FT.	
5/16"	SAW20	.035	.2425	.1039	
	BW16	.065	.182	.1722	
	15	.072	.313	.1853	
	14	.083	.147	.2039	
	13	.095	.122	.2212	
	12	.109	.094	.2375	
11/32"	11	.120	.073	.2473	
	21	.032	.280	.1066	
	18	.049	.246	.1544	
	3/8"	24	.022	.331	.0829
		23	.025	.325	.0935
22		.028	.319	.1038	
W22		.028	.319	.1038	
FIW22		.028	.319	.1038	
21		.032	.311	.1172	
20		.035	.305	.1271	
W20		.035	.305	.1271	
19		.042	.291	.1494	
18		.049	.277	.1706	
13/32"	W18	.049	.277	.1706	
	BW18	.049	.277	.1706	
	BW.055	.055	.265	.1880	
	17	.058	.259	.1964	
	BW17	.058	.259	.1964	
	16	.065	.245	.2152	
	W16	.065	.245	.2152	
	DOM16	.065	.245	.2152	
	BW16	.065	.245	.2152	
	15	.072	.231	.2330	
7/16"	14	.083	.209	.2588	
	DOM14	.083	.209	.2588	
	BW14	.083	.209	.2588	
	13	.095	.185	.2841	
	BW13	.095	.185	.2841	
	12	.109	.157	.3097	
	BW12	.109	.157	.3097	
	11	.120	.135	.3268	
	BW11	.120	.135	.3268	
	10	.134	.107	.3449	
13/32"	20	.035	.336	.1387	
	16	.065	.276	.2367	
	BW16	.065	.276	.2367	
	14	.083	.240	.2863	
7/16"	13	.095	.216	.3155	
	24	.022	.393	.0977	
	W24	.022	.393	.0977	
	22	.028	.382	.1226	
	21	.032	.374	.1388	
	DOM21	.032	.374	.1388	
	20	.035	.367	.1506	
	19	.042	.354	.1776	
	18	.049	.340	.2036	
	BW18	.049	.340	.2036	
17	.058	.322	.2354		
BW17	.058	.322	.2354		

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
7/16"	16	.065	.307	.2589
	DOM16	.065	.307	.2589
	SA16	.065	.307	.2589
	BW16	.065	.307	.2589
	14	.083	.272	.3147
	BW14	.083	.272	.3147
	13	.095	.248	.3480
	SA13	.095	.248	.3480
	12	.109	.220	.3830
	11	.120	.197	.4075
	BW11	.120	.197	.4075
	10	.134	.169	.4351
1/2"	24	.022	.456	.1123
	DOM24	.022	.456	.1123
	22	.028	.444	.1411
	W22	.028	.444	.1411
	21	.032	.436	.1599
	20	.035	.430	.1738
	W20	.035	.430	.1738
	18	.049	.402	.2360
	W18	.049	.402	.2360
	DOM18	.049	.402	.2360
	BW18	.049	.402	.2360
	17	.058	.384	.2738
	W17	.058	.384	.2738
	BW17	.058	.384	.2738
	16	.065	.370	.3020
	DOM16	.065	.370	.3020
	W16	.065	.370	.3020
	BW16	.065	.370	.3020
	BW15	.072	.356	.3291
	14	.083	.334	.3696
	HRW14	.083	.334	.3696
	BW14	.083	.334	.3696
	13	.095	.310	.4109
	BW13	.095	.310	.4109
	12	.109	.282	.4552
	BW12	.109	.282	.4552
	11	.102	.260	.4870
	W11	.120	.260	.4870
DOM11	.120	.260	.4870	
SA11	.120	.260	.4870	
BW11	.120	.260	.4870	
10	.134	.232	.5238	
5/32	.156	.187	.5731	
BW5/32	.156	.187	.5731	
3/16	.188	.125	.6264	
17/32"	16	.065	.401	.3235
	BW16	.065	.401	.3235
	14	.083	.365	.3971
	W14	.083	.365	.3971
	BW14	.083	.365	.3971
	SABW14	.083	.365	.3971
	11	.120	.291	.5267

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
.540"	.088	.088	.364	.4248
	.119	.119	.302	.5351
9/16"	24	.022	.519	.1271
	22	.028	.506	.1600
	W22	.028	.506	.1600
	20	.035	.492	.1974
	W20	.035	.492	.1974
	DOM20	.035	.492	.1974
	18	.049	.464	.2690
	W18	.049	.464	.2690
	BW18	.049	.464	.2690
	BW17	.058	.447	.3128
	16	.065	.432	.3457
	W16	.065	.432	.3457
	BW16	.065	.432	.3457
	14	.083	.396	.4255
BW14	.083	.396	.4255	
13	.095	.372	.4748	
DOM13	.095	.372	.4748	
BW13	.095	.372	.4748	
BW12	.109	.344	.5285	
11	.120	.322	.5677	
BW11	.120	.322	.5677	
10	.134	.295	.6140	
5/32	.156	.250	.6781	
3/16	.188	.188	.7529	
5/8"	22	.028	.569	.1785
	W22	.028	.569	.1785
	21	.032	.561	.2027
	20	.035	.555	.2205
	W20	.035	.555	.2205
	B20	.035	.555	.2205
	18	.049	.527	.3014
	W18	.049	.527	.3014
	BW18	.049	.527	.3014
	17	.058	.509	.3512
	W17	.058	.509	.3512
	BW17	.058	.509	.3512
	16	.065	.495	.3888
	W16	.065	.495	.3888
	DOM16	.065	.495	.3888
	BW16	.065	.495	.3888
	15	.072	.481	.4252
	14	.083	.459	.4805
HRW14	.083	.459	.4805	
BW14	.083	.459	.4805	
13	.095	.435	.5377	
BW13	.095	.435	.5377	
12	.109	.407	.6007	
DOM12	.109	.407	.6007	
BW12	.109	.407	.6007	
11	.120	.385	.6472	
DOM11	.120	.385	.6472	
BW11	.120	.385	.6472	
10	.134	.357	.7027	
BW10	.134	.357	.7027	

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
5/8"	5/32	.156	.312	.7814
	DOM5/32	.156	.312	.7814
	BW5/32	.156	.312	.7814
	3/16	.188	.250	.8774
	7/32	.219	.187	.9496
21/32"	13	.095	.466	.5692
	BW13	.095	.466	.5692
11/16"	22	.028	.631	.1974
	21	.032	.623	.2242
	20	.035	.618	.2441
	W20	.035	.618	.2441
	18	.049	.589	.3344
	W18	.049	.589	.3344
	DOM8	.049	.589	.3344
	17	.058	.571	.3902
	16	.065	.557	.4325
	W16	.065	.557	.4325
	BW16	.065	.557	.4325
	14	.083	.521	.5363
	HRW14	.083	.521	.5363
	BW14	.083	.521	.5363
	13	.095	.497	.6017
	BW13	.095	.497	.6017
12	.109	.469	.6740	
BW12	.109	.469	.6740	
11	.120	.447	.7279	
BW11	.120	.447	.7279	
10	.134	.419	.7928	
BW10	.134	.419	.7928	
5/32	.156	.375	.8864	
3/16	.188	.312	1.004	
7/32	.219	.250	1.097	
3/4"	23	.025	.700	.1936
	22	.028	.694	.2159
	W22	.028	.694	.2159
	DOM22	.028	.694	.2159
	20	.035	.680	.2673
	W20	.035	.680	.2673
	DOM20	.035	.680	.2673
	18	.049	.652	.3668
	W18	.049	.652	.3668
	DOM18	.049	.652	.3668
	17	.058	.634	.4287
	W17	.058	.634	.4287
	SAW17	.058	.634	.4287
	BW17	.058	.634	.4287
	16	.065	.620	.4755
	DOM16	.065	.620	.4755
	W16	.065	.620	.4755
	BW16	.065	.620	.4755
	15	.072	.606	.5214
	14	.083	.584	.5913
HRW14	.083	.584	.5913	
BW14	.083	.584	.5913	

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
3/4"	13	.095	.560	.6646
	DOM13	.095	.560	.6646
	HRW13	.095	.560	.6646
	HY13	.095	.560	.6646
	BW13	.095	.560	.6646
	12	.109	.532	.7462
	DOM12	.109	.532	.7462
	BW12	.109	.532	.7462
	11	.120	.510	.8074
	BW11	.120	.510	.8074
	10	.134	.482	.8816
	DOM10	.134	.482	.8816
	BW10	.134	.482	.8816
	5/32	.156	.437	.9897
BW5/32	.156	.437	.9897	
BW11/64	.172	.406	1.062	
3/16	.188	.375	1.128	
BW3/16	.188	.375	1.128	
7/32	.219	.313	1.242	
1/4	.250	.250	1.335	
.745/.750"	BW12	.109	.527	.7404
13/16"	24	.022	.769	.1859
	22	.028	.757	.2347
	21	.032	.748	.2669
	20	.035	.742	.2908
	W20	.035	.742	.2908
	18	.049	.714	.3998
	W18	.049	.714	.3998
	17	.058	.697	.4677
	16	.065	.682	.5193
	W16	.065	.682	.5193
	DOM16	.065	.682	.5193
	BW16	.065	.682	.5193
	14	.083	.647	.6471
	HRW14	.083	.647	.6471
	DOM14	.083	.647	.6471
	BW14	.083	.647	.6471
13	.095	.622	.7285	
BW13	.095	.622	.7285	
12	.109	.594	.8195	
11	.120	.573	.8881	
BW11	.120	.573	.8881	
10	.134	.544	.9717	
BW10	.134	.544	.9717	
5/32	.156	.500	1.095	
BW5/32	.156	.500	1.095	
3/16	.188	.437	1.255	
7/32	.219	.375	1.389	
1/4	.250	.313	1.503	
7/8"	24	.022	.831	.2004
	22	.028	.819	.2533
	21	.032	.811	.2881
	20	.035	.805	.3140
	W20	.035	.805	.3140
	19	.042	.791	.3737

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
7/8"	18	.049	.777	.4323
	W18	.049	.777	.4323
	BW18	.049	.777	.4323
	17	.058	.759	.5061
	BW17	.058	.759	.5061
	16	.065	.745	.5623
	W16	.065	.745	.5623
	DOM16	.065	.745	.5623
	SAW16	.065	.745	.5623
	BW16	.065	.745	.5623
	15	.072	.731	.6175
	14	.083	.709	.7021
	HRW14	.083	.709	.7021
	BW14	.083	.709	.7021
	HRW.090	.090	.695	.7545
	13	.095	.685	.7914
	HRW13	.095	.685	.7914
	BW13	.095	.685	.7914
	12	.109	.657	.8917
	BW12	.109	.657	.8917
	11	.120	.635	.9676
	HRW11	.120	.635	.9676
	BW11	.120	.635	.9676
	10	.134	.607	1.060
	BW10	.134	.607	1.060
	BW9	.148	.579	1.149
	5/32	.156	.562	1.198
	BW5/32	.156	.562	1.198
	SDBW5/32	.156	.562	1.198
	BW.180	.180	.515	1.336
	3/16	.188	.500	1.379
	BW3/16	.188	.500	1.379
	7/32	.219	.437	1.534
	BW7/32	.219	.437	1.534
	1/4	.250	.375	1.669
	5/16	.313	.250	1.879
15/16"	W22	.028	.881	.2721
	W20	.035	.867	.3375
	18	.049	.839	.4652
	BW18	.049	.839	.4652
	16	.065	.807	.6060
	W16	.065	.807	.6060
	SAW16	.065	.807	.6060
	BW16	.065	.807	.6060
	14	.083	.772	.7579
	BW14	.083	.772	.7579
	13	.095	.748	.8553
	BW13	.095	.748	.8553
	12	.109	.720	.9651
	11	.120	.697	1.048
	BW11	.120	.697	1.048
	10	.134	.669	1.151
	BW10	.134	.669	1.151
	5/32	.156	.625	1.303
	BW5/32	.156	.625	1.303
	3/16	.187	.562	1.506

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
15/16"	7/32	.219	.500	1.682
	5/16	.313	.312	2.089
1"	22	.028	.944	.2907
	W22	.028	.944	.2907
	21	.032	.936	.3308
	20	.035	.930	.3607
	W20	.035	.930	.3607
	DOM20	.035	.930	.3607
	18	.049	.902	.4977
	W18	.049	.902	.4977
	DOM18	.049	.902	.4977
	16	.065	.870	.6491
	W16	.065	.870	.6491
	DOM16	.065	.870	.6491
	BW16	.065	.870	.6491
	14	.083	.834	.8129
	HRW14	.083	.834	.8129
	BW14	.083	.834	.8129
	13	.095	.810	.9182
	HRW13	.095	.810	.9182
	DOM13	.095	.810	.9182
	BW13	.095	.810	.9182
	HY13	.095	.810	.9182
	12	.109	.782	1.037
	HRW12	.109	.782	1.037
	BW12	.109	.782	1.037
	11	.120	.760	1.128
	HRW11	.120	.760	1.128
	DOM11	.120	.760	1.128
	BW11	.120	.760	1.128
	SDBW11	.120	.760	1.128
1"	BW.125	.125	.750	1.168
	10	.134	.732	1.239
	DOM10	.134	.732	1.239
	BW10	.134	.732	1.239
	5/32	.156	.687	1.406
	BW5/32	.156	.687	1.406
	SDBW5/32	.156	.687	1.406
	BW11/64	.172	.656	1.521
	7	.180	.640	1.576
	BW7	.180	.640	1.576
	3/16	.188	.625	1.630
	SA3/16	.188	.625	1.630
	BW3/16	.188	.625	1.630
	7/32	.219	.562	1.827
	BW7/32	.219	.562	1.827
	1/4	.250	.500	2.003
	BW1/4	.250	.500	2.003
	9/32	.281	.438	2.158
	5/16	.313	.375	2.297
	3/8	.375	.250	2.503
1.017"	BW.196	.196	.625	1.719
1.050"	HY15	.072	.906	.7520
	HY14	.083	.884	.8572

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1.050"	HY13	.095	.860	.9689
	.154	.154	.742	1.474
1 1/16"	22	.028	1.006	.3095
	20	.035	.992	.3843
	W20	.035	.992	.3843
	W18	.049	.964	.5306
	16	.065	.932	.6928
	W16	.065	.932	.6928
	DOM16	.065	.932	.6928
	SAW16	.065	.932	.6928
	14	.083	.897	.8687
	HRW14	.083	.897	.8687
	BW14	.083	.897	.8687
	13	.095	.872	.9821
	DOM13	.095	.872	.9821
	12	.109	.844	1.111
	DOM12	.109	.844	1.111
	11	.120	.822	1.209
	DOM11	.120	.822	1.209
BW11	.120	.822	1.209	
10	.134	.795	1.330	
BW10	.134	.795	1.330	
5/32	.156	.750	1.511	
BW5/32	.156	.750	1.511	
SDBW5/32	.156	.750	1.511	
3/16	.188	.687	1.757	
DOM7/32	.219	.625	1.842	
1/4	.250	.562	2.171	
9/32	.281	.500	2.347	
5/16	.313	.437	2.507	
3/8	.375	.312	2.755	
1 1/8"	22	.028	1.069	.3280
	20	.035	1.055	.4074
	W20	.035	1.055	.4074
	18	.049	1.027	.5631
	W18	.049	1.027	.5631
	DOM18	.049	1.027	.5631
	17	.058	1.009	.6609
	W17	.058	1.009	.6609
	16	.065	.995	.7359
	W16	.065	.995	.7359
	DOM16	.065	.995	.7359
	BW16	.065	.995	.7359
	14	.083	.959	.9237
	HRW14	.083	.959	.9237
	13	.095	.935	1.045
	HRW13	.095	.935	1.045
	DOM13	.095	.935	1.045
BW13	.095	.935	1.045	
12	.109	.907	1.183	
BW12	.109	.907	1.183	
W12	.109	.907	1.183	
11	.120	.885	1.288	
HRW11	.120	.885	1.288	
BW11	.120	.885	1.288	

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1 1/8"	10	.134	.857	1.418
	DOM10	.134	.857	1.418
	BW10	.134	.857	1.418
	BW9	.148	.829	1.544
	5/32	.156	.812	1.614
	BW5/32	.156	.812	1.614
	11/64	.172	.781	1.751
	BW11/64	.172	.781	1.751
	BW.180	.180	.765	1.817
	3/16	.188	.750	1.881
	DOM3/16	.188	.750	1.881
	BW3/16	.188	.750	1.881
	7/32	.219	.688	2.119
	BW7/32	.219	.688	2.119
	1/4	.250	.625	2.336
	BW1/4	.250	.625	2.336
	9/32	.281	.563	2.533
5/16	.313	.500	2.714	
3/8	.375	.375	3.004	
1 3/16"	22	.028	1.131	.3469
	W22	.028	1.131	.3469
	DOM21	.032	1.123	.3951
	20	.035	1.118	.4310
	W20	.035	1.118	.4310
	W18	.049	1.090	.5961
	16	.065	1.057	.7796
	W16	.065	1.057	.7796
	14	.083	1.022	.9795
	BW14	.083	1.022	.9795
	13	.095	.998	1.109
	12	.109	.969	1.256
	11	.120	.947	1.369
	BW11	.120	.947	1.369
	5/32	.156	.875	1.719
	BW5/32	.156	.875	1.719
	3/16	.188	.812	2.008
BW3/16	.188	.812	2.008	
1/4	.250	.687	2.504	
BW1/4	.250	.687	2.504	
9/32	.281	.626	2.722	
5/16	.313	.562	2.925	
1.235"	.100	.100	1.035	1.212
1.247/1.252"	BW.095	.095	1.054/1.057	1.169
1 1/4"	22	.028	1.194	.3654
	W22	.028	1.194	.3654
	DOM22	.028	1.194	.3654
	20	.035	1.180	.4542
	W20	.035	1.180	.4542
	18	.049	1.152	.6285
	W18	.049	1.152	.6285
	DOM18	.049	1.152	.6285
	16	.065	1.120	.8226
	W16	.065	1.120	.8226

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1 1/4"	DOM16	.065	1.120	.8226
	14	.083	1.084	1.034
	HRW14	.083	1.084	1.034
	DOM14	.083	1.084	1.034
	HY14	.083	1.084	1.034
	13	.095	1.060	1.172
	HRW13	.095	1.060	1.172
	DOM13	.095	1.060	1.172
	BW13	.095	1.060	1.172
	HY13	.095	1.060	1.172
	12	.109	1.032	1.328
	HRW12	.109	1.032	1.328
	DOM12	.109	1.032	1.328
	BW12	.109	1.032	1.328
1 1/2"	11	.120	1.010	1.448
	HRW11	.120	1.010	1.448
	BW11	.120	1.010	1.448
	DOM11	.120	1.010	1.448
	DOM.125	.125	1.000	1.502
	10	.134	.982	1.597
	DOM10	.134	.982	1.597
	BW10	.134	.982	1.597
	5/32	.156	.938	1.823
	BW5/32	.156	.938	1.823
	.172	.172	.906	1.980
	BW7	.180	.890	2.057
	3/16	.188	.875	2.132
	SA3/16	.188	.875	2.132
DOM3/16	.188	.875	2.132	
BW3/16	.188	.875	2.132	
1 3/4"	7/32	.219	.813	2.411
	DOM7/32	.219	.813	2.411
	BW7/32	.219	.813	2.411
	BW.225	.225	.800	2.463
	BW.240	.240	.770	2.589
	BW.247	.247	.756	2.646
	1/4	.250	.750	2.670
	DOM1/4	.250	.750	2.670
	BW1/4	.250	.750	2.670
	9/32	.281	.687	2.908
	BW9/32	.281	.687	2.908
	5/16	.313	.625	3.132
	11/32	.344	.562	3.329
	3/8	.375	.500	3.504
7/16	.438	.375	3.798	
1 5/16"	W22	.028	1.256	.3843
	20	.035	1.242	.4777
	W20	.035	1.242	.4777
	18	.049	1.214	.6615
	17	.058	1.197	.7774
	16	.065	1.182	.8664
	W16	.065	1.182	.8664
	HY.075	.075	1.163	.9916
	BW.078	.078	1.157	1.029
	14	.083	1.147	1.090

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1 7/8"	HRW14	.083	1.147	1.090
	13	.095	1.122	1.236
	HRW13	.095	1.122	1.236
	HY13	.095	1.122	1.236
	12	.109	1.094	1.402
	W12	.109	1.094	1.402
	11	.120	1.072	1.529
	DOM11	.120	1.072	1.529
	BW11	.120	1.072	1.529
	HY11	.120	1.072	1.529
	10	.134	1.044	1.687
	DOM10	.134	1.044	1.687
	BW10	.134	1.044	1.687
	BW9	.148	1.017	1.841
2"	5/32	.156	1.000	1.928
	DOM5/32	.156	1.000	1.928
	BW5/32	.156	1.000	1.928
	3/16	.188	.937	2.259
	BW3/16	.188	.937	2.259
	7/32	.219	.875	2.559
	BW7/32	.219	.875	2.559
	1/4	.250	.812	2.838
	BW1/4	.250	.812	2.838
	9/32	.281	.750	3.097
	BW9/32	.281	.750	3.097
	5/16	.313	.688	3.343
	BW5/16	.313	.688	3.343
	3/8	.375	.562	3.757
2 1/8"	22	.028	1.319	.4028
	20	.035	1.305	.5009
	W20	.035	1.305	.5009
	18	.049	1.277	.6939
	W18	.049	1.277	.6939
	DOM18	.049	1.277	.6939
	17	.058	1.259	.8158
	16	.065	1.245	.9094
	W16	.065	1.245	.9094
	DOM16	.065	1.245	.9094
	14	.083	1.209	1.145
	HRW14	.083	1.209	1.145
	13	.095	1.185	1.299
	HRW13	.095	1.185	1.299
12	.109	1.157	1.474	
HRW12	.109	1.157	1.474	
BW12	.109	1.157	1.474	
11	.120	1.135	1.608	
HRW11	.120	1.135	1.608	
DOM11	.120	1.135	1.608	
2 1/4"	BW11	.120	1.135	1.608
	10	.134	1.107	1.776
	BW10	.134	1.107	1.776
	5/32	.156	1.062	2.031
	DOM5/32	.156	1.062	2.031
	BW5/32	.156	1.062	2.031
	11/64	.172	1.031	2.210

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1 3/8"	BW11/64	.172	1.031	2.210
	BW.180	.180	1.015	2.297
	3/16	.188	1.000	2.383
	BW3/16	.188	1.000	2.383
	7/32	.219	.938	2.704
	DOM7/32	.219	.938	2.704
	BW7/32	.219	.938	2.704
	1/4	.250	.875	3.004
	BW1/4	.250	.875	3.004
	9/32	.281	.813	3.283
	DOM9/32	.281	.813	2.283
	BW9/32	.281	.813	2.283
	5/16	.313	.750	3.550
	3/8	.375	.625	4.005
	7/16	.438	.500	4.383
	1/2	.500	.375	4.673
1 7/16"	20	.035	1.367	.5244
	W20	.035	1.367	.5244
	DOM20	.035	1.367	.5244
	16	.065	1.307	.9531
	W16	.065	1.307	.9531
	DOM16	.065	1.307	.9531
	SAW16	.065	1.307	.9531
	14	.083	1.271	1.201
	HRW14	.083	1.271	1.201
	13	.095	1.248	1.363
	11	.120	1.198	1.689
	DOM10	.134	1.170	1.866
	BW.141	.141	1.156	1.953
	5/32	.156	1.125	2.136
	BW5/32	.156	1.125	2.136
	3/16	.188	1.062	2.510
	BW3/16	.188	1.062	2.510
	7/32	.219	1.000	2.851
	BW7/32	.219	1.000	2.851
	1/4	.250	.938	3.172
	DOM1/4	.250	.938	3.172
1 1/2"	22	.028	1.444	.4402
	W22	.028	1.444	.4402
	20	.035	1.430	.5476
	W20	.035	1.430	.5476
	DOM20	.035	1.430	.5476
	18	.049	1.402	.7593
	W18	.049	1.402	.7593
	17	.058	1.384	.8932
	16	.065	1.370	.9962
	W16	.065	1.370	.9962
	DOM16	.065	1.370	.9962
	14	.083	1.334	1.256
	HRW14	.083	1.334	1.256
	DOM14	.083	1.334	1.256
	BW14	.083	1.334	1.256
	13	.095	1.310	1.426
	HRW13	.095	1.310	1.426
	DOM13	.095	1.310	1.426
	BW13	.095	1.310	1.426

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1 1/2"	HY13	.095	1.310	1.426
	12	.109	1.282	1.619
	HRW12	.109	1.282	1.619
	DOM12	.109	1.282	1.619
	BW12	.109	1.282	1.619
	11	.120	1.260	1.769
	HRW11	.120	1.260	1.769
	BW11	.120	1.260	1.769
	DOM11	.120	1.260	1.769
	DOM.125	.125	1.250	1.836
	10	.134	1.232	1.955
	HRW10	.134	1.232	1.955
	BW10	.134	1.232	1.955
	DOM10	.134	1.232	1.955
	5/32	.156	1.187	2.239
	W5/32	.156	1.187	2.239
	BW5/32	.156	1.187	2.239
	11/64	.172	1.156	2.439
	BW7	.180	1.140	2.538
	3/16	.188	1.125	2.634
	DOM3/16	.188	1.125	2.634
	BW3/16	.188	1.125	2.634
	7/32	.219	1.062	2.996
	BW7/32	.219	1.062	2.996
	DOM7/32	.219	1.062	2.996
	BW.240	.240	1.020	3.230
	1/4	.250	1.000	3.338
	DOM1/4	.250	1.000	3.338
	BW1/4	.250	1.000	3.338
	9/32	.281	.938	3.658
	BW9/32	.281	.938	3.658
	5/16	.313	.875	3.968
	DOM5/16	.313	.875	3.968
	BW5/16	.313	.875	3.968
	11/32	.344	.812	4.247
	3/8	.375	.750	4.506
	7/16	.438	.625	4.968
	1/2	.500	.500	5.340
1 9/16"	20	.035	1.493	.5712
	W20	.035	1.493	.5712
	W18	.049	1.464	.7923
	16	.065	1.432	1.040
	W16	.065	1.432	1.040
	DOM16	.065	1.432	1.040
	13	.095	1.372	1.489
	11	.120	1.322	1.849
	BW11	.120	1.322	1.849
	BW10	.134	1.295	2.045
	3/16	.188	1.187	2.761
	7/32	.219	1.125	3.144
	1/4	.250	1.062	3.506
	BW1/4	.250	1.062	3.506
	5/16	.313	.937	4.179
	3/8	.375	.812	4.758

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1 5/8"	20	.035	1.555	.5943
	W20	.035	1.555	.5943
	DOM20	.035	1.555	.5943
	18	.049	1.527	.8248
	W18	.049	1.527	.8248
	16	.065	1.495	1.083
	W16	.065	1.495	1.083
	DOM16	.065	1.495	1.083
	HRW14	.083	1.459	1.367
	13	.095	1.435	1.552
	HRW13	.095	1.435	1.552
	BW13	.095	1.435	1.552
	12	.109	1.407	1.765
	BW12	.109	1.407	1.765
	11	.120	1.385	1.929
	HRW11	.120	1.385	1.929
	BW11	.120	1.385	1.929
	10	.134	1.357	2.134
	HRW10	.134	1.357	2.134
	5/32	.156	1.312	2.447
	BW5/32	.156	1.312	2.447
	11/64	.172	1.281	2.669
	3/16	.188	1.250	2.885
	DOM3/16	.188	1.250	2.885
	BW3/16	.188	1.250	2.885
	7/32	.219	1.187	3.289
	BW7/32	.219	1.187	3.289
	BW4	.238	1.149	3.526
	1/4	.250	1.125	3.671
	BW1/4	.250	1.125	3.671
	9/32	.281	1.063	4.033
	BW9/32	.281	1.063	4.033
	5/16	.313	1.000	4.386
	DOM5/16	.313	1.000	4.386
	BW5/16	.313	1.000	4.386
	BW1 1/32	.344	.937	4.706
	3/8	.375	.875	5.006
	7/16	.438	.749	5.553
	1/2	.500	.625	6.008
	9/16	.563	.499	6.386
	SDBW.380	.380	.865	5.053
1 11/16"	W20	.035	1.618	.6179
	16	.065	1.558	1.127
	SAW16	.065	1.558	1.127
	14	.083	1.522	1.423
	W13	.095	1.560	1.676
	11	.120	1.447	2.010
	BW11	.120	1.447	2.010
	5/32	.156	1.376	2.552
	DOM5/32	.156	1.376	2.552
	BW5/32	.156	1.376	2.552
	3/16	.188	1.312	3.012
	BW3/16	.188	1.312	3.012
	7/32	.219	1.250	3.436
	1/4	.250	1.187	3.839
	9/32	.281	1.126	4.223

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1 11/16"	5/16	.313	1.062	4.596
1 3/4"	20	.035	1.680	.6411
	W20	.035	1.680	.6411
	18	.049	1.652	.8902
	W18	.049	1.652	.8902
	16	.065	1.620	1.170
	W16	.065	1.620	1.170
	DOM16	.065	1.620	1.170
	14	.083	1.584	1.478
	HRW14	.083	1.584	1.478
	DOM14	.083	1.584	1.478
	HY14	.083	1.584	1.478
	13	.095	1.560	1.679
	HRW13	.095	1.560	1.679
	DOM13	.095	1.560	1.679
	BW13	.095	1.560	1.679
	12	.109	1.532	1.910
	HRW12	.109	1.532	1.910
	DOM12	.109	1.532	1.910
	BW12	.109	1.532	1.910
	11	.120	1.510	2.089
	HRW11	.120	1.510	2.089
	DOM11	.120	1.510	2.089
	BW11	.120	1.510	2.089
	HY11	.120	1.510	2.089
	10	.134	1.482	2.313
	HRW10	.134	1.482	2.313
	DOM10	.134	1.482	2.313
	5/32	.156	1.438	2.656
	DOM5/32	.156	1.438	2.656
	BW5/32	.156	1.438	2.656
	BW11/64	.172	1.406	2.899
	3/16	.188	1.375	3.136
	DOM3/16	.188	1.375	3.136
	BW3/16	.188	1.375	3.136
	7/32	.219	1.312	3.581
	BW7/32	.219	1.312	3.581
	BW.240	.240	1.270	3.870
	1/4	.250	1.250	4.005
	DOM1/4	.250	1.250	4.005
	BW1/4	.250	1.250	4.005
	9/32	.281	1.188	4.409
	DOM9/32	.281	1.188	4.409
	BW9/32	.281	1.188	4.409
	5/16	.313	1.125	4.804
	BW5/16	.313	1.125	4.804
	11/32	.343	1.064	5.166
	BW11/32	.343	1.064	5.166
	3/8	.375	1.000	5.507
	DOM3/8	.375	1.000	5.507
	BW3/8	.375	1.000	5.507
	7/16	.438	.875	6.137
	1/2	.500	.750	6.675
	9/16	.563	.624	7.137
	5/8	.625	.500	7.509

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
1 13/16"	W18	.049	1.715	.9231
	16	.065	1.683	1.213
	3/16	.188	1.438	3.263
	BW3/16	.188	1.438	3.263
1 7/8"	20	.035	1.805	.6878
	W20	.035	1.805	.6878
	18	.049	1.777	.9556
	W18	.049	1.777	.9556
	16	.065	1.745	1.257
	W16	.065	1.745	1.257
	DOM16	.065	1.745	1.257
	14	.083	1.709	1.589
	HRW14	.083	1.709	1.589
	HRW13	.095	1.685	1.806
	11	.120	1.635	2.249
	HRW1	.120	1.635	2.249
	DOM11	.120	1.635	2.249
	BW11	.120	1.635	2.249
	HRW10	.134	1.607	2.492
	BW10	.134	1.607	2.492
	5/32	.156	1.562	2.864
	DOM5/32	.156	1.562	2.864
	BW5/32	.156	1.562	2.864
	3/16	.188	1.500	3.387
	BW3/16	.188	1.500	3.387
	7/32	.219	1.438	3.873
	BW7/32	.219	1.438	3.873
	BW.238	.238	1.399	4.161
1/4	.250	1.375	4.339	
DOM1/4	.250	1.375	4.339	
BW1/4	.250	1.375	4.339	
9/32	.281	1.313	4.784	
DOM9/32	.281	1.313	4.784	
BW9/32	.281	1.313	4.784	
5/16	.313	1.250	5.222	
BW5/16	.313	1.250	5.222	
BW.340	.340	1.195	5.574	
3/8	.375	1.125	6.008	
BW3/8	.375	1.125	6.008	
7/16	.438	1.000	6.722	
1/2	.500	.875	7.343	
9/16	.563	.749	7.889	
1.900"	.145	.145	1.610	2.718
1 15/16"	11	.120	1.698	2.330
	1/4	.250	1.438	4.507
	BW1/4	.250	1.438	4.507
	3/8	.375	1.188	6.260
2"	W22	.028	1.944	.6897
	20	.035	1.930	.7345
	W20	.035	1.930	.7345
	DOM20	.035	1.930	.7345
	18	.049	1.902	1.021
	W18	.049	1.902	1.021
	DOM18	.049	1.902	1.021

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
2"	16	.065	1.870	1.343
	W16	.065	1.870	1.343
	DOM16	.065	1.870	1.343
	14	.083	1.834	
	HRW14	.083	1.834	
	DOM14	.083	1.834	
	13	.095	1.810	1.933
	HRW13	.095	1.810	1.933
	HY13	.095	1.810	1.933
	DOM13	.095	1.810	1.933
	12	.109	1.782	2.201
	HRW12	.109	1.782	2.201
	DOM12	.109	1.782	2.201
	BW12	.109	1.782	2.201
11	.120	1.760	2.409	
HRW11	.120	1.760	2.409	
DOM11	.120	1.760	2.409	
HRW10	.134	1.732	2.670	
DOM10	.134	1.732	2.670	
BW10	.134	1.732	2.670	
BW9	.148	1.704	2.927	
5/32	.156	1.687	3.072	
DOM5/32	.156	1.687	3.072	
BW5/32	.156	1.687	3.072	
HRW7	.180	1.640	3.499	
3/16	1.88	1.625	3.638	
DOM3/16	1.88	1.625	3.638	
BW3/16	1.88	1.625	3.638	
7/32	.219	1.562	4.166	
BW7/32	.219	1.562	4.166	
BW15/64	.234	1.532	4.413	
1/4	.250	1.500	4.673	
DOM1/4	.250	1.500	4.673	
BW1/4	.250	1.500	4.673	
.260	.260	1.480	4.832	
9/32	.281	1.437	5.159	
DOM9/32	.281	1.437	5.159	
BW9/32	.281	1.437	5.159	
5/16	.313	1.375	5.639	
DOM5/16	.313	1.375	5.639	
BW5/16	.313	1.375	5.639	
11/32	.344	1.312	6.084	
BW11/32	.344	1.312	6.084	
3/8	.375	1.250	6.508	
DOM3/8	.375	1.250	6.508	
BW3/8	.375	1.250	6.508	
7/16	.438	1.125	7.307	
1/2	.500	1.000	8.010	
9/16	.563	.875	8.640	
5/8	.625	.750	9.178	
3/4	.750	.500	10.01	
2 1/16"	W16	.065	1.935	1.387
	HRW12	.109	1.845	2.275
	BW10	.134	1.795	2.761
	5/32	.156	1.751	3.177
BW3/16	.188	1.688	3.765	

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
2 1/16"	1/4	.250	1.563	4.841
	9/32	.281	1.501	5.348
	5/16	.313	1.437	5.850
2 1/8"	W20	.035	2.055	.7812
	18	.049	2.027	1.086
	W18	.049	2.027	1.086
	SAW18	.049	2.027	1.086
	16	.065	1.995	1.430
	W16	.065	1.995	1.430
	HRW14	.083	1.959	1.810
	13	.095	1.935	2.060
	HRW13	.095	1.935	2.060
	DOM13	.095	1.935	2.060
	HRW12	.109	1.907	2.347
	11	.120	1.885	2.570
	HRW11	.120	1.885	2.570
	DOM11	.120	1.885	2.570
	5/32	.156	1.813	3.281
	DOM5/32	.156	1.813	3.281
	BW5/32	.156	1.813	3.281
	3/16	.188	1.750	3.889
	DOM3/16	.188	1.750	3.889
	BW3/16	.188	1.750	3.889
	7/32	.219	1.687	4.458
DOM7/32	.219	1.687	4.458	
BW.238	.238	1.649	4.796	
1/4	.250	1.625	5.006	
DOM1/4	.250	1.625	5.006	
BW1/4	.250	1.625	5.006	
9/32	.281	1.563	5.534	
5/16	.313	1.500	6.057	
BW5/16	.313	1.500	6.057	
3/8	.375	1.375	7.009	
7/16	.438	1.250	7.892	
15/32	.469	1.187	8.295	
1/2	.500	1.125	8.678	
9/16	.563	.999	9.392	
5/8	.625	.875	10.01	
2 3/16"	13	.095	1.998	2.124
	1/4	.250	1.688	5.175
	9/32	.281	1.626	5.723
2 1/4"	W20	.035	2.180	.8280
	18	.049	2.152	1.152
	W18	.049	2.152	1.152
	16	.065	2.120	1.517
	W16	.065	2.120	1.517
	DOM16	.065	2.120	1.517
	14	.083	2.084	1.921
	HRW14	.083	2.084	1.921
	13	.095	2.060	2.186
	HRW13	.095	2.060	2.186
	DOM13	.095	2.060	2.186
	HY12	.109	2.032	2.492
	11	.120	2.010	2.730

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
2 1/4"	HRW11	.120	2.010	2.730
	DOM11	.120	2.010	2.730
	10	.134	1.982	3.028
	HRW10	.134	1.982	3.028
	5/32	.156	1.937	3.489
	BW5/32	.156	1.937	3.489
	HRW17	.180	1.890	3.979
	3/16	.188	1.875	4.140
	BW3/16	.188	1.875	4.140
	7/32	.219	1.812	4.750
	DOM7/32	.219	1.812	4.750
	BW7/32	.219	1.812	4.750
	1/4	.250	1.750	5.340
	DOM1/4	.250	1.750	5.340
	BW1/4	.250	1.750	5.340
	9/32	.281	1.688	5.909
	BW9/32	.281	1.688	5.909
	5/16	.313	1.625	6.475
	DOM5/16	.313	1.625	6.475
	BW5/16	.313	1.625	6.475
	11/32	.344	1.562	7.002
3/8	.375	1.500	7.509	
DOM3/8	.375	1.500	7.509	
BW3/8	.375	1.500	7.509	
13/32	.406	1.438	7.996	
7/16	.438	1.375	8.476	
1/2	.500	1.250	9.345	
9/16	.563	1.124	10.14	
5/8	.625	1.000	10.85	
3/4	.750	.750	12.02	
2 5/16"	3/16	.188	1.937	4.267
	BW3/16	.188	1.937	4.267
	1/4	.250	1.813	5.508
	9/32	.281	1.751	6.098
2 3/8"	W20	.035	2.305	.8747
	W18	.049	2.277	1.217
	16	.065	2.245	1.604
	W16	.065	2.245	1.604
	HRW14	.083	2.209	2.032
	13	.095	2.185	2.313
	HRW13	.095	2.185	2.313
	HRW12	.109	2.157	2.638
	11	.120	2.135	2.890
	HRW11	.120	2.135	2.890
	10	.124	2.107	3.207
	.154	.154	2.067	3.653
	5/32	.156	2.062	3.697
	HRW5/32	.156	2.062	3.697
DOM5/32	.156	2.062	3.697	
BW5/32	.156	2.062	3.697	
HRW7	.180	2.015	4.220	
DOM.180	.180	2.015	4.220	
3/16	.188	2.000	4.391	
DOM3/16	.188	2.000	4.391	

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
2 3/8"	BW3/16	.188	2.000	4.391
	7/32	.219	1.937	5.043
	BW7/32	.219	1.937	5.043
	DOM7/32	.219	1.937	5.043
	1/4	.250	1.875	5.674
	BW1/4	.250	1.875	5.674
	9/32	.281	1.813	6.284
	BW.300	.300	1.775	6.648
	5/16	.313	1.750	6.893
	BW5/16	.313	1.750	6.893
	3/8	.375	1.625	8.010
	7/16	.438	1.500	9.061
1/2	.500	1.375	10.01	
9/16	.563	1.249	10.90	
5/8	.625	1.125	11.68	
2 7/16"	1/4	.250	1.938	5.842
2 1/2"	W20	.035	2.430	.9214
	18	.049	2.402	1.283
	W18	.049	2.402	1.283
	16	.065	2.370	1.690
	W16	.065	2.370	1.690
	DOM16	.065	2.370	1.690
	14	.083	2.334	2.143
	HRW14	.083	2.334	2.143
	DOM14	.083	2.334	2.143
	13	.095	2.310	2.440
	HRW13	.095	2.310	2.440
	DOM13	.095	2.310	2.440
	12	.109	2.282	2.783
	11	.120	2.260	3.050
	HRW11	.120	2.260	3.050
	DOM11	.120	2.260	3.050
	DOM1/8	.125	2.250	3.171
	10	.134	2.232	3.386
	5/32	.156	2.187	3.905
	DOM5/32	.156	2.187	3.905
	BW5/32	.156	2.187	3.905
	HRW.180	.180	2.140	4.460
	3/16	.188	2.125	4.642
	BW3/16	.188	2.125	4.642
DOM3/16	.188	2.125	4.642	
7/32	.219	2.062	5.335	
DOM7/32	.219	2.062	5.335	
BW7/32	.219	2.062	5.335	
BW.240	.240	2.020	5.793	
1/4	.250	2.000	6.008	
DOM1/4	.250	2.000	6.008	
BW1/4	.250	2.000	6.008	
.263	.263	1.974	6.283	
9/32	.281	1.938	6.659	
DOM9/32	.281	1.938	6.659	
5/16	.313	1.875	7.311	
DOM5/16	.313	1.875	7.311	
BW5/16	.313	1.875	7.311	
BW.340	.340	1.820	7.843	
11/32	.344	1812	7.921	

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
2 1/2"	3/8	.375	1.750	8.511
	BW3/8	.375	1.750	8.511
	7/16	.438	1.625	9.646
	1/2	.500	1.500	10.68
	9/16	.563	1.375	11.65
	5/8	.625	1.250	12.52
3/4	.750	1.000	14.02	
2 9/16"	HRW.180	.180	2.203	4.581
	1/4	.250	2.063	6.176
	9/32	.281	2.001	6.848
	5/16	.313	1.938	7.521
2 5/8"	W20	.035	2.555	2.929
	W18	.049	2.527	1.348
	16	.065	2.495	1.777
	W16	.065	2.495	1.777
	DOM16	.065	2.495	1.777
	HRW14	.083	2.459	2.253
	DOM13	.095	2.435	2.567
	HRW13	.095	2.435	2.567
	12	.109	2.407	2.929
	11	.120	2.385	3.210
	HRW11	.120	2.385	3.210
	5/32	.156	2.313	4.114
	BW5/32	.156	2.313	4.114
	3/16	.188	2.249	4.893
	DOM3/16	.188	2.249	4.893
	BW3/16	.188	2.249	4.893
7/32	.219	2.187	5.627	
1/4	.250	2.125	6.341	
DOM1/4	.250	2.125	6.341	
9/32	.281	2.063	7.035	
5/16	.313	1.999	7.729	
BW5/16	.313	1.999	7.729	
DOM5/16	.313	1.999	7.729	
3/8	.375	1.875	9.011	
DOM3/8	.375	1.875	9.011	
7/16	.438	1.749	10.23	
1/2	.500	1.625	11.35	
9/16	.563	1.499	12.40	
5/8	.625	1.375	13.35	
2 3/4"	20	.035	2.680	1.015
	W18	.049	2.652	1.413
	16	.065	2.620	1.864
	W16	.065	2.620	1.864
	DOM16	.065	2.620	1.864
	14	.083	2.584	2.364
	HRW14	.083	2.584	2.364
	HRW13	.095	2.560	2.694
	DOM13	.095	2.560	2.694
	DOM12	.109	2.532	3.074
	11	.120	2.510	3.371
	HRW11	.120	2.510	3.371
	DOM11	.120	2.510	3.371
	10	.134	2.482	3.744
5/32	.156	2.437	4.322	

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
2 3/4"	HRW7	.180	2.390	4.941
	3/16	.188	2.375	5.144
	DOM3/16	.188	2.375	5.144
	7/32	.219	2.312	5.920
	BW7/32	.219	2.312	5.920
	1/4	.250	2.250	6.675
	BW1/4	.250	2.250	6.675
	9/32	.281	2.187	7.410
	BW9/32	.281	2.187	7.410
	5/16	.313	2.125	8.147
	DOM5/16	.313	2.125	8.147
	11/32	.344	2.062	8.839
	BW11/32	.344	2.062	8.839
	3/8	.375	2.000	9.512
	BW3/8	.375	2.000	9.512
	7/16	.438	1.875	10.82
	1/2	.500	1.750	12.02
5/8	.625	1.500	14.18	
11/16	.688	1.374	15.15	
3/4	.750	1.250	16.02	
7/8	.875	1.000	17.52	
1	1.000	.750	18.69	
2 7/8"	16	.065	2.745	1.951
	W16	.065	2.745	1.951
	HRW13	.095	2.685	2.821
	DOM13	.095	2.685	2.821
	HRW12	.109	2.657	3.220
	11	.120	2.635	3.531
	HRW11	.120	2.635	3.531
	5/32	.156	2.563	4.530
	DOM5/32	.156	2.563	4.530
	HRW7	.180	2.515	5.181
	BW7	.180	2.515	5.181
	3/16	.188	2.500	5.395
	DOM3/16	.188	2.500	5.395
	7/32	.219	2.437	6.212
	DOM7/32	.219	2.437	6.212
	BW7/32	.219	2.437	6.212
	1/4	.250	2.375	7.009
BW1/4	.250	2.375	7.009	
9/32	.281	2.312	7.785	
5/16	.313	2.250	8.564	
BW5/16	.313	2.250	8.564	
3/8	.375	2.125	10.01	
DOM3/8	.375	2.125	10.01	
7/16	.438	2.000	11.40	
1/2	.500	1.875	12.68	
9/16	.563	1.751	13.90	
5/8	.625	1.625	15.02	
2 15/16"	1/4	.250	2.438	7.177
3"	W20	.035	2.930	1.108
	W18	.049	2.902	1.544
	16	.065	2.870	2.037
	W16	.065	2.870	2.037

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
3"	HRW16	.065	2.870	2.037
	DOM16	.065	2.870	2.037
	14	.083	2.834	2.586
	HRW14	.083	2.834	2.586
	DOM14	.083	2.834	2.586
	13	.095	2.810	2.947
	HRW13	.095	2.810	2.947
	DOM13	.095	2.810	2.947
	HRW12	.109	2.782	3.365
	DOM12	.109	2.782	3.365
	11	.120	2.760	3.691
	HRW11	.120	2.760	3.691
	DOM11	.120	2.760	3.691
	DOM1/8	.125	2.750	3.838
	10	.134	2.732	4.102
	HRW10	.134	2.732	4.102
	DOM10	.134	2.732	4.102
5/32	.156	2.688	4.738	
HRW.165	.165	2.670	4.996	
HRW.180	.180	2.640	5.421	
3/16	.188	2.625	5.646	
HRW3/16	.188	2.625	5.646	
DOM3/16	.188	2.625	5.646	
7/32	.219	2.562	6.505	
DOM7/32	.219	2.562	6.505	
1/4	.250	2.500	7.343	
HRW1/4	.250	2.500	7.343	
BW1/4	.250	2.500	7.343	
DOM1/4	.250	2.500	7.343	
HEX*	.250	2.500	7.343	
DOM1/4				
.260	.260	2.480	7.608	
9/32	.281	2.437	8.160	
5/16	.313	2.375	8.982	
11/32	.344	2.312	9.758	
3/8	.375	2.250	10.51	
DOM3/8	.375	2.250	10.51	
SDBW3/8	.375	2.250	10.51	
7/16	.438	2.125	11.98	
1/2	.500	2.000	13.35	
HF1/2	.500	2.000	13.35	
.530	.530	1.940	13.98	
9/16	.563	1.875	14.65	
5/8	.625	1.750	15.85	
HF5/8	.625	1.750	15.85	
11/16	.688	1.626	16.99	
3/4	.750	1.500	18.02	
HF3/4	.750	1.500	18.02	
7/8	.875	1.250	19.86	
1	1.000	1.000	21.36	
3 1/16"	3/16	.188	2.687	.5773
	5/16	.313	2.438	9.193
3 1/8"	16	.065	2.995	2.124
	HRW16	.065	2.995	2.124
	11	.120	2.885	3.851

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
3 1/8"	3/16	.188	2.750	5.897
	DOM3/16	.188	2.750	5.897
	7/32	.219	2.687	6.797
	1/4	.250	2.625	7.676
	DOM1/4	.250	2.625	7.676
	9/32	.281	2.563	8.535
	.305	.305	2.515	9.186
	5/16	.313	2.499	9.400
	DOM5/16	.313	2.499	9.400
	3/8	.375	2.375	11.01
	.380	.380	2.365	11.14
	7/16	.438	2.250	12.57
	1/2	.500	2.125	14.02
	9/16	.563	2.000	15.40
	5/8	.625	1.875	16.690
	3/4	.750	1.625	19.02
	3 1/4"	W18	.049	3.152
16		.065	3.120	2.211
HRW16		.065	3.120	2.211
HRW14		.083	3.084	2.807
13		.095	3.060	3.201
HRW13		.095	3.060	3.201
11		.120	3.010	4.011
HRW11		.120	3.010	4.011
DOM11		.120	3.010	4.011
10		.134	2.982	4.459
DOM10		.134	2.982	4.459
5/32		.156	2.938	5.155
HRW5/32		.156	2.938	5.155
3/16		.188	2.875	6.148
HRW3/16		.188	2.875	6.148
DOM3/16		.188	2.875	6.148
7/32		.219	2.812	7.089
1/4		.250	2.750	8.010
DOM1/4		.250	2.750	8.010
.255		.255	2.740	8.157
9/32		.281	2.688	8.910
5/16		.313	2.625	9.818
DOM5/16		.313	2.625	9.818
11/32		.344	2.562	10.68
3/8		.375	2.500	11.51
DOM3/8		.375	2.500	11.51
13/32		.406	2.438	12.33
7/15		.438	2.375	13.15
1/2		.500	2.250	14.69
9/16		.563	2.124	16.16
5/8		.625	2.000	17.52
3/4		.750	1.750	20.03
7/8		.875	1.500	22.19
1	1.000	1.250	24.03	
3 3/8"	HRW16	.065	3.245	2.298
	13	.095	3.185	3.328
	HRW13	.095	3.185	3.328
	11	.120	3.135	4.172
	DOM11	.120	3.135	4.172

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
3 3/8"	3/16	.188	3.000	6.399
	DOM3/16	.188	3.000	6.399
	7/32	.219	2.938	7.382
	1/4	.250	2.875	8.344
	5/16	.313	2.749	10.24
	DOM5/16	.313	2.749	10.24
	3/8	.375	2.625	12.02
	DOM3/8	.375	2.625	12.02
	7/16	.438	2.501	13.74
	1/2	.500	2.376	15.36
	9/16	.563	2.249	16.91
3/4	.750	1.876	21.03	
3.418"	DOM1/4	.250	2.918	8.459
3 1/2"	W18	.049	3.402	1.808
	16	.065	3.370	2.385
	HRW16	.065	3.370	2.385
	DOM16	.065	3.370	2.385
	HRW14	.083	3.334	3.029
	13	.095	3.310	3.455
	HRW13	.095	3.310	3.455
	DOM13	.095	3.310	3.455
	11	.120	3.260	4.332
	HRW11	.120	3.260	4.332
	DOM11	.120	3.260	4.332
	10	.134	3.232	4.817
	5/32	.156	3.188	5.571
	DOM5/32	.156	3.188	5.571
	HRW7	.180	3.140	6.382
	3/16	.188	3.125	6.650
	HRW3/16	.188	3.125	6.650
	DOM3/16	.188	3.125	6.650
	7/32	.219	3.063	7.674
DOM7/32	.219	3.063	7.674	
1/4	.250	3.000	8.676	
HRW1/4	.250	3.000	8.676	
DOM1/4	.250	3.000	8.676	
.265	.265	2.970	9.156	
9/32	.281	2.938	9.660	
5/16	.313	2.875	10.65	
DOM5/16	.313	2.875	10.65	
11/32	.344	2.812	11.59	
3/8	.375	2.750	12.52	
DOM3/8	.375	2.750	12.52	
7/16	.438	2.625	14.32	
1/2	.500	2.500	16.02	
9/16	.563	2.374	17.66	
.600	.600	2.300	18.58	
5/8	.625	2.250	19.19	
3/4	.750	2.000	22.03	
HEX*3/4	.750	2.000	22.03	
7/8	.875	1.750	24.53	
1	1.000	1.500	26.70	
3 5/8"	HRW16	.065	3.495	2.471
	3/16	.188	3.250	6.901

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.	
3 5/8"	DOM3/16	.188	3.250	6.901	
	1/4	.250	3.125	9.011	
	5/16	.313	2.999	11.07	
	DOM5/16	.313	2.999	11.07	
	3/8	.375	2.875	13.02	
	7/16	.438	2.749	14.91	
	1/2	.500	2.625	16.69	
	9/16	.563	2.500	18.41	
	5/8	.625	2.375	20.03	
	3/4	.750	2.125	23.03	
	3 3/4"	W16	.065	3.620	2.558
		HRW16	.065	3.620	2.558
13		.095	3.560	3.708	
HRW13		.095	3.560	3.708	
11		.120	3.510	4.652	
HRW11		.120	3.510	4.652	
DOM1/8		.125	3.500	4.839	
10		.134	3.482	5.175	
5/32		.156	3.437	5.988	
3/16		.188	3.375	7.152	
HRW3/16		.188	3.375	7.152	
DOM3/16		.188	3.375	7.152	
1/4		.250	3.250	9.345	
DOM1/4		.250	3.250	9.345	
.263		.263	3.224	9.794	
5/16		.313	3.125	11.49	
DOM5/16		.313	3.125	11.49	
11/32		.344	3.062	12.51	
3/8		.375	3.000	13.52	
DOM3/8		.375	3.000	13.52	
L3/8		.375	3.000	13.52	
7/16		.438	2.875	15.49	
1/2		.500	2.750	17.36	
9/16		.563	2.624	19.16	
5/8	.625	2.500	20.86		
3/4	7.50	2.250	24.03		
7/8	.875	2.000	26.87		
1	1.000	1.750	29.37		
3 7/8"	HRW16	.065	3.745	2.645	
	11	.120	3.635	4.812	
	3/16	.188	3.499	7.403	
	1/4	.250	3.375	9.679	
	DOM1/4	.250	3.375	9.679	
	5/16	.313	3.250	11.91	
	DOM5/16	.313	3.250	11.91	
	3/8	.375	3.125	14.02	
	DOM3/8	.375	3.125	14.02	
	7/16	.438	3.000	16.08	
	1/2	.500	2.875	18.02	
	9/16	.563	2.750	19.91	
	5/8	.625	2.625	21.69	
	3/4	.750	2.375	25.03	
4"	W18	.049	3.964	2.068	
	16	.065	3.870	2.732	
	HRW16	.065	3.870	2.732	

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
4"	DOM16	.065	3.870	2.732
	SAHRW16	.065	3.870	2.732
	HRW14	.083	3.834	3.472
	HRW13	.095	3.810	3.962
	DOM13	.095	3.810	3.962
	HRW12	.109	3.782	4.530
	11	.120	3.760	4.973
	HRW11	.120	3.760	4.973
	DOM11	.120	3.760	4.973
	10	.134	3.732	5.533
	HRW10	.134	3.732	5.533
	DOM10	.134	3.732	5.533
	3/16	.188	3.625	7.654
	HRW3/16	.188	3.625	7.654
	DOM3/16	.188	3.625	7.654
	7/32	.219	3.562	8.843
	DOM.248	.248	3.504	9.938
	1/4	.250	3.500	10.01
	HRW1/4	.250	3.500	10.01
	DOM1/4	.250	3.500	10.01
	.260	.260	3.480	10.39
	9/32	.281	3.438	11.16
	5/16	.313	3.375	12.33
	DOM5/16	.313	3.375	12.33
3/8	.375	3.250	14.52	
DOM3/8	.375	3.250	14.52	
7/16	.438	3.126	16.66	
1/2	.500	3.000	18.69	
DOM1/2	.500	3.000	18.69	
HF1/2	.500	3.000	18.69	
9/16	.563	2.874	20.67	
5/8	.625	2.750	22.53	
HF5/8	.625	2.750	22.53	
11/16	.688	2.624	24.34	
3/4	.750	2.500	26.03	
HF3/4	.750	2.500	26.03	
7/8	.875	2.250	29.20	
1	1.000	2.000	32.04	
HF1	1.000	2.000	32.04	
1 1/4	1.250	1.500	36.71	
HF1 1/4	1.250	1.500	36.71	
4.050"	DOM1/4	.250	3.550	10.15
	.275	.275	3.500	11.09
4 1/8"	HRW16	.065	3.995	2.818
	HRW13	.095	3.935	4.089
	11	.120	3.885	5.133
	3/16	.188	3.749	7.905
	DOM3/16	.188	3.749	7.905
	1/4	.250	3.625	10.35
	DOM1/4	.250	3.625	10.35
	5/16	.313	3.499	12.74
	DOM5/16	.313	3.499	12.74
	3/8	.375	3.375	15.02
7/16	.438	3.249	17.25	
1/2	.500	3.125	19.36	

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.	
4 1/8"	DOM1/2	.500	3.125	19.36	
	9/16	.563	3.000	21.42	
	5/8	.625	2.875	23.36	
4 1/4"	11	.120	4.010	5.293	
	3/16	.188	3.874	8.156	
	DOM3/16	.188	3.874	8.156	
	1/4	.250	3.750	10.68	
	DOM1/4	.250	3.750	10.68	
	5/16	.313	3.624	13.161	
	3/8	.375	3.500	15.519	
		.385	.385	3.480	15.892
		7/16	.438	3.374	17.832
		1/2	.500	3.250	20.025
		5/8	.625	3.000	24.197
		3/4	.750	2.750	28.035
	4 3/8"	HRW16	.065	4.245	2.992
13		.095	4.185	4.342	
DOM13		.095	4.185	4.342	
HRW13		.095	4.185	4.342	
11		.120	4.135	5.453	
HRW11		.120	4.135	5.453	
DOM11		.120	4.135	5.453	
DOM.132		.132	4.111	5.982	
DOM10		.134	4.107	6.069	
10		.134	4.107	6.069	
		3/16	.188	3.999	8.407
		1/4	.250	3.875	11.014
		DOM1/4	.250	3.875	11.014
		HEX*DOM 1/4	.250	3.875	11.014
		5/16	.313	3.749	13.579
		DOM5/16	.313	3.749	13.579
		11/32	.344	3.687	14.810
		3/8	.375	3.625	16.020
		DOM3/8	.375	3.625	16.020
		7/16	.438	3.499	18.417
	1/2	.500	3.375	20.693	
	DOM1/2	.500	3.375	20.693	
	9/16	.563	3.249	22.921	
	5/8	.625	3.125	25.031	
	3/4	.750	2.875	29.036	
	7/8	.875	2.625	32.708	
	1	1.000	2.375	36.045	
	HF1 1/8	1.125	2.125	39.049	
	HF1 1/4	1.250	1.875	41.719	
4 1/2"	HRW16	.065	4.370	3.079	
	HRW14	.083	4.334	3.915	
	13	.095	4.310	4.469	
	HRW13	.095	4.310	4.469	
	HRW12	.109	4.282	5.112	
	11	.120	4.260	5.613	
	HRW11	.120	4.260	5.613	
	DOM11	.120	4.260	5.613	
	SAW10	.134	4.232	6.248	
	5/32	.156	4.188	7.237	

O.D.	WALL	DEC.WALL	I.D.	WT./FT.	
4 1/2"	HRW7	.180	4.140	8.305	
	3/16	.188	4.125	8.658	
	DOM3/16	.188	4.125	8.658	
	7/32	.219	4.062	10.01	
	DOM.243	.243	4.014	11.05	
	DOM 1/4	.250	4.000	11.35	
		.265	.265	3.970	11.99
		9/32	.281	3.938	12.66
		5/16	.313	3.875	14.00
		DOM1/4	.250	4.000	11.35
		3/8	.375	3.750	16.52
		7/16	.438	3.625	19.00
		1/2	.500	3.500	21.36
	DOM1/2	.500	3.500	21.36	
	9/16	.563	3.374	23.67	
	5/8	.625	3.250	25.87	
	HF5/8	.625	3.250	25.87	
	11/16	.688	3.124	28.01	
	3/4	.750	3.000	30.04	
	HF3/4	.750	3.000	30.04	
	7/8	.875	2.750	33.88	
	1	1.000	2.500	37.38	
	HF1	1.000	2.500	37.38	
	HF1 1/8	1.125	2.250	40.55	
	HF1 1/4	1.250	2.000	43.39	
4.555"	SADOM1/4	.250	4.055	11.49	
4.560"	.405	.405	3.750	17.97	
4 5/8"	3/16	.188	4.249	8.909	
	DOM3/16	.188	4.249	8.909	
	1/4	.250	4.125	11.68	
	DOM1/4	.250	4.125	11.68	
	5/16	.313	3.999	14.41	
	DOM5/16	.313	3.999	14.41	
	3/8	.375	3.875	17.02	
	1/2	.500	3.625	22.03	
	5/8	.625	3.375	26.70	
	3/4	.750	3.125	31.04	
4 3/4"	HRW16	.065	4.620	3.252	
	11	.120	4.510	5.934	
	HRW11	.120	4.510	5.934	
	DOM11	.120	4.510	5.934	
	3/16	.188	4.375	9.160	
	DOM3/16	.188	4.375	9.160	
	1/4	.250	4.250	12.02	
	5/16	.313	4.125	14.83	
	DOM5/16	.313	4.125	14.83	
	3/8	.375	4.000	17.52	
		DOM3/8	.375	4.000	17.52
		7/16	.438	3.874	20.17
		1/2	.500	3.750	22.70
	9/16	.563	3.624	25.18	
	5/8	.625	3.500	27.53	
	3/4	.750	3.250	32.04	
	7/8	.875	3.000	36.21	

Mechanical Tubing



CODES: **B**–Bundy **W**–Welded **BW**–Mandrel Drawn Buttweld **CB**–Copper Brazed Double Wall **SA**–Soft Annealed
DOM–Drawn Over Mandrel **HF**–Hot Finished Seamless **HRW**–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
4 3/4"	1	1.000	2.750	40.05
	HF1	1.000	2.750	40.05
	HF1 1/4	1.250	2.250	46.73
4 7/8"	3/16	.188	4.499	9.411
	1/4	.250	4.375	12.35
	DOM5/16	.313	4.249	15.25
	3/8	.375	4.125	18.02
	7/18	.438	4.000	20.76
	1/2	.500	3.875	23.36
4.940"	.243	.243	4.455	12.19
4.999"	DOM.260	.260	4.479	13.16
5"	HRW16	.065	4.870	3.426
	HRW14	.083	4.834	4.359
	11	.120	4.760	6.254
	HRW11	.120	4.760	6.254
	DOM11	.120	4.760	6.254
	HRW5/32	.156	4.688	8.070
	3/16	.188	4.625	9.662
	HRW3/16	.188	4.625	9.662
	1/4	.250	4.500	12.68
	HRW1/4	.250	4.500	12.68
	DOM1/4	.250	4.500	12.68
	.262	.262	4476	13.26
	5/16	.313	4.375	15.67
	DOM5/16	.313	4.375	15.67
	3/8	.375	4.250	18.52
	DOM3/8	.375	4.250	18.52
	7/16	.438	4.125	21.34
DOM7/16	.438	4.125	21.34	
1/2	.500	4.000	24.03	
9/16	.563	3.874	26.68	
5/8	.625	3.750	29.20	
3/4	.750	3.500	34.04	
HF3/4	.750	3.500	34.04	
7/8	.875	3.250	38.55	
1	1.000	3.000	42.72	
HF1	1.000	3.000	42.72	
HF1 1/4	1.250	2.500	50.06	
HF1 1/2	1.500	2.000	56.07	
5.060"	.405	.405	4.250	20.13
5.062"	DOM1/4	.250	4.562	12.85
5.095"	.325	.325	4.445	16.50
5 1/8"	5/16	.313	4.499	16.09
	3/8	.375	4.375	19.02
	1/2	.500	4.125	24.70
	5/8	.625	3.875	30.04
	1	1.000	3.125	44.06
5 1/4"	11	.120	5.010	6.575
	DOM11	.120	5.010	6.575
	1/8	.125	5.000	6.842

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
5 1/4"	10	.134	4.982	7.322
	1/4	.250	4.750	13.35
	DOM1/4	.250	4.750	13.35
	5/16	.313	4.625	16.50
	3/8	.375	4.500	19.52
	1/2	.500	4.250	25.37
	5/8	.625	4.000	30.87
	3/4	.750	3.750	36.05
	7/8	.875	3.500	40.88
	1	1.000	3.250	45.39
HF1 1/8	1.125	3.00	49.56	
HF1 1/4	1.250	2.750	53.40	
5 3/8"	3/16	.188	5.000	10.41
	DOM3/16	.188	5.000	10.41
5 1/2"	HRW16	.065	5.370	3.773
	HRW14	.083	5.334	4.802
	HRW13	.095	5.310	5.484
	11	.120	5.260	6.895
	HRW11	.120	5.260	6.895
	DOM11	.120	5.260	6.895
	HRW10	.134	5.232	7.679
	3/16	.188	5.125	10.67
	SDEW5	.220	5.060	12.41
	1/4	.250	5.000	14.02
DOM1/4	.250	5.000	14.02	
.265	.265	4.970	14.82	
5/16	.313	4.875	17.34	
DOM5/16	.313	4.875	17.34	
3/8	.375	4.750	20.53	
DOM3/8	.375	4.750	20.53	
7/16	.438	4.624	23.68	
1/2	.500	4.500	26.70	
5/8	.625	4.250	32.54	
3/4	.750	4.000	38.05	
7/8	.875	3.750	43.22	
1	1.000	3.500	48.06	
1 1/4	1.250	3.000	56.74	
HF1 1/4	1.250	3.000	56.74	
1 1/2	1.500	2.500	64.08	
HF1 1/2	1.500	2.500	64.08	
5 5/8"	5/16	.313	4.999	17.76
	3/8	.375	4.875	21.03
	5/8	.625	4.375	33.38
5 3/4"	11	.120	5.510	7.215
	DOM11	.120	5.510	7.215
	3/16	.188	5.375	11.17
	DOM3/16	.188	5.375	11.17
	1/4	.250	5.250	14.69
	DOM1/4	.250	5.250	14.69
	5/16	.313	5.124	18.18
	DOM5/16	.313	5.124	18.18
	3/8	.375	5.000	21.53
	DOM3/8	.375	5.000	21.53

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
5 3/4"	.385	.385	4.980	22.08
	1/2	.500	4.750	28.04
	5/8	.625	4.500	34.21
	3/4	.750	4.250	40.05
	7/8	.875	4.000	45.56
	1	1.000	3.750	50.73
5 7/8"	5/16	.313	5.249	18.59
	3/8	.375	5.125	22.03
6"	HRW16	.065	5.870	4.120
	HRW14	.083	5.834	5.245
	11	.120	5.760	7.536
	HRW11	.120	5.760	7.536
	DOM11	.120	5.760	7.536
	HRW10	.134	5.732	8.395
	HRW7	.180	5.640	11.19
	3/16	.188	5.625	11.67
	HRW3/16	.188	5.625	11.67
	DOM3/16	.188	5.625	11.67
	1/4	.250	5.500	15.35
	HRW1/4	.250	5.500	15.35
	DOM1/4	.250	5.500	15.35
	5/16	.313	5.374	19.01
	3/8	.375	5.250	22.53
	DOM3/8	.375	5.250	22.53
	HRW3/8	.375	5.250	22.53
	1/2	.500	5.000	29.37
	DOM1/2	.500	5.000	29.37
	HF1/2	.500	5.000	29.37
	.515	.515	4.970	30.17
	5/8	.625	4.750	35.88
	3/4	.750	4.500	42.05
	HF3/4	.750	4.500	42.05
	7/8	.875	4.250	47.89
	HF7/8	.875	4.250	47.89
	1	1.000	4.000	53.40
	HF1	1.000	4.000	53.40
	HF1 1/4	1.250	3.500	63.41
	HF1 1/2	1.500	3.000	72.09
6 1/4"	.112	.112	6.026	7.342
	11	.120	6.010	7.856
	3/16	.188	5.874	12.17
	1/4	.250	5.750	16.02
	DOM1/4	.250	5.750	16.02
	3/8	.375	5.500	25.53
	DOM3/8	.375	5.500	25.53
	1/2	.500	5.250	30.71
	5/8	.625	5.000	37.55
	3/4	.750	4.750	44.06
	1	1.000	4.250	56.07
6 1/2"	3/16	.188	6.124	12.67
	DOM3/16	.188	6.124	12.67
	1/4	.250	6.000	16.69
	DOM1/4	.250	6.000	16.69
	.270	.270	5.960	17.96
	3/8	.375	5.750	24.53

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
6 1/2"	DOM3/8	.375	5.750	24.53
	1/2	.500	5.500	32.04
	5/8	.625	5.250	39.22
	3/4	.750	5.000	46.06
	1	1.000	4.500	58.74
	HF1 1/4	1.250	4.000	70.09
	HF1 1/2	1.500	3.500	80.10
6 5/8"	5/16	.313	5.999	21.10
	HF.432	.432	5.761	28.57
6 3/4"	3/16	.188	6.374	13.18
	DOM3/16	.188	6.374	13.18
	1/4	.250	6.250	17.36
	DOM1/4	.250	6.250	17.36
	3/8	.375	6.000	25.53
	.390	.390	5.970	26.49
	1/2	.500	5.750	33.38
	5/8	.625	5.500	40.88
	3/4	.750	5.250	48.06
	7/8	.875	5.000	54.90
	1	1.000	4.750	61.41
	HF1 1/4	1.250	4.250	73.43
6.995"	.383	.383	6.229	27.05
7"	HRW14	.083	6.834	6.132
	3/16	.188	6.625	13.68
	DOM3/16	.188	6.625	13.68
	1/4	.250	6.500	18.02
	DOM1/4	.250	6.500	18.02
	3/8	.375	6.250	26.53
	DOM3/8	.375	6.250	26.53
	1/2	.500	6.000	34.71
	HF1/2	.500	6.000	34.71
	DOM1/2	.500	6.000	34.71
	.520	.520	5.960	35.99
	5/8	.625	5.750	42.55
	HF5/8	.625	5.750	42.55
	3/4	.750	5.500	50.06
	HF3/4	.750	5.500	50.06
	1	1.000	5.000	64.08
	HF1	1.000	5.000	64.08
	HF1 1/8	1.125	4.750	70.59
	HF1 1/4	1.250	4.500	76.76
	HF1 1/2	1.500	4.000	88.11
	HF1 7/8	1.875	3.250	102.6
	HF2	2.000	3.000	128.2
7 1/4"	1/4	.250	6.750	18.69
	3/8	.375	6.500	27.53
	1/2	.500	6.250	36.05
	5/8	.625	6.000	44.22
	3/4	.750	5.750	52.07
	1	1.000	5.250	66.75
7.411"	.222	.222	6.967	17.04

Mechanical Tubing



CODES: **B**–Bundy **W**–Welded **BW**–Mandrel Drawn Buttweld **CB**–Copper Brazed Double Wall **SA**–Soft Annealed
DOM–Drawn Over Mandrel **HF**–Hot Finished Seamless **HRW**–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
7 1/2"	3/16	.188	7.124	14.68
	DOM3/16	.188	7.124	14.68
	1/4	.250	7.000	19.36
	DOM1/4	.250	7.000	19.36
	3/8	.375	6.750	28.54
	DOM3/8	.375	6.750	28.54
	1/2	.500	6.500	37.38
	DOM1/2	.500	6.500	37.38
	HF1/2	.500	6.500	37.38
	5/8	.625	6.250	45.89
	HF5/8	.625	6.250	45.89
	3/4	.750	6.000	54.07
	HF3/4	.750	6.000	54.07
	1	1.000	5.500	69.42
HF1	1.000	6.000	69.42	
HF1 1/4	1.250	5.000	83.44	
HF1 1/2	1.500	4.500	96.12	
7 5/8"	HF3/8	.375	6.875	29.04
	HF1/2	.500	6.625	38.05
	HF7/8	.875	5.875	63.08
	HF1 1/4	1.250	5.125	85.11
7 3/4"	1/4	.250	7.250	20.03
	5/16	.313	7.124	24.86
	3/8	.375	7.000	29.54
	1/2	.500	6.750	38.72
	5/8	.625	6.500	47.56
	3/4	.750	6.250	56.07
	HF3/4	.750	6.250	56.07
	1	1.000	5.750	72.09
	HF1	1.000	5.750	72.09
	HF1 1/4	1.250	5.250	86.78
HF1 1/2	1.500	4.750	100.1	
8"	HRW16	.065	7.870	5.508
	HRW.075	.075	7.850	6.348
	HRW14	.083	7.834	7.018
	HRW12	.109	7.782	9.186
	3/16	.188	7.624	15.69
	1/4	.250	7.500	20.69
	DOM1/4	.250	7.500	20.69
	3/8	.375	7.250	30.54
	DOM3/8	.375	7.250	30.54
	1/2	.500	7.000	40.05
	DOM1/2	.500	7.000	40.05
	3/4	.750	6.500	58.07
	HF3/4	.750	6.500	58.07
	7/8	.875	6.250	66.58
	HF7/8	.875	6.250	66.58
	1	1.000	6.000	74.76
HF1	1.000	6.000	74.76	
HF1 1/4	1.250	5.500	90.11	
HF1 1/2	1.500	5.000	104.1	
HF1 3/4	1.750	4.500	116.8	
HF2	2.000	4.000	128.2	
8 1/4"	1/4	.250	7.750	21.36
	3/8	.375	7.500	31.54

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
8 1/4"	1/2	.500	7.250	41.39
	HF1/2	.500	7.250	41.39
	HF3/4	.750	6.750	60.08
8 1/2"	HF1	1.000	6.250	77.43
	1/4	.250	8.000	22.03
	.270	.270	7.960	23.73
	3/8	.375	7.750	32.54
	1/2	.500	7.500	42.72
	3/4	.750	7.000	62.08
	HF3/4	.750	7.000	62.08
	HF7/8	.875	6.75	71.26
	1	1.000	6.500	80.10
	HF1	1.000	6.500	80.10
8 5/8"	HF1 1/4	1.250	6.000	96.79
	HF1 1/2	1.500	5.500	112.1
	HF2	2.000	4.500	138.80
	HF.322	.322	7.981	28.55
	HF1/2	.500	7.625	43.39
8 3/4"	HF1 1/2	1.500	5.625	114.1
	HF1 3/4	1.750	5.125	128.5
	3/8	.375	8.000	33.54
	1/2	.500	7.750	44.06
	3/4	.750	7.250	64.08
	HF3/4	.750	7.250	64.08
9"	HF1	1.000	6.750	82.77
	HF1 1/4	1.250	6.250	100.1
	1/4	.250	8.500	23.36
	3/8	.375	8.250	34.54
	1/2	.500	8.000	45.39
	.530	.530	7.940	47.94
	HF.629	.629	7.742	56.23
	3/4	.750	7.500	66.08
	HF3/4	.750	7.500	66.08
	1	1.000	7.000	85.44
	HF1	1.000	7.000	85.44
9.030"	HF1 1/4	1.250	6.500	103.4
	HF1 1/2	1.500	6.000	120.2
	HF1 3/4	1.750	5.500	135.9
9 1/4"	HF2	2.000	5.000	149.5
	1/4	.250	8.530	23.44
	1/4	.250	8.750	24.03
	7/16	.438	8.374	41.22
	.451	.451	8.348	42.38
	1/2	.500	8.250	46.73
	3/4	.750	7.750	68.09
	HF3/4	.750	7.750	68.09
9 1/4"	1	1.000	7.250	88.11
	HF1	1.000	7.250	88.11
	HF1 1/4	1.250	6.750	106.6
	HF1 1/2	1.500	6.250	124.2
	HF1 3/4	1.750	5.750	140.2

Mechanical Tubing



CODES: B–Bundy W–Welded BW–Mandrel Drawn Buttweld CB–Copper Brazed Double Wall SA–Soft Annealed
 DOM–Drawn Over Mandrel HF–Hot Finished Seamless HRW–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
9 1/2"	1/4	.250	9.000	24.70
	3/8	.375	8.750	36.55
	1/2	.500	8.500	48.06
	.515	.515	8.470	49.42
	HF3/4	.750	8.000	70.09
	1	1.000	7.500	90.78
	HF1 1/8	1.125	7.250	100.8
	HF1 1/2	1.500	6.500	128.2
	HF2	2.000	5.500	160.2
	HF2 3/64	2.048	5.404	163.0
9 5/8"	HF3/4	.750	8.125	71.09
9 3/4"	1/2	.500	8.750	49.40
	3/4	.750	8.250	72.09
	HF3/4	.750	8.250	72.09
	HF1	1.00	7.750	93.45
HF1 1/2	1.500	6.750	132.2	
10"	HRW.075	.075	9.850	7.950
	HRW12	.109	9.782	11.51
	1/4	.250	9.500	26.03
	3/8	.375	9.250	38.55
	1/2	.500	9.000	50.73
	3/4	.750	8.500	74.09
	HF3/4	.750	8.500	74.09
	1	1.000	8.000	96.12
	HF1	1.000	8.000	96.12
	HF1 1/8	1.125	7.750	106.6
	HF1 1/4	1.250	7.500	116.8
	HF1 1/2	1.500	7.000	136.2
	HF1 3/4	1.750	6.500	154.2
	HF2	2.000	6.000	170.9
10 1/4"	HF3/4	.750	8.750	76.10
	HF1	1.000	8.250	98.79
	HF1 1/4	1.250	7.750	120.2
	HF1 1/2	1.500	7.250	141.7
10 1/2"	1/4	.250	10.00	27.37
	.280	.280	9.940	30.58
	3/8	.375	9.750	40.55
	1/2	.500	9.500	53.40
	3/4	.750	9.000	78.10
	HF1	1.000	8.500	101.5
	HF1 1/4	1.250	8.250	123.5
	HF1 1/2	1.500	7.500	144.2
	HF2	2.000	6.500	181.6
	HF2 1/16	2.067	6.366	186.2
10 3/4"	HF1/4	.250	10.25	28.04
	HF.279	.279	10.19	31.20
	HF.365	.365	10.020	40.48
	HF1/2	.500	9.750	54.74
	9/16	.563	9.624	61.25
	HF19/32	.594	9.562	64.43
	HF23/32	.719	9.312	77.03
	HF3/4	.750	9.250	80.10
	HF27/32	.844	9.062	89.29
	HF7/8	.875	9.000	92.28

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
10 3/4"	HF1	1.000	8.750	104.1
	HF1 1/8	1.125	8.500	115.6
	HF1 1/4	1.250	8.250	126.8
	HF1 3/8	1.375	8.000	137.7
	HF2	2.000	6.750	186.9
11"	3/8	.375	10.250	42.55
	1/2	.500	10.00	56.07
	HF3/4	.750	9.500	82.10
	HF1	1.000	9.000	106.8
	HF1 1/4	1.250	8.500	130.2
	HF1 1/2	1.500	8.000	152.2
11 1/4"	HF2	2.000	7.000	192.2
	HF2 1/2	2.500	6.000	226.9
	HF3/4	.750	9.750	84.11
11 1/2"	HF1	1.000	9.250	109.5
	HF1 1/2	1.500	8.250	156.2
	3/8	.375	10.75	44.56
11 3/4"	HF1	1.000	9.500	112.1
	HF1 1/2	1.500	8.500	160.2
	HF2	2.000	7.500	202.9
	HF3/8	.375	10.75	11.56
	HF1/2	.500	10.750	60.08
	HF3/4	.750	10.25	88.11
12"	HF1	1.000	9.750	114.8
	HF1 1/8	1.125	9.500	127.7
	HF1 1/4	1.250	9.250	140.2
	HF1 1/2	1.500	8.750	164.2
	HF1 3/4	1.750	8.250	186.9
	HF2 1/2	2.500	6.750	246.9
	HRW12	.109	11.78	13.84
	1/4	.250	11.50	31.37
12 1/4"	3/8	.375	11.25	46.56
	HF1/2	.500	11.00	61.41
	HF3/4	.750	10.500	90.11
	HF1	1.000	10.00	117.5
	HF1 1/4	1.250	9.500	143.5
	HF1 1/2	1.500	9.00	168.2
	HF1 3/4	1.750	8.500	191.6
	HF2	2.000	8.00	213.6
	HF2 1/2	2.500	7.000	253.7
	HF1	1.000	10.250	120.2
12 1/2"	HF1	1.000	10.500	122.8
	HF1 1/2	1.500	9.500	176.2
	HF2	2.000	8.500	224.3
12 3/4"	HF1/4	.250	12.25	33.38
	HF5/16	.312	12.125	41.51
	HF3/8	.375	12.00	49.56
	HF13/32	.406	11.938	53.56
	HF1/2	.500	11.75	65.42
	HF9/16	.563	11.625	73.22
	HF3/4	.750	11.250	96.12
	HF1	1.000	10.75	125.5
HF1 1/8	1.125	10.500	139.7	

Mechanical Tubing



CODES: **B**–Bundy **W**–Welded **BW**–Mandrel Drawn Buttweld **CB**–Copper Brazed Double Wall **SA**–Soft Annealed
DOM–Drawn Over Mandrel **HF**–Hot Finished Seamless **HRW**–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
12 3/4"	HF1 5/16	1.313	10.125	160.3
	HF1 1/2	1.500	9.750	180.2
	HF1 3/4	1.750	9.250	205.6
	HF2	2.000	8.750	229.6
13"	HF3/4	.750	11.500	98.12
	HF1	1.000	11.000	128.2
	HF1 1/4	1.250	10.500	156.9
	HF1 1/2	1.500	10.000	184.2
	HF1 3/4	1.750	9.500	210.3
	HF2	2.000	9.000	235.0
	HF2 1/2	2.500	8.000	280.4
	HF3	3.000	7.000	320.4
13 3/8"	HF1/2	.500	12.375	68.75
	HF1	1.000	11.375	132.7
	HF2	2.000	9.375	243.0
14"	HF5/16	.312	13.375	45.68
	HF3/8	.375	13.250	54.57
	HF7/16	.438	13.125	63.37
	HF1/2	.500	13.000	72.09
	HF9/16	.563	12.875	80.73
	HF3/4	.750	12.500	106.1
	HF15/16	.938	12.125	130.8
	HF1	1.000	12.000	138.8
	HF1 3/32	1.094	11.813	150.18
	HF1 1/4	1.250	11.500	170.2
	HF1 1/2	1.500	11.000	200.3
	HF1 3/4	1.750	10.500	229.0
	HF2	2.000	10.000	256.3
	HF2 1/2	2.500	9.000	307.1
	HF3	3.000	8.000	352.4
	HF3 1/4	3.250	7.500	373.1
14 3/8"	HF1	1.000	12.375	142.9
	HF1 1/2	1.500	11.375	206.3
	HF2	2.000	10.375	264.3
15"	HF3/8	.375	14.250	58.57
	HF1/2	.500	14.000	77.43
	HF3/4	.750	13.500	114.1
	HF1	1.000	13.000	149.5
	HF1 1/4	1.250	12.500	183.6
	HF1 1/2	1.500	12.000	216.3
	HF1 3/4	1.750	11.500	247.6
	HF2	2.000	11.000	277.7
	HF2 1/2	2.500	10.000	333.8
HF2 3/4	2.750	9.500	359.8	
15 1/2"	HF1	1.000	13.500	154.9
	HF1 1/4	1.250	13.000	190.2
	HF1 1/2	1.500	12.500	224.3
	HF2	2.000	11.500	288.4
	HF2 1/2	2.500	10.500	213.6
16"	HF 5/16	.313	15.375	52.36
	HF3/8	.375	15.250	62.58
	HF1/2	.500	15.000	82.77
	HF3/4	.750	14.500	122.2

O.D.	WALL	DEC.WALL	I.D.	HF7/8
16"	HF27/32	.843	14.31	136.5
	HF7/8	.875	14.250	141.3
	HF1	1.000	14.000	160.2
	HF1 1/32	1.031	13.938	164.8
	HF1 1/4	1.250	13.500	196.9
	HF1 1/2	1.500	13.000	232.3
	HF1 19/32	1.594	12.813	245.2
	HF1 3/4	1.750	12.500	266.3
17"	HF2	2.000	12.000	299.0
	HF2 1/2	2.500	11.000	360.5
	HF1	1.000	15.000	170.9
	HF1 1/4	1.250	14.500	210.3
18"	HF2	2.000	13.000	320.4
	HF2 1/2	2.500	12.000	387.2
	HF3	3.000	11.000	448.6
	HF3/8	.375	17.250	70.59
	HF1/2	.500	17.000	93.45
	HF9/16	.563	16.875	104.8
	HF3/4	.750	16.500	138.2
19"	HF1	1.000	16.000	181.6
	HF1 1/4	1.250	15.500	223.6
	HF1 3/8	1.375	15.250	244.1
	HF2	2.000	14.000	341.8
	HF2 1/2	2.500	13.000	413.9
	HF3/4	.750	17.500	146.2
20"	HF1 3/4	1.750	15.500	322.4
	HF2	2.000	15.000	363.1
	HF3	3.000	13.000	512.6
	HF3 1/2	3.500	12.000	579.4

Mechanical Tubing



CODES: **B**–Bundy **W**–Welded **BW**–Mandrel Drawn Buttweld **CB**–Copper Brazed Double Wall **SA**–Soft Annealed
DOM–Drawn Over Mandrel **HF**–Hot Finished Seamless **HRW**–Hot Rolled Welded
 All others are Cold Drawn Seamless.

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
20"	HF3/8	.375	19.250	78.60
	HF1/2	.500	19.000	104.1
	HF19/32	.594	18.875	123.1
	HF1 1/32	1.031	17.94	208.9
	HF1 1/16	1.063	17.875	214.9
21"	HF1 1/2	1.5000	17.000	296.4
	HF1/2	.500	20.000	109.5
	HF3/4	.750	19.500	162.2
	HF1	1.000	19.000	213.6
	HF2	2.000	17.000	405.8
22"	HF3	3.000	15.000	576.7
	HF3 1/2	3.500	14.000	654.2
	HF3/8	.375	21.250	86.61
	HF1	1.000	20.000	224.3
	HF2	2.000	18.000	427.2

O.D.	WALL	DEC.WALL	I.D.	WT./FT.
23"	HF1	1.000	21.000	235.0
	HF1 1/2	1.500	20.000	344.4
24"	HF3/8	.375	23.25	94.62
	HF1/2	.500	23.000	125.5
	HF.687	.687	22.52	171.1
	HF3/4	.750	22.500	186.2
	HF31/32	.969	22.063	238.3
26"	HF1	1.000	22.000	245.6
	HF1/2	.500	25.000	136.2
	HF3/4	.750	24.500	202.3
	HF1	1.000	24.000	245.6
	HF1 1/2	1.500	23.000	392.5
28"	HF1	1.000	26.000	288.4
	HF2	2.000	24.000	555.4



Special Mechanical Tubing



CODES: HF–Hot Finished Seamless HRW–Hot Rolled Welded All others are Cold Drawn Seamless.

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
5/8"	.238	.149	.9837	1025
3/4"	.095	.560	.6646	4130
13/16"	.109	.594	.8195	4130
	.120	.573	.8881	4130
7/8"	.109	.657	.8917	C-1020
	.109	.657	.8917	1045
1"	.156	.688	1.406	C-188
	.156	.688	1.406	4130
1 1/16"	.156	.750	1.172	4130
1 1/4"	.095	1.060	1.172	4130
1 3/8"	.095	1.185	1.299	4130
	.250	.875	3.004	C-1213
1 9/16"	.156	1.250	2.344	4130
1 3/4"	.234	2.282	3.789	C-1045
	.313	1.125	4.804	C-1213
1 7/8"	.300	1.275	5.046	1020
1 15/16"	.140	1.658	2.688	4130
1.938"	.300	1.338	5.248	1030
2"	.438	1.125	7.307	C-1040
2 1/4"	.500	1.250	9.345	4130
2 1/2"	.120	2.260	3.050	4130
	.563	1.375	11.65	C-1045
	.750	1.000	14.02	1045
3"	.156	2.688	4.738	T-1A
	.219	2.562	6.505	T-1A
3 1/8"	.375	2.375	11.01	8620

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
3 1/4"	.625	2.000	17.52	1024
3 1/2"	.750	2.000	22.03	1024
3 3/4"	.156	3.437	5.988	4130
	.938			C-1024
4"	.200	3.000	18.69	1045
4 1/8"	.391	3.343	15.59	8620
	1.000			4140
4 1/4"	.375	3.500	15.52	4130
	1.063			C-1024
4 1/2"	.313	3.875	14.00	C-1045
4 3/4"	1.000	2.750	40.05	C-1024
5"	.500	4.000	24.03	1045
5.030"	.415	4.200	20.45	1035
5 1/4"	1.250	2.750	53.40	C-1024
6"	.250	5.500	15.35	T-1A
6 5/8"	.313	5.999	21.10	1035
6 3/4"	.375	6.000	25.53	C-1035
9 5/8"	.500	8.625	48.73	C-1026
10 1/4"	.375	9.500	39.55	1018
11 1/4"	.634	9.982	71.88	1018

Square Tubing MECHANICAL & STRUCTURAL



CODES: BW–Mandrel Drawn Buttweld W–Welded HY–High-Yield HYST–High Yield Structural ST–Structural

O.D.	WALL	DEC. WALL	I.D.	WT./FT.
3/8"	W16	.065	.245	.2740
1/2"	W20	.035	.4300	.2213
	W18	.049	.402	.3009
	W16	.065	.370	.3845
5/8"	W20	.035	.555	.2808
	W18	.049	.527	.3838
	W16	.065	.495	.4950
	W14	.083	.459	.6118
3/4"	W20	.035	.680	.3403
	W18	.049	.680	.3404
	W16	.065	.620	.6055
	W14	.083	.584	.7529
	BW14	.083	.584	.7529
	W13	.095	.000	.8463
	W12	.109	.532	.9502
	W11	.120	.510	1.028
13/16"	W16	.065	.683	.6612
7/8"	W20	.035	.805	.3998
	W18	.049	.777	.5504
	W16	.065	.745	.7160
	W13	.095	.685	1.008
	BW11	.120	.635	1.232
1"	W20	.035	.930	.4593
	W18	.049	.902	.6337
	W16	.065	.870	.8265
	ST15	.072	.856	.9090
	HYST15	.072	.856	.9090
	W14	.083	.834	1.035
	ST13	.095	.810	1.169
	W12	.109	.782	1.321
	BW12	.109	.782	1.321
	W11	.120	.760	1.436
1 1/8"	W18	.049	1.027	.7170
	W16	.065	.995	.9370
	W12	.109	1.032	1.506
	W11	.120	.885	1.640
1 1/4"	W20	.035	1.180	.5783
	W16	.065	1.120	1.048
	W15	.072	1.106	1.153
	W14	.083	1.084	1.317
	W13	.095	1.060	1.492
	W12	.109	1.032	1.691
	BW12	.109	1.032	1.691
	W11	.120	1.010	1.844
	W.135	.135	.980	1.95
	W 3/16	.188	.875	2.61
1 7/16"	BW11	.120	1.198	2.151

O.D.	WALL	DEC. WALL	I.D.	WT./FT.
1 1/2"	W20	.035	1.430	.6973
	W18	.049	1.402	.9669
	W16	.065	1.370	1.269
	W14	.083	1.334	1.600
	W13	.095	1.310	1.815
	W12	.109	1.282	2.062
	BW12	.109	1.282	2.062
	W11	.120	1.260	2.252
	W10	.134	1.232	2.489
	W.140	.140	1.220	2.49
	ST 3/16	.188	1.126	3.22
	BW 3/16	.188	1.126	3.355
	YST 1/4	.250	1.000	4.11
1 3/4"	W16	.065	1.620	1.490
	W14	.083	1.584	1.882
	W13	.095	1.560	2.138
	W11	.120	1.510	2.660
	BW 3/16	.188	1.374	3.994
	BW 1/4	.250	1.250	5.100
2"	W18	.049	1.902	1.300
	W16	.065	1.870	1.711
	W14	.083	1.834	2.164
	W13	.095	1.810	2.461
	W12	.109	1.782	2.803
	W11	.120	1.760	3.068
	ST 1.8	.125	1.750	3.05
	W10	.134	1.732	3.401
	W.145	.145	1.710	3.51
	ST 3/16	.188	1.625	4.32
	HYST 3/16	.188	1.625	4.43
	ST 1/4	.250	1.500	5.41
2 3/32"	BW.260	.260	1.574	6.485
2 1/8"	W10	.134	1.857	3.628
2 1/2"	W16	.065	2.370	2.153
	W14	.083	2.334	2.728
	W13	.095	2.310	3.107
	W11	.120	2.260	3.884
	ST 1/8	.125	2.250	3.90
	W 3/16	.188	2.124	5.911
	ST 3/16	.188	2.124	5.59
	HYST 3/16	.188	2.124	5.67
	HYST 1/4	.250	2.000	7.29
	ST 1/4	.250	2.000	7.11
3"	W16	.065	2.870	2.595
	W14	.083	2.834	3.293
	W13	.095	2.810	3.753
	W11	.120	2.760	4.700

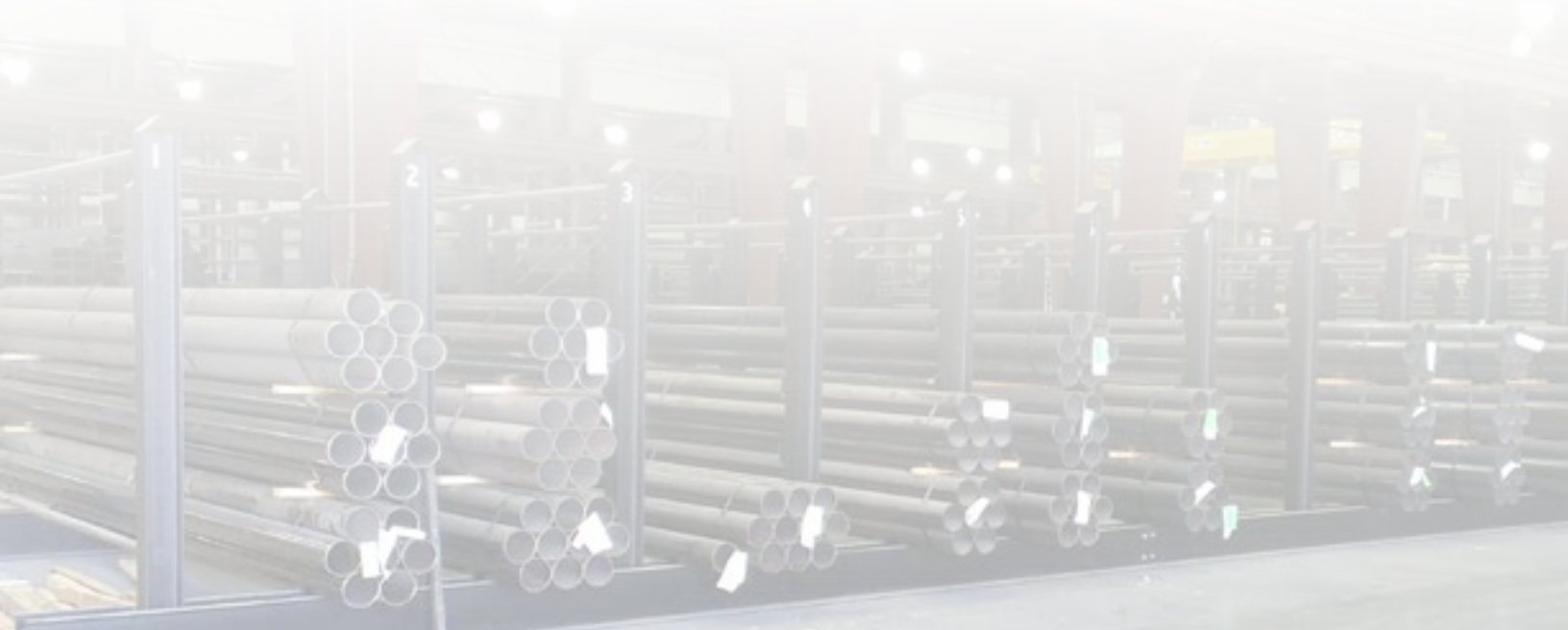
Square Tubing MECHANICAL & STRUCTURAL



CODES: BW–Mandrel Drawn Buttweld W–Welded HY–High-Yield HYST–High Yield Structural ST–Structural

O.D.	WALL	DEC. WALL	I.D.	WT./FT.
3"	ST 1/8	.125	2.750	4.75
	W10	.134	2.732	5.223
	ST 3/16	.188	2.625	6.87
	ST 1/4	.250	2.500	8.81
	ST 5/16	.313	2.375	10.58
3 1/2"	W11	.120	3.260	5.516
	ST 1/8	.125	3.250	5.61
	ST 3/16	.188	3.125	8.15
	W5	.220	3.060	10.51
	ST 1/4	.250	3.000	12.70
	ST 5/16	.313	2.875	13.19
4"	W14	.083	3.834	4.422
	W11	.120	3.760	6.332
	ST 1/8	.125	3.750	6.46
	ST 3/16	.188	3.625	9.42
	ST 1/4	.250	3.500	12.21
	ST 5/16	.313	3.374	14.83
	ST 3/8	.375	3.250	17.27
	ST 1/2	.500	3.000	21.63
4 1/2"	ST 3/16	.188	4.124	10.70
	ST 1/4	.250	4.000	13.91
5"	ST 3/16	.188	4.625	11.97
	ST 1/4	.250	4.500	15.62
	ST 5/16	.313	5.374	19.08
	ST 3/8	.375	4.250	22.37
	ST 1/2	.500	4.000	28.43

O.D.	WALL	DEC. WALL	I.D.	WT./FT.
6"	ST 3/16	.188	5.625	14.53
	ST 1/4	.250	5.500	19.02
	ST 5/16	.313	5.375	23.34
	ST 3/8	.375	5.250	27.48
	ST 1/2	.500	5.000	35.24
7"	ST 3/16	.188	6.624	17.08
	ST 1/4	.250	6.500	22.42
	ST 5/16	.313	6.374	27.59
	ST 3/8	.375	6.250	32.58
	ST 1/2	.500	6.000	42.05
8"	ST 3/16	.188	7.642	19.63
	ST 1/4	.250	7.500	25.82
	W 5/16	.313	7.384	31.84
	ST 3/8	.375	7.250	39.69
	ST 1/2	.500	7.000	48.85
10"	ST 1/4	.250	9.500	32.63
	ST 5/16	.313	9.375	40.35
	ST 3/8	.375	9.250	47.90
	ST 1/2	.500	9.000	62.46
12"	ST 1/4	.250	11.500	39.43
	ST 5/16	.313	11.375	48.86
	ST 3/8	.375	11.250	58.10
	ST 1/2	.500	11.000	76.07
14"	ST 3/8	.375	13.250	68.31
	ST 1/2	.500	13.000	89.68
16"	ST 3/8	.375	13.250	78.52
	ST 1/2	.500	15.000	103.30



Rectangular Tubing

MECHANICAL & STRUCTURAL



CODES: W–Welded HYST–High Yield Structural ST–Structural

O.D.	WALL	DEC. WALL	WT./FT.
5/8" X 3/8"	W16	.065	3.845
3/4" X 1/2"	W16	.065	.4950
1" X 3/8"	W16	.065	.5507
1" X 1/2"	W16	.065	.6055
	W11	.120	1.028
1" X 3/4"	W16	.065	.7160
	W14	.083	.8940
	W11	.120	1.232
1 1/4" X 1/2"	W16	.065	.7160
1 1/4" X 1"	W16	.065	.9370
	W14	.083	1.176
1 1/2" X 1/2"	W16	.065	.8265
1 1/2" X 5/8"	W14	.083	1.106
1 1/2" X 3/4"	W16	.065	.9370
	W14	.083	1.176
1 1/2" X 1"	W16	.065	1.048
	W14	.083	1.317
	W11	.120	1.844
1 1/2" X 1 1/4"	W11	.120	2.048
1 3/4" X 1 1/4"	W14	.083	1.600
1 3/4" X 1 1/2"	W16	.065	2.816
2" X 1"	W20	.035	.6973
	W16	.065	1.269
	W14	.083	1.600
	W13	.095	1.815
	W11	.120	2.252
2" X 1 1/4"	W14	.083	1.741
	W11	.120	2.456
2" X 1 1/2"	W16	.065	1.490
	W14	.083	1.882
	W13	.095	2.138
	W11	.120	2.660

O.D.	WALL	DEC. WALL	WT./FT.
2 1/2" X 1"	W14	.083	1.882
	W13	.095	2.138
	W11	.120	2.660
2 1/2" X 1 1/2"	W14	.083	2.164
	W11	.120	3.068
	ST 1/8	.125	.305
	W.145	.145	3.51
	W 3/16	.188	4.633
	HYST 3/16	.188	4.43
	ST 1/4	.250	5.59
3" X 1"	W14	.083	2.164
	W13	.095	2.461
	W11	.120	3.068
	ST 1/8	.125	3.05
3" X 1 1/2"	W16	.065	1.932
	W14	.083	2.446
	W11	.120	3.476
	W 3/16	.188	5.272
3" X 2"	W14	.083	2.728
	W13	.120	3.107
	W11	.120	3.884
	ST 1/8	.125	3.90
	ST 3/16	.188	5.59
	ST 1/4	.250	7.11
3 1/2" X 1"	W13	.095	2.784
3 1/2" X 1 1/2"	W14	.083	2.728
	W11	.120	3.884
	ST 1/8	.125	3.90
3 1/2" X 2 1/2"	W11	.120	4.700
	ST 1/8	.125	4.75
	W 3/16	.188	7.04
	W 1/4	1.250	9.11
4" X 1 1/2"	W11	.120	4.292
4" X 2"	W14	.083	3.293
	W13	.095	3.753
	W11	.120	4.700
	ST 1/8	.125	4.75
	ST 3/16	.188	6.87
	ST 1/4	.250	8.81
4" X 2 1/2"	W11	.120	5.108
	ST 3/16	.188	7.605

Rectangular Tubing

MECHANICAL & STRUCTURAL



CODES: W–Welded HYST–High Yield Structural ST–Structural

O.D.	WALL	DEC. WALL	WT./FT.
4" X 3"	W11	.120	5.516
	ST 1/8	.125	5.61
	ST 3/16	.188	8.15
	ST 1/4	.250	10.51
	ST 5/16	.313	12.70
5" X 2"	W11	.120	5.516
	ST 1/8	.125	5.61
	ST 3/16	.188	8.15
	ST 1/4	.250	10.51
5" X 2 1/2"	W11	.120	5.924
	W 3/16	.188	9.107
	W 1/4	.250	11.901
5" X 3"	W11	.120	6.332
	ST 1/8	.125	6.48
	ST 3/16	.188	9.42
	ST 1/4	.250	12.21
	ST 5/16	.313	14.83
	ST 3/8	.375	17.27
5" X 4"	W 3/16	.188	10.70
	W 1/4	.250	13.91
6" X 2"	W11	.120	6.332
	ST 1/8	.125	6.46
	ST 3/16	.188	9.42
	ST 1/4	.250	12.21
6" X 3"	ST 3/16	.188	10.70
	ST 1/4	.250	13.91
	ST 3/8	.375	19.82
6" X 4"	ST 3/16	.188	11.97
	ST 1/3	.250	15.62
	ST 5/16	.313	19.08
	ST 3/8	.375	22.37
	ST 1/2	.500	28.43
7" X 3"	ST 3/18	.188	11.97
	ST 1/4	.250	15.62
7" X 4"	ST 1/4	.250	17.32
	ST 3/8	.375	24.93
7" X 5"	ST 3/16	.188	14.53
	ST 1/4	.250	19.02
	ST 5/16	.313	23.34
	ST 3/8	.375	27.48
	ST 1/2	.500	35.24
8" X 2"	ST 3/16	.188	11.97
	W 1/4	.250	15.62

O.D.	WALL	DEC. WALL	WT./FT.
8" X 3"	ST 3/16	.188	13.25
	ST 1/4	.250	17.32
	ST 5/16	.313	21.21
	ST 3/8	.375	24.93
8" X 4"	ST 3/16	.188	14.53
	ST 1/4	.250	19.02
	ST 5/16	.313	23.34
	ST 3/8	.375	27.48
	ST 1/2	.500	35.24
8" X 6"	ST 3/16	.188	17.13
	ST 1/4	.250	22.71
	W 5/16	.313	20.08
	ST 3/8	.375	33.32
	ST 1/2	.500	43.51
10" X 2"	ST 3/16	.188	14.53
	ST 1/4	.250	19.02
10" X 4"	ST 3/16	.188	17.08
	ST 1/4	.250	22.42
	ST 3/8	.375	32.58
10" X 6"	ST 3/16	.188	19.63
	ST 1/4	.250	25.82
	ST 5/16	.313	31.84
	ST 3/8	.375	37.69
	ST.500	.500	48.85
10" X 8"	ST 1/4	.250	29.23
	ST 5/16	.313	36.10
	ST 3/8	.375	42.79
12" X 2"	ST 3/16	.188	17.08
	ST 1/4	.250	22.42
12" X 4"	ST 3/16	.188	19.63
	ST 1/4	.250	25.82
	ST 5/16	.313	31.84
	ST 3/8	.375	37.69
12" X 6"	W 1/4	.250	29.23
	ST 5/16	.313	36.10
	W 3/8	.375	42.79
	ST 1/2	.500	55.66
12" X 8"	ST 3/16	.188	24.73
	ST 1/4	.250	32.63
	ST 5/16	.313	40.35
	ST 3/8	.375	47.90

Fluid Power Tubing

SEAMLESS MECHANICAL DRAWN TO OD AND ID TOLERANCES

Inside Suitable for Honing or Machining — C-1020 and C-1018



O.D.	I.D.	WALL
1 1/4"	.982	.134
1 3/8"	1.000	1.88
1 3/4"	1.480	.135
	1.250	.250
	1.00	.375
2"	1.782	.109
	1.500	.250
	1.480	.260
2 1/4"	1.980	.135
	1.750	.250
2 3/8"	2.000	.188
	1.875	.250
2 3/4"	2.000	.250
	1.974	.263
	1.750	.375
2 5/8"	2.125	.250
	2.000	.313
2 3/4"	2.480	.135
	2.250	.250
	2.000	.375
2 7/8"	2.500	.188
3"	2.732	.134
	2.500	.250
	2.480	.260
	2.250	.375
3 1/4"	2.980	.135
	2.750	.250
3 3/8"	3.000	.188
3 1/2"	3.230	.135
	3.000	.250
	2.980	.260
	2.500	.500
3 5/8"	3.000	.313

O.D.	I.D.	WALL
3 3/4"	3.480	.134
	3.250	.250
	3.000	.375
4"	3.732	.134
	3.250	.375
	3.000	.500
4 1/4"	3.980	.135
	3.750	.250
4 3/8"	4.000	.188
4 1/2"	4.000	.250
	3.970	.265
	3.750	.375
4 5/8"	4.000	.313
	3.875	.375
4 3/4"	4.250	.250
	4.000	.375
5"	4.500	.250
	4.476	.262
	4.250	.375
	4.000	.500
5 1/4"	5.010	.120
	5.000	.125
	4.750	.250
	4.500	.375
5 3/8"	5.000	.188
5 1/2"	4.970	.265
	4.750	.375
	4.500	.500
5 3/4"	5.000	.375
6"	5.500	.250
	5.250	.375
	5.000	.500
	4.970	.515
6 1/4"	5500	.375
6 3/8"	5.594	.203

O.D.	I.D.	WALL
6 1/2"	6.000	.250
	5.750	.375
	5.500	.500
6 3/4"	6.000	.375
7"	6.500	.250
	6.000	.500
	5.960	.520
7 1/2"	7.000	.250
7 3/4"	7.000	.375
8"	7.500	.250
	7.000	.500
8 3/8"	7.935	.220
8 1/2"	8.000	.250
	7.960	.270
8 3/4"	8.000	.375
9"	8.500	.250
	8.000	.500
	7.940	.530
9 1/4"	8.750	.250
9 1/2"	9.000	.250
10"	9.500	.250
	9.000	.500
10 1/2"	10.00	.250
	9.940	.280

Fluid Power Tubing



DOM or Seamless honed Tubing ID Surface Finish RMS 7-14

O.D.	OD TOLER- ANCE	I.D.	I.D. TOLERANCE	WT./FT.
2"	+0.006 - .000	1.500	+0.000 -0.003	4.673
2 1/2"	+0.008 -0.000	2.000	+0.000 -0.003	6.008
3"	+0.009 -0.000	2.500	+0.000 -0.003	7.343
3 1/4"	+0.009 -0.000	2.750	+0.000 -0.003	8.010
3 1/2"	+0.010 -0.000	3.000	+0.000 -0.006	8.678
3 5/8"	+0.010 -0.000	2.276	+0.003 -0.003	9.011
4"	+0.011 -0.000	3.500	+0.000 -0.003	10.07
4 1/4"	+0.012 -0.000	3.750	+0.000 -0.004	11.01
4.494"	+0.012 -0.000	3.999	+0.000 -0.005	11.33
4 1/2"	+0.013 -0.000	4.000	+0.000 -0.003	11.35
4 3/4"	+0.012 -0.000	4.250	+0.000 -0.004	12.02
5"	+0.014 -0.000	4.500	+0.000 -0.003	12.68
5 1/2"	+0.015 -0.000	5.000	+0.000 -0.003	14.02
6"	+0.013 -0.013	5.500	+0.000 -0.003	15.35
6 1/2"	+0.015 -0.015	6.000	+0.000 -0.003	16.69
7.411	+0.018 -0.018	6.995	+0.003 -0.003	19.12
7 1/2"	+0.020 -0.020	7.000	+0.000 -0.003	19.36
10"	+0.034 -0.022	9.000	+0.008 -0.000	26.03

Cold Drawn Cylinder Finish Welded Special Smooth ID

*Close I.D. Tolerances and other sizes available.

I.D.	WALL	O.D.
.997"/ 1.003"	.125	1.250
1.494"/ 1.500"	.125	1.750
1.746"/ 1.750"	.125	2.000
1.622"/ 1.628"	.188	2.000
1.871"/ 1.877"	.120	2.125
2.495"/ 2.500"	.125	2.750
4.495"/ 4.505"	.250	5.000
4.995"/ 5.005"	.250	5.500
5.991"/ 6.009"	.250	6.500

Hydraulic Line Tubing

Seamless to SAE J524 and AMS 5050G.

Welded to: ANSI B 93.4. SAE J 525b, NFPA STD. T3.15.66.1, AMS 5053D.

CODES: W—Welded All others are Cold Drawn Seamless



O.D.	DEC. WALL	THEORETICAL BURSTING PRESS (PSI)	I.D.	WT./FT.
1/8"	.030	21600	.065	.0304
	W.030	21600	.065	.0304
	W.032	23040	.061	.0318
3/16"	W.028	13400	.131	.0478
	.035	16755	.117	.0572
	W.035	16755	.117	.0572
1/4"	W.028	10080	.194	.0664
	W.030	10800	.190	.0705
	.035	12600	.180	.0804
	W.035	12600	.180	.0804
	W.042	15120	.166	.0933
	.049	17640	.152	.1052
	W.049	17640	.152	.1052
	.065	23400	.120	.1284
	W.065	23400	.120	.1284
5/16"	.028	8050	.257	.0852
	.035	10063	.242	.1039
	W.035	10063	.242	.1039
	.049	14089	.215	.1382
	W.049	14089	.215	.1382
	W.065	18690	.182	.1722
3/8"	.035	8400	.305	.1271
	W.035	8400	.305	.1271
	W.035	J356	.305	.1271
	W.042	10800	.291	.1494
	.049	11760	.277	.1706
	W.049	11760	.277	.1706
	W.049	J356	.277	.1706
	W.058	13920	.259	.1964
	.060	14400	.255	.2019
	.065	15600	.245	.2152
	W.065	15600	.245	.2152
	.095	22600	.185	.2841
.120	28800	.135	.3268	
1/2"	.035	6300	.430	.1738
	W.035	6300	.430	.1738
	W.042	7560	.416	.2054
	.049	8820	.402	.2360
	W.049	8820	.402	.2360
	W.049	J356	.402	.2360
	.065	11700	.370	.3020
	W.065	11700	.370	.3020
	W.065	J356	.370	.3020
	W.072	12960	.356	.3291
	.083	14940	.334	.3696
	W.083	14940	.334	.3696
.095	17100	.310	.4109	
5/8"	.035	5040	.555	.2205
	W.035	5040	.555	.2205
	W.042	6048	.541	.2615

O.D.	DEC. WALL	THEORETICAL BURSTING PRESS (PSI)	I.D.	WT./FT.
5/8"	.049	7056	.527	.3014
	W.049	7056	.527	.3014
	.065	9360	.495	.3888
	W.065	9360	.495	.3888
	W.065	J356	.495	.3888
	W.072	20368	.481	.4252
	.083	11950	.459	.4805
	W.083	11950	.459	.4805
	.095	13680	.435	.5377
	W.095	13680	.435	.5377
3/4"	.120	17280	.385	.6472
	.035	4200	.680	.2673
	W.035	4200	.680	.2673
	.049	5880	.652	.3668
	W.049	5880	.652	.3668
	W.049	J356	.652	.3688
	.065	7800	.620	.4755
	W.065	7800	.620	.4755
	W.065	J356	.620	.4755
	W.072	8640	.606	.5214
	.083	9960	.584	.5913
	W.083	9960	.584	.5913
.095	11400	.560	.6646	
W.095	11400	.560	.6646	
.109	13080	.532	.7462	
.120	14400	.510	.8074	
W.120	14400	.510	.8074	
.840"	W.109	11679	.622	.8510
7/8"	W.035	3600	.805	.3140
	.049	5140	.777	.4323
	W.049	5140	.777	.4323
	.065	6680	.745	.5623
	W.065	6680	.745	.5623
	.072	7400	.731	.6175
	W.072	7400	.731	.6175
	.083	8530	.709	.7021
	W.083	8530	.709	.7021
	.095	9770	.685	.7914
	W.095	9770	.685	.7914
	.109	11210	.657	.8917
W.109	11210	.657	.8917	
.120	12343	.635	.9676	
W.120	12343	.635	.9676	
1"	.035	3150	.930	.3607
	.049	4410	.902	.4977
	W.049	4410	.902	.4977
	.065	5850	.870	.6491
	W.065	5850	.870	.6491
	.083	7470	.834	.8129
	W.083	7470	.834	.8129
	.095	8550	.810	.9182

Hydraulic Line Tubing

Seamless to SAE J524 and AMS 5050G.

Welded to: ANSI B 93.4. SAE J 525b, NFPA STD. T3.15.66.1, AMS 5053D.

CODES: W—Welded All others are Cold Drawn Seamless



O.D.	DEC. WALL	THEORETICAL BURSTING PRESS (PSI)	I.D.	WT./FT.
1"	W.095	8550	.810	.9182
	.109	9810	.782	1.037
	W.109	9810	.782	1.037
	.120	10800	.760	1.128
	W.120	10800	.760	1.128
1 1/8"	.035	2800	1.055	.4074
	.065	5200	.995	.7359
	W.065	5200	.995	.7359
	.120	9600	.885	1.288
	W.120	9600	.885	1.288
1 1/4"	W.049	3520	1.151	.6285
	.065	4680	1.120	.8226
	W.065	4680	1.120	.8226
	.083	5970	1.084	1.034
	W.083	5970	1.084	1.034
	.095	6840	1.060	1.172
	W.095	6840	1.060	1.172
	.109	7840	1.032	1.328
	W.109	7840	1.032	1.328
	.120	8640	1.010	1.448
	W.120	8640	1.010	1.448
	.134	9650	.982	1.597
.140	10080	.970	1.660	
1 5/16"	.035	2399	1.242	4.777
1.315"	W.179	12250	.957	2.172
1 3/8"	.049	3207	1.277	.6939
	W.049	3207	1.277	.6939
	W.065			
1 1/2"	.065	3900	1.370	.9962
	W.065	3900	1.370	.9962
	W.083	4980	1.334	1.256
	.095	5700	1.310	1.426
	W.095	5700	1.310	1.426
	.120	7200	1.260	1.769
	W.120	7200	1.260	1.769
	.134	8040	1.232	1.955
	W.134	8040	1.232	1.955
.148	8880	1.204	2.137	
1.660"	W.140	7590	1.380	2.273
1 3/4"	W.065	3340	1.620	1.170
	W.134	6891	1.482	2.313
1 7/8"	.065	3120	1.745	1.257
2"	.065	2920	1.870	1.343
	W.065	2920	1.870	1.343
	.083	3735	1.834	1.699
	W.083	3735	1.834	1.699
	.095	4270	1.810	1.933
	.120	5400	1.760	2.409

O.D.	DEC. WALL	THEORETICAL BURSTING PRESS (PSI)	I.D.	WT./FT.
2"	W.120	5400	1.760	2.409
	W.134	6030	1.732	2.670
	.156	7020	1.688	3.072
	.165	7425	1.670	3.234
2 1/4"	W.083	3320	2.084	1.921
2 1/2"	.083	2988	2.334	2.143
	.095	3420	2.310	2.440
3"	.083	2846	2.834	2.586
4"	.095	2138	3.810	3.962



Pressure Tubing



Cold Drawn Steel Condenser and Heat Exchanger Tubing (Average Wall) Seamless to ASTM-ASME SA-179 –

Welded ASTM-ASME SA-214 **CODES:** W–Welded WTT–Welded Transformer Tube All others are Cold Drawn Seamless

O.D.	DEC. WALL	I.D.	WT./FT.
1/2"	.049	.402	.2360
	.095	.310	.4109
5/8"	.049	.527	.3014
	.065	.495	.3888
	MIN.065	.495	.4355
	W.MIN.065	.495	.4355
	.083	.459	.4805
3/4"	MIN.065	.620	.5343
	W.MIN.065	.620	.5343
	.085	.580	.6037
	W.MIN.085	.580	.6765
	.109	.532	.7462
W.MIN.109	.532	.8344	
7/8"	.120	.635	.9676

O.D.	DEC WALL	I.D.	WT./FT.
1"	MIN.083	.834	.9182
	W.MIN.085	.830	.9355
	.095	.810	.9182
	W.MIN.109	.782	1.168
	.120	.760	1.128
W.MIN.125	.750	1.309	
	.134	.732	1.239
1 1/8"	W.109	.907	1.183
1 1/4"	.065	1.120	.8226
	.095	1.060	1.172
	W.MIN.109	1.032	1.502
	.120	1.010	1.448
	W.MIN.120	1.010	1.628
2"	WTT.065	1.870	1.343

DIESEL INJECTION TUBING

O.D.	DEC WALL	I.D.	WT./FT.
1/4"	.094	.078	.1433
	.084	.083	.1480
	.082	.084	.1489
	.063	.094	.1573
	.046	.102	.1612
5/16"	.094	.109	.2375

ELECTRIC RESISTANCE WELDED BOILER TUBES - ASTM-ASME SA 178 Minimum Wall

O.D.	LENGTHS	WT./FT.
1" X 13 GA. (.095)	24'	1.037
	20'	1.037
	16'	1.037
1 1/4" X 13 GA. (.095)	24'	1.328
	20' 1"	1.328
	20'	1.328
	18'	1.328
	16'	1.328
	14'	1.328
1 1/2" X 13 GA. (.095)	26'	1.619
	24'	1.619
	22'	1.619
	20'	1.619
	14'	1.619
2" X 13 GA. (.095)	24'	2.201
	22'	2.201
	21'	2.201
	20'	2.201
	18'	2.201
	16'	2.201
	15'	2.201
	14'	2.201
2" X 11 GA. (.120)	28'	2.726
	24'	2.726
	22'	2.726
	20'	2.726
	18'	2.726
	13'	2.726

O.D.	LENGTHS	WT./FT.
2 1/2" X 12 GA. (.109)	28'	3.171
	26'	3.171
	24' 2"	3.171
	24'	3.171
	22'	3.171
	21'	3.171
	20'	3.171
	18'	3.171
	17'	3.171
	16'	3.171
	15'	3.171
3" X 12 GA. (.109)	28'	3.838
	26'	3.838
	24'	3.838
	22'	3.838
	21'	3.838
	20'	3.838
	14'	3.838
3 1/2" X 11 GA. (.120)	24'	4.921
	20'	4.921
	14'	4.921
4" X 10 GA. (.134)	24'	6.286
	22'	6.286
	21'	6.286
	20'	6.286
	18'	6.286
	16'	6.286

J.I.C. Hydraulic Pressure Tubing SAE J524 and J525



Recommended Wall Thicknesses of Tubing for Various Pressures and Types of Service

SEAMLESS and WELDED for working pressures of

Tube O.D.	Fitting Size	500 psi.	1000 psi.	1500 psi.	2000 psi.	2500 psi.	3000 psi.	4000 psi.	5000 psi.
"A" SERVICE – SAFETY FACTOR: 4									
1/8"	2	.032	.032	.032	.032	.032	.032	.032	.032
3/16"	3	.032	.032	.032	.032	.032	.032	.032	.032
1/4"	4	.035	.035	.035	.035	.035	.035	.035	.049
5/16"	5	.035	.035	.035	.035	.035	.035	.049	.049
3/8"	6	.035	.035	.035	.035	.035	.035	.049	.058
1/2"	8	.035	.035	.035	.035	.049	.049	.065	.083
5/8"	10	.049	.049	.049	.049	.049	.065	.083	.110
3/4"	12	.049	.049	.049	.049	.065	.065	.095	.130
7/8"	14	.049	.049	.049	.065	.065	.095	—	—
1"	16	.049	.049	.049	.065	.110	.110	.130	.165
1 1/4"	20	.083	.083	.083	.083	.120	.120	—	—
1 1/2"	24	.095	.095	.095	.095	.130	.130	—	—
"B" SERVICE – SAFETY FACTOR: 6									
1/8"	2	.032	.032	.032	.032	.032	.032	.032	.032
3/16"	3	.032	.032	.032	.032	.032	.032	.035	—
1/4"	4	.035	.035	.035	.035	.035	.035	.049	.065
5/16"	5	.035	.035	.035	.035	.035	.049	.058	—
3/8"	6	.035	.035	.035	.035	.049	.058	.072	.095
1/2"	8	.035	.035	.035	.049	.072	.072	.095	.130
5/8"	10	.049	.049	.049	.065	.083	.083	.130	.165
3/4"	12	.049	.049	.065	.095	.095	.110	.148	.180
7/8"	14	.049	.049	.065	.095	—	—	—	—
1"	16	.049	.049	.065	.110	.120	.148	.203	.250
1 1/4"	20	.083	.083	.083	.120	—	—	—	—
1 1/2"	24	.095	.095	.130	.130	—	—	—	—
"C" SERVICE – SAFETY FACTOR: 8									
1/8"	2	.032	.032	.032	.032	.032	.032	.032	—
3/16"	3	.032	.032	.032	.032	.032	—	—	—
1/4"	4	.035	.035	.035	.035	.049	.049	.065	.083
5/16"	5	.035	.035	.035	.049	.049	—	—	—
3/8"	6	.035	.035	.035	.049	.058	.072	.095	.130
1/2"	8	.035	.035	.049	.072	.083	.095	.130	—
5/8"	10	.049	.049	.065	.083	.110	.120	.165	—
3/4"	12	.049	.049	.065	.095	.120	.130	—	—
7/8"	14	.049	.065	.095	—	—	—	—	—
1"	16	.049	.065	.110	.130	.165	.203	—	—
1 1/4"	20	.083	.083	.120	—	—	—	—	—
1 1/2"	24	.095	.095	.130	—	—	—	—	—

Commercial Alloy Tubing



COLD DRAWN — HOT FINISHED ANNEALED — HEAT TREATED

CODES: HF—Hot Finished Seamless All others are Cold Drawn Seamless

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
1"	.095	.834	8129	4130
	.156	.687	1.406	4130
	.250	.500	2.003	4130
	.313	.374	2.297	4130
	.375	.250	2.503	4130
1 1/8"	.188	.750	1.881	4130
	.250	.625	2.336	4130
	.313	.500	2.714	4140
1 1/4"	.095	1.060	1.172	4340
	.188	.875	2.132	4130
	.250	.750	2.670	4130
1 3/8"	.083	1.209	1.145	4130
	.120	1.135	1.608	4130
	.188	1.000	2.383	4130
1.496"	.125	1.246	1.830	4640
1 1/2"	.120	1.260	1.769	4130
	.188	1.125	2.634	4130
	.250	1.000	3.338	4130
	.250	1.000	3.338	4130HF
	.250	1.000	3.338	4140
1 9/16"	.250	1.062	3.506	4130
1 5/8"	.188	1.250	2.885	4130
	.250	1.125	3.671	4130
	.313	1.000	4.386	4130
	.500	.625	6.008	4130
1.746"	.125	1.496	2.164	4640
1 3/4"	.094	1.563	1.662	4130
	.188	1.375	3.136	4130
	.250	1.250	4.005	4130
	.250	1.250	4.005	4130
	.375	1.000	5.507	4130
	.438	.875	6.137	4140
1 7/8"	.188	1.500	3.387	4130
	.250	1.375	4.339	4130
	.250		4.339	4140
	.313	1.250	5.222	4130
	.375	1.125	6.008	4130

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
2"	.188	1.625	3.638	4130
	.250	1.500	4.673	4130
	.250	1.500	4.673	4140
	.313	1.375	5.639	4130
	.313	1.375	5.639	4140
	.375	1.250	6.508	4130
	.500	1.000	8.010	4130
	.500	1.000	8.010	4140
2 1/8"	.188	1.750	3.889	4130
	.219	1.687	4.458	4130
	.250	1.625	5.006	4130
	.281	1.563	5.534	4130
	.313	1.500	6.057	4130
2 1/4"	.120	2.010	2.730	4130
	.188	1.875	4.140	4130
	.250	1.750	5.340	4130
	.250	1.750	5.340	4140HF
	.313	1.625	6.475	4130
	.375	1.500	7.509	4140HF
	.500	1.250	9.345	4140
2 3/8"	.120	2.135	2.890	4130
	.120	2.135	2.890	4140
	.188	2.000	4.391	4130
	.219	1.937	5.043	4130
	.219	1.937	5.043	4140
	.250	1.875	5.674	4130
	.313	1.750	6.893	4130
	.313	1.750	6.893	4140
	.375	1.625	8.010	4130
	.438	1.500	9.061	4140
	.438	1.500	9.061	4140HF
	.500	1.375	10.01	4130
	.625	1.125	11.68	4140
	.688	1.000	12.40	4140
	.719	.937	12.72	4140
2 1/2"	.125	2.250	3.171	4130
	.188	2.125	4.642	4130
	.219	2.062	5.335	4130
	.250	2.000	6.008	4130
	.250	2.000	6.008	4140
	.281	1.938	6.659	4130
	.313	1.875	7.311	4140
	.375	1.750	8.511	4130
	.375	1.750	8.511	4140HF
	.438	1.625	9.646	4130
	.500	1.500	10.68	4130
	.500	1.500	10.68	4140
	.563	1.375	11.65	4340
	.750	1.000	14.02	4130

Commercial Alloy Tubing



COLD DRAWN — HOT FINISHED ANNEALED — HEAT TREATED

CODES: HF—Hot Finished Seamless All others are Cold Drawn Seamless

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
2 5/8"	.250	2.125	6.341	4130
	.313	1.999	7.729	4130
	.313	1.999	7.729	4140HF
	.375	1.875	9.011	4130
	.375	1.875	9.011	4140HF
	.438	1.749	10.23	4140HF
	.500	1.625	11.35	4130
.500	1.625	11.35	4140HF	
2 3/4"	.125	2.500	3.504	4130
	.188	2.375	5.144	4130
	.250	2.250	6.675	4130
	.375	2.000	9.512	4130
	.375	2.000	9.512	4135
	.375	2.000	9.512	4140HF
	.438	1.875	10.82	4130
	.438	1.875	10.82	4140HF
	.500	1.750	12.02	4130
	.500	1.750	12.02	4140HF
	.563	1.625	13.13	4130
.563	1.625	13.13	4140HF	
.625	1.500	14.18	4130	
.625	1.500	14.18	4140HF	
.750	1.250	16.02	4140	
2 7/8"	.125	2.625	3.551	4130
	.188	2.500	5.395	4130
	.250	2.375	7.009	4130
	.255	2.365	7.135	4130
	.313	2.250	8.564	4130
	.375	2.125	10.01	4130
	.375	2.125	10.01	4140HF
	.438	2.000	11.40	4140
	.438	2.000	11.40	4140HF
	.500	1.875	12.68	4140HF
	3"	.188	2.625	5.646
.188		2.625	5.646	4140
.250		2.500	7.343	4130
.250		2.500	7.343	4140HF
.313		2.375	8.892	4130
.313		2.375	8.892	4140HF
.275		2.250	10.51	4130
.375		2.250	10.51	4140HF
.500		2.000	13.35	4130
.500		2.000	13.35	4140HF
.563		1.875	14.65	4130
.563		1.875	14.65	8620
.625		1.750	15.85	4130
.625		1.750	15.85	4140HF
.688		1.626	16.99	4140
.750		1.500	18.02	4140HF
1.000	1.000	21.36	4140HF	
3 1/16"	.563	1.939	15.04	4130
3 1/8"	.188	2.750	5.897	4130
	.250	2.625	7.767	4130

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
3 1/8"	.285	2.555	8.644	4130
	.313	2.499	9.400	4130
	.313	2.499	9.400	4140HF
	.375	2.375	11.01	4130
	.375	2.375	11.01	4140HF
	.375	2.375	11.01	8620
	.500	2.125	14.02	4140HF
	.625	1.875	16.69	4130
	.750	1.625	19.02	4140HF
	.875	1.375	21.03	4140
3 1/4"	.250	2.750	8.010	4130
	.255	2.740	8.157	4130
	.313	2.625	9.818	4130
	.375	2.500	11.51	4130
	.375	2.500	11.51	4140HF
	.438	2.375	13.15	4130
	.500	2.250	14.69	4130
	.500	2.250	14.69	4140HF
	.625	2.000	17.52	4130
	.625	2.000	17.52	4140HF
3 3/8"	.750	1.750	20.03	4130
	.750	1.750	20.03	4140HF
	.875	1.500	22.19	4140HF
	.000	1.250	24.03	4140HF
	.188	3.000	6.399	4130
	.250	2.875	8.344	4130
	.313	2.749	10.24	4130
3 1/2"	.375	2.625	12.02	4130
	.500	2.375	15.35	4130
	.500	2.375	15.35	4135
	.500	2.375	15.35	4140HF
	.250	3.000	8.678	4130
	.250	3.000	8.678	4140HF
	.313	2.875	10.65	4130
	.375	2.750	12.52	4130
	.375	2.750	12.52	4140HF
	.438	2.625	14.32	4130
3 3/4"	.500	2.500	16.02	4130
	.500	2.500	16.02	4140HF
	.500	2.500	16.02	8620HF
	.563	2.374	17.66	4140HF
	.625	2.250	19.19	4130
	.625	2.250	19.19	4135
	.625	2.250	19.19	4140HF
	.688	2.125	20.66	4130
	.688	2.125	20.66	8620HF
	.750	2.000	22.03	4130
	.750	2.000	22.03	4140HF
	.875	1.750	24.53	4140
	.938	1.625	25.67	4140HF
	1.000	1.500	26.70	4140HF
	1.188	1.125	29.33	8620

Commercial Alloy Tubing



COLD DRAWN — HOT FINISHED ANNEALED — HEAT TREATED

CODES: HF—Hot Finished Seamless All others are Cold Drawn Seamless

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
3 5/8"	.120	3.385	4.492	4130
	.188	3.250	6.901	4130
	.250	3.125	9.011	4130
	.313	2.999	11.07	4130
	.375	2.875	13.02	4130
	.438	2.749	14.91	4130
	.500	2.625	16.69	4140HF
3 3/4"	.250	3.250	9.345	4130
	.313	3.125	11.49	4130
	.375	3.000	13.52	4130
	.375	3.000	13.52	4140HF
	.438	2.875	15.49	4130
	.500	2.750	17.36	4130
	.500	2.750	17.36	4140HF
	.625	2.500	20.86	4130
	.625	2.500	20.86	4140HF
	.688	2.375	22.50	4140HF
	.750	2.250	24.03	4130
	.750	2.250	24.03	4135
	.750	2.250	24.03	4140HF
	.875	2.000	26.87	4130
	.875	2.000	26.87	4140HF
	.938	1.875	28.17	4140
	1.000	1.750	29.37	4130
1.000	1.750	29.37	4140HF	
1.125	1.500	31.54	4140	
1.125	1.500	31.54	4140HF	
3 7/8"	.250	3.375	9.679	4130
	.313	.3250	11.91	4130
	.313	3.250	11.91	4140
	.438	3.000	16.08	4140HF
	.500	2.875	18.02	4130
	.500	2.875	18.02	4140HF
	.625	2.625	21.69	4140
	.750	2.325	25.03	4130
	.813	2.250	26.59	4140HF
	.938	2.000	29.42	4140HF
4"	.250	3.500	10.01	4130
	.313	3.375	12.33	4130
	.375	3.250	14.52	4140
	.500	3.000	18.69	4130
	.500	3.000	18.69	4140HF
	.625	2.750	22.53	4130
	.625	2.750	22.53	4140HF
	.750	2.500	26.03	4130
	.750	2.500	26.03	4140HF
	.875	2.250	29.20	4130
	.875	2.250	29.20	4140HF
	1.000	2.000	32.04	4130
	1.000	2.000	32.04	4140HF

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE	
4 1/4"	.188	3.875	8.156	4140	
	.313	3.625	13.16	4130	
	.375	3.500	15.52	4130	
	.500	3.250	20.03	4130	
	.500	3.250	20.03	4140HF	
	.625	3.000	24.20	4130	
	.625	3.000	24.20	4140HF	
	.750	2.750	28.04	4130	
	.750	2.750	28.04	4140HF	
	.875	2.500	31.54	4130	
	.875	2.500	31.54	4140HF	
	1.000	2.250	34.71	4140	
	1.000	2.250	34.71	4140HF	
4 1/2"	1.125	2.000	37.55	4140	
	1.125	2.000	37.55	4140HF	
	1.250	1.750	40.05	4140	
	.250	4.000	11.35	4130	
	.375	3.750	16.52	4130	
	.375	3.750	16.52	4140HF	
	.500	3.500	21.36	4130	
	.500	3.500	21.36	4140HF	
4 5/8"	.625	3.250	25.87	4130	
	.625	3.250	25.87	4140HF	
	.750	3.000	30.04	4130	
	.750	3.000	30.04	4140HF	
	.875	2.750	33.88	4140HF	
	1.000	2.500	37.38	4140	
	1.000	2.500	37.38	4140HF	
	1.125	2.250	40.55	4140HF	
	1.250	2.000	43.39	4140HF	
	4 5/8"	.938	2.750	36.94	4140HF
1.375		1.875	47.73	8620HF	
4 3/4"	.375	4.000	17.52	4135	
	.500	3.750	22.70	4130	
	.500	3.750	22.70	4140HF	
	.625	3.500	27.53	4130	
	.625	3.500	27.53	4140HF	
	.719	3.312	30.95	8620HF	
	.750	3.250	32.04	4130	
	.750	3.250	32.04	4140HF	
4 3/4"	.875	3.000	36.21	4140HF	
	1.000	2.750	40.05	4140	
	1.000	2.750	40.05	4140HF	
	1.250	2.250	46.73	4140HF	
	5"	.375	4.250	18.52	4130
		.500	4.000	24.03	4130
		.500	4.000	24.03	4140HF
		.563	3.874	26.68	4130
.625		3.750	29.20	4130	
.625		3.750	29.20	4140HF	
.750		3.500	34.04	4130	
.750		3.500	34.04	4140HF	
.875		3.250	38.55	4130	
1.000		3.000	42.72	4130	

Commercial Alloy Tubing



COLD DRAWN — HOT FINISHED ANNEALED — HEAT TREATED

CODES: HF—Hot Finished Seamless All others are Cold Drawn Seamless

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
5"	1.000	3.000	42.72	4140HF
	1.125	2.750	46.56	4140HF
	1.250	2.500	50.06	4140
	1.250	2.500	50.06	4140HF
	1.500	2.000	56.07	4140HF
5 1/8"	1.375	2.375	55.07	4140HF
5 1/4"	.500	4.250	25.37	4130
	.500	4.250	25.37	4140HF
	.625	4.000	30.87	4130
	.625	4.000	30.87	4140HF
	.750	3.750	36.05	4140HF
	.875	3.500	40.88	4130
	.875	3.500	40.88	4140HF
	1.000	3.250	45.39	4140HF
	1.250	2.750	53.40	4140HF
	1.500	2.250	60.08	4140HF
5 1/2"	.375	4.750	20.53	4130
	.500	4.500	26.70	4130
	.625	4.250	32.54	4140HF
	.750	4.000	38.05	4130
	.750	4.000	38.05	4140HF
	.875	3.750	43.22	4130
	1.000	3.500	48.06	4130
	1.000	3.500	48.06	4140HF
	1.125	3.250	52.57	4140HF
	1.250	3.000	56.74	4140HF
	1.500	2.500	64.08	4140HF
5 5/8"		4.375	33.38	4140HF
		2.875	62.41	4140HF
5 3/4"	.375	5.000	21.53	4130
	.500	4.750	28.04	4130
	.500	4.750	28.04	4140HF
	.625	4.500	34.21	4130
	.688	4.375	37.19	4130
	.750	4.250	40.05	4140HF
	.875	3.750	43.22	4140HF
	1.000	3.750	57.03	4140
	1.000	3.750	57.03	4140HF
	1.250	3.250	60.08	4140HF
1.500	2.750	68.09	4140HF	
6"	.375	5.250	22.53	4130
	.500	5.000	29.37	4140
	.500	5.000	29.37	4140HF
	.625	4.750	35.88	4130
	.625	4.750	35.88	4140HF
	.635	4.730	36.38	4130
	.750	4.500	42.05	4130
	.750	4.500	42.05	4140HF
	.875	4.250	47.89	4140HF
	1.000	4.000	53.40	4130

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
6"	1.000	4.000	53.40	4140HF
	1.111	3.778	58.01	4140HF
	1.125	3.750	58.57	4140HF
	1.250	3.500	63.41	4140HF
	1.500	3.000	72.09	4140HF
6 1/4"	.500	5.250	30.71	4130
	.500	5.250	30.71	4140HF
	.625	5.000	37.55	4130
	.750	4.750	44.06	4130
	.750	4.750	44.06	4140HF
	.875	4.500	50.23	4140HF
	1.000	4.250	56.07	4140
	1.000	4.250	56.07	4140HF
	1.250	3.750	66.75	4130
	1.250	3.750	66.75	4140HF
6 1/2"	.250	6.000	16.69	4130
	.375	5.750	24.53	4130
	.500	5.500	32.04	4140HF
	.625	5.250	39.22	4140HF
	.635	5.230	39.78	4130
	.733	5.034	45.15	4130
	.750	5.000	46.06	4130
	.750	5.000	46.06	4140HF
	.875	4.750	52.57	4140HF
	1.000	4.500	58.74	4130
	1.000	4.500	58.74	4140
1.000	4.500	58.74	4140HF	
1.125	4.250	64.58	4140HF	
1.250	4.000	70.09	4140HF	
1.500	3.500	80.10	4140HF	
1.750	3.000	88.78	4140	
6 3/4"	.500	5.750	33.38	4140HF
	.625	5.500	40.88	4130
	.750	5.250	48.06	4140HF
	1.000	4.750	61.41	4140HF
	1.125	4.500	67.58	4140HF
7"	.500	6.000	34.71	4140
	.625	5.750	42.55	4130
	.750	5.500	50.06	4140HF
	1.000	5.000	64.08	4140HF
	1.125	4.750	70.59	4140HF
	1.250	4.500	76.76	4140HF
	1.375	4.250	82.60	4140HF
1.500	4.000	88.11	4140HF	
7 1/4"	.500	6.250	36.05	4140HF
	.688	5.875	48.22	4140HF
	.750	5.750	52.07	4140HF
	.875	5.500	59.57	4140HF
	1.000	5.250	66.75	4140HF
	1.125	5.000	73.59	8620HF
	1.250	4.750	80.10	4140HF

Commercial Alloy Tubing



COLD DRAWN — HOT FINISHED ANNEALED — HEAT TREATED

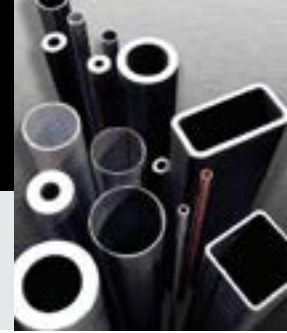
CODES: HF—Hot Finished Seamless All others are Cold Drawn Seamless

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
7 1/2"	.625	6.250	45.89	4140HF
	.750	6.000	54.07	4140HF
	.875	5.750	61.91	4140HF
	1.000	5.500	69.42	4140HF
	1.500	4.500	96.12	4140HF
7 3/4"	.750	6.250	56.07	4140HF
	.875	6.000	64.25	4140HF
	1.000	5.750	72.09	4140HF
	1.125	5.500	79.60	4130
8"	.500	7.000	40.05	4140HF
	.625	6.750	49.23	4140HF
	.750	6.500	58.07	4140HF
	1.000	6.000	74.76	4140HF
	1.125	5.750	82.60	4140HF
	1.250	5.500	90.11	4140HF
8 1/4"	.750	6.750	60.08	4140HF
	1.000	6.250	77.43	4140HF
	1.125	6.000	85.61	4140HF
	1.250	5.750	93.45	4140HF
	1.375	5.500	101.0	4140HF
8 1/2"	.500	7.500	42.72	4140HF
	.750	7.000	62.08	4140HF
	.875	6.750	71.26	4140HF
	1.000	6.500	80.10	4140HF
	1.250	6.000	96.79	4140HF
	1.500	5.500	112.1	4140HF
8 3/4"	.750	7.250	64.08	4140HF
	1.000	6.750	82.77	4140HF
	1.250	6.250	100.1	4140HF

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
9"	.750	7.500	66.08	4140HF
	1.000	7.000	85.44	4140HF
	1.500	6.000	120.2	4140HF
9 1/8"	.875	7.375	77.10	8620HF
9 1/4"	.625	8.000	57.57	4140HF
	.750	7.750	68.09	4140HF
	1.000	7.250	88.11	4140HF
	1.250	6.750	106.8	4140HF
9 1/2"	.750	8.000	70.09	4140HF
	1.000	7.500	90.78	4140HF
	1.375	6.750	119.30	4140HF
10"	.750	8.500	74.09	4140HF
	1.000	8.000	96.12	4140HF
	1.188	7.625	111.8	4140HF
	1.250	7.500	116.8	4140HF
	1.500	7.000	136.20	4140HF
10 1/2"	2.000	6.000	170.9	4140HF
	1.000	8.500	101.5	4140HF
11"	1.500	7.500	144.2	4140HF
	1.000	9.000	106.8	4140HF
11 1/2"	1.500	8.000	152.2	4140HF
	1.500	8.500	160.2	4140HF
12"	1.250	9.500	143.5	4140HF
	1.500	9.000	168.2	4140HF



Aircraft Tubing



CARBON AND ALLOY

AMS 5050E	AMS6360 (AISI 4130)	AMS 6372	(AISI 4135)	MIL-T-6736a	(AISI 4130)
(AISI 1010)	AMS 6371 (AISI 4130)	AMS 6128	(AISI 4335)		
	AMS 6415 (AISI 4340)	AMS 6281 Q	(AISI 4140)	AN-WW-T 850a	(AISI 4130)

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
1/8"	.022	.081	.0242	4130
3/16"	.022	.143	.0390	4130
	.028	.131	.0478	4130
	.035	.117	.0572	4130
	.049	.089	.0727	1025
	.049	.089	.0727	4130
1/4"	.022	.206	.0536	4130
	.028	.194	.0664	4130
	.035	.180	.0804	4130
	.042	.166	.0933	4130
	.049	.152	.1052	4130
	.058	.134	.1189	4130
	.065	.120	.1284	4130
	.083	.084	.1480	4130
5/16"	.022	.269	.0684	4130
	.028	.256	.0852	4130
	.035	.242	.1039	4130
	.049	.214	.1382	4130
	.058	.196	.1580	4130
	.065	.182	.1722	1025
	.065	.182	.1722	4130
	.083	.146	.2039	4130
	.095	.122	.2212	4130
	.109	.094	.2375	4130
3/8"	.028	.319	.1038	4130
	.035	.305	.1271	1025
	.035	.305	.1271	4130
	.049	.277	.1706	4130
	.058	.259	.1964	1025
	.058	.259	.1964	4130
	.065	.245	.2152	4130
	.083	.209	.2588	4130
	.095	.185	.2841	4130
	.109	.157	.3097	4130
	.120	.135	.3268	4130
7/16"	.028	.382	.1226	4130
	.035	.368	.1506	4130
	.049	.339	.2036	4130
	.049	.339	.2036	1025
	.065	.307	.2589	4130
	.065	.307	.2589	1025
	.083	.272	.3147	4130
	.095	.247	.3480	4130
	.120	.197	.4075	4130
	.134	.170	.4351	4130
1/2"	.028	.444	.1411	4130
	.035	.430	.1738	4130
	.049	.402	.2360	1025
	.049	.402	.2360	4130
	.058	.384	.2738	4130
	.065	.370	.3020	4130
	.072	.356	.3291	4130
	.083	.334	.3696	4130
	.095	.310	.4109	4130
	.109	.282	.4552	4130

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
1/2"	.120	.260	.4870	4130
	.125	.250	.4875	4130
	.156	.187	.5731	4130
	.188	.125	.6264	4130
9/16"	.028	.506	.1600	4130
	.035	.492	.1974	4130
	.049	.464	.2690	4130
	.058	.446	.3128	4130
	.065	.432	.3457	4130
	.072	.419	.3865	4130
	.083	.396	.4255	4130
	.095	.372	.4748	4130
	.109	.345	.5280	4130
	.120	.322	.5677	4130
	.156	.250	.6781	4130
	.188	.188	.7529	4130
5/8"	.028	.569	.1785	4130
	.035	.555	.2205	4130
	.035	.555	.2205	1025
	.049	.527	.3014	4130
	.058	.509	.3512	4130
	.065	.495	.3888	4130
	.072	.481	.4252	4130
	.083	.459	.4805	4130
	.095	.435	.5377	4130
	.109	.407	.6007	4130
	.120	.385	.6472	4130
	.134	.357	.7027	4130
	.156	.312	.7814	4130
	.188	.250	.8774	4130
	.219	.187	.9496	4130
11/16"	.049	.589	.2441	4130
	.083	.521	.5363	4130
	.095	.497	.6017	4130
	.120	.447	.7279	4130
	.156	.375	.8864	4130
	.188	.312	1.004	4130
3/4"	.028	.694	.2159	4130
	.035	.680	.2673	4130
	.049	.652	.3668	4130
	.058	.634	.4287	4130
	.065	.620	.4755	4130
	.072	.606	.5214	4130
	.083	.584	.5913	4130
	.095	.560	.6646	4130
	.120	.510	.8074	4130
	.156	.437	.9897	4130
	.188	.375	1.128	4130
	.219	.312	1.242	4130
	.250	.250	1.335	4130
13/16"	.065	.682	.5193	4130
	.083	.647	.6471	1025
	.095	.622	.7285	4130
	.120	.573	.8881	4130
	.188	.437	1.255	4130

Aircraft Tubing



CARBON AND ALLOY

AMS 5050E	AMS6360 (AISI 4130)	AMS 6372	(AISI 4135)	MIL-T-6736a	(AISI 4130)
(AISI 1010)	AMS 6371(AISI 4130)	AMS 6128	(AISI 4335)		
	AMS 6415(AISI 4340)	AMS 6281 Q	(AISI 4140)	AN-WW-T 850a	(AISI 4130)

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
7/8"	.028	.819	.2533	4130
	.035	.805	.3140	4130
	.049	.777	.4323	4130
	.058	.759	.5061	4130
	.065	.745	.5623	4130
	.083	.709	.7021	4130
	.095	.685	.7914	4130
	.120	.635	.9676	4130
	.156	.562	1.198	4130
	.188	.500	1.379	4130
	.219	.437	1.534	4130
	.250	.375	1.669	4130
15/16"	.065	.807	.6060	4130
	.083	.772	.758	4130
1"	.025	.950	.2603	4130
	.028	.944	.2907	4130
	.035	.930	.3607	4130
	.049	.902	.4977	4130
	.058	.884	.5835	4130
	.065	.870	.6491	4130
	.072	.856	.7136	4130
	.083	.834	.8129	4130
	.095	.810	.9182	4130
	.109	.782	1.037	4130
	.120	.760	1.128	4130
	.156	.687	1.406	4130
	.188	.625	1.630	4130
	.250	.500	2.003	4130
	.313	.374	2.297	4130
	.375	.250	2.503	4130
1 1/16"	.049	.967	.5306	4130
	.095	.875	.9821	4130
	.109	.847	1.111	4130
	.120	.822	1.209	4130
	.156	.750	1.511	4130
	.188	.688	1.757	4130
1 1/8"	.035	1.055	.4074	4130
	.049	1.027	.5631	4130
	.058	1.009	.6609	4130
	.065	.995	.7359	4130
	.083	.959	.9237	4130
	.095	.935	1.045	4130
	.120	.885	1.288	4130
	.156	.812	1.614	4130
	.250	.625	2.336	4130
	.313	.500	2.714	4130
	.375	.375	3.004	4130
1 3/16"	.095	.998	1.109	4130
	.120	.947	1.369	4130
1 1/4"	.035	1.180	.4542	4130
	.049	1.152	.6285	4130
	.058	1.134	.7384	4130
	.065	1.120	.8226	4130
	.083	1.084	1.034	4130

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
1 1/4"	.095	1.060	1.172	4130
	.120	1.010	1.448	4130
	.156	.937	1.823	4130
	.188	.875	2.132	4130
	.250	.750	2.670	4130
	.313	.625	3.132	4130
	.375	.500	3.504	4130
1 5/16"	.083	1.147	1.090	4130
	.120	1.072	1.529	4130
	.188	.938	2.259	4130
1 3/8"	.035	1.305	.5009	4130
	.049	1.277	.6939	4130
	.058	1.259	.8158	4130
	.065	1.245	.9094	4130
	.083	1.209	1.145	4130
	.095	1.185	1.299	4130
	.120	1.135	1.608	4130
	.156	1.062	2.031	4130
	.188	1.000	2.383	4130
	.250	.875	3.004	4130
	.375	.625	4.005	4130
1 7/16"	.250	.938	3.172	4135
1 1/2"	.035	1.430	.5476	4130
	.049	1.402	.7593	4130
	.058	1.384	.8932	4130
	.065	1.370	.9962	4130
	.083	1.334	1.256	4130
	.095	1.310	1.426	4130
	.120	1.260	1.769	4130
	.156	1.187	2.239	4130
	.188	1.125	2.634	4130
	.188	1.125	2.634	4135
	.219	1.062	2.996	4130
	.250	1.000	3.338	4130
	.313	.875	3.968	4130
	.375	.750	4.506	4130
	.500	.500	5.340	4135
1 9/16"	.120	1.323	1.849	4130
	.156	1.250	2.344	4130
	.188	1.187	2.761	4130
	.375	.812	4.758	4130
1 5/8"	.065	1.495	1.083	4130
	.083	1.459	1.367	4130
	.095	1.435	1.552	4130
	.120	1.385	1.929	4130
	.120	1.385	1.929	4130
	.156	1.312	2.447	4130
	.188	1.250	2.885	4130
1 5/8"	.250	1.125	3.671	4130
	.313	1.000	4.386	4130
	.375	.875	5.006	4130
	.500	.625	6.008	4135

Aircraft Tubing



CARBON AND ALLOY

AMS 5050E (AISI 1010)	AMS6360 (AISI 4130) AMS 6371(AISI 4130) AMS 6415(AISI 4340)	AMS 6372 AMS 6128 AMS 6281 Q	(AISI 4135) (AISI 4335) (AISI 4140)	MIL-T-6736a AN-WW-T 850a	(AISI 4130) (AISI 4130)
--------------------------	---	------------------------------------	---	-----------------------------	----------------------------

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
1 3/4"	.035	1.680	.6411	4130
	.049	1.652	.8902	4130
	.065	1.620	1.170	4130
	.083	1.584	1.478	4130
	.095	1.560	1.679	4130
	.120	1.510	2.089	4130
	.156	1.438	2.656	4130
	.188	1.375	3.136	4130
	.250	1.250	4.005	4130
	.313	1.125	4.804	4130
	.375	1.000	5.507	4130
	.500	.750	6.675	4130
1 13/16"	.188	1.438	3.263	4130
	.219	1.375	3.728	4130
1 7/8"	.058	1.759	1.126	4130
	.063	1.745	1.257	4130
	.083	1.709	1.589	4130
	.095	1.685	1.806	4130
	.156	1.562	2.964	4130
	.188	1.500	3.387	4130
	.250	1.375	4.339	4130
	.313	1.250	5.222	4130
	.438	1.000	6.722	4130
2"	.035	1.930	.7345	4130
	.049	1.902	1.021	4130
	.058	1.884	1.203	4130
	.065	1.870	1.343	4130
	.083	1.834	1.699	4130
	.095	1.810	1.933	4130
	.120	1.760	2.409	4130
	.134	1.732	2.670	4130
	.156	1.687	3.072	4130
	.188	1.625	3.638	4130
	.195	1.610	3.902	4130
	.219	1.562	4.166	4130
	.250	1.500	4.673	4130
	.313	1.375	5.639	4130
	.375	1.250	6.508	4130
	.375	1.250	6.508	4135
	.500	1.000	8.010	4130
2 1/8"	.058	2.009	1.258	4130
	.065	1.995	1.430	4130
	.120	1.885	2.570	4130
	.188	1.750	3.889	4130
	.225	1.675	4.530	4130
	.250	1.625	5.006	4130
	.313	1.500	6.057	4130
2 1/4"	.083	2.084	1.921	4130
	.095	2.060	2.186	4130
	.120	2.010	2.730	4130
	.156	1.937	3.489	4130
	.188	1.875	1.140	4130
	.250	1.750	5.340	4130
	.375	1.500	7.509	4130

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
2 3/8"	.120	2.135	2.890	4130
	.156	2.062	3.697	4130
	.219	1.937	5.043	4130
	.313	1.750	6.893	4130
2 1/2"	.049	2.402	1.283	4130
	.065	2.370	1.690	4130
	.083	2.334	2.143	4130
	.095	2.310	2.440	4130
	.120	2.260	3.050	4130
	.156	2.187	3.905	4130
	.188	2.125	4.642	4135
	.225	2.050	5.432	4130
	.250	2.000	6.008	4130
	.313	1.875	7.311	4130
	.344	1.812	7.921	4130
	.500	2.500	10.68	4130
	.625	1.250	12.52	4130
2 5/8"	.188	2.249	4.893	4130
	.250	2.125	6.341	4130
	.313	1.999	7.729	4130
	.500	1.625	11.35	4130
	.625	1.375	13.35	4130
2 3/4"	.188	2.375	5.144	4130
	.250	2.250	6.675	4130
	.375	2.000	9.512	4130
2 7/8"	.120	2.635	3.531	4130
	.375	2.125	10.01	4130
3"	.065	2.870	2.037	4130
	.095	2.810	2.947	4130
	.120	2.760	3.691	4130
	.156	2.687	4.738	4130
	.188	2.625	5.646	4130
	.250	2.500	7.343	4130
	.281	2.437	8.160	4130
	.313	2.375	9.892	4130
	.500	2.000	13.35	4135
3 1/4"	.120	3.010	4.011	4130
	.188	2.875	6.148	4130
	.375	2.500	11.51	4130
	.500	2.250	14.69	4130
3 1/2"	.065	3.370	2.385	4130
	.095	3.310	3.455	4130
	.120	3.260	4.332	4130
	.250	3.000	8.678	4130
	.375	2.750	12.52	4130
	.438	2.625	14.32	4130
	.500	2.500	16.02	4135
3 5/8"	.375	2.875	13.02	4130
3 3/4"	.250	3.250	9.345	4130

Aircraft Tubing



CARBON AND ALLOY

AMS 5050E	AMS6360 (AISI 4130)	AMS 6372	(AISI 4135)	MIL-T-6736a	(AISI 4130)
	AMS 6371 (AISI 4130)	AMS 6128	(AISI 4335)		
(AISI 1010)	AMS 6415 (AISI 4340)	AMS 6281 Q	(AISI 4140)	AN-WW-T 850a	(AISI 4130)

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
4"	.250	3.500	10.01	4130
	.313	3.375	12.33	4130
	.500	3.000	18.69	4130
	.625	2.750	22.53	4130
	.000	2.000	32.04	4130
4 1/4"	.188	3.875	8.156	4130
	.250	3.750	10.68	4135
	.500	3.250	20.03	4130
	.500	3.250	20.03	4135
5"	.500	4.000	24.03	4130
5 1/2"	1.000	3.500	48.06	4130

ELLIPTICAL - MIL-T-6736

O.D.	DEC. WALL	WT./FT.	GRADE
1 7/16" X 3/4"	.035	.4074	4130
1 5/8" X 3/4"	.065	1.083	4130

OVAL AISI 4130 MIL-T-6736 CONDITION N

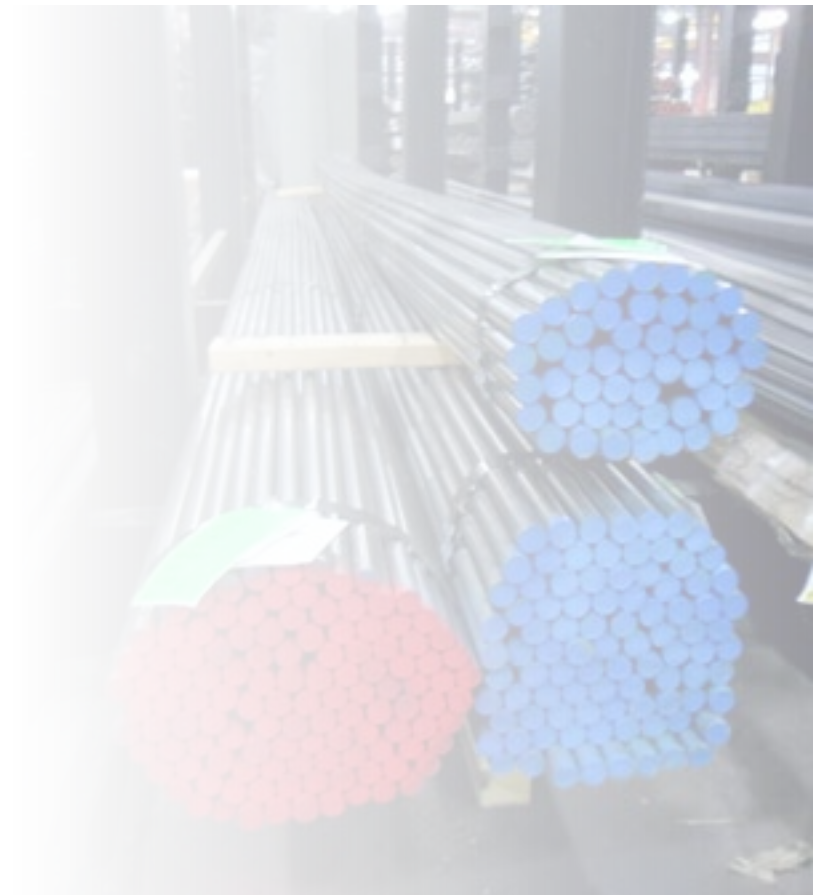
O.D.	DEC. WALL	I.D.	I.D. INCHES	WT./FT.	GRADE
5/8 X 1/4"	.028	.194	.569	.1068	4130
	.035	.194	.569	.1058	4130
1" X 3/8"	.035	.305	.930	.2441	4130

SQUARE, AISI 4130 MIL-T-6736 CONDITION N

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
1/2"	.035	.430	.2213	4130
	.049	.402	.3005	4130
5/8"	.028	.569	.226	4130
	.049	.527	.3838	4130
	.065	.495	.4950	4130
3/4"	.035	.680	.3403	4130
	.049	.652	.4671	4130
	.065	.620	.6055	4130
	.120	.510	1.028	4130
7/8"	.035	.805	.3998	4130
	.049	.777	.5504	4130
	.065	.745	.7160	4130
1"	.035	.930	.4593	4130
	.125	.750	1.488	4130
1 1/4"	.049	1.152	.8003	4130
1 1/2"	.065	1.370	1.269	4130
	.120	1.260	2.252	4130
2"	.095	.910	2.461	4130

RECTANGULAR - MIL-T-6736 CONDITION N

O.D.	DEC. WALL	WT./FT.	GRADE
1/2" X 1"	.035	.3403	4130
1" X 1 1/4"	.049	.7170	4130



Aircraft Stainless Tubing



Available from stock to the following specifications:

TYPE 304		TYPE 321		TYPE 347	
Seamless	Welded	Seamless	Welded	Seamless	Welded
MIL-T-5695B	MIL-T-5695B	MIL-T-8606A	MIL-T-6737A	MILT-T-8606A	MIL-T-6737A
MIL-T-6845	MIL-T-6845	MIL-T-8808A	MIL-T-8606A	MILT-T-8808A	MIL-T-8606A
MIL-T-8504	MIL-T-8504	AMS 5557A	MIL-T-8808A	AMS 5556A	MIL-T-8808A
MIL-T-8506	MIL-T-8506	AMS 5570G	AMS 5557A	AMS 5571B	AMS 5556A
AMS-5560D	AMS-5565D	AMS-5645G	AMS-5576B	AMS 5646	AMS 5575F
AMS 5566C	AMS 5566C	AN-WWT-858	AMS 5645G	AN-WWT-858	AN-T-43
AMS 5639A					
		TYPE 310			
		AMS-5572	AN-T-43		

CODES: W-Welded

All others are Cold Drawn Seamless

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
1/8"	.012	.101	.0145	304
	.012	.101	.1045	321
	.016	.093	.0186	304
	.028	.069	.0290	321
1/4"	.020	.210	.0491	304
	.020	.210	.0491	W-321
	.028	.194	.0664	304
	.028	.194	.0664	W-321
	.035	.180	.0804	304
	.035	.180	.0804	W-304
	.035	.180	.0804	321
	.035	.180	.0804	W-321
	.049	.170	.1052	321
5/16"	.035	.243	.1039	321
3/8"	.020	.335	.0758	W-321
	.028	.319	.1038	321
	.028	.319	.1038	W-321
	.035	.305	.1271	321
	.035	.305	.1271	W-321
	.065	.245	.2152	321
	.095	.185	.2841	321
1/2"	.028	.444	.1411	W-321
	.035	.430	.1738	304
	.035	.430	.1738	321
	.035	.430	.1738	W-321
	.049	.403	.2360	W-304
	.049	.402	.2360	321
	.049	.402	.2360	W-321
5/8"	.028	.569	.1785	321
	.028	.569	.1785	W-321
	.035	.555	.2205	W-321
	.049	.527	.3014	321
	.049	.527	.3014	W-321
	.065	.495	.3888	321
	.065	.495	.3888	W-321
3/4"	.020	.710	.1559	W-321
	.022	.706	.1711	321
	.028	.694	.2159	321
	.028	.694	.2159	W-321
	.035	.680	.2673	304
	.035	.680	.2673	321
	.035	.680	.2673	W-321
	.049	.652	.3668	321

O.D.	DEC. WALL	I.D.	WT./FT.	GRADE
3/4"	.049	.652	.3668	W-321
	.065	.620	.4755	321
	.065	.620	.4755	W-321
	.156	.438	.9897	304
1"	.020	.960	.2093	W-321
	.028	.944	.2907	W-321
	.035	.930	.3607	304
	.035	.930	.3607	W-321
1 1/4"	.049	1.152	.6285	W-321
1 1/2"	.035	1.430	.5476	321
	.035	1.430	.5476	W-321
1 3/4"	.035	1.680	.6411	W-321
	.049	1.652	.8902	W-321
2"	.035	1.930	.7345	W-321
	.049	1.902	1.021	W-304
2 1/4"	.035	2.180	.8280	W-321
2 3/8"	.035	2.305	.8747	W-321
	.049	2.277	1.217	W-321
2 1/2"	.035	2.430	.9214	W-321
	.049	2.402	1.283	W-321
2 5/8"	.035	2.555	.9681	W-321
	.049	2.527	1.348	W-321
3"	.035	2.930	1.108	W-321
	.050	2.900	2.901	W-304
3 1/2"	.030	3.440	1.110	W-321
4"	.035	3.930	1.482	W321

Commercial Stainless Tubing



CODES: C—Coiled Capillary H—Hypodermic Tubing W—Welded †—Ornametal All others are Cold Drawn Seamless.

O.D.	DEC. WALL	I.D.	WT./FT.	TYPE
.013"	.004	.005	.0004	H-304
.062"	.027	.008	.0102	C-347
1/16"	.010	.043	.0056	316
.083	.010	.063	.0078	304
1/8"	.020	.085	.0224	304
	.020	.085	.0224	316
	.028	.069	.0290	304
	.028	.069	.0290	W-304
	.028	.069	.0290	W-316
	.032	.061	.0318	304
	.032	.061	.0318	W-304
	.035	.055	.0336	304
	.035	.055	.0336	316
5/32"	.016	.124	.0246	W-304
	.018	.120	.0265	W-304
.180"	.015	.150	.0264	H-304
3/16"	.010	.168	.0190	304
	.016	.156	.0294	W-304
	.020	.148	.0359	304
	.022	.144	.0390	304
	.025	.137	.0435	W-304
	.028	.132	.0478	304
	.028	.132	.0478	W-304
	.032	.123	.0533	304
	.032	.123	.0533	W-304
	.035	.117	.0572	304
	.035	.117	.0572	W-304
	.035	.117	.0572	316
	.035	.117	.0572	W-316
	.049	.089	.0727	304
	.049	.089	.0727	W-304
1/4"	.020	.210	.0491	304
	.020	.210	.0491	316
	.022	.206	.0536	W-316
	.028	.194	.0664	304
	.028	.194	.0664	W-304
	.028	.194	.0664	W-316
	.028	.194	.0664	347
	.032	.187	.0745	304
	.032	.187	.0745	W-304
	.035	.180	.0804	304
1/4"	.035	.180	.0804	W-304
	.035	.180	.0804	316
	.035	.180	.0804	W-316
	.049	.152	.1052	304
	.049	.152	.1052	W-304
	.049	.152	.1052	316
	.049	.152	.1052	W-316
	.065	.120	.1284	304

O.D.	DEC. WALL	I.D.	WT./FT.	TYPE
1/4"	.065	.120	.1284	W-304
	.065	.120	.1284	316
	.065	.120	.1284	W-316
	.095	.060	.1573	316
5/16"	.022	.269	.0684	W-316
	.028	.256	.0852	304
	.028	.256	.0852	W-304
	.032	.249	.0960	304
	.035	.242	.1039	304
	.035	.242	.1039	W-304
	.035	.242	.1039	316
	.035	.242	.1039	W-316
	.049	.214	.1382	W-304
	.049	.214	.1382	W-316
	.065	.182	.1722	304
	.065	.182	.1722	W-304
3/8"	.020	.335	.0758	304
	.028	.319	.1038	304
	.028	.319	.1038	W-304
	.028	.319	.1038	W-316
	.035	.305	.1271	304
	.035	.305	.1271	W-304
	.035	.305	.1271	316
	.035	.305	.1271	W-316
	.049	.277	.1706	304
	.049	.277	.1706	W-304
	.049	.277	.1706	W-316
	.053	.269	.1823	W-304
	.058	.269	.1964	304
	.065	.245	.2152	304
	.065	.245	.2152	W-304
	.065	.245	.2152	316
	.065	.245	.2152	W-316
	.083	.209	.2588	304
	.095	.185	.2841	304
.405"	.068	.269	.2447	304
7/16"	.025	.388	.1103	W-304
	.028	.381	.1226	W-304
	.032	.374	.1388	304
	.032	.374	.1388	W-304
	.035	.367	.1506	304
	.035	.367	.1506	W-304
	.065	.307	.2589	W-304
	.065	.307	.2589	W-316
	.083	.272	.3147	304
1/2"	.028	.444	.1411	W-304
	.032	.436	.1599	304
	.035	.430	.1738	304
	.035	.430	.1738	W-304
	.035	.430	.1738	W-316
	.049	.402	.2360	304
	.049	.402	.2360	W-304
	.049	.402	.2360	316

Commercial Stainless Tubing



CODES: W-Welded †- Ornamental All others are Cold Drawn Seamless.

O.D.	DEC. WALL	I.D.	WT./FT.	TYPE
1/2"	.049	.402	.2360	W-316
	.065	.370	.3020	3C4
.540"	.065	.370	.3020	W-304
	.065	.370	.3020	316
	.065	.370	.3020	W-316
	.120	.260	.4870	304
	.156	.187	.5731	321
	.088	.364	.4248	304
.540"	.119	.302	.5351	304
	.215	.110	.7463	304
	.028	.507	.1600	W-304
9/16"	.035	.492	.1974	304
	.035	.492	.1974	W-304
	.049	.464	.2690	W-304
	.058	.447	.3128	W-304
	.120	.323	.5677	304
	.025	.575	.1602	W-304
5/8"	.028	.569	1.785	W-304
	.035	.555	.2205	304
	.035	.555	.2205	W-304
	.035	.555	.2205	316
	.035	.555	.2205	W-316
	.049	.527	.3014	304
	.049	.527	.3014	W-304
	.049	.527	.3014	W-316
	.065	.495	.3888	304
	.065	.495	.3888	W-304
	.065	.495	.3888	316
	.065	.495	.3888	W-316
	.083	.459	.4805	304
	.083	.459	.4805	W-304
.095	.435	.5377	304	
.120	.385	.6472	304	
.120	.385	.6472	W-316	
.188	.250	.8774	304	
.630"	.065	.500	.3922	W-304
.675"	.091	.493	.5676	304
	.126	.423	.7388	304
11/16"	.035	.617	.2441	304
	.035	.617	.2441	W-304
	.049	.590	.3344	W-304
	.065	.557	.4325	W-304
3/4"	.035	.680	.2673	304
	.035	.680	.2673	W-304
	.035	.680	.2673	W-316
	.049	.652	.3668	304
	.049	.652	.3668	W-304
	.049	.652	.3668	316
	.049	.652	.3668	W-316
	.065	.620	.4755	304

O.D.	DEC. WALL	I.D.	WT./FT.	TYPE
3/4"	.065	.620	.4755	W-304
	.065	.620	.4755	316
	.065	.620	.4755	W-316
	.083	.584	.5913	W-304
	.095	.560	.6646	304
	.095	.560	.6646	W-340
	.120	.510	.8074	304
	.120	.510	.8074	W-304
3/16"	.049	.715	.3998	304
	.049	.715	.3998	W-304
	.065	.682	.5193	W-304
.840"	.065	.710	.5380	W-316
	.083	.674	.6710	W-316-L
	.109	.622	.8510	304
	.120	.600	.9228	304
	.147	.546	1.088	304
7/8"	.035	.805	.3140	W-304
	.049	.777	.4323	304
	.049	.777	.4323	W-304
	.065	.745	.5623	304
	.065	.745	.5623	W-304
	.083	.709	.7021	304
	.083	.709	.7021	W-304
	.120	.635	.9676	304
	.120	.635	.9676	W-316
	.188	.500	1.379	304
	1"	.035	.930	.3607
.035		.930	.3607	304
.035		.930	.3607	W-304
.035		.930	.3607	†W-304
.035		.930	.3607	321
.049		.902	.4977	†W-302
.049		.902	.4977	304
.049		.902	.4977	W-304
.049		.902	.4977	W-316
.065		.870	.6491	†W-304
.065		.870	.6491	304
.065		.870	.6491	W-304
.065		.870	.6491	W-316
.083		.834	.8129	304
.083	.834	.8129	W-304	
.083	.834	.8129	†W-304	
.095	.810	.9182	W-304	
.109	.782	1.037	W-316	
.120	.760	1.128	304	
.120	.760	1.128	W-304	
.188	.625	1.630	304	
.250	.500	2.003	304	
1.050"	.065	.920	.6838	W-304
	.083	.884	.8572	W-304
	.113	.824	1.131	W-304
	.154	.742	1.474	304

Commercial Stainless Tubing



CODES: W-Welded †- Ornamental All others are Cold Drawn Seamless.

O.D.	DEC. WALL	I.D.	WT./FT.	TYPE
1 1/8"	.035	1.055	.4074	W-304
	.049	1.027	.5631	W-304
	.065	.995	.7359	W-304
	.083	.959	.9237	304
	.120	.885	1.288	304
	.188	.750	1.881	304
1 1/4"	.035	1.180	.4542	304
	.035	1.180	.4542	W-304
	.042	1.166	.5419	W-304
	.049	1.152	.6285	W-304
	.065	1.120	.8226	304
	.065	1.120	.8226	W-304
	.065	1.120	.8226	W-316
	.083	1.084	1.034	304
	.083	1.084	1.034	W-304
	.120	1.010	1.448	304
	.120	1.010	1.448	W-304
	.188	.875	2.132	304
1 5/16"	.083	1.146	1.090	W-304
1.315"	.065	1.185	.8678	W-304
	.109	1.097	1.404	W-304
	.133	.1049	1.679	W-304
	.179	.957	2.172	304
1 3/8"	.035	1.305	.5003	W-304
	.049	1.277	.6939	W-304
	.049	1.277	.6939	†W-304
	.065	1.245	.9094	304
	.065	1.245	.9094	W-304
	.120	1.135	1.608	304
1 1/2"	.035	1.430	.5476	W-304
	.049	1.402	.7593	304
	.049	1.402	.7593	W-304
	.065	1.370	.9962	304
	.065	1.370	.9962	W-304
	.065	1.370	.9962	†W-304
	.065	1.370	.9962	W-316
	.083	1.334	1.256	W-304
	.095	1.310	1.426	304
	.120	1.260	1.769	304
	.120	1.260	1.769	W-304
	.188	1.125	2.634	304
.250	1.000	3.338	304	
.375	.750	4.506	304	
1 5/8"	.049	1.527	.8248	W-302
	.049	1.527	.8248	W-304
	.065	1.495	1.083	W-304
	.065	1.495	1.083	†W-304
	.120	1.385	1.929	304

O.D.	DEC. WALL	I.D.	WT./FT.	TYPE
1.660"	.065	1.530	1.107	W-304
	.109	1.442	1.806	W-304
	.140	1.380	2.273	W-304
	.191	1.278	2.997	304
1 3/4"	.042	1.666	.7661	W-304
	.049	1.652	.8902	†W-302
	.065	1.620	1.170	W-304
	.095	1.560	1.679	304
	.095	1.560	1.679	W-304
	.120	1.510	2.089	304
	.188	1.375	3.136	304
	.250	1.250	4.005	304
.375	1.000	5.507	316	
1.900"	.065	1.770	1.274	W-304
	.109	1.682	2.085	W-304
	.145	1.610	2.718	W-304
	.200	1.500	3.631	304
2"	.035	1.930	.7345	W-304
	.035	1.930	.7345	W-321
	.049	1.902	1.021	W-304
	.065	1.870	1.343	W-304
	.065	1.870	1.343	†W-304
	.065	1.870	1.343	W-316
	.083	1.834	1.699	W-304
	.120	1.760	2.409	W-304
	.188	1.625	3.638	304
	.250	1.500	4.673	304
2 1/4"	.049	2.152	1.152	W-304
	.065	2.120	1.517	W-304
	.188	1.875	4.140	304
	.250	1.750	5.340	304
	.438	1.375	8.476	304
	.500	1.250	9.345	304
	.500	1.250	9.345	316
2 3/8"	.049	2.277	1.217	W-304
	.065	2.245	1.604	W-304
	.109	2.157	2.638	W-304
	.154	2.067	3.653	W-304
	.218	1.939	5.022	316
2 1/2"	.049	2.402	1.283	W-304
	.065	2.370	1.690	W-304
	.120	2.260	3.050	304
	.250	2.000	6.008	304
	.625	1.250	12.52	316
	2 3/4"	.065	.2620	1.864
.120		2.510	3.371	W-304
.250		2.250	6.675	304
.500		1.750	12.02	304
.500		1.750	12.02	316

Commercial Stainless Tubing



CODES: W-Welded †- Ornamental All others are Cold Drawn Seamless.

O.D.	DEC. WALL	I.D.	WT./FT.	TYPE
2 7/8"	.120	2.635	3.531	W-304
	.203	2.469	5.793	W-304
	.552	1.771	13.69	304
3"	.065	2.870	2.037	W-304
	.065	2.870	2.037	W-316
	.120	2.760	3.691	304
	.120	2.760	3.691	W-304
	.188	2.625	5.646	304
	.250	2.500	7.343	304
	.500	2.000	13.35	304
3 1/4"	.065	3.120	2.211	W-316
	.083	3.084	2.807	W-304
	.120	3.010	4.011	304
	.120	3.010	4.011	W-304
	.120	3.010	4.011	W-304-L
	.120	3.010	4.011	321
	.750	1.750	20.03	304
	.750	1.750	20.03	316
3 3/8"	.065	3.245	2.298	W-304
3 1/2"	.065	3.370	2.385	W-304
	.065	3.370	2.385	W-316
	.083	3.334	3.029	W-304
	.120	3.260	4.332	W-304
	.216	3.068	7.576	W-304
	.250	3.000	8.678	304
	.433	2.624	14.32	304
	.500	2.500	16.02	304
	.600	2.300	18.58	304
	.600	2.300	18.58	316
	.750	2.000	22.03	304
3 3/4"	.065	3.620	2.558	W-304
	.120	3.510	4.652	304
	.750	2.250	24.03	304
	.750	2.250	24.03	316
4"	.065	3.870	2.732	W-304
	.083	3.834	3.472	W-304
	.120	3.760	4.973	304
	.120	3.760	4.973	W-304
	.188	3.625	7.654	304
	.250	3.500	10.01	304
	.375	3.250	14.52	304
	.636	2.728	28.50	304
	.636	2.728	28.50	316
4 1/2"	.083	4.334	3.915	W-304
	.120	4.260	5.613	W-304
	.237	4.026	10.79	W-304
	.674	3.152	27.54	316

O.D.	DEC. WALL	I.D.	WT./FT.	TYPE
5"	.065	4.807	3.426	W-304
	.120	4.760	6.254	W-304
	.250	4.500	12.68	304
	.750	3.500	34.04	304
	.750	3.500	34.04	304
	.750	3.500	34.04	316
5 1/4"	.120	5.010	6.575	W-316
6"	.065	5.870	4.120	W-304
	.120	5.760	7.536	W-304
6 1/4"	.120	6.010	7.856	W-316
8"	.065	7.870	5.508	W-304

Square and Rectangular

O.D.	B.W. G.A	DEC. WALL	I.D.	WT./FT.	TYPE
1/4" Sq.	16	.065	.120	.1635	W-304
1/2" Sq.	16	.065	.370	.3845	W-304
5/8" Sq.	8	.049	.652	.3838	W-304
3/4" Sq.	18	.049	.652	.4671	W-304
	16	.065	.620	.6055	W-304
3/4" X 1 1/2" Sq.	16	.065		.9370	W-304
	18	.049	.902	.6337	W-304
	16	.065	.870	.8265	W-304
	14	.083	.834	1.035	W-304
	11	.120	.760	1.436	W-304
1" X 2"	16	.065		1.269	W-304
1/4" Sq.	18	.049	1.152	.8003	W-304
	16	.065	1.120	1.048	W-304
1 1/2" Sq.	16	.065	1.370	1.269	W-304
	11	.120	1.260	2.252	W-304
2" Sq.	16	.065	1.870	1.711	W-304
	11	.120	1.760	3.068	W-304

Aluminum Tubing

COLD DRAWN SEAMLESS



O.D.	DEC. WALL	I.D.	WT./FT.	ALLOY & TEM- PER
1/8"	.035	.055	.0115	5052-0
3/16"	.022	.143	.0137	2024-T3
	.035	.118	.0195	5052-0
	.035	.180	.0284	2024-T3
	.049	.089	.0256	2024-T3
1/4"	.035	.180	.0275	5052-0
	.035	.180	.0278	6061-0
	.035	.180	.0284	2024-T3
	.049	.152	.0360	5052-0
	.049	.152	.0371	2024-T3
	.058	.134	.0411	6061-T6
	.065	.120	.0453	2024-T3
5/16"	.035	.243	.0355	5052-0
	.035	.243	.0366	2024-T3
	.049	.214	.0472	5052-0
	.049	.214	.0476	6061-T6
	.049	.214	.0487	2024-0
	.049	.214	.0487	2024-T3
	.062	.188	.0574	6061-T6
	.062	.188	.0586	2024-T3
	.083	.147	.0718	2024-T3
3/8"	.035	.305	.0436	5052-0
	.035	.305	.0439	6061-0
	.035	.305	.0439	6061-T6
	.035	.305	.0449	2024-T3
	.049	.277	.0589	6061-T6
	.049	.277	.0602	2024-T3
	.058	.259	.0679	6061-T6
	.058	.259	.0693	2024-T3
	.083	.209	.0914	2024-T3
	.109	.157	.1093	2024-T3
7/16"	.035	.368	.0520	6061-T6
	.049	.340	.0718	2024-T3
	.065	.308	.0890	6061-T6
	.083	.272	.1109	2024-T3
1/2"	.028	.444	.0484	5052-0
	.035	.430	.0601	6061-0
	.035	.430	.0601	6061-T6
	.035	.430	.0614	2024-T3
	.049	.402	.0815	6061-T6
	.049	.402	.0833	2024-T3
	.058	.384	.0946	6061-T6
	.065	.370	.1043	6061-T6
5/8"	.035	.550	.0755	5052-0
	.035	.550	.0762	6061-T6
	.049	.527	.1041	6061-T6
	.049	.527	.1064	2024-T3
	.065	.495	.1343	6061-T6
3/4"	.035	.680	.0916	5052-0
	.035	.680	.0925	6061-T6
	.049	.652	.1267	6061-T6

O.D.	DEC. WALL	I.D.	WT./FT.	ALLOY & TEM- PER
3/4"	.048	.652	.1295	2024-T3
	.065	.620	.1643	6061-T6
	.083	.584	.2043	6061-T6
	.095	.560	.2346	2024-T3
7/8"	.035	.805	.1079	5052-0
	.035	.805	.1100	3003-H14
	.049	.777	.1526	2024-T3
	.058	.759	.1749	6061-T6
	.095	.685	.2734	6061-T6
1"	.035	.930	.1238	5052-0
	.049	.902	.1706	5052-0
	.049	.902	.1720	6061-T6
	.049	.902	.1757	2024-T3
	.058	.884	.2016	6061-T6
	.058	.884	.2060	2024-T3
	.083	.834	.2808	6061-T6
	.095	.810	.3244	2024-T3
	.125	.750	.4036	6061-T6
1 1/8"	.058	1.009	.2284	6061-T6
	.065	.995	.2598	2024-T3
1 1/4"	.035	1.180	.1156	5052-0
	.035	1.180	.1569	6061-T6
	.049	1.152	.2154	5052-0
	.049	1.152	.2172	6061-0
	.065	1.120	.2903	2024-T3
1 3/8"	.065	1.245	.3210	2024-T3
1 1/2"	.035	1.430	.1877	5052-0
	.035	1.430	.1892	6016-T6
	.035	1.430	.1913	3003-H14
	.049	1.402	.2624	6061-T6
	.049	1.402	.2680	2024-0
	.065	1.370	.3442	6061-T6
	.065	1.370	.3516	2024-T3
	.083	1.334	.4434	2024-T3
	.120	1.260	.6243	2024-T3
	.125	1.250	.6342	6061-T6
1 3/4"	.035	1.680	.2197	5052-0
	.049	1.652	.3076	6061-T6
	.058	1.634	.3621	6061-T6
	.058	1.634	.3700	2024-T3
1 7/8"	.049	1.777	.3373	2424-T3
	.058	1.759	.3973	2024-T3
2"	.035	1.930	.2517	5052-0
	.035	1.930	.2537	6061-T4
	.035	1.930	.2537	6061-T6
	.049	1.902	.3499	5052-0
	.049	1.902	.3528	6061-0
	.049	1.902	.3528	6061-T6

Aluminum Tubing

COLD DRAWN SEAMLESS



O.D.	DEC. WALL	I.D.	WT./FT.	ALLOY & TEM- PER
2 1/4"	.049	2.152	.3980	6061-T6
2 1/2"	.028	2.444	.2533	5052-0
	.035	2.430	.3158	5052-0
	.035	2.430	.3184	6061-0
	.049	2.402	.4432	6061-0
	.065	2.370	.5840	6061-T6
2 3/4"	.060	2.630	.6085	2024-T3

O.D.	DEC. WALL	I.D.	WT./FT.	ALLOY & TEM- PER
3"	.035	2.930	.3798	5052-0
	.035	2.930	.3829	6061-0
	.035	2.930	.3829	6061-T6
	.049	2.902	.5292	5052-0
	.049	2.902	.5336	6061-0
4"	.035	3.930	.5079	5052-0
	.049	2.902	.7144	6061-T6
5"	.035	4.930	.6360	5052.0



Carbon Steel Pipe A-106, A-53, A-120



Plain Ends — Single and Double Random Lengths — Test Reports Available

CODES: W—Welded HF—Hot Finished Seamless CW—Continuous Weld

CD—Special Clean-Pickled and Oiled-Ends Capped, Cold Drawn Seamless

I.P.S.	O.D.	WALL	WT.	SCH	WT/FT.	TYPE
1/8"	.405	.068	STD	40	.245	W,CW
		.095	XH	80	.315	W,CW
1/4"	.540	.088	STD	40	.425	W,CW
		.199	XH	80	.535	W,CW
3/8"	.675	.091	STD	40	.568	W,HF
		.126	XH	80	.739	W,HF
1/2"	.840	.109	STD	40	.851	W,HF
		.147	XH	80	1.09	W,HF
		.187		160	1.304	W,HF
		.294	XXH		1.714	W,HF
3/4"	1.050	.113	STD	40	1.131	W,HF
		.154	XH	80	1.474	W,HF
		.218		160	1.937	W,HF
		.308	XXH		2.441	W,HF
1"	1.315	.133	STD	40	1.679	W,HF
		.179	XH	80	2.172	W, HF
		.250		160	2.844	HF
		.358	XXH		3.659	HF
1 1/4"	1.660	.140	STD	40	2.273	W,CD
		.191	XH	80	2.997	W,CD
		.250		160	3.765	HF,CD
		.382	XXH		5.214	HF
1 1/2"	1.900	.145	STD	40	2.718	W, HF, CD
		.200	XH	80	3.631	W, HF, CD
		.281		160	4.859	HF,CD
		.400	XXH		6.408	HF
2"	2 3/8	.154	STD	40	3.653	W, HF, CD
		.218	XH	80	5.022	W, HF, CD
		.344		160	7.444	HF,CD
		.436	XXH		9.029	HF,CD
2 1/2"	2 7/8	.203	STD	40	5.793	HF,CD
		.276	XH	80	7.661	HF,CD
		.375		160	10.010	HF,CD
		.552	XXH		13.690	HF
3"	3 1/2	.216	STD	40	7.576	W, HF
		.300	XH	80	10.250	W,HF
		.438		160	14.320	HF
		.600	XXH		18.580	HF
3 1/2"	4	.226	STD	40	9.109	HF
		.318	XH	80	12.500	HF
		.636	XXH		22.850	HF
4"	4 1/2	.237	STD	40	10.79	W, HF
		.337	XH	80	14.98	W, HF
		.438		120	19.00	HF
		.531		160	22.51	HF
		.674	XXH		27.54	HF

I.P.S.	O.D.	WALL	WT.	SCH	WT/FT.	TYPE
4 1/2"	5	.247	STD	40	12.54	HF
		.355	XH	80	17.61	HF
		.710	XXH		32.53	HF
5"	5 9/16	.258	STD	40	14.62	W,HF
		.375	XH	80	20.78	W, HF
		.500		120	27.04	HF
		.625		160	32.96	HF
6"	6 5/8"	.750	XXH		38.55	HF
		.134		10	9.29	W, HF
		.280	STD	40	18.97	W, HF
		.432	XH	80	28.57	HF
6"	6 5/8"	.562		120	36.39	HF
		.719		160	45.30	HF
		.864	XXH		53.16	HF
		.250		20	22.36	W,HF
8"	8 5/8	.277		30	24.69	W, HF
		.322	STD	40	28.55	W,HF
		.500	XH	80	43.39	HF
		.594		100	50.87	HF
		.719		120	60.93	HF
		.875	XXH		72.42	HF
		.906		160	74.69	HF
1.000			81.44	HF		
1.125			90.11	HF		
1.250			98.46	HF		
9"	9 5/8	.342	STD	40	33.91	HF
		.500	XH		48.73	HF
10"	10 3/4	.250		20	28.04	HF
		.307		30	34.24	HF
		.365	STD	40	40.48	HF
		.500	XH	60	54.74	HF
		.594		80	64.43	HF
		.719		100	77.03	HF
		.844		120	89.29	HF
1.000	XXH	140	104.1	HF		
1.125		160	115.6	HF		
1.250			126.8	HF		
11"	11 3/4	1.375			137.7	HF
		1.500			148.2	HF
		1.750			168.2	HF
		2.000			184.7	HF
		.270			45.55	HF
11"	11 3/4	.375	STD	40	45.55	HF
		.500	XH		60.07	HF
		.750			88.11	HF
		1.000			114.8	HF
		1.125			128.2	HF
		1.250			140.2	HF
		1.500			164.2	HF
		1.750			186.9	HF
2.000			208.3	HF		
2.500			246.9	HF		

Carbon Steel Pipe A-106, A-53, A-120



Plain Ends — Single and Double Random Lengths — Test Reports Available

CODES: W—Welded HF—Hot Finished Seamless CW—Continuous Weld

CD—Special Clean-Pickled and Oiled-Ends Capped, Cold Drawn Seamless

I.P.S.	O.D.	WALL	WT.	SCH	WT/FT.	TYPE		
12"	12 3/4	.250		20	33.38	HF		
		.312			41.51	HF		
		.330		30	43.77	HF		
		.375	STD		49.56	HF		
		.406		40	53.52	HF		
		.500	XH		65.42	HF		
		.562		60	73.15	HF		
		.688		80	88.63	HF		
		.844		100	107.3	HF		
		1.000	XXH	120	125.5	HF		
		1.125		140	139.7	HF		
		1.312		160	160.3	HF		
		1.500			180.2	HF		
		1.750			205.6	HF		
		2.000			229.6	HF		
13"	13	.750			98.12	HF		
		1.000			128.1	HF		
		1.250			156.9	HF		
		1.500			184.2	HF		
		1.750			210.3	HF		
		2.000			235.0	HF		
14"	14	.250		10	36.71	HF		
		.312		20	45.61	HF		
		.375	STD	30	54.57	HF		
		.438		40	63.44	HF		
		.500	XH		72.09	HF		
		.594		60	85.05	HF		
		.750		80	106.1	HF		
		.938		100	130.85	HF		
		1.094		120	150.8	HF		
		1.250		140	170.2	HF		
				1.406		160	189.1	HF
				2.000			256.3	HF
				2.125			269.5	HF
		2.250			282.4	HF		
		2.750			330.4	HF		
		3.000			352.4	HF		
		3.250			373.1	HF		
15"	15	.375	STD		58.57	HF		
		.500	XH		77.43	HF		
		.750			114.1	HF		
		1.000			149.5	HF		
		1.250			183.6	HF		
		1.500			216.3	HF		
		2.000			277.7	HF		
		2.500			333.8	HF		
		2.750			359.8	HF		
		3.750			450.6	HF		
16"	16	.250		10	42.05	HF		
		.312		20	52.27	HF		
		.375	STD	30	62.58	HF		
		.500	XH	40	82.77	HF		
		.656		60	107.5	HF		

I.P.S.	O.D.	WALL	WT.	SCH	WT/FT.	TYPE		
16"	16	.844		80	136.6	HF		
		1.031		100	164.8	HF		
		1.219		120	192.4	HF		
		1.438		140	223.6	HF		
		1.594		160	245.3	HF		
				2.000			299.0	HF
				2.250			330.4	HF
				2.500			360.5	HF
				3.000			416.5	HF
17"	17	1.000			170.90	HF		
		1.250			210.3	HF		
		2.000			320.4	HF		
		2.500			387.2	HF		
		3.000			448.6	HF		
18"	18	.250		10	47.39	HF		
		.312		20	58.94	HF		
		.375	STD		70.59	HF		
		.438		30	82.15	HF		
		.500	XH		93.45	HF		
		.562		40	104.7	HF		
		.750		60	138.2	HF		
		.938		80	170.9	HF		
		1.000			181.6	HF		
		1.156		100	208.0	HF		
				1.375		120	244.1	HF
				1.562		140	274.2	HF
				1.781		160	308.5	HF
		2.000			341.8	HF		
		2.500			411.2	HF		
		2.750			447.9	HF		
		3.000			480.6	HF		
19"	19	.500			98.8	HF		
		.750			146.2	HF		
		1.000			192.2	HF		
		1.500			280.3	HF		
		1.750			322.4	HF		
		2.000			363.1	HF		
		3.000			512.6	HF		
20"	20	.375	STD	20	78.60	HF		
		.500	XH	30	104.1	HF		
		.594		40	123.1	HF		
		.812		60	166.4	HF		
		1.031		80	208.9	HF		
		1.281		100	256.1	HF		
		1.500		120	296.4	HF		
		1.750		140	341.1	HF		
		1.968		160	379.0	HF		
21"	21	.500			109.5	HF		
		.750			162.2	HF		
		1.000			213.6	HF		
		1.500			312.4	HF		
		2.750			536.0	HF		

Carbon Steel Pipe A-106, A-53, A-120



Plain Ends — Single and Double Random Lengths — Test Reports Available

CODES: W—Welded HF—Hot Finished Seamless CW—Continuous Weld

CD—Special Clean-Pickled and Oiled-Ends Capped, Cold Drawn Seamless

I.P.S.	O.D.	WALL	WT.	SCH	WT/FT.	TYPE
21"	21	3.000			576.7	HF
		4.000			726.2	HF
22"	22	.375	STD	20	86.61	HF
		1.000			224.3	HF
		1.500			328.4	HF
		2.000			427.2	HF
24"	24	.375	STD	20	94.62	HF
		.500	XH		125.5	HF
		.562		30	140.7	HF
		.688		40	171.3	HF
		.969		60	238.4	HF

I.P.S.	O.D.	WALL	WT.	SCH	WT/FT.	TYPE
24"	24	1.219		80	296.6	HF
		1.531		100	367.4	HF
		1.812		120	429.5	HF
		2.062		140	438.1	HF
26"	26	.375	STD			HF
		.500	XH	20	136.2	HF
		1.500			392.5	HF
28"	28	.375	STD		110.6	HF
		.500	XH	20	146.9	HF
		1.000			288.4	HF
		2.000			555.4	HF



Weights and Dimension

SEAMLESS AND WELDED PIPE

Upper Figures: Wall Thickness in Inches Lower Figures: Weight per Foot in Pounds



PIPE SIZE	O.D. IN INCHES	5	10	20	30	40	STD	60	80	E.H.	100	120	140	160	DBLE. E.H.
1/8	.405	.035 .1383	.045 .1863			.068 .2447	.068 .2447		.095 .3145	.095 .3145					
1/4	.540	.049 .2570	.065 .3297			.088 .4248	.088 .4248		.119 .5351	.119 .5351					
3/8	.675	.049 .3276	.065 .4235			.091 .5676	.091 .5676		.126 .7388	.126 .7388					
1/2	.840	.065 .5380	.083 .6710			.109 .8510	.109 .8510		.147 1.088	.147 1.088				.187 1.304	.294 1.714
3/4	1.050	.065 .6838	.083 .8572			.113 1.131	.113 1.131		.154 1.474	.153 1.474				.218 1.937	.308 2.441
1	1.315	.065 .8678	.109 1.404			.133 1.679	.133 1.679		.179 2.172	.179 2.172				.250 2.844	.358 3.659
1 1/4	1.660	.065 1.107	.109 1.806			.140 2.273	.140 2.273		.191 2.997	.191 2.997				.250 3.765	.382 5.214
1 1/2	1.9000	.065 1.274	.109 2.085			.145 2.718	.145 2.718		.200 3.361	.200 3.361				.281 4.859	.400 6.408
2	2.375	.065 1.604	.109 2.638			.154 3.653	.154 3.653		.218 5.022	.218 5.022				.343 7.444	.436 9.029
2 1/2	2.875	.083 2.475	.120 3.531			.203 5.793	.203 5.793		.276 7.661	.276 7.661				.375 10.01	.552 13.70
3	3.5	.083 3.029	.120 4.332			.216 7.576	.216 7.576		.300 10.25	.300 10.25				.438 14.32	.600 18.58
3 1/2	4.0	.083 3.472	.120 4.973			.226 9.109	.226 9.109		.318 12.51	.318 12.51					.636 22.85
4	4.5	.083 3.915	.120 5.613			.2378 10.79	.237 10.79	.281 12.66		.337 14.98		.438 19.00		.531 22.51	.674 27.54
4 1/2	5.0						.247 12.53			.355 17.61					.710 32.53
5	5.583	.109 6.349	.134 7.770			.258 14.62	.258 14.62		.375 20.78	.375 20.78		.500 27.04		.625 32.96	.750 38.55
6	6.625	.109 7.585	.134 9.289			.280 18.97	.280 18.97		.432 28.57	.432 28.57		.562 36.39		.719 45.30	.864 53.16
8	8.625	.109 9.914	.148 13.40	.250 22.36	.277 24.70	.322 28.55	.322 28.55	.406 35.64	.500 43.39	.500 43.39	.594 50.87	.719 60.63	.812 67.76	.906 74.69	.875 72.42
10	10.75	.134 15.19	.165 18.70	.250 28.04	.307 34.24	.365 40.48	.365 40.48	.500 54.74	.594 64.33	.500 54.75	.719 76.93	.844 89.20	1.000 104.1	1.125 115.6	
12	12.75	.165 22.18	.180 24.20	.250 33.38	.330 43.77	.406 53.35	.375 49.56	.562 73.16	.688 88.51	.500 65.42	.844 107.2	1.000 125.5	1.125 139.7	1.312 160.3	
14	14.0		.250 36.71	.312 45.68	.375 54.57	.437 63.37	.375 54.57	.594 84.91	.750 106.1	.500 72.09	.938 130.7	1.094 150.7	1.250 170.2	1.406 189.1	
16	16.0		.250 42.05	.312 52.36	.375 62.58	.437 82.77	.375 62.58	.750 107.5	.938 136.5	.500 82.77	1.031 164.8	1.219 192.3	1.438 223.5	1.593 245.1	
18	18.0		.250 47.39	.312 59.03	.437 82.06	.562 104.8	.375 70.59	.750 138.2	.938 170.8	.500 93.45	1.156 208.0	1.375 244.1	1.582 274.2	1.781 308.5	
20	20.0		.250 52.73	.375 78.60	.500 104.1	.594 122.9	.375 78.60	.812 166.4	1.031 250.82	.500 114.81	1.281 302.88	1.5000 353.61	1.750 403.01	1.968 451.07	
22	22.0		.250 58.07	.375 86.61	.500 114.81		.375 86.61	.875 197.42	1.219 296.4	.500 125.5	1.531 376.4	1.812 429.4	2.062 483.1	2.343 541.9	
24	24.0		.250 63.41	.375 94.62	.562 140.8	.687 171.2	.375 94.62	.969 238.1		.500 136.17					
26	26.0		.312 85.73				.375 102.63			.500 157.53					
30	30.0		.312 99.08		.625 196.08		.375 118.65								

Cold Finish Carbon Steel Bar



C-1018 Flats

FLAT SIZES	WT./FT.
3/16" X 1 1/2"	.956
3/16" X 2"	1.280
1/4" X 1/2"	.425
1/4" X 1"	.850
1/4" X 1 1/4"	1.060
1/4" X 1 1/2"	1.280
1/4" X 2"	1.700
1/4" X 2 1/2"	2.130
1/4" X 3"	2.550
1/4" X 4"	3.400
1/4" X 4 1/2"	3.825
1/4" X 6"	5.10
1/4" X 8"	6.800
1/4" X 10"	6.80
5/16" X 5/8"	.664
5/16" X 2 1/2"	2.650
3/8" X 3/4"	.956
3/8" X 1"	1.280
3/8" X 1 1/8"	1.434
3/8" X 1 1/2"	1.920
3/8" X 2"	2.550
3/8" X 3"	3.830
3/8" X 4"	5.100
3/8" X 6"	7.650
3/8" X 8"	10.20
3/8" X 10"	12.75
3/8" X 12"	15.30
1/2" X 3/4"	1.28
1/2" X 1"	1.70
1/2" X 1 1/4"	2.13
1/2" X 1 1/2"	2.50
1/2" X 1 3/4"	2.98
1/2" X 2"	3.40
1/2" X 2 1/2"	4.25
1/2" X 3"	5.10
1/2" X 3 1/2"	5.95
1/2" X 4"	6.80
1/2" X 5"	8.50
1/2" X 6"	10.20
1/2" X 8"	13.60
1/2" X 10"	17.00
1/2" X 12"	20.40
5/8" X 5"	10.63
5/8" X 6"	12.80
3/4" X 7/8"	2.231
3/4" X 1"	2.25
3/4" X 1 1/4"	3.19
3/4" X 1 1/2"	3.83
3/4" X 2"	5.10
3/4" X 2 1/2"	6.38
3/4" X 3"	6.54
3/4" X 3 1/2"	8.93
3/4" X 4"	10.20
3/4" X 6"	15.30

FLAT SIZES	WT./FT.
3/4" X 8"	20.40
3/4" X 10"	25.50
3/4" X 12"	30.60
1" X 12"	30.60
1" X 1 1/8"	3.83
1" X 1 1/4"	4.25
1" X 1 3/8"	4.68
1" X 1 1/2"	5.10
1" X 2"	6.80
1" X 2 1/2"	8.50
1" X 3"	10.20
1" X 4"	13.60
1" X 4 1/2"	15.3
1" X 5"	17.00
1" X 6"	20.40
1" X 8"	27.20
1" X 10"	34.00
1" X 12"	40.80
1 1/4 X 2"	8.50
1 1/4 X 2 1/2"	10.63
1" X 3 1/2"	14.88
1 1/4" X 4"	17.00
1 1/4" X 6"	25.50
1 1/4" X 8"	34.00
1 1/2" X 2"	10.20
1 1/2" X 3"	15.30
2 1/2" X 4"	20.40
1 1/2" X 5"	25.50
1 1/2" X 6"	30.60
1 1/2" X 8"	40.80
1 1/2" X 12"	61.20
2" X 2 1/2"	17.00
2" X 2 1/2" X 3"	20.40
2" X 2 1/2" X 4"	27.20
2" X 2 1/2" X 6"	40.80
2" X 2 1/2" X 8"	54.40

C-1018 Squares

SQUARE SIZES	WT./FT.
3/16"	.120
1/4"	.213
5/16"	.332
3/8"	.478
1/2"	.850
3/4"	1.913
1"	3.400
1 1/8"	4.303
1 1/4"	5.313
1 1/2"	7.650
2"	13.600

C-1018 Rounds

ROUND SIZES	WT./FT.
3/16"	.090
1/4"	.167
5/16"	.261
3/8"	.380
7/16"	.511
1/2"	.668
5/8"	1.043
11/16"	1.262
3/4"	1.502
7/8"	2.045
1"	2.670
1 1/8"	3.380
1 3/16"	3.766
1 1/4"	4.172
1 5/16"	4.600
1 3/8"	5.409
1 1/2"	6.008
1 5/8"	7.051
1 3/4"	8.178
1 7/8"	9.388
1 15/16"	10.024
2"	10.681
2 1/4"	13.519
2 3/8"	15.062
2 7/16"	15.866
2 1/2"	16.690
2 3/4"	20.195
2 15/16"	23.042
3"	24.033
3 1/16"	25.045
3 3/8"	30.417
3 1/2"	32.712
3 5/8"	35.090
3 3/4"	37.552
4"	42.726
4 1/4"	48.233
4 1/2"	54.075
4 3/4"	60.250
5"	66.76
5 1/4"	73.602
5 1/2"	80.78
6"	96.13
6 1/4"	104.31
7"	130.85
8"	170.90
8 1/2"	192.93
9"	216.30

Hot Rolled Alloy Steel Bar



COMMERCIAL QUALITY

CODES: A–Annealed HT–Heat Treated MOD–Modified

ROUND SIZES	WT./FT.	GRADE
1/2"	.688	414/42 A 4140/42 HT 8620
5/8"	1.043	4140/42 A 4140/42 HT 8620
3/4"	1.502	4130 HT 4140/42 A 4140/42 HT 8620
7/8"	2.045	4140/42 A 4140/42 HT 8620
1"	2.670	4140/42 A 4140/42 HT 8620
1 1/8"	3.3797	4140/42 A 4140/42 HT 8620
1 1/4"	4.172	4130 A 4140/42 A 4140/42HT 8620
1 3/8"	5.049	4140/42 A 4140/42 HT 8620
1 1/2"	6.008	4130 4130 HT 4140/42 A 4140/42 HT 8620
1 5/8"	7.051	4140/42 A 4140/42 HT 8620
1 3/4"	8.178	4130 4140/42 A 4140/42 HT 8620
1 7/8"	9.388	4140/42 A 4140/42 HT 8620
2"	10.68	4130 4130 A 4130/42 A 4130/42 HT 8620
2 1/8"	12.06	4140/42 4140/42 HT 8620
2 1/4"	13.52	4130 4130 A 4140/42 A 4140/42 HT 8620
2 3/8"	15.06	4140/42 A 4140/42 HT 8620
2 1/2"	16.69	4130 4140/42 A 4140/42 HT 8620
2 5/8"	18.40	4140/42 A 4140/42 HT 8620
2 3/4"	20.19	4130 4140/42 A 4140/42 HT 8620

ROUND SIZES	WT./FT.	GRADE
2 7/8"	22.07	4140/42 A 4140/42 HT 8620
3"	24.03	4130 4130 A 4140/42 A 4140/42 HT 4145 MOD 8620
3 1/8"	26.08	4140/42 A 4140/42 HT 8620
3 1/4"	28.21	4130 4140/42 A 4140/42 HT 8620
3 1/2"	32.71	4130 4130 HT 4140/42 A 4140/42 HT 4145 MOD 8620
3 3/4"	37.55	4130 A 4130 HT 4140/42 A 4140/42 HT 4145 MOD 8620
4"	42.73	4130 4140/42 A 4140/42 HT 8620
4 1/4"	48.23	4130 4140/42 A 4140/42 HT 4145 MOD 8620
4 1/2"	54.08	4130 A 4140/42 A 4140/42 HT 4145 MOD 8620
4 3/4"	60.25	4130 A 4140/42 A 4140/42 HT 4145 MOD 8620
5"	66.76	4130 4140/42 A 4140/42 HT 4145 MOD 8620
5 1/4"	73.60	4130 4130 A 4140/42 A 4140/42 HT 8620
5 1/2"	80.78	4130 4140/42 A 4140/42 HT 4145 MOD 8620
5 3/4"	88.29	4130 A 4140/42 A 4140/42 HT 8620
6"	96.13	4130 4140/42 A 4140/42 HT 8620

ROUND SIZES	WT./FT.	GRADE
6 1/4"	104.31	4130 HT 4140/42 A 4140/42 HT 4145 MOD 8620
6 1/2"	112.82	4130 A 4140/42 A 4140/42 HT 4145 MOD 8620
6 3/4"	121.67	4140/42 A 4140/42 HT 4145 MOD 8620
7"	130.85	4140/42 A 4140/42 HT 4145 MOD 8620
7 1/4"	140.36	4140/42 A 4140/42 HT 4145 MOD 8620
7 1/2"	150.21	4140/42 A 4140/42 HT 8620
7 3/4"	160.39	4140/42 A 4140/42 HT 8620
8"	170.90	4130 4130 A 4140/42 A 4140/42 HT 4145 MOD 8620
8 1/2"	192.93	4130 4130 A 4140/42 A 4140/42 HT 4145 MOD 8620
9"	216.30	4130 HT 4140/42 A 4140/42 HT
9 1/2"	241.00	4130 A 4140/42 HT
10"	267.04	4130 4130 HT 4140/42 A
10 1/2"	294.41	4130 A 4140/42 A 4140/42 HT
11"	323.11	4130 A 4140/42 HT 4145 MOD
11 1/2"	353.15	4140/42 A 4140/42 HT
12"	384.53	4140/42 HT
12 1/2"	417.24	4130 4130 HT
14"	523.39	4140/42 A 4140/42 HT
15"	600.83	4130 A 4130 HT
15 1/2"	641.55	4130 HT
16"	683.61	4130 A 4140/42 HT

Metric Square Welded & Hollow Tube



CARBON STEEL A500C, EN10219

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
10 X 10	1.00	0.282	0.19
	1.25	0.342	0.23
	1.50	0.385	0.26
11 X 11	1.2	0.369	0.02
12 X 12	1.00	0.339	0.23
	1.25	0.411	0.28
	1.50	0.479	0.32
13 X 13	1.60	0.572	0.38
14 X 14	1.20	0.481	0.32
15 X 15	1.00	0.433	0.29
	1.25	0.529	0.36
	1.50	0.621	0.42
	2.00	0.815	0.59
16 X 16	1.50	0.668	0.45
	2.00	0.877	0.59
18 X 18	1.00	0.517	0.35
	1.50	0.775	0.52
	2.00	1.003	0.67
19 X 19	1.20	0.67	0.45
	1.60	0.873	0.59
20 X 20	1.00	0.59	0.40
	1.25	0.725	0.49
	1.50	0.856	0.58
	1.60	0.922	0.62
	2.00	1.127	0.76
	3.00	1.607	1.08
21 X 21	1.20	0.745	0.50
	1.60	0.974	0.65
22 X 22	1.50	0.95	0.64
	2.00	1.229	0.83
24 X 24	1.20	0.858	0.58
	1.60	1.12	0.76
24 X 26	1.20	0.933	0.63
25 X 25	1.00	0.751	0.51
	1.25	0.922	0.62
	1.50	1.092	0.73
	2.00	1.442	0.97
	2.50	1.763	1.19
26 X 26	1.20	0.933	0.63
	1.60	1.22	0.82
28 X 28	1.20	1.01	0.68
	1.60	1.32	0.89

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
30 X 30	1.00	0.904	0.61
	1.25	1.118	0.75
	1.50	1.327	0.89
	1.60	1.424	0.96
	2.00	1.756	1.18
	2.30	1.99	1.34
31 X 31	2.50	2.156	1.45
	2.60	2.233	1.50
	3.00	2.54	1.71
	3.20	2.69	1.81
	4.00	3.261	2.19
	1.20	1.12	0.75
32 X 32	1.60	1.476	0.99
	1.20	1.159	0.78
34 X 34	1.60	1.553	1.03
	1.50	1.516	1.02
35 X 35	2.00	1.983	1.33
	2.50	2.431	1.66
	3.00	2.86	1.92
	1.25	1.314	0.88
38 X 38	1.50	1.20	1.05
	2.00	1.56	1.38
	2.50	2.548	1.71
	3.00	3.01	2.02
40 X 40	1.60	1.82	1.23
	1.50	1.798	1.21
	1.60	1.927	1.30
	2.00	2.359	1.59
	2.30	2.719	1.83
	2.50	2.94	1.98
	2.60	3.04	2.04
45 X 45	2.90	3.375	2.27
	3.00	3.481	2.34
	3.20	3.693	2.48
	4.00	4.25	3.04
	4.50	5.04	3.37
	5.00	3.952	3.69
	1.50	2.034	1.37
50 X 50	1.60	2.18	1.46
	2.00	2.69	1.81
	2.50	3.331	2.24
	3.00	3.952	2.66
	4.00	5.144	3.46
55 X 55	5.00	6.273	4.22
	1.50	2.269	1.53
	1.60	2.428	1.63
	2.00	3.01	2.02
	2.30	3.44	2.31
	2.50	3.724	2.50
60 X 60	2.60	3.865	2.60
	2.90	4.284	2.88

Metric Square Welded & Hollow Tube



CARBON STEEL A500C, EN10219

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
50 X 50	3.00	4.422	2.97
	3.20	4.696	3.16
	3.50	5.104	3.43
	4.00	5.77	3.88
	4.50	6.42	4.32
	5.00	7.058	4.74
	6.00	8.28	5.57
6.30	3.318	5.80	
55 X 55	2.00	3.301	2.23
	2.50	4.079	2.75
	3.00	4.881	3.28
	4.00	6.398	4.30
5.00	7.842	5.27	
60 X 60	1.50	2.752	1.85
	1.60	2.931	1.97
	2.00	3.645	2.45
	2.30	4.151	2.79
	2.50	4.508	3.03
	2.60	4.672	3.14
	2.90	5.193	3.49
	3.00	5.357	3.60
	3.20	5.699	3.83
	3.50	6.205	4.17
4.00	7.023	4.66	
5.00	8.616	5.79	
5.50	5.5	6.32	
6.00	10.163	6.83	
65 X 65	6.00	11.104	7.46
70 X 70	2.00	4.26	2.87
	2.50	5.297	3.56
	3.00	6.309	4.24
	3.20	6.64	4.51
	4.00	8.288	5.51
	5.00	10.193	6.85
6.00	12.038	8.09	
75 X 75	1.60	3.69	2.48
	2.30	5.238	3.52
	2.50	5.684	3.82
	3.20	7.202	4.84
	4.50	9.955	6.69
	6.00	12.991	8.73
	8.00	16.81	11.30
9.00	18.631	12.52	
80 X 80	2.00	4.895	3.29
	2.30	5.61	3.77
	2.50	6.042	4.07
	2.60	6.309	4.24
	3.00	7.247	4.87
	3.20	7.705	5.18
	3.60	8.616	5.79
	4.00	9.538	6.41

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
80 X 80	4.50	10.654	7.16
	5.00	11.755	7.90
	5.60	13.065	8.78
	6.00	13.928	9.36
	6.30	14.533	9.78
	7.10	16.235	10.91
8.00	18.065	12.14	
8.80	19.657	13.21	
90 X 90	3.00	8.184	5.50
	3.20	8.72	5.86
	3.60	9.761	6.56
	4.00	10.798	7.25
	4.50	12.068	8.11
	5.00	13.333	8.96
	5.56	14.717	9.89
6.00	15.803	10.62	
7.10	18.467	10.84	
8.00	22.41	15.06	
10.0	25.089	16.86	
100 X 100	2.00	6.145	4.13
	2.50	7.633	5.13
	3.00	9.122	6.13
	3.20	9.717	6.53
	4.00	11.95	8.09
	4.50	13.482	9.06
	5.00	14.895	10.01
6.00	17.692	11.89	
6.30	18.511	12.44	
8.00	23.08	15.51	
9.00	25.69	17.26	
10.00	28.229	18.97	
12.50	34.315	23.06	
110 X 110	4.00	13.303	8.94
	5.00	16.473	11.07
	6.30	20.491	13.77
	8.00	25.595	17.20
	10.00	31.369	21.08
120 X 120	3.20	11.726	7.88
	4.00	14.553	9.78
	4.50	16.308	10.96
	5.00	18.035	12.12
	5.60	20.089	13.50
	6.00	21.458	14.42
	6.30	22.47	15.10
8.00	28.11	18.89	
10.00	34.509	23.19	
125 X 125	3.20	12.232	8.22
	4.50	17.008	11.43
	6.00	23.395	15.05
	9.00	32.75	22.01

Metric Square Welded & Hollow Tube



CARBON STEEL A500C, EN10219

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
125 X 125	11.00	39.33	26.43
	12.00	39.7	28.58
140 X 140	4.00	17.068	11.47
	5.00	21.175	14.23
	5.60	23.601	15.86
	6.30	24.428	17.76
	7.10	29.598	19.89
	8.00	33.125	22.26
	8.80	36.22	23.34
	10.00	40.733	27.40
150 X 150	4.00	18.313	12.31
	4.50	20.535	13.80
	5.00	22.738	15.28
	6.00	27.098	18.21
	6.30	27.392	19.08
	8.00	35.639	23.95
	9.00	39.81	26.75
	10.00	43.913	29.51
160 X 160	4.00	19.568	13.15
	5.00	24.315	16.34
	6.00	28.988	19.48
	6.30	30.372	20.41
	8.00	38.14	25.63
	10.00	47.053	31.62
	12.50	57.842	38.87
	14.20	64.94	43.64
175 X 175	6.00	31.815	21.38
	6.30	33.333	22.40
	9.00	45.3	31.49
	12.00	58.5	41.23
180 X 180	4.00	22.083	14.84
	5.00	27.455	18.45
	6.30	34.33	23.07
	8.00	43.169	29.01
	8.80	47.262	31.76
	10.00	53.333	35.84
	12.50	65.684	44.14
	14.20	73.854	49.63
200 X 200	5.00	30.58	20.55
	6.30	38.273	25.72
	8.00	48.169	32.37
	10.00	59.598	40.05
	12.50	73.527	49.41
	14.20	82.768	55.62
	16.00	92.351	62.06

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
220 X 220	6.30	42.232	28.38
	8.00	53.199	35.75
	10.00	65.878	44.27
	12.50	81.369	54.68
	14.20	91.666	61.60
250 X 250	16.00	102.38	68.80
	5.00	38.422	25.82
	6.30	48.154	32.36
	8.00	60.729	40.81
260 X 260	10.00	75.282	50.59
	12.50	93.125	62.58
	7.10	56.324	37.85
280 X 280	8.80	69.33	46.59
	11.00	85.908	57.73
	14.20	109.47	73.57
	16.00	122.45	82.29
	17.50	133.11	89.45
300 X 300	6.30	54.09	36.35
	8.00	62.25	45.87
	10.00	84.7	56.92
	12.50	104.89	70.49
320 X 320	6.30	58.03	39.00
	8.00	73.27	49.24
	10.00	90.96	61.13
350 X 350	10.00	97.25	65.35
	12.50	120.5	81.03
	16.00	152.57	102.53
350 X 350	10.00	106.65	71.67

Metric Rectangular Welded & Hollow Tube



CARBON STEEL A500C, EN10219

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
15 X 10	1.50	0.565	0.38
20 X 10	1.00	0.438	0.29
	1.25	0.537	0.36
	1.50	0.632	0.42
	2.00	0.81	0.53
20 X 15	1.00	0.516	0.34
	1.25	0.635	0.42
	1.50	0.75	0.50
	2.00	0.967	0.64
22 X 10	1.20	0.551	0.37
	1.60	0.723	0.49
25 X 10	1.00	0.511	0.34
	1.25	0.627	0.42
	1.50	0.738	0.50
	1.20	0.651	0.4376
	1.60	0.848	0.57
	2.00	0.946	0.64
25 X 12	1.20	0.651	0.44
	1.60	0.848	0.57
25 X 15	1.00	0.595	0.40
	1.25	0.699	0.47
	1.25	0.738	0.49
	1.50	0.985	0.58
	2.00	1.28	0.74
25 X 20	1.50	0.974	0.66
	2.00	1.26	0.85
28 X 18	1.20	0.821	0.55
	1.60	1.074	.72
30 X 10	1.00	0.595	0.40
	1.25	0.733	0.49
	1.50	0.868	0.58
	2.00	1.12	0.74
30 X 15	1.00	0.673	0.45
	1.25	0.831	0.55
	1.50	0.985	0.66
	2.00	1.280	0.85
30 X 20	1.00	0.752	0.51
	1.20	0.91	0.611
	1.25	0.93	0.62
	1.50	1.10	0.73
	1.60	1.174	0.78
	2.00	1.44	0.95
	2.50	1.724	1.16
	3.00	2.07	1.39
30 X 25	1.50	1.222	0.82
	2.00	1.563	1.05

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
32 X 14	1.20	0.858	0.58
	1.60	1.124	0.76
34 X 20	1.50	1.186	0.80
	2.00	1.543	1.04
35 X 15	1.50	1.092	0.73
	2.00	1.417	0.95
35 X 20	1.50	1.209	0.81
	2.00	1.574	1.06
35 X 25	1.50	1.327	0.89
	2.00	1.731	1.16
	3.00	2.39	1.61
40 X 10	1.50	1.092	0.73
	2.00	1.417	0.95
40 X 15	1.50	1.209	0.81
	2.00	1.574	1.06
40 X 16	1.20	1.009	0.68
	1.60	1.325	0.89
40 X 20	1.00	0.91	0.61
	1.25	1.118	0.75
	1.50	1.34	0.89
	1.60	1.38	0.93
	2.00	1.75	1.16
	2.30	1.998	1.34
	2.50	2.15	1.42
	2.60	2.10	1.41
	3.00	2.39	1.67
	3.20	2.69	1.81
40 X 25	1.20	1.178	0.79
	1.25	1.216	0.82
	1.50	1.46	0.97
	1.60	1.551	1.04
	2.00	1.91	1.27
	2.50	2.34	1.56
	3.00	2.63	1.77
40 X 30	1.50	1.57	1.05
	2.00	2.07	1.38
	2.50	2.54	1.69
	3.00	2.86	1.99
45 X 20	1.50	1.445	0.97
	2.00	1.888	1.27
	2.50	2.313	1.56
	1.50	1.563	1.05
45 X 25	2.00	2.045	1.38
	2.50	2.509	1.69
50 X 10	1.50	1.327	0.89

Metric Rectangular Welded & Hollow Tube



CARBON STEEL A500C, EN10219

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
50 X 20	1.25	1.314	0.88
	1.50	1.57	1.05
	1.60	1.681	1.13
	2.00	2.07	1.38
	2.30	2.333	1.57
	2.5	2.54	1.71
	3.00	2.86	1.93
50 X 25	1.50	1.68	1.13
	2.00	2.202	1.48
	2.50	2.705	1.82
	3.00	3.189	2.15
50 X 26	1.60	1.827	1.23
50 X 30	1.50	1.81	1.21
	1.60	1.88	1.27
	2.00	2.38	1.59
	2.30	2.692	1.81
	2.50	2.93	1.95
	2.60	2.92	1.97
	2.90	3.32	2.23
	3.00	3.33	2.31
	3.20	3.49	2.35
	4.00	4.41	2.97
	4.50	5.01	3.37
50 X 34	1.50	1.892	1.27
	2.00	2.485	1.67
	2.50	3.059	2.06
50 X 35	1.50	1.916	1.29
	2.00	2.516	1.69
	2.50	3.098	2.08
50 X 40	1.50	2.05	1.37
	2.00	2.69	1.80
	2.50	3.33	2.22
	3.00	3.80	2.62
55 X 34	1.50	2.01	1.35
	2.00	2.642	1.78
	3.00	3.76	2.53
	4.00	4.82	3.24
60 X 20	1.50	1.798	1.21
	2.00	2.38	1.59
	3.00	3.00	2.31
60 X 25	1.50	1.916	1.29
	2.00	2.516	1.69
	2.50	3.098	2.08
60 X 30	1.50	2.034	1.37
	1.60	2.09	1.4087
	2.00	2.69	1.80
	2.30	3.049	2.05
	2.50	3.30	2.22
	3.00	3.80	2.62

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.	
60 X 30	3.20	4.152	2.79	
	4.00	4.88	3.28	
	4.50	5.72	3.8418	
60 X 33	2.00	2.768	1.86	
	2.50	3.412	2.30	
	3.00	4.037	2.72	
60 X 35	1.50	2.151	1.45	
	2.00	2.83	1.90	
	2.50	3.49	2.35	
60 X 40	1.50	2.269	1.53	
	2.00	3.01	2.01	
	2.30	3.44	2.312	
	2.50	3.72	2.48	
	2.60	3.73	2.51	
	2.90	4.23	2.85	
	3.00	4.28	2.94	
	3.20	4.50	3.03	
60 X 40	4.00	5.15	3.82	
	5.00	6.897	4.64	
	6.30	8.55	5.75	
	60 X 50	2.00	3.32	2.22
		2.50	4.11	2.75
3.00		4.75	3.26	
4.00		6.14	4.24	
67 X 35	2.00	3.05	2.05	
70 X 20	3.00	3.914	2.63	
70 X 30	2.00	1.359	2.02	
	3.00	4.286	2.88	
70 X 35	2.00	3.144	2.12	
	2.50	3.883	2.61	
70 X 40	2.00	3.32	2.22	
	2.50	4.11	2.75	
	2.90	4.69	3.16	
	3.00	4.75	3.26	
	4.00	6.14	4.24	
70 X 50	2.00	3.615	2.43	
	2.50	4.472	3.01	
	3.00	5.309	3.57	
	3.50	6.127	4.12	
	4.00	6.926	4.66	
75 X 20	1.60	2.306	1.55	
	2.30	3.227	2.17	
75 X 25	1.60	2.49	1.624	
75 X 45	1.60	2.931	1.97	
	2.30	4.152	2.79	
	3.20	5.595	3.76	
	4.50	7.843	5.26	

Metric Rectangular Welded & Hollow Tube



CARBON STEEL A500C, EN10219

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
75 X 50	2.30	4.298	2.89
	4.20	7.68	5.16
	4.50	8.189	5.50
	6.00	10.62	7.14
80 X 20	2.00	3.01	2.01
	3.00	4.28	2.88
80 X 30	2.00	3.32	2.24
	3.00	4.00	3.25
	4.00	4.75	4.26
80 X 40	2.00	3.615	2.43
	2.60	4.55	3.06
	2.50	4.472	3.01
	2.90	5.14	3.46
	3.00	5.309	3.57
	3.20	5.50	3.70
	4.00	6.926	4.66
	5.00	8.467	5.70
	6.30	10.40	7.00
	80 X 50	2.00	3.95
2.50		4.90	3.27
2.60		5.37	3.61
3.00		5.69	3.89
4.00		7.39	4.94
5.00		8.91	6.00
80 X 60	2.00	4.28	2.86
	2.50	5.29	3.54
	3.00	6.16	4.21
	4.00	8.02	5.51
	5.00	10.037	6.75
	6.00	11.101	7.46
6.35	12.545	8.43	
90 X 40	4.00	7.381	4.96
90 X 30	1.60	2.93	1.969
	2.30	4.16	2.80
	3.20	5.70	3.831
	4.20	8.34	5.60
90 X 50	3.20	6.64	4.47
	4.00	8.18	5.51
	5.00	10.00	6.73
	6.30	12.30	8.28
	7.10	13.70	9.22
100 X 20	1.60	2.946	1.98
	2.00	3.616	2.43
	3.00	5.491	3.69
100 X 40	2.00	4.26	2.86
	2.50	5.29	3.54
	3.00	6.16	4.21

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.	
100 X 40	4.00	8.02	5.51	
	5.00	9.70	6.53	
100 X 50	2.00	4.58	3.08	
	2.50	5.68	3.80	
	3.00	6.63	4.52	
	3.20	7.21	4.8433	
	3.60	7.98	5.37	
	4.00	8.65	5.79	
	4.50	9.83	6.62	
	5.00	10.47	7.05	
	5.50	11.98	8.0578	
	5.60	12.00	8.08	
	6.00	12.038	8.09	
	7.10	14.80	9.96	
	8.00	16.429	11.04	
	100 X 60	2.50	6.07	4.07
		3.00	7.10	4.84
		3.20	7.51	5.05
		3.60	8.55	5.754
4.00		9.28	6.35	
4.50		10.50	7.066	
	5.00	11.607	7.81	
	5.60	12.90	8.681	
	6.00	14.622	9.83	
	6.30	13.50	9.09	
	7.10	15.90	10.70	
	8.80	19.20	12.921	
	100 X 80	2.00	5.52	3.72
3.00		8.04	5.47	
4.00		10.50	7.20	
5.00		13.177	8.87	
6.30		16.37	11.02	
8.00		18.899	12.70	
110 X 60	3.60	9.05	6.09	
	4.50	11.10	7.47	
	5.60	13.60	9.15	
	7.10	16.80	11.31	
	8.80	20.10	13.53	
	110 X 70	3.00	8.135	5.47
3.20		8.51	5.73	
4.00		10.694	7.20	
5.00		13.177	8.87	
6.30		15.50	10.43	
120 X 40		2.00	4.89	3.29
	3.00	7.10	4.84	
	4.00	9.28	6.35	
	5.00	11.617	7.82	
	120 X 50	3.00	7.738	5.2
120 X 60		2.00	5.54	3.71

Metric Rectangular Welded & Hollow Tube



CARBON STEEL A500C, EN10219

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
120 X 60	3.00	8.04	5.47
	3.20	8.51	5.73
	4.00	10.50	7.20
	4.50	12.07	8.1105
	5.00	13.176	8.87
	6.00	14.866	9.99
120 X 60	6.30	16.10	10.84
	7.10	17.90	12.05
	8.80	21.50	14.47
120 X 80	3.00	9.077	6.11
	3.20	12.10	8.14
	4.00	11.95	8.04
	5.00	14.747	9.92
	6.00	18.191	12.22
	6.30	17.50	11.78
120 X 100	6.00	19.57	13.15
	8.00	25.60	17.20
125 X 40	1.60	4.03	2.73
	2.30	5.774	3.88
	3.20	7.96	5.35
125 X 75	2.30	7.068	4.75
	3.20	9.72	6.5297
	4.50	13.332	8.96
	6.00	17.00	11.426
140 X 40	3.00	8.14	5.47
	4.00	12.541	8.43
	5.00	15.40	10.36
	6.30	19.00	12.79
	7.10	21.20	14.27
140 X 70	4.00	12.541	8.43
	5.00	15.40	10.36
	6.30	19.00	12.79
	7.10	21.20	14.27
	8.80	25.60	17.23
140 X 80	3.20	10.50	7.07
	4.00	13.12	8.82
	5.00	16.20	10.90
	6.30	20.00	13.46
	8.00	24.80	16.69
	10.00	30.20	20.32
150 X 50	3.00	9.023	6.06
	4.00	12.024	8.08
	5.00	14.745	9.91
	6.30	18.467	12.41
150 X 75	3.20	10.90	7.37
	4.50	14.90	10.014
	6.00	19.84	13.33
150 X 80	5.00	17.069	11.47
150 X 100	3.20	12.00	8.08
	4.00	14.092	9.47

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.	
150 X 100	5.00	18.08	12.15	
	6.00	21.473	14.43	
	6.30	22.4	15.08	
	8.00	27.70	18.64	
	9.00	32.74	22.01	
150 X 100	10.00	33.646	22.61	
	3.00	10.893	7.32	
160 X 80	3.20	11.50	7.74	
	4.00	14.30	9.62	
	5.00	17.40	11.71	
	6.30	21.40	14.40	
	8.00	26.40	17.77	
160 X 80	10.00	32.545	21.87	
	4.50	16.60	11.17	
	5.60	20.40	13.73	
	7.10	25.30	17.03	
	8.80	30.50	20.53	
160 X 90	10.00	34.10	22.95	
	8.00	30.61	20.57	
	10.00	37.65	25.30	
180 X 80	4.00	16.80	11.31	
	5.00	20.50	13.80	
	5.60	23.00	15.48	
	6.30	25.40	17.09	
	7.10	28.60	19.25	
	8.80	34.70	23.35	
	10.00	38.80	26.11	
	12.50	46.90	31.56	
	200 X 100	4.00	18.00	12.11
		5.00	22.10	14.20
6.30		27.40	18.44	
8.00		34.00	22.88	
10.00		40.60	27.32	
200 X 120		4.00	19.30	12.99
	5.00	23.70	15.95	
	6.30	29.60	19.92	
	8.00	36.50	24.56	
	8.80	36.90	24.83	
	10.00	45.10	31.62	
	12.50	54.70	38.87	
	200 X 150	6.00	31.17	20.948
9.00		46.86	31.49	
14.20		60.90	43.64	
220 X 80	6.00	26.816	18.02	
220 X 120	6.30	31.60	21.27	
	8.00	39.40	26.52	
	10.00	46.20	31.09	
	12.50	58.70	39.51	
220 X 120	14.20	65.40	44.01	

Metric Rectangular Welded & Hollow Tube



CARBON STEEL A500C, EN10219

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
250 X 150	4.50	24.06	16.17
	5.00	29.90	20.12
	6.00	31.17	20.95
	6.30	37.30	25.10
	8.00	46.50	31.29
	10.00	56.30	37.89
250 X 150	12.00	61.35	41.23
	12.50	68.30	45.97
260 X 140	6.30	37.50	25.23
	8.00	46.90	31.56
	10.00	57.60	38.76
	12.50	70.40	47.38
	14.20	78.80	53.03
260 X 180	6.30	41.50	27.93
	8.00	52.00	35.00
	10.00	63.90	43.00
	12.50	78.30	52.70
	14.20	87.70	59.02

SIZE mm	WALL mm	WEIGHT kg/m	EST. LBS. PER FT.
300 X 100	5.00	30.268	20.34
	8.00	47.679	32.04
	10.00	58.979	39.63
300 X 150	10.00	67.44	45.32
300 X 200	5.00	37.80	25.44
	6.30	47.10	31.70
	8.00	59.10	39.77
	10.00	72.00	48.46
	12.00	88.00	59.22
400 X 200	10.00	90.96	61.13
450 X 250	10.00	106.65	71.67



Metric Round Hydraulic Tube Welded and Seamless



CARBON STEEL SAE J-524, SAE J525

OUTER DIAMETER NOMINAL SIZE	Wall Thickness Nominal Size													
	0.5	0.8	1	1.2	1.5	1.8	2	2.2	2.5	2.8	3	3.5	4	4.5
4	•	•	•	•										
5	•	•	•	•										
6	•	•	•	•	•	•	•							
7	•	•	•	•	•	•	•							
8	•	•	•	•	•	•	•	•	•					
9	•	•	•	•	•	•	•	•	•	•				
10	•	•	•	•	•	•	•	•	•	•	•			
11	•	•	•	•	•	•	•	•	•	•	•	•		
12	•	•	•	•	•	•	•	•	•	•	•	•	•	
13	•	•	•	•	•	•	•	•	•	•	•	•	•	•
14	•	•	•	•	•	•	•	•	•	•	•	•	•	•
15	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16	•	•	•	•	•	•	•	•	•	•	•	•	•	•
18	•	•	•	•	•	•	•	•	•	•	•	•	•	•
20	•	•	•	•	•	•	•	•	•	•	•	•	•	•
22	•	•	•	•	•	•	•	•	•	•	•	•	•	•
25	•	•	•	•	•	•	•	•	•	•	•	•	•	•
26	•	•	•	•	•	•	•	•	•	•	•	•	•	•
28	•	•	•	•	•	•	•	•	•	•	•	•	•	•
30	•	•	•	•	•	•	•	•	•	•	•	•	•	•
32	•	•	•	•	•	•	•	•	•	•	•	•	•	•
35	•	•	•	•	•	•	•	•	•	•	•	•	•	•
38	•	•	•	•	•	•	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•	•	•	•	•	•	•
42			•	•	•	•	•	•	•	•	•	•	•	•
45			•	•	•	•	•	•	•	•	•	•	•	•
48			•	•	•	•	•	•	•	•	•	•	•	•
50			•	•	•	•	•	•	•	•	•	•	•	•
55			•	•	•	•	•	•	•	•	•	•	•	•
60			•	•	•	•	•	•	•	•	•	•	•	•
65			•	•	•	•	•	•	•	•	•	•	•	•
70			•	•	•	•	•	•	•	•	•	•	•	•
75			•	•	•	•	•	•	•	•	•	•	•	•
80			•	•	•	•	•	•	•	•	•	•	•	•
85					•	•	•	•	•	•	•	•	•	•
90					•	•	•	•	•	•	•	•	•	•
95						•	•	•	•	•	•	•	•	•
100							•	•	•	•	•	•	•	•
110							•	•	•	•	•	•	•	•
120							•	•	•	•	•	•	•	•
130									•	•	•	•	•	•
140									•	•	•	•	•	•
150										•	•	•	•	•
160											•	•	•	•
170											•	•	•	•
180												•	•	•
190												•	•	•
200												•	•	•
220														•
240														•
260														•

Metric Round Hydraulic Tube Welded and Seamless



CARBON STEEL SAE J-524, SAE J525

OUTER DIAMETER NOMINAL SIZE	Wall Thickness Nominal Size													
	5	5.5	6	7	8	9	10	12	14	16	18	20	22	25
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15	•													
16	•	•	•											
18	•	•	•											
20	•	•	•	•										
22	•	•	•	•										
25	•	•	•	•	•									
26	•	•	•	•	•									
28	•	•	•	•	•									
30	•	•	•	•	•	•	•							
32	•	•	•	•	•	•	•							
35	•	•	•	•	•	•	•							
38	•	•	•	•	•	•	•							
40	•	•	•	•	•	•	•							
42	•	•	•	•	•	•	•							
45	•	•	•	•	•	•	•							
48	•	•	•	•	•	•	•							
50	•	•	•	•	•	•	•							
55	•	•	•	•	•	•	•	•						
60	•	•	•	•	•	•	•	•						
65	•	•	•	•	•	•	•	•	•					
70	•	•	•	•	•	•	•	•	•					
75	•	•	•	•	•	•	•	•	•	•				
80	•	•	•	•	•	•	•	•	•	•				
85	•	•	•	•	•	•	•	•	•	•				
90	•	•	•	•	•	•	•	•	•	•				
95	•	•	•	•	•	•	•	•	•	•	•			
100	•	•	•	•	•	•	•	•	•	•	•			
110	•	•	•	•	•	•	•	•	•	•	•			
120	•	•	•	•	•	•	•	•	•	•	•			
130	•	•	•	•	•	•	•	•	•	•	•			
140	•	•	•	•	•	•	•	•	•	•	•			
150	•	•	•	•	•	•	•	•	•	•	•	•		
160	•	•	•	•	•	•	•	•	•	•	•	•		
170	•	•	•	•	•	•	•	•	•	•	•	•		
180	•	•	•	•	•	•	•	•	•	•	•	•		
190	•	•	•	•	•	•	•	•	•	•	•	•	•	
200	•	•	•	•	•	•	•	•	•	•	•	•	•	
220	•	•	•	•	•	•	•	•	•	•	•	•	•	•
240	•	•	•	•	•	•	•	•	•	•	•	•	•	•
260	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Square and Rectangular Steel Tubing

Tolerances - Wall Thickness - A-500

The tolerance for wall thickness exclusive of the weld area shall be plus and minus 10 per cent of the nominal wall thickness specified. The wall thickness is to be measured at the center of the flat.

Squareness of Sides

For square of rectangular structural tubing, adjacent sides may deviate from 90 degrees by a tolerance of plus or minus 2 degrees maximum.

Straightness

The permissible variation for straightness of square and rectangular structural tubing shall be 1/8 in. times the number of feet of total length divided by 5.

Corner Radii

For square of rectangular structural tubing the radius of any outside corner of the section shall not exceed three times the specified wall thickness.

Tolerances - Weight - A-501

Shapes may have an allowable variation of minus 3 1/2% of specified nominal weight.

Twist

SPECIFIED DIMENSIONS OF LONGEST SIDE, IN.	MAXIMUM TWIST IN 3 FT., IN
1 1/2 and under	0.050
Over 1 1/2 to 2 1/2 Incl.	0.062
Over 2 1/2 to 4, incl.	0.075
Over 4 to 6, incl.	0.087
Over 6 to 8, incl.	0.100
Over 8	0.112

Lengths and Allowable Variation	22 FT. AND UNDER		OVER 22 FT. TO 44 FT., INCL.	
	OVER	UNDER	OVER	UNDER
Length tolerance for specified mill length, in.	1/2	1/4	3/4	1/4

ASTM-A-500

ASTM-A-501

MECHANICAL PROPERTIES

ASTM A-500	GRADE A	GRADE B	GRADE C
Tensile strength, min. psi	45,000	58,000	62,000
Yield strength, min. psi	39,000	46,000	50,000
Elongation in 2", min.	25%	23%	21%

ASTM A-501	
Tensile strength, min. psi	58,000
Yield strength, min. psi	36,000
Elongation in 2", min.	23%

Chemical Composition

A 500 - A.B/501	LADLE ANALYSIS	CHECK ANALYSIS
Carbon, max, %	0.26	0.30
Phosphorus, max, %	0.04	0.05
Sulfur, max., %	0.05	0.063

A 500 - C	LADLE ANALYSIS	CHECK ANALYSIS
Carbon, max, %	.023	.027
Magnesium, max., %	1.35	1.40
Phosphorus, max., %	0.04	0.05
Sulfur, max., %	0.05	0.063

Tolerances - Outside Dimensions

LARGEST NOMINAL OUTSIDE DIMENSIONS, INCHES	OUTSIDE TOLERANCE AT ALL SIDES AT CORNERS, INCH.
Up to 2 1/2"	± .020
Over 2 1/2" to 3 1/2" Inc.	± .025
Over 3 1/2" to 5 1/2" Inc.	± .030
Over 5 1/2"	± 1%

Electric Welded Mechanical Steel Tubing ASTM - A - 513

COLD ROLLED I.D. FLASH CONTROLLED (TO .005" MAXIMUM)				COLD ROLLED AND HOT ROLLED I.D. FLASH CONTROLLED (TO .010" MAXIMUM)		
SIZE O.D.	WALL THICKNESS	PERMISSIBLE VARIATIONS FROM		SIZE O.D., INCH	WALL THICKNESS	PERMISSIBLE VARIATIONS FROM
		O.D., INCH	I.D., INCH			
1/4 to 3/8 Incl.	.028 to .083	± .0025	± .009	Over 1 1/8 to 2 Incl.	.028 to .180	± .005
Over 3/8 to 5/8 Incl.	.028 to .065	± .003	± .005	Over 2 to 2 1/2 Incl.	.035 to .203	± .006
Over 3/8 to 5/8 Incl.	.083 to .109	± .003	± .009	Over 2 1/2 to 3 Incl.	.035 to .238	± .008
Over 5/8 to 1 1/8 Incl.	.028 to .083	± .0035	± .005	Over 3 to 3 1/2 Incl.	.035 to .238	± .009
Over 5/8 to 1 1/8 Incl.	.095 to .120	± .0035	± .008	Over 3 1/2 to 4 Incl.	.035 to .238	± .010
Ovality should not exceed the total applicable O.D. tolerances.				Over 4 to 5 Incl.	.065 to .083	± .020
				Over 4 to 5 Incl.	.095 to .238	± .015
				Over 5 to 6 Incl.	.065 to .220	± .020

Cold Drawn Buttweld Mechanical Steel Tubing ASTM A-512

SIZE O.D., INCH	PERMISSIBLE VARIATIONS FROM:				
	O.D. INCH		I.D. INCH		WALL THICKNESS
	OVER	UNDER	OVER	UNDER	
1. Under 1/2	.004	.000	.000 (a) (b)	.004 (a) (b)	± 7%
2. 1/2 to 1 1/2 Excl.	.005	.000	.000 (a)	.005 (a)	± 7%
3. 1 1/2 and over	.010	.000	.000	.010	± 7%

(a) When the I.D. is less than 50% of the O.D. the I.D. may vary over and under by an amount equal to 10% of the wall.

(b) When the I.D. is less than 3/16 in., the total I.D. tolerance shall be 15% of the wall, but not less than .010 in.

Cut Lengths

LENGTHS	SIZE - O.D.	PERMISSIBLE VARIATIONS		LENGTHS	SIZE - O.D.	PERMISSIBLE VARIATIONS	
		OVER	UNDER			OVER	UNDER
4 feet and under	Up to 2" inclusive	1/16"	0"	Over 4 feet to 10 feet inclusive	Up to 2" inc.	3/32"	0"
	Over 2" to 4" inclusive	3/32"	0"		Over 2"	1/8"	0"
	Over 4"	1/8"	0"		Over 10 feet	All	1/8"

Tolerances SEAMLESS MECHANICAL TUBING ASTM-519



Our Warehouse Stock of Cold Drawn Seamless Mechanical Tubing is Manufactured to OD and ID Dimensions.

The tabulated tolerances can be applied simultaneously only to two of the cross-section dimensions. However, when mechanical tubing is specified to OD and ID dimensions, the maximum and minimum wall thickness measured at any cross-section cannot deviate from the mean (arithmetic average) of those readings by more than the percentage wall thickness tolerance applicable to the particular product involved.

ROUND COLD DRAWN SEAMLESS CARBON AND ALLOY MECHANICAL STEEL TUBING

DIAMETER TOLERANCES

OD Size Range Inches	Wall: Percent of OD	Un-annealed or Stress Relief Annealed =1200 F				Soft Annealed or Normalized				Un-annealed or Stress Relief Annealed =1200 F				Soft Annealed or Normalized					
		OD Inches		*ID Inches		OD Inches		*ID Inches		OD Inches		*ID Inches		OD Inches		*ID Inches			
		+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-		
Up to 0.499	All	.004	.000	-	-	.005	.002	-	-	.020	.020	.020	.020	.035	.035	.035	.035		
0.500/ 1.699	All	.005	.000	.000	.005	.007	.002	.002	.007	.015	.015	.015	.015	.026	.026	.026	.026		
1.700/ 2.099	All	.006	.000	.000	.006	.006	.005	.005	.006	.029	.000	.015	.015	.036	.015	.026	.026		
2.100/ 2.499	All	.007	.000	.000	.007	.008	.005	.005	.008	8.000/ 8.499	Under 6	.023	.023	.023	.023	.041	.041	.041	.041
2.500/ 2.899	All	.008	.000	.000	.008	.009	.005	.005	.009	6 to 7 1/2	.016	.016	.016	.016	.028	.028	.028	.028	
2.900/ 3.299	All	.009	.000	.000	.009	.011	.005	.005	.011	Over 7 1/2	.031	.000	.015	.016	.033	.022	.028	.028	
3.300/ 3.699	All	.010	.000	.000	.010	.013	.005	.005	.013	8.500/ 8.999	Under 6	.025	.025	.025	.025	.044	.044	.044	.044
3.700/ 4.099	All	.011	.000	.000	.011	.013	.007	.010	.010	6 to 7 1/2	.017	.017	.017	.017	.030	.030	.030	.030	
4.100/ 4.499	All	.012	.000	.000	.012	.014	.007	.011	.011	Over 7 1/2	.034	.000	.015	.019	.038	.022	.030	.030	
4.500/ 4.899	All	.013	.000	.000	.013	.016	.007	.012	.012	9.000/ 9.499	Under 6	.028	.028	.028	.028	.045	.045	.049	.049
4.900/ 5.299	All	.014	.000	.000	.014	.018	.007	.013	.013	6 to 7 1/2	.019	.019	.019	.019	.033	.033	.033	.033	
5.300/ 5.549	All	.015	.000	.000	.015	.020	.007	.014	.014	Over 7 1/2	.037	.000	.015	.022	.043	.022	.033	.033	
5.550/ 5.999	Under 6	.010	.010	.010	.010	.018	.018	.018	.018	9.500/ 9.999	Under 6	.030	.030	.030	.030	.045	.045	.053	.053
	6 to 7 1/2	.009	.009	.009	.009	.016	.016	.016	.016	6 to 7 1/2	.020	.020	.020	.020	.035	.035	.035	.035	
	Over 7 1/2	.018	.000	.009	.009	.017	.015	.016	.016	Over 7 1/2	.040	.000	.015	.025	.048	.022	.035	.035	
6.000/ 6.499	Under 6	.013	.013	.013	.013	.023	.023	.023	.023	10.000/ 10.999	Under 6	.034	.034	.034	.034	.045	.045	.060	.060
	6 to 7 1/2	.010	.010	.010	.010	.018	.018	.018	.018	6 to 7 1/2	.022	.022	.022	.022	.039	.039	.039	.039	
	Over 7 1/2	.020	.000	.010	.010	.020	.015	.018	.018	Over 7 1/2	.044	.000	.015	.029	.055	.022	.039	.039	
6.500/ 6.999	Under 6	.015	.015	.015	.015	.027	.027	.027	.027	11.000/ 12.000	Under 6	.035	.035	.035	.035	.050	.050	.065	.065
	6 to 7 1/2	.012	.012	.012	.012	.021	.021	.021	.021	6 to 7 1/2	.025	.025	.025	.025	.045	.045	.045	.045	
	Over 7 1/2	.023	.000	.012	.012	.026	.015	.021	.021	Over 7 1/2	.045	.000	.015	.035	.060	.022	.045	.045	
7.000/ 7.499	Under 6	.018	.018	.018	.018	.032	.032	.032	.032										
	6 to 7 1/2	.013	.013	.013	.013	.023	.023	.023	.023										
	Over 7 1/2	.026	.000	.013	.013	.031	.015	.023	.023										

- A. Many tubes with inside diameter less than 50% of outside diameter or with wall thickness more than 25% of outside diameter, or with wall thickness over 1 1/4 in., or weighing more than 90 lb/ft. are difficult to draw over a mandrel. Therefore, the inside diameter can vary over or under by an amount equal to 10% of the wall thickness. See also Footnote B
- B. For those tubes with inside diameter less than 1/2 in. (or less than 5/8 in. when the wall thickness is more than 20% of the outside diameter), which are not commonly drawn over a mandrel. Footnote A is not applicable. Therefore, for those tubes, the inside diameter is governed by the outside diameter tolerance shown in this table and the wall thickness tolerances shown in Table 7b.
- C. Tubing having a wall thickness less than 3% of the outside diameter cannot be straightened properly without a certain amount of distortion. Consequently, such tubes, while having an average outside diameter and inside diameter within the tolerances shown in this table, require an ovality tolerance of 1/2% over and under nominal outside diameter, this being in addition to the tolerances indicated in this table.
- D. 1 in. = 25.4 mm

*ID Tolerances apply to dimensions of 0.625" and over when ID is at least half the OD.

Tolerances SEAMLESS MECHANICAL TUBING ASTM-519



Our Warehouse Stock of Cold Drawn Seamless Mechanical Tubing is Manufactured to OD and ID Dimensions.

ROUND COLD DRAWN AND HOT FINISHED SEAMLESS CARBON AND ALLOY MECHANICAL STEEL TUBING

WALL THICKNESS TOLERANCES

Maximum Percent Over and Under Nominal

Wall Thickness: Percent of OD	Hot Rolled		Cold Worked	
	OD Under 2"	OD 2" and Over	ID Under .500"	ID .500" and Over
Under 10	12.5	10	10	7.5
10 to 25	10	7.5	10	6
Over 25	10	7.5	12.5	7.5

TUBING SPECIFIED TO O.D. AND I.D. DIMENSIONS IS RECOMMENDED FOR MACHINING AND OTHER APPLICATIONS REQUIRING AN ACCURATE INSIDE DIAMETER.

Outside Diameter Tolerances for Round Hot-Finished Tubing A B C

Outside Diameter Size Range Inches	Outside Diameter Tolerance	
	Over	Under
Up to 2.999"	0.020	0.020
3.000 - 4.499"	0.025	0.025
4.500 - 5.999"	0.031	0.031
6.000 - 7.499"	0.037	0.037
7.500 - 8.999"	0.045	0.045
9.000 - 10.750"	0.050	0.050

- A. Diameter tolerances are not applicable to normalized and tempered or quenched and tempered conditions.
- B. The common range of sizes of hot finished tubes is 1 1/2 in. (38.1mm) to 10 3/4 in. (273.0 mm) outside diameter with wall thickness at least 3% or more of outside diameter, but not less than 0.095 in. (2.41 mm).
- C. Larger sizes are available: consult manufacturer for sizes and tolerances.

STRAIGHTNESS TOLERANCES

Maximum Deviation from Straight

OD Size Range Inches	Wall: Percent of OD	Total Inches in Any 3 Feet	Total In Entire Length: Inches per Foot of Length	
			Length: 5 to 22 Feet	Length: Under 5 and Over 22 Feet
Up to 5.000"	3% OD & Over	.030	.007	.010
5.001/8.000"	4% OD & Over	.045	.010	.015
8.001/10.750"	4% OD & Over	.060	.015	.020

NOTE: Out-of-straightness is ordinarily checked at points of maximum deviation (as determined by line-of-sight observation) by means of a three-foot straight-edge and feeler gauges. When overall straightness in entire length is of concern, the tube is rolled on a surface-plate and maximum deviation-from-straight determined by means of feeler gauges inserted between the tube and plate at point of maximum departure. If rotational methods are employed, such as chucking the tube at its ends or supporting the ends on rollers and rotating under a dial indicator, extreme care in interpreting results must be employed because readings are influenced by OD dimensional variation in addition to deviation-from-straight.



Drawn Over Mandrel - ASTM A-513

Wall Thickness Tolerances (Inch) DOM or Other Further Processing for Closer Tolerances

OD TUBES, INCHES

Wall Thickness, Inch	3/8 to 7/8 incl.	7/8 to 1 7/8 incl.	Over 1 7/8 to 3 3/4 incl.	Over 3/4 to 12 1/2 incl.
.028	+ .002 -- .002	+ .002 -- .002	+ .002 -- .002	
.035	+ .002 - .002	+ .002 -- .002	+ .002 - .002	
.049	+ .002 - .002	+ .002 -- .003	+ .002 - .003	
.065	+ .002 - .002	+ .002 -- .003	+ .003 - .003	+ .004 - .004
.083	+ .002 - .002	+ .002 -- .003	+ .003 - .003	+ .004 - .005
.095	+ .002 - .002	+ .002 -- .003	+ .003 - .003	+ .004 - .005
.109	+ .002 - .003	+ .002 -- .004	+ .003 - .003	+ .005 - .005
.120	+ .003 - .003	+ .002 -- .004	+ .003 - .003	+ .005 - .005
.134		+ .002 -- .004	+ .003 -- .003	+ .005 - .005
.148		+ .002 -- .004	+ .003 - .003	+ .005 - .005
.165		+ .003 -- .004	+ .003 - .004	+ .005 - .008
.180		+ .004 - .004	+ .003 - .005	+ .008 - .006
.203		+ .004 -- .005	+ .004 - .005	+ .006 - .007
.220		+ .004 - .006	+ .004 - .006	+ .007 - .007
.238		+ .005 - .006	+ .005 - .006	+ .007 - .007
.259		+ .005 - .008	+ .005 - .006	+ .007 - .007
.284		+ .005 - .006	+ .005 - .006	+ .007 - .007
.300		+ .006 - .006	+ .006 - .006	+ .008 - .008
.320		+ .007 - .007	+ .007 - .007	+ .008 - .008
.344		+ .008 - .008	+ .008 - .008	+ .009 - .009
.375			+ .009 -- .009	+ .009 - .009
.400			+ .010 - .010	+ .010 - .010
.438			+ .011 - .011	+ .011 - .011
.480			+ .012 - .012	+ .012 - .012
.531			+ .013 - .013	+ .013 - .013
.583				+ .013 - .013
.580				+ .014 - .014
.600				+ .015 - .015
.625				+ .016 - .016

For Intermediate wall: Use the tolerance for the nearest listed wall. If the intermediate wall falls equally between two listed walls, use the greater tolerance.

OD Size Range	Wall: Percent of OD	OD, Inches		ID, Inches	
		Over	Under	Over	Under
Up to 1.699	All	.005	.000	.000	.005
1.700-2.099	All	.008	.000	.000	.008
2.100-2.499	All	.007	.000	.000	.007
2.500-2.899	All	.008	.000	.000	.008
2.900-3.299	All	.009	.000	.000	.009
3.300-3.699	All	.010	.000	.000	.010
3.700-4.099	All	.011	.000	.000	.011
4.100-4.499	All	.012	.000	.000	.012
4.500-4.899	All	.013	.000	.000	.013
4.900-5.299	All	.014	.000	.000	.014
5.300-5.549	All	.015	.000	.000	.015
5.550-5.999	Under 6 6 & Over	.010 .009	.010 .009	.010 .009	.010 .009
6.000-6.499	Under 6 6 & Over	.013 .010	.013 .010	.013 .010	.013 .010
7.000-7.499	Under 6 6 & Over	.018 .013	.018 .013	.018 .013	.018 .013
7.500-7.999	Under 6 6 & Over	.020 .015	.020 .015	.020 .015	.020 .015
8.000-8.499	Under 6 6 & Over	.023 .016	.023 .016	.023 .016	.023 .016
8.500-8.999	Under 6 6 & Over	.025 .017	.025 .017	.025 .017	.025 .017
9.000-9.499	Under 6 6 & Over	.028 .019	.028 .019	.028 .019	.028 .019
9.500-9.999	Under 6 6 & Over	.030 .020	.030 .020	.030 .020	.030 .020
10.000-10.999	Under 6 6 & Over	.034 .022	.034 .022	.034 .022	.034 .022
11.000-11.999	Under 6 6 & Over	.035 .025	.035 .025	.035 .025	.035 .025
12.000-12.999	All	.037	.037	.037	.037

The ovality shall be within the above tolerance except when the wall thickness is less than 3% of the OD. In such cases the additional ovality shall be as follows, but the mean diameter shall be within the specified tolerance:

OD Inches	Additional Ovality Tolerance, Inches
Up to 2.000	.010
Over 2.000 - 3.000 Incl.	.015
Over 3.000 - 4.000 Incl.	.020
Over 4.000 - 5.000 Incl.	.025
Over 5.000 - 6.000 Incl.	.030
Over 6.000 - 7.000 Incl.	.035
Over 7.000 - 8.000 Incl.	.040
Over 8.000 - 9.000 Incl.	.045
Over 9.000 - 10.000 Incl.	.050
Over 10.000 - 11.000 Incl.	.055
Over 11.000 - 12.000 Incl.	.060
Over 12.000 - 12.500 Incl.	.065

Carbon Mechanical Steel Tube



TYPICAL PROPERTIES

GRADE ASTM AISI SAE	CHEMISTRY PERCENT		TEMPER CONDITION	APPROXIMATE MECHANICAL PROPERTIES			
				TENSILE STRENGTH PSI	YIELD STRENGTH PSI	ELONG IN 2" %	HARDNESS ROCKWELL B-SCALE
1010	C	.05-.015	As welded	55,000	40,000	20	RB60
	Mn	.30-.60	Normalized	50,000	40,000	35	RB55
	P	.040 max	Soft Annealed	45,000	35,000	45	RB55
	S	.050 max	Cold Drawn	70,000	55,000	20	RB78
1018	C	.15-.20	Hot Rolled	60,000	35,000	30	RB70
	Mn	.60-.90	Normalized	58,000	38,000	35	RB65
	P	.040 max	Soft Annealed	50,000	33,000	40	RB55
	S	.050 max	Cold Drawn	85,000	70,000	10	RB88
1020	C	.15-.23	Hot Rolled	60,000	37,000	30	RB70
	Mn	.30-.60	Normalized	60,000	40,000	35	RB70
	P	.040 max	Soft Annealed	52,000	33,000	40	RB55
	S	.050 max	Cold Drawn	85,000	70,000	10	RB88
C-1026	C	.22-.28	Hot Rolled	70,000	47,000	28	RB78
	Mn	.60-.90	Normalized	67,000	50,000	33	RB75
	P	.040 max	Soft Annealed	60,000	36,000	35	RB70
	S	.050 max	Cold Drawn	87,000	72,000	10	RB89
1035	C	.32-.38	Hot Rolled	72,000	47,000	25	RB80
	Mn	.60-.90	Normalized	70,000	50,000	30	RB78
	P	.040 max	Soft Annealed	63,000	38,000	35	RB70
	S	.050 max	Cold Drawn	90,000	75,000	10	RB90
1118	C	.14-.20	Hot Rolled	60,000	40,000	30	RB70
	Mn	1.30-1.60	Normalized	60,000	43,000	30	RB70
	P	.040 max	Soft Annealed	58,000	40,000	35	RB65
	S	.08-.13	Cold Drawn	80,000	70,000	10	RB85
1524	C	.19-.25	Hot Rolled	75,000	52,000	27	RB83
	Mn	1.35-1.65	Normalized	75,000	52,000	27	RB83
	P	.040 max	Soft Annealed	67,000	46,000	32	RB76
	S	.050 max	Cold Drawn	95,000	85,000	25	RB93
A106 B/C	C	.30 max	Hot Rolled	70,000	40,000	30	RB78
	Mn	.29-1.06	Mechanical	Minimum	Minimum	Min	Approx
	Si	.10 min					

Grades C-1035, C-1118 and C-1524 are available upon special order.

The information and data presented herein are typical or average values and are not a guarantee of maximum or minimum values. Applications specifically suggested for material described herein are made solely for the purpose of illustration to enable the reader to make this own evaluation and are not intended as warranties, either express or implied, of fitness for these or other purposes.

Alloy Steel Mechanical Tube



TYPICAL PROPERTIES

GRADE ASTM AISI SAE	CHEMISTRY PERCENT		TEMPER CONDITION	APPROXIMATE MECHANICAL PROPERTIES			
				TENSILE STRENGTH PSI	YIELD STRENGTH PSI	ELONG IN 2" %	HARDNESS ROCKWELL B-SCALE
4130	C	.28-.33	Hot Rolled	90,000	70,000	20	187
	Mn	.40-.60	Normalized	90,000	70,000	20	187
	P	.040 max	Soft Annealed	80,000	50,000	30	165
	S	.040 max	Condition N	90,000	70,000	20	187
	Si	.15-.35	CDSR	110,000	95,000	15	228
	Cr	.80-1.10	WQ & T 900 F	161,000	137,000	15	321
	Mo	.15-.25	WQ & T 1100 F	128,000	113,000	21	262
4135	C	.33-.38	Hot Rolled	95,000	80,000	15	197
	Mn	.70-.90	Normalized	95,000	80,000	15	197
	P	.040 max	Soft Annealed	85,000	55,000	30	174
	S	.040 max	Condition N	95,000	80,000	15	197
	Si	.15-.35	CDSR	115,000	100,000	12	235
	Cr	.80-1.10	OQ & T 800 F	207,000	175,000	10	409
	Mo	.15-.25	OQ & T 1000 F	160,000	135,000	15	321
4140	C	.38-.43	Hot Rolled	120,000	90,000	20	245
	Mn	.75-1.10	Normalized	120,000	90,000	20	245
	P	.040 max	Soft Annealed	90,000	65,000	25	197
	S	.040 max	CDSR	120,000	100,000	10	245
	Si	.15-.35	OQ & T 400 F	290,000	250,000	11	555
	Cr	.80-1.10	OQ & T 900 F	180,000	155,000	18	360
	Mo	.15-.25	OQ & T 1300 F	120,000	105,000	25	245
4340	C	.38-.43	Hot Rolled	180,000	125,000	11	388
	Mn	.60-.80	Normalized	180,000	125,000	11	388
	P	.040 max	Soft Annealed	110,000	75,000	20	235
	S	.040 max	OQ & T 400 F	290,000	250,000	10	555
	Si	.15-.35	OQ & T 600 F	260,000	235,000	11	500
	Cr	.70-.90	OQ & T 800 F	220,000	200,000	12	435
	Ni	1.65-2.00	OQ & T 1000 F	185,000	160,000	15	390
	Mo	.20-.30	OQ & T 1300 F	140,000	130,000	22	285
8620	C	.18-.23	Hot Rolled	50,000	75,000	25	83
	Mn	.70-.90	Cold Drawn				
	P	.035 max	S-R Anneal	80,000	95,000	18	92
	S	.040 max	Normalized	75,000	75,000	25	83
	Si	.20-.35					
	Ni	.40-.70					
	Cr	.40-.60					

CDSR - Cold Drawn Stress Relieved • WQ & T - Water Quench & Temper • OQ & T - Oil Quench & Temper.

Grades shown are carried in Van Pelt Corp. Service Center Stocks.

Many other grades are available on special order.

Alloy 4130 Condition N meets MIL-T-6736 aircraft specification.

Alloy 4135 Condition N meets MIL-T-6735 aircraft specification.

Alloy 4142 is stocked in some sizes, properties are similar to alloy 4140.

The information and data presented herein are typical or average values and are not a guarantee of maximum or minimum values. Applications specifically suggested for material described herein are made solely for the purpose of illustration to enable the reader to make their own evaluation and are not intended as warranties, either express or implied, of fitness for these or other purposes.

Carbon and Alloy Steel Tube and Pipe Specifications



SAE/AMS SPECIFICATIONS

SAE-J356	Welded Flash Controlled Low Carbon Steel Tubing Normalized for Bending, Double Flaring and Beading. Covers normalized electric resistance welded tube ID flash controlled .005" to .010" manipulative quality.
SAE-J524	Seamless Low Carbon Steel Tubing Annealed for Bending and Flaring. Covers cold drawn seamless JIC hydraulic tubing
SAE-J525	Welded and Drawn Low Carbon Steel Tubing Annealed for Bending and Flaring. Covers welded and drawn JIC hydraulic line tubing.
SAE-J526	Welded Low Carbon Steel Tubing Covers annealed welded tube with ID flash-in for general automotive applications.
SAE-J527	Brazed Double Wall Carbon Steel Tubing. Covers copper brazed double wall low carbon steel tube intended for general automotive applications and other similar uses. Suitable for bending, forming and double flaring.
SAE-J529	Fuel Injection Tubing. Covers low carbon steel tube specially manufactured for high pressure fuel injection line for diesel engines.
AMS-5050	Seamless Annealed Low Carbon Steel Tube. Covers cold drawn seamless JIC hydraulic line steel tubing for aircraft applications.
AMS-5062	Seamless Low Carbon Steel Tube. Covers cold finished or hot finished seamless low carbon mechanical steel tube.
AMS-6360	Seamless SAE 4130 Alloy Steel Tubing. Covers aircraft quality 4130 tube in condition N temper. Similar to MIL-T-6736 specification.
AMS-6365	Seamless SAE 4135 Alloy Steel Tubing. Covers aircraft quality 4135 tube in condition N temper. Similar to MIL-t-6735 specification.
AMS-6371	Seamless SAE 4130 Alloy Steel Mechanical Tubing. Covers electric furnace grade magnaflux quality 4130 aircraft tube, either hot finished or cold finished, hardenable.
AMS-6372	Seamless SAE 4135 Alloy Steel Mechanical Tubing. Covers electric furnace grade magnaflux quality 4135 aircraft tube, either hot finished or cold finished, hardenable.
AMS-6381	Seamless SAE 4140 Alloy Steel Mechanical Tubing. Covers electric furnace grade magnaflux quality 4140 aircraft tube, either hot finished or cold finished, hardenable.
AMS-6415	Seamless SAE 4340 Alloy Steel Mechanical Tubing. Covers electric furnace grade magnaflux quality 4340 aircraft tube, either hot finished or cold finished, hardenable.

ASTM SPECIFICATIONS

A 53	Welded and Seamless Steel Pipe
A 106	Seamless Carbon Steel Pipe for High-Temperature Service
A 120	Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Ordinary Uses
A 134	Electric-Fusion (Arc)-Welded Steel Plate Pipe (Sizes 16 in. and Over)
A-135	Electric-Resistance-Welded Steel Pipe
A-139 Over)	Electric-Fusion (Arc)-Welded Steel Pipe (Sizes 4 in. and Over)
A 161	Seamless Low-Carbon and Carbon-Molybdenum Steel Still Tubes for Refinery Service
A 178	Electric-Resistance-Welded Carbon Steel Boiler Tubes
A 179	Seamless Cold-Drawn Low-Carbon Steel Heat-Exchanger and Condenser Tubes
A 192 Service	Seamless Carbon Steel Boiler Tubes for High-Pressure Service
A 199	Seamless Cold-Drawn Intermediate Alloy-Steel Heat-Exchanger and Condenser Tubes
A 200 Service	Seamless Intermediate Alloy-Steel Tubes for Refinery Service
A 209	Seamless Carbon-Molybdenum Alloy-Steel Boiler and Superheater Tubes
A 210 Tubes	Seamless Medium-Carbon Steel Boiler and Superheater Tubes
A 211	Spiral-Welded Steel or Iron Pipe
A 213	Seamless Ferritic Chrome-Moly Alloy-Steel Boiler, Superheater, and Heat-Exchanger Tubes
A 214	Electric-Resistance-Welded Carbon Steel Heat-Exchanger and Condenser Tubes
A 226	Electric-Resistance-Welded Carbon Steel Boiler and Superheater Tubes for High-Pressure Service
A 250	Electric-Resistance-Welded Carbon Molybdenum Alloy-Steel Boiler and Superheater Tubes
A 252	Welded and Seamless Steel Pipe Piles
A 254	Copper Brazed Steel Tubing
A 333 Service	Seamless and Welded Steel Pipe for Low-Temperature Service
A 334	Seamless and Welded Carbon and Alloy-Steel Tubes for Low-Temperature Service
A 335 Service	Seamless Ferritic Alloy Steel Pipe for High-Temperature Service
A 370	Methods and Definitions for Mechanical Testing of Steel Products
A 381	Metal-Arc Welded Steel Pipe for High-Pressure Transmission Service
A 405	Seamless Ferritic Alloy-Steel Pipe Specially Heat Treated for High-Temperature Service
A 422	Buttwelds in Still Tubes for Refinery Service

Carbon and Alloy Steel Tube and Pipe Specifications



A 423	Seamless and Electric Welded Low Alloy Steel Tubes	A 520	Supplementary Requirements for Seamless and ERW Carbon Steel Tubular Products for High-Temperature Service Conforming to ISO Recommendations for Boiler Construction
A 450	General Requirements for Carbon, Ferritic Alloy, and Austenitic Alloy Tubes	A 523	Plain End Seamless and Electric-Resistance-Welded Steel Pipe for High-Pressure Pipe-Type Cable Circuits
A 498	Seamless and Welded Carbon, Ferritic, and Austenitic Alloy Steel Heat-Exchanger Tubes with Integral Fins	A 524	Seamless Carbon Steel Pipe for Atmospheric and Lower Temperatures
A 500	Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes	A 530	General Requirements for Specialized Carbon Steel and Alloy Pipe
A 501	Hot-Formed Welded and Seamless Carbon Steel Structural Tubing	A 539	Electric-Resistance-Welded Coiled Steel Tubing for Gas and Fuel Oil Lines
A 512	Cold-Drawn Buttweld Carbon Steel Mechanical Tubing (CDBW). Covers carbon steel mechanical tube manufactured from hot strip by the hot continuous weld process and subsequently cold drawn. Standard grades for CDBW are 1010, 1012 or 1020 depending upon various factors.	A 556	Seamless Cold-Drawn Carbon Steel Feedwater Heater Tubes
A 513	Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing (ERW-DOM). Covers carbon and alloy steel mechanical tube manufactured by cold forming and electric resistance welding of hot rolled or cold rolled strip. Type 1 covers As-Welded HREW. Type 2 covers As-Welded CREW. Both HREW and CREW usually are supplied in 1010 grade. Type 5 covers welded and drawn-over mandrel (DOM) tube. DOM usually is supplied in 1020 or 1026 grade.	A 557	Electric-Resistance-Welded Carbon Steel Feedwater Heater Tubes
A 519	Seamless Steel Mechanical Tubing (CDS or HFS). Covers carbon and alloy steel mechanical tube manufactured by the seamless process (extruded or pierced) followed by hot finishing or cold finishing. Chemistry and dimensional tolerances are the controlling factors. Supplemental requirements are available on special order basis. Although many grades are listed, grades 1018, 1026, 4130 and 4140 are the most common for distributor stock.	A 587	Electric-Resistance-Welded Carbon Steel Pipe for the Chemical Industry
A 106	Seamless Carbon Steel Mechanical Tubing (HFS). The application portions of this seamless carbon steel pipe specification establish chemistry and property limits for large OD heavy wall mechanical tube sizes not covered by ASTM-A-519 specification	A 589	Seamless and Welded Carbon Steel Water Well Pipe
		A 618	Hot-Formed Welded and Seamless High-Strength Low-Alloy Structural Tubing
		A 655	Special Requirements for Pipe and Tubing for Nuclear and Other Special Applications
		A 671	Electric-Fusion-Welded Steel Pipe for Atmospheric and Lower Temperatures
		A 672	Electric-Fusion-Welded Steel Pipe for High-Pressure Service at Moderate Temperatures
		A 691	Carbon and Alloy Steel Pipe, Electric-Fusion-Welded for High-Pressure Service at High-Temperatures
		A 692	Seamless Medium Strength Carbon-Molybdenum Alloy-Steel Boiler and Superheater Tubes
		A 700	Rec. Practice for Packaging, Marking, and Loading Methods for Steel Products for Domestic Shipment

Decimal Equivalents



DECIMAL EQUIVALENTS

MM	INCHES	DECIMALS
.397	1/64	.015625
.794	1/32	.03125
1.191	3/64	.046875
1.587	1/16	.0625
1.984	5/64	.078125
2.381	3/32	.09375
2.778	7/64	.109375
3.175	1/8	.125
3.572	9/64	.140625
3.969	5/32	.15625
4.366	11/64	.171875
4.762	3/16	.1875
5.159	13/64	.203125
5.556	7/32	.21875
5.953	15/64	.234375
6.350	1/4	.25
6.747	17/64	.265625
7.144	9/32	.28125
7.540	19/64	.296875
7.937	5/18	.3125
8.334	21/64	.328125
8.731	11/32	.34375
9.128	23/64	.359375
9.525	3/8	.375
9.922	25/64	.390625
10.319	13/32	.40625
10.716	27/64	.421875
11.112	7/18	.4375
11.509	29/64	.453125
11.906	15/32	.46875
12.303	31/64	.484375
12.700	1/2	.5

MM	INCHES	DECIMALS
13.097	33/64	.515625
13.494	17/32	.53125
13.891	35/64	.546875
14.288	9/16	.5625
14.684	37/64	.578125
15.081	19/32	.59375
15.478	39/64	.609375
15.875	5/8	.625
16.272	41/64	.640625
16.669	21/32	.65625
17.065	43/64	.671875
17.462	11/16	.6875
17.859	45/64	.703125
18.256	23/32	.71875
18.653	47/64	.734375
19.050	3/4	.75
19.447	49/64	.765625
19.844	25/32	.78125
20.241	51/64	.796875
20.637	13/16	.8125
21.034	53/64	.828125
21.431	27/32	.84375
21.828	55/64	.859375
22.225	7/8	.875
22.622	57/64	.890625
23.019	29/32	.90625
23.416	59/64	.921875
23.812	15/16	.9375
24.209	61/64	.953125
24.606	31/32	.96875
25.003	63/64	.984375
25.400	1	1.

BIRMINGHAM WIRE GAUGE (BWG) EQUIVALENT

GAUGE NUMBER	DECIMAL INCHES
0000	.454
000	.425
00	.380
0	.340
1	.300
2	.284
3	.259
4	.238
5	.220
6	.203
7	.180
8	.165
9	.148

GAUGE NUMBER	DECIMAL INCHES
10	.134
11	.120
12	.109
13	.095
14	.083
15	.072
16	.065
17	.058
18	.049
19	.042
20	.035
21	.032
22	.028

GAUGE NUMBER	DECIMAL INCHES
23	.025
24	.022
25	.020
26	.018
27	.016
28	.014
29	.013
30	.012
31	.010
32	.009
33	.008
34	.007
35	.005
36	.004

Hardness Conversion Table

Approximate Relation of Brinell and Rockwell Hardness to Tensile Strength for Carbon and Alloy Steel



Brinell Indent Dia. mm.	Brinell 10-mm. Ball, 3000-kg. Load Hardness Number	Rockwell Hardness Number		Tensile Strength (Approx.) 1000 psi
		B-scale 100-kg. load 1/16" +Dia. Ball	C-Scale 150-kg. Load Brale Penetrator	
-	-	-	68.0	-
-	-	-	67.5	-
-	-	-	67.0	-
-	767	-	66.4	-
-	757	-	65.9	-
2.25	745	-	65.3	-
-	733	-	64.7	-
-	722	-	64.0	-
2.30	712	-	-	-
-	710	-	63.3	-
-	698	-	62.5	-
-	684	-	61.8	-
2.35	682	-	61.7	-
-	670	-	61.0	-
-	656	-	60.1	-
2.40	653	-	60.0	-
-	647	-	59.7	-
-	638	-	59.2	329
-	630	-	58.8	324
2.45	627	-	58.7	323
2.50	601	-	59.1	328
2.50	601	-	57.3	309
2.55	578	-	57.3	309
2.55	578	-	56.0	297
2.60	555	-	55.6	293
2.60	555	-	54.7	285
2.65	534	-	54.0	279
2.65	534	-	53.5	274
2.70	514	-	52.5	266
2.70	514	-	52.1	263
2.75	495	-	51.6	259
2.75	495	-	51.1	254
2.75	495	-	51.0	253
2.80	477	-	50.3	247
2.80	477	-	49.6	243
2.85	461	-	48.8	237
2.85	461	-	48.5	235
2.90	444	-	47.2	226
2.90	444	-	47.1	225
2.95	429	-	45.7	217

Brinell Indent Dia. mm.	Brinell 10-mm. Ball, 3000-kg. Load Hardness Number	Rockwell Hardness Number		Tensile Strength (Approx.) 1000 psi
		B-scale 100-kg. load 1/16" Dia. Ball	C-Scale 150-kg. Load Brale Penetrator	
3.00	415	-	44.5	210
3.05	401	-	43.1	202
3.10	388	-	41.8	195
3.15	375	-	40.4	188
3.20	363	-	39.1	182
3.25	352	(110.9)	37.9	176
3.30	341	(109.0)	36.6	170
3.35	331	(108.5)	35.5	166
3.40	321	(108.0)	34.3	160
3.45	311	(107.5)	33.1	155
3.50	302	(107.0)	32.1	150
3.55	293	(106.0)	30.9	145
3.60	285	(105.5)	29.9	141
3.65	277	(105.5)	28.8	137
3.70	269	(104.0)	27.6	133
3.75	262	(103.0)	26.6	129
3.80	255	(102.0)	25.4	126
3.85	248	(101.0)	24.2	122
3.90	241	100.0	22.8	118
3.95	235	99.0	21.7	115
4.00	229	98.2	20.5	111
4.05	223	97.3	(18.8)	-
4.10	217	96.4	(17.5)	105
4.15	212	95.5	(16.0)	102
4.20	207	94.6	(15.2)	100
4.25	201	93.8	(13.8)	98
4.30	197	92.8	(12.7)	95
4.35	192	91.9	(11.5)	93
4.40	187	90.7	(10.0)	90
4.45	183	90.0	(9.0)	89
4.50	179	89.0	(8.0)	87
4.55	174	87.8	(6.4)	85
4.60	170	86.8	(5.4)	83
4.65	167	86.0	(4.4)	81
4.70	163	85.0	(3.3)	79
4.80	156	82.9	(0.9)	76
4.90	149	80.8	-	73
5.00	143	78.7	-	71
5.10	137	76.4	-	67
5.20	131	74.0	-	65
5.30	126	72.0	-	63
5.40	121	69.8	-	60
5.50	116	67.6	-	58
5.60	111	65.7	-	56

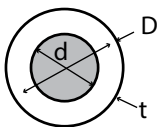
Values for Rockwell hardness in parenthesis are beyond normal range, and are given for information only. Brinell hardness No.'s 767 through 514 based on tests taken with tungsten carbide ball.

The information and data presented herein are typical or average values and are not a guarantee of maximum values. Applications specifically suggested for material described herein are made solely for the purpose of illustration to enable the reader to make his own evaluation and are not intended as warranties, either expressed or implied, of fitness for these or other purposes.

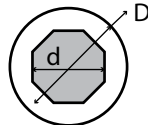
Theoretical Weight-Per-Foot Formulas

Formulas for the calculation of the theoretical weight-per-foot for round inside and outside diameter tubes and many commonly used shapes of tubing are shown below. In addition, formulas are provided for the calculation of the equivalent round outside diameter and wall thickness for each of the shapes.

The weight-per-foot values calculated are always expressed in four digits regardless of the location of the decimal point (i.e., 5432, 5.432, or 54.32). Also, dimensional tolerances are not taken into consideration in the use of the formulas. All weight-per-foot formulas are based on one cubic inch of steel weighing 0.2833 pounds.



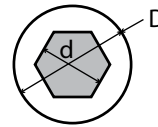
With average wall:
 $W = 10.68 (D - t) t$
 With minimum wall:
 $W = 10.68 D - \frac{t}{.875} - \frac{t}{.875}$
 (Where t is minimum wall)



$$W = 10.68 (D - te) te$$

$$te = \frac{D - 1.027 d}{2}$$

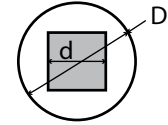
$$de = 1.027 d$$



$$W = 10.68 (D - te) te$$

$$te = \frac{D - 1.050 d}{2}$$

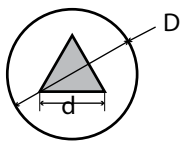
$$de = 1.050 d$$



$$W = 10.68 (D - te) te$$

$$te = \frac{D - 1.128 d}{2}$$

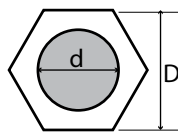
$$de = 1.128 d$$



$$W = 10.68 (D - te) te$$

$$te = \frac{D - .7425 d}{2}$$

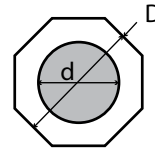
$$de = .7425 d$$



$$W = 10.68 (D - te) te$$

$$te = \frac{D - 1.050 d}{2}$$

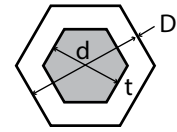
$$De = 1.050 D$$



$$W = 10.68 (D - te) te$$

$$te = \frac{1.027 D - d}{2}$$

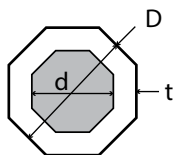
$$De = 1.027 D$$



$$W = 11.78 (D - t) t$$

$$De = 1.050 D$$

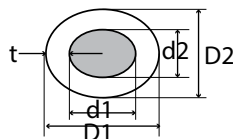
$$de = 1.050 d$$



$$W = 11.27 (D - t) t$$

$$De = 1.027 D$$

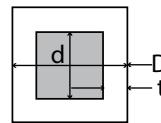
$$de = 1.027 d$$



$$W = 5.34 (D1 + D2 - 2t) t$$

$$De = \frac{D1 + D2}{2}$$

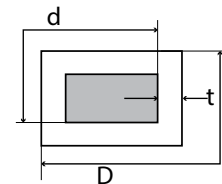
$$de = \frac{d1 + d2}{2}$$



$$W = 13.60 (D - t) t$$

$$De = 1.128 D$$

$$de = 1.128 d$$



$$W = 13.60 (D - t) t$$

$$De = 1.128 D$$

$$de = 1.128 d$$

LEGEND

W = Weight in pounds per foot
 D = Outside diameter or distance across flats in inches
 d = Inside diameter or distance across flats in inches

t = Wall thickness in inches
 De = Equivalent round outside diameter in inches
 de = Equivalent round inside diameter in inches
 te = Equivalent wall thickness in inches
 D1 = Major outside diameter of oval tube in inches

d1 = Major inside diameter of oval tube in inches
 D2 = Minor outside diameter of oval tube in inches
 d2 = Minor inside diameter of oval tube in inches



SERVICE STEEL

A VAN PELT COMPANY

BUFFALO

333 Wales Ave.
Tonawanda, NY 14150
Phone: (800) 447-6733
Fax: (716) 694-4067

CINCINNATI

5170 Broerman Ave.
Cincinnati, OH 45217
Phone: (800) 929-8823
Fax: (513) 242-7281

DETROIT

13700 Sherwood St.
Detroit, MI 48212
Phone: (800) 275-8823
Fax: (313) 365-4878

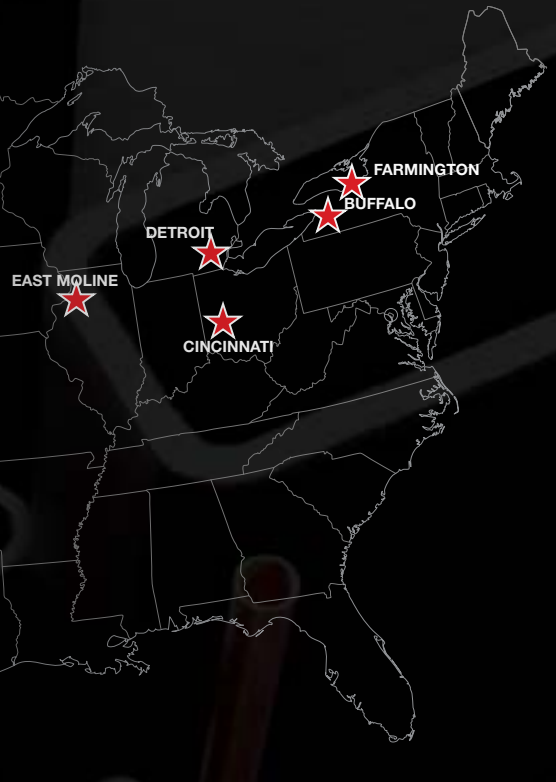
EAST MOLINE

2930 Morton Dr.
East Moline, IL 61244
Phone: (800) 323-1176
Fax: (309) 755-3069

FARMINGTON

5636 County Road 41
Farmington, NY 14425
Phone: (800) 447-6733
Fax: (716) 694-4067

www.servicesteel.com



Please note: all information contained in our product catalog and reference guide is to be used for reference only.

For latest information and updates to this information, please visit our website at servicesteel.com or scan the QR code below.

