

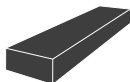
A WORD TO OUR CUSTOMERS...

We pledge quality steel and aluminum cut to exact specifications and delivered fast. Thank you, our customer and friend.

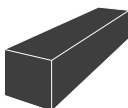
SHEET/PLATE



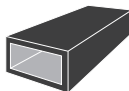
FLAT BAR



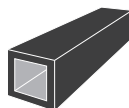
SQUARE



**RECTANGULAR
TUBING**



**SQUARE
TUBING**



ROUND



HALF ROUND



HALF OVAL



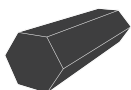
**PIPE/ROUND
TUBING**



REBAR



HEXAGON



**CHAMFER
BAR**



**WIDE FLANGE
BEAM**



**STANDARD/I
BEAM**



BAR TEE



CHANNEL



ANGLE



This stock book and data catalog has been compiled from published information from domestic steel and aluminum producing mills as to the practical application of their products. All information is believed to be reliable; however, anyone making use of this data does so at his/her own risk and assumes any and all liabilities resulting from such use.

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138-147

The background of the page is a dark, monochromatic photograph of cold finished bars. The bars are arranged in a somewhat chaotic but structured manner, with some lying horizontally and others at angles. The lighting is dramatic, highlighting the metallic texture and the circular cross-sections of the bars. The overall tone is industrial and professional.

COLD FINISHED BARS

Technical Data.....	6-12
CF Round.....	10, 13
CF Square	14
CF Hexagon	14
CF Flat	15-18

ASTM C-1018 COLD FINISHED BARS

A low carbon steel, medium manganese content, excellent for cold forming and bending operations. Cold drawing process takes oversized hot roll bars which are drawn through dies to the required size. Machinability rating on 78%, based on 1212 as 100%. Easily weldable, excellent for carburized parts which require a soft core and high surface hardness. Average surface cutting speed is 130 feet per minute.

STOCK SIZES

DIAMETER	LENGTH
½" to 4"	12' & 24'

CHEMICAL ANALYSIS

CARBON	MANGANESE	PHOSPHOROUS	SULPHUR
.15/.20	.60/.90	.04 Max	.05 Max

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	REDUCTION OF AREA	BRINELL HARDNESS	ROCKWELL HARDNESS
72/85,000	60/70,000	18/25%	45/55%	166	80/90 B

*The above values are average and should be considered as representative of the grade

can source additional grades including 12L14 Free Machining Bars, 1045 Turned Ground & Polished Rounds, 1212 Screw Stock, 1215, 1117, 1144, 4140, 8620 & many other special grades all designed to make your job easier.

ASTM C-1045 TURNED, GROUND & POLISHED ROUNDS

A medium carbon steel which responds well to heat treating, forging and induction hardening. This grade is used when a greater strength and hardness is required than can be obtained from lower carbon steel. 1045 is the most popular shafting grade in the medium carbon range. It is also an excellent grade for chrome plating. Applications include gears, shafts, bolts, studs, machine parts, axles, forming dies and tool shanks.

STOCK SIZES

DIAMETER	LENGTH
½" to 4"	12' & 24'

CHEMICAL ANALYSIS

CARBON	MANGANESE	PHOSPHOROUS	SULPHUR
.43/.50	.60/.90	.04 Max	.05 Max

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	REDUCTION OF AREA	BRINELL HARDNESS	ROCKWELL HARDNESS
82,000	45,000	16%	40%	162	84 B

*The above values are average and should be considered as representative of the grade

ASTM C-1141 TURNED, GROUND & POLISHED ROUNDS

A medium carbon steel with the addition of sulphur for improved machinability. It responds favorably to heat treating when greater strength and toughness is required. 1141 is not recommended for welding due to its higher carbon and sulphur content. Applications include gears, shafts, bolts, studs, axles and tie rods.

STOCK SIZES

DIAMETER	LENGTH
½" to 4"	12' & 24'

CHEMICAL ANALYSIS

CARBON	MANGANESE	PHOSPHOROUS	SULPHUR
.37/.45	1.35/1.65	.040 Max	.050

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	REDUCTION OF AREA	BRINELL HARDNESS	ROCKWELL HARDNESS
94,000	51,500	15%	35%	190	91 B

*The above values are average and should be considered as representative of the grade

ASTM C-12L14 FREE MACHINING BARS

A resulphurized and rephosphorized screw machine stock to which lead has been added. These elements combine to produce an extraordinarily fast machining steel (machinability rating is 193%, based on grade 1212 as 100%. Average surface cutting speed is 325 feet per minute). 12L14 offers good ductility combined with finer surface quality. Due to high sulphur content, 12L14 is not considered as weldable as other low carbon steels. Applications include bushings, couplings, inserts and hydraulic hose fittings. Rounds, Squares and Hexes offered.

STOCK SIZES

DIAMETER	LENGTH
1/8" to 8"	12'

CHEMICAL ANALYSIS

CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	LEAD
.15 Max	.85/1.15	.04/.09	.26/.35	.15/.35

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	REDUCTION OF AREA	BRINELL HARDNESS	ROCKWELL HARDNESS
78,000	60,000	10%	35%	165	85 B

*The above values are average and should be considered as representative of the grade

ASTM C-4140/42 ALLOY STEEL®

A widely used general purpose grade of alloy steel. It offers a wide range of highly desirable properties such as good strength and hardenability, wear resistance, toughness and good ductility. 4140 is an oil-hardening steel that can maintain its properties even after long exposure to relatively high working temperatures. A broad range of strength and toughness is attainable through variations in heat treatment. These grades are particularly suitable for forging because they have self-scaling characteristics. Applications include bolts, couplings, axle shafts, trailer axles, hydraulic machinery shafts, tractor arms and axles, sprockets, high-temperature bolts, piston rods, spindles and drill collars.

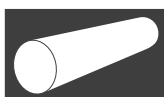
CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cr	Mo
.38/.43	.75/1.00	.035 Max	.040 Max	.15/.35	.80/1.10	.15/.25

MECHANICAL PROPERTIES

	TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	REDUCTION OF AREA	BRINELL HARDNESS
COLD DRAWN ANNEALED	102,000	90,000	18%	50%	228
HOT ROLLED ANNEALED	89,000	62,000	26%	58%	190%
HOT ROLLED HEAT TREATED					
4" to 7" diameter	110,000	85,000	16% Min	45% Min	285-341
over 7" diameter	105,000	80,000	15% Min	40% Min	(surface)

*The above values are average and should be considered as representative of the grade



ALLOY STEEL®

ASTM C-4140/42

12' Cold Drawn 16-20' Hot Rolled

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.
3/8	.3759	1 7/8	9.397	5 1/4	73.67
1/2	.6682	2	10.69	5 1/2	80.86
5/8	1.044	2 1/4	13.53	6	96.22
3/4	1.504	2 1/2	16.71	6 1/2	112.90
7/8	2.046	2 3/4	20.21	7	131.00
1	2.673	3	24.06	7 1/2	150.40
1 1/8	3.383	3 1/2	32.74	8	171.10
1 1/4	4.176	4	42.77	8 1/2	193.10
1 3/8	5.053	4 1/2	54.13	9	216.50
1 1/2	6.014	4 3/4	60.31	10	267.30
1 3/4	8.186	5	66.82	12	384.90

NOTE: Flats, Squares & Hexagons also available.

ASTM A-311* STRESSPROOF®

STRESSPROOF® steel rounds offer a combination of high strength and excellent machinability. They are produced by a patented process which entails drawing the bar through a special die under heavy draft, then stress relieving it in a precisely controlled furnace. The resulting bar offers strength without heat treating, wearability without case hardening and outstanding machinability and tool life. STRESSPROOF® is produced from AISI 1144 carbon steel. Although STRESSPROOF® is certified to ASTM A-311 it offers additional quality features not included in this specification. Examples are seam depth specification, warpage testing and machining testing which are all integral parts of the quality assurance program. STRESSPROOF® is often used for parts requiring mechanical properties obtained by heat treating to a hardness range of 23-30 Rockwell C after machining.

The machinability rating is 83% of 1212 screw stock with an average surface cutting speed of 140 feet per minute. Because STRESSPROOF® is a resulfurized steel, welding is not recommended.

*STRESSPROOF® is a registered trademark of the Niagara Lasalle Corporation

STOCK SIZES

DIAMETER	LENGTH
¼" to 4 ½"	12'

CHEMICAL ANALYSIS

CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	SILICON
.40/.48	1.35/1.65	.040 Max	.24/.33	.35 Max

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	REDUCTION OF AREA	BRINELL HARDNESS	ROCKWELL HARDNESS
115,000	100,000	8%	25%	126	25 C

*The above values are average and should be considered as representative of the grade

TOLERANCES

THICKNESS	— INCHES
¼" to 1 ½" Incl.	-0.004 (rounds)
1 ½" to 2 ½" Incl.	-0.005 (rounds)
2 ½" to 4" Incl.	-0.006 (rounds)
4" to 4 ½" Incl.	-0.007 (rounds)

E.T.D.[®] 150[®] is produced from AISI medium carbon 4100 series alloy steel and combines high strength with good machinability. E.T.D. stands for Elevated Temperature Drawing which is a controlled process that produces steel with a higher tensile and yield strength than steel produced from normal cold drawing methods. E.T.D.[®] 150[®] has a 150,000 psi (Min) tensile strength and a Rockwell C Hardness of 32 (Min). This eliminates the need for heat treating and secondary operations such as cleaning, straightening and finish grinding. The machinability is excellent, 75% of 1212 screw stock with an average surface cutting speed of 125 feet per minute. Warpage and distortion during machining is minimized and the mechanical properties of each bar are uniform from the surface to the center. It is suitable for induction hardening and can be roll threaded, knurled and plated. Welding is difficult, but is possible using common welding methods.

*E.T.D.[®] 150[®] is a registered trademark of the Niagara Lasalle Corporation

STOCK SIZES

DIAMETER	LENGTH
½" to 3 ½"	12'

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cr	Mo
.40 Min	.70/1.10	.040 Max	.040 Max	.15/.35	.80/1.20	.15/.25

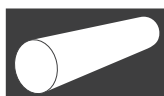
MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	REDUCTION OF AREA	BRINELL HARDNESS	ROCKWELL HARDNESS
150,000	130,000	10%	37%	302	32 C

*The above values are average and should be considered as representative of the grade

TOLERANCES

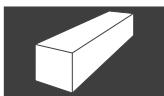
THICKNESS	— INCHES
½" to 1 ½" Incl.	-0.005
1 ½" to 2 ½" Incl.	-0.006
2 ½" to 3 ½" Incl.	-0.007



COLD FINISHED ROUNDS

ASTM C-1018
20' Random Length

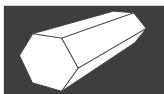
SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 20' Bar		SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 20' Bar		SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 20' Bar	
1/8	.0418	.8353	2 1/16	11.37	227.4	4 1/2	54.13	1083
5/32	.0653	1.305	2 1/8	12.07	241.4	4 9/16	55.64	1113
3/16	.0940	1.879	2 3/16	12.79	255.8	4 5/8	57.18	1143
7/32	.1279	2.558	2 1/4	13.53	270.6	4 11/16	58.73	1175
1/4	.1671	3.341	2 5/16	14.29	285.9	4 3/4	60.31	1206
9/32	.2114	4.229	2 3/8	15.08	301.5	4 7/8	63.52	1270
5/16	.2610	5.220	2 7/16	15.88	317.6	4 15/16	65.15	1303
11/32	.3158	6.317	2 1/2	16.71	334.1	5	66.82	1336
3/8	.3759	7.517	2 9/16	17.55	351.0	5 1/8	70.21	1404
7/16	.5116	10.23	2 5/8	18.42	368.4	5 1/4	73.67	1473
1/2	.6682	13.36	2 11/16	19.31	386.1	5 5/16	75.44	1509
9/16	.8457	16.91	2 3/4	20.21	404.3	5 3/8	77.22	1544
5/8	1.044	20.88	2 13/16	21.14	422.9	5 7/16	79.03	1581
11/16	1.263	25.27	2 7/8	22.09	441.9	5 1/2	80.86	1617
3/4	1.504	30.07	2 15/16	23.06	461.3	5 5/8	84.57	1691
13/16	1.765	35.29	3	24.06	481.1	5 3/4	88.37	1767
7/8	2.046	40.93	3 1/16	25.07	501.4	5 7/8	92.26	1845
15/16	2.349	46.98	3 1/8	26.10	522.0	5 15/16	94.23	1885
1	2.673	53.46	3 3/16	27.16	543.1	6	96.22	1924
1 1/64	2.757	55.14	3 1/4	28.23	564.6	6 1/8	100.3	2005
1 1/32	2.843	56.85	3 5/16	29.33	586.6	6 1/4	104.4	2088
1 1/16	3.017	60.35	3 3/8	30.45	608.9	6 1/2	112.9	2259
1 1/8	3.383	67.66	3 7/16	31.58	631.7	6 3/4	121.8	2436
1 3/16	3.769	75.38	3 1/2	32.74	654.8	7	131.0	2619
1 1/4	4.176	83.53	3 9/16	33.92	678.4	7 1/4	140.5	2810
1 5/16	4.604	92.09	3 5/8	35.12	702.5	7 1/2	150.4	3007
1 3/8	5.053	101.1	3 11/16	36.35	726.9	7 3/4	160.5	3211
1 7/16	5.523	110.5	3 3/4	37.59	751.7	8	171.1	3421
1 1/2	6.014	120.3	3 7/8	40.14	802.7	8 1/2	193.1	3862
1 9/16	6.526	130.5	3 15/16	41.44	828.8	9	216.5	4330
1 5/8	7.058	141.2	4	42.77	855.3	9 1/2	241.2	4824
1 11/16	7.612	152.2	4 1/8	45.48	909.6	10	267.3	5346
1 3/4	8.186	163.7	4 3/16	46.87	937.4	10 1/2	294.7	5894
1 13/16	8.781	175.6	4 1/4	48.28	965.6	11	323.4	6468
1 7/8	9.397	187.9	4 5/16	49.71	994.2	11 1/2	353.5	7070
1 15/16	10.03	200.7	4 3/8	51.16	1023	12	384.9	7698
2	10.69	213.8	4 7/16	52.63	1053			



COLD FINISHED SQUARES

ASTM C-1018
12' Random Length

SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 12' Bar		SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 12' Bar		SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 12' Bar	
1/8	.0531	.6381	1 1/16	3.842	46.10	2 3/8	19.20	230.4
3/16	.1196	1.436	1 1/8	4.307	51.69	2 1/2	21.27	255.2
1/4	.2127	2.552	1 3/16	4.799	57.59	2 5/8	23.45	281.4
5/16	.3323	3.988	1 1/4	5.318	53.81	2 3/4	25.74	308.8
3/8	.4786	5.743	1 5/16	5.863	70.35	3	30.63	367.5
7/16	.6514	7.817	1 3/8	6.434	77.21	3 1/4	35.95	431.4
1/2	.8508	10.21	1 7/16	7.032	84.39	3 1/2	41.69	500.3
9/16	1.077	12.92	1 1/2	7.657	91.89	3 3/4	47.86	574.3
5/8	1.329	15.95	1 9/16	8.309	99.71	4	54.45	653.4
11/16	1.609	19.30	1 5/8	8.987	107.8	4 1/2	68.91	827.0
3/4	1.914	22.97	1 3/4	10.42	125.1	5	85.08	1021
13/16	2.247	26.96	1 7/8	11.96	143.6	5 1/2	102.9	1235
7/8	2.606	31.27	2	13.61	163.4	6	122.5	1470
15/16	2.991	35.89	2 1/8	15.37	184.4			
1	3.403	40.84	2 1/4	17.23	206.7			



COLD FINISHED HEXAGONS

ASTM C-1018
12' Random Length

SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 12' Bar		SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 12' Bar		SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 12' Bar	
3/16	.1036	1.243	1 1/8	3.730	44.76	2 1/4	14.92	179.0
1/4	.1842	2.210	1 3/16	4.156	49.87	2 3/8	16.62	199.5
5/16	.2878	3.454	1 1/4	4.605	55.26	2 7/16	17.51	210.1
3/8	.4145	4.973	1 5/16	5.077	60.93	2 1/2	18.42	221.1
7/16	.5641	6.769	1 3/8	5.572	66.87	2 5/8	20.31	243.7
1/2	.7368	8.842	1 7/16	6.090	73.08	2 3/4	22.29	267.5
9/16	.9325	11.19	1 1/2	6.631	79.56	3	26.53	318.3
5/8	1.151	13.82	1 9/16	7.196	86.35	3 1/8	28.78	345.4
11/16	1.393	16.72	1 5/8	7.783	93.39	3 1/4	31.13	373.6
3/4	1.658	19.89	1 3/4	9.026	108.3	3 1/2	36.10	433.2
7/8	2.257	27.08	1 13/16	9.682	116.2	3 3/4	41.45	497.3
15/16	2.590	31.08	1 7/8	10.36	124.3	4	47.16	565.9
1	2.947	35.37	2	11.79	141.5			
1 1/16	3.327	39.93	2 1/8	13.31	159.7			



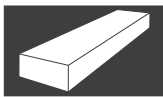
COLD FINISHED FLATS

ASTM C-1018

12' Random Length

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar
1/8 x 3/16	.0798	.9576	3/16 x 1 1/2	.9572	11.49	1/4 x 3 3/4	3.191	38.29
1/8 x 1/4	.1064	1.276	3/16 x 1 3/4	1.117	13.40	1/4 x 4	3.403	40.84
1/8 x 5/16	.1329	1.595	3/16 x 1 7/8	1.196	14.35	1/4 x 4 1/4	3.616	43.39
1/8 x 3/8	.1595	1.914	3/16 x 2	1.276	15.31	1/4 x 4 1/2	3.829	45.94
1/8 x 7/16	.1861	2.233	3/16 x 2 1/4	1.436	17.23	1/4 x 4 3/4	4.041	48.50
1/8 x 1/2	.2127	2.552	3/16 x 2 1/2	1.595	19.14	1/4 x 5	4.254	51.05
1/8 x 9/16	.2393	2.872	3/16 x 2 3/4	1.755	21.06	1/4 x 5 1/4	4.467	53.60
1/8 x 5/8	.2659	3.191	3/16 x 3	1.914	22.97	1/4 x 5 1/2	4.679	56.15
1/8 x 11/16	.2925	3.510	3/16 x 3 1/4	2.074	24.89	1/4 x 5 3/4	4.892	58.70
1/8 x 3/4	.3191	3.829	3/16 x 3 1/2	2.233	26.80	1/4 x 6	5.105	61.26
1/8 x 7/8	.3722	4.467	3/16 x 3 3/4	2.393	28.71	1/4 x 6 1/2	5.530	66.36
1/8 x 1	.4254	5.105	3/16 x 4	2.552	30.63	1/4 x 7	5.956	71.47
1/8 x 1 1/8	.4786	5.743	3/16 x 4 1/2	2.871	34.46	1/4 x 8	6.806	81.68
1/8 x 1 1/4	.5318	6.381	3/16 x 5	3.191	38.29	1/4 x 9	7.657	91.89
1/8 x 1 3/8	.5849	7.019	3/16 x 6	3.829	45.94	1/4 x 10	8.508	102.1
1/8 x 1 1/2	.6381	7.657	3/16 x 8	5.105	61.26	1/4 x 11	9.359	112.3
1/8 x 1 3/4	.7445	8.933	3/16 x 9	5.743	68.91	1/4 x 12	10.21	122.5
1/8 x 2	.8508	10.21	3/16 x 10	6.381	76.57	5/16 x 3/8	.3988	4.786
1/8 x 2 1/4	.9572	11.49	3/16 x 12	7.657	91.89	5/16 x 7/16	.4653	5.583
1/8 x 2 1/2	1.064	12.76	3/16 x 5/16	.2659	3.191	5/16 x 1/2	.5318	6.381
1/8 x 2 3/4	1.170	14.04	1/4 x 3/8	.3191	3.829	5/16 x 9/16	.5982	7.179
1/8 x 3	1.276	15.31	1/4 x 7/16	.3722	4.467	5/16 x 5/8	.6647	7.976
1/8 x 3 1/2	1.489	17.87	1/4 x 1/2	.4254	5.105	5/16 x 3/4	.7976	9.572
1/8 x 4	1.702	20.42	1/4 x 9/16	.4786	5.743	5/16 x 7/8	.9306	11.17
1/8 x 4 1/2	1.914	22.97	1/4 x 5/8	.5318	6.381	5/16 x 1	1.064	12.76
1/8 x 5	2.127	25.52	1/4 x 3/4	.6381	7.657	5/16 x 1 1/8	1.196	14.36
1/8 x 6	2.552	30.63	1/4 x 7/8	.7445	8.933	5/16 x 1 1/4	1.329	15.95
1/8 x 7	3.403	40.84	1/4 x 1	.8508	10.21	5/16 x 1 3/8	1.462	17.55
1/8 x 10	4.254	51.05	1/4 x 1 1/8	.9572	11.49	5/16 x 1 1/2	1.595	19.14
1/8 x 12	5.105	61.26	1/4 x 1 1/4	1.064	12.76	5/16 x 1 5/8	1.729	20.74
3/16 x 1/4	.1595	1.914	1/4 x 1 3/8	1.170	14.04	5/16 x 1 3/4	1.861	22.33
3/16 x 5/16	.1994	2.393	1/4 x 1 1/2	1.276	15.31	5/16 x 2	2.127	25.52
3/16 x 3/8	.2393	2.871	1/4 x 1 5/8	1.383	16.59	5/16 x 2 1/4	2.393	28.71
3/16 x 7/16	.2792	3.350	1/4 x 1 3/4	1.489	17.87	5/16 x 2 1/2	2.659	31.91
3/16 x 1/2	.3191	3.829	1/4 x 1 7/8	1.595	19.14	5/16 x 2 3/4	2.925	35.10
3/16 x 5/8	.3988	4.786	1/4 x 2	1.702	20.42	5/16 x 3	3.191	38.29
3/16 x 3/4	.4786	5.743	1/4 x 2 1/4	1.914	22.97	5/16 x 3 1/2	3.722	44.68
3/16 x 7/8	.5583	6.700	1/4 x 2 1/2	2.127	25.52	5/16 x 4	4.254	51.05
3/16 x 1	.6381	7.657	1/4 x 2 3/4	2.340	28.08	5/16 x 4 1/2	4.786	57.43
3/16 x 1 1/8	.7179	8.614	1/4 x 3	2.552	30.63	5/16 x 5	5.318	63.81
3/16 x 1 1/4	.7976	9.572	1/4 x 3 1/4	2.765	33.18	5/16 x 5 1/2	5.849	70.19
3/16 x 1 3/8	.8774	10.53	1/4 x 3 1/2	2.978	35.73	5/16 x 6	6.381	76.57

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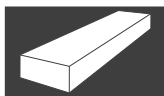


COLD FINISHED FLATS

ASTM C-1018
12' Random Length

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar
$\frac{5}{16}$ X 8	8.508	102.1	$\frac{7}{16}$ X $\frac{5}{8}$	.9306	11.17	$\frac{1}{2}$ X 5 $\frac{1}{2}$	9.359	112.3
$\frac{5}{16}$ X 10	10.64	127.6	$\frac{7}{16}$ X $\frac{3}{4}$	1.117	13.40	$\frac{1}{2}$ X 5 $\frac{3}{4}$	9.784	117.4
$\frac{5}{16}$ X 12	12.76	153.1	$\frac{7}{16}$ X $\frac{7}{8}$	1.303	15.63	$\frac{1}{2}$ X 6	10.21	122.5
$\frac{3}{8}$ X $\frac{7}{16}$	.5583	6.700	$\frac{7}{16}$ X 1	1.489	17.87	$\frac{1}{2}$ X 6 $\frac{1}{2}$	11.06	132.7
$\frac{3}{8}$ X $\frac{1}{2}$	.6381	7.657	$\frac{7}{16}$ X 1 $\frac{1}{8}$	1.675	20.10	$\frac{1}{2}$ X 7	11.91	142.9
$\frac{3}{8}$ X $\frac{9}{16}$	.7179	8.615	$\frac{7}{16}$ X 1 $\frac{1}{4}$	1.861	22.33	$\frac{1}{2}$ X 8	13.61	163.4
$\frac{3}{8}$ X $\frac{5}{8}$	.7976	9.572	$\frac{7}{16}$ X 1 $\frac{1}{2}$	2.233	26.80	$\frac{1}{2}$ X 9	15.31	183.8
$\frac{3}{8}$ X $\frac{3}{4}$	.9572	11.49	$\frac{7}{16}$ X 1 $\frac{3}{4}$	2.606	31.27	$\frac{1}{2}$ X 10	17.02	204.2
$\frac{3}{8}$ X $\frac{7}{8}$	1.117	13.40	$\frac{7}{16}$ X 2	2.978	35.73	$\frac{1}{2}$ X 11	18.72	224.6
$\frac{3}{8}$ X 1	1.276	15.31	$\frac{7}{16}$ X 2 $\frac{1}{4}$	3.350	40.20	$\frac{1}{2}$ X 12	20.42	245.0
$\frac{3}{8}$ X 1 $\frac{1}{8}$	1.436	17.23	$\frac{7}{16}$ X 2 $\frac{1}{2}$	3.722	44.67	$\frac{9}{16}$ X $\frac{5}{8}$	1.196	14.35
$\frac{3}{8}$ X 1 $\frac{1}{4}$	1.595	19.14	$\frac{7}{16}$ X 2 $\frac{3}{4}$	4.094	49.13	$\frac{9}{16}$ X $\frac{3}{4}$	1.436	17.23
$\frac{3}{8}$ X 1 $\frac{3}{8}$	1.755	21.06	$\frac{7}{16}$ X 3	4.467	53.60	$\frac{9}{16}$ X $\frac{7}{8}$	1.675	20.10
$\frac{3}{8}$ X 1 $\frac{1}{2}$	1.914	22.97	$\frac{7}{16}$ X 4	5.956	71.47	$\frac{9}{16}$ X 1	1.914	22.97
$\frac{3}{8}$ X 1 $\frac{5}{8}$	2.074	24.89	$\frac{7}{16}$ X 4 $\frac{1}{2}$	6.700	80.40	$\frac{9}{16}$ X 1 $\frac{1}{4}$	2.393	28.72
$\frac{3}{8}$ X 1 $\frac{3}{4}$	2.233	26.80	$\frac{7}{16}$ X 5	7.445	89.33	$\frac{9}{16}$ X 1 $\frac{1}{2}$	2.871	34.46
$\frac{3}{8}$ X 1 $\frac{7}{8}$	2.393	28.72	$\frac{7}{16}$ X 6	8.933	107.2	$\frac{9}{16}$ X 1 $\frac{3}{4}$	3.350	40.20
$\frac{3}{8}$ X 2	2.552	30.63	$\frac{1}{2}$ X $\frac{9}{16}$	.9572	11.49	$\frac{9}{16}$ X 2	3.829	45.95
$\frac{3}{8}$ X 2 $\frac{1}{4}$	2.871	34.46	$\frac{1}{2}$ X $\frac{5}{8}$	1.064	12.76	$\frac{9}{16}$ X 2 $\frac{1}{2}$	4.786	57.43
$\frac{3}{8}$ X 2 $\frac{1}{2}$	3.191	38.29	$\frac{1}{2}$ X $\frac{3}{4}$	1.276	15.31	$\frac{5}{8}$ X $1\frac{1}{16}$	1.462	17.54
$\frac{3}{8}$ X 2 $\frac{3}{4}$	3.510	42.11	$\frac{1}{2}$ X $\frac{7}{8}$	1.489	17.87	$\frac{5}{8}$ X $\frac{3}{4}$	1.595	19.14
$\frac{3}{8}$ X 3	3.829	45.94	$\frac{1}{2}$ X 1	1.702	20.42	$\frac{5}{8}$ X $\frac{7}{8}$	1.861	22.33
$\frac{3}{8}$ X 3 $\frac{1}{4}$	4.148	49.77	$\frac{1}{2}$ X 1 $\frac{1}{8}$	1.914	22.97	$\frac{5}{8}$ X 1	2.127	25.52
$\frac{3}{8}$ X 3 $\frac{1}{2}$	4.467	53.60	$\frac{1}{2}$ X 1 $\frac{1}{4}$	2.127	25.52	$\frac{5}{8}$ X 1 $\frac{1}{8}$	2.393	28.71
$\frac{3}{8}$ X 3 $\frac{3}{4}$	4.786	57.43	$\frac{1}{2}$ X 1 $\frac{3}{8}$	2.340	28.08	$\frac{5}{8}$ X 1 $\frac{1}{4}$	2.659	31.91
$\frac{3}{8}$ X 4	5.105	61.26	$\frac{1}{2}$ X 1 $\frac{1}{2}$	2.552	30.63	$\frac{5}{8}$ X 1 $\frac{3}{8}$	2.925	35.10
$\frac{3}{8}$ X 4 $\frac{1}{4}$	5.424	65.09	$\frac{1}{2}$ X 1 $\frac{5}{8}$	2.765	33.18	$\frac{5}{8}$ X 1 $\frac{1}{2}$	3.191	38.29
$\frac{3}{8}$ X 4 $\frac{1}{2}$	5.743	68.91	$\frac{1}{2}$ X 1 $\frac{3}{4}$	2.978	35.73	$\frac{5}{8}$ X 1 $\frac{5}{8}$	3.456	41.48
$\frac{3}{8}$ X 4 $\frac{3}{4}$	6.062	72.74	$\frac{1}{2}$ X 2	3.403	40.84	$\frac{5}{8}$ X 1 $\frac{3}{4}$	3.722	44.67
$\frac{3}{8}$ X 5	6.381	76.57	$\frac{1}{2}$ X 2 $\frac{1}{4}$	3.829	45.94	$\frac{5}{8}$ X 2	4.254	51.05
$\frac{3}{8}$ X 5 $\frac{1}{4}$	6.700	80.40	$\frac{1}{2}$ X 2 $\frac{1}{2}$	4.254	51.05	$\frac{5}{8}$ X 2 $\frac{1}{4}$	4.786	57.43
$\frac{3}{8}$ X 5 $\frac{1}{2}$	7.019	84.23	$\frac{1}{2}$ X 2 $\frac{3}{4}$	4.679	56.15	$\frac{5}{8}$ X 2 $\frac{1}{2}$	5.318	63.81
$\frac{3}{8}$ X 5 $\frac{3}{4}$	7.338	88.06	$\frac{1}{2}$ X 3	5.105	61.26	$\frac{5}{8}$ X 2 $\frac{3}{4}$	5.849	70.19
$\frac{3}{8}$ X 6	7.657	91.89	$\frac{1}{2}$ X 3 $\frac{1}{4}$	5.530	66.36	$\frac{5}{8}$ X 3	6.381	76.57
$\frac{3}{8}$ X 6 $\frac{1}{2}$	8.295	99.54	$\frac{1}{2}$ X 3 $\frac{1}{2}$	5.956	71.47	$\frac{5}{8}$ X 3 $\frac{1}{4}$	6.913	82.95
$\frac{3}{8}$ X 7	8.933	107.2	$\frac{1}{2}$ X 3 $\frac{3}{4}$	6.381	76.57	$\frac{5}{8}$ X 3 $\frac{1}{2}$	7.445	89.33
$\frac{3}{8}$ X 8	10.21	122.5	$\frac{1}{2}$ X 4	6.806	81.68	$\frac{5}{8}$ X 4	8.508	102.1
$\frac{3}{8}$ X 9	11.49	137.8	$\frac{1}{2}$ X 4 $\frac{1}{4}$	7.232	86.78	$\frac{5}{8}$ X 4 $\frac{1}{4}$	9.040	108.5
$\frac{3}{8}$ X 10	12.76	153.1	$\frac{1}{2}$ X 4 $\frac{1}{2}$	7.657	91.89	$\frac{5}{8}$ X 4 $\frac{1}{2}$	9.572	114.9
$\frac{3}{8}$ X 11	14.04	168.5	$\frac{1}{2}$ X 4 $\frac{3}{4}$	8.083	96.99	$\frac{5}{8}$ X 4 $\frac{3}{4}$	10.10	121.2
$\frac{3}{8}$ X 12	15.31	183.8	$\frac{1}{2}$ X 5	8.508	102.1	$\frac{5}{8}$ X 5	10.64	127.6
$\frac{7}{16}$ X $\frac{1}{2}$	.7445	8.933	$\frac{1}{2}$ X 5 $\frac{1}{4}$	8.933	107.2	$\frac{5}{8}$ X 5 $\frac{1}{2}$	11.70	140.4

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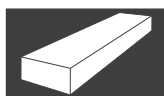


COLD FINISHED FLATS

ASTM C-1018
12' Random Length

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar
$\frac{5}{8}$ x 6	12.76	153.1	$\frac{3}{4}$ x 9	22.97	275.7	1 x 4 $\frac{3}{4}$	16.17	194.0
$\frac{5}{8}$ x 6 $\frac{1}{2}$	13.83	166.0	$\frac{3}{4}$ x 10	25.52	306.3	1 x 5	17.02	204.2
$\frac{5}{8}$ x 7	14.89	178.7	$\frac{3}{4}$ x 11	28.08	337.0	1 x 5 $\frac{1}{2}$	18.72	224.6
$\frac{5}{8}$ x 8	17.02	204.2	$\frac{3}{4}$ x 12	30.63	367.5	1 x 6	20.42	245.0
$\frac{5}{8}$ x 9	19.14	229.7	$\frac{7}{8}$ x 1	2.978	35.73	1 x 6 $\frac{1}{2}$	22.12	265.4
$\frac{5}{8}$ x 10	21.27	255.2	$\frac{7}{8}$ x 1 $\frac{1}{8}$	3.350	40.20	1 x 7	23.82	285.9
$\frac{5}{8}$ x 6	12.76	153.1	$\frac{7}{8}$ x 1 $\frac{1}{4}$	3.722	44.67	1 x 8	27.23	326.7
$\frac{5}{8}$ x 6 $\frac{1}{2}$	13.83	166.0	$\frac{7}{8}$ x 1 $\frac{3}{8}$	4.094	49.13	1 x 9	30.63	367.5
$\frac{5}{8}$ x 7	14.89	178.7	$\frac{7}{8}$ x 1 $\frac{1}{2}$	4.467	53.60	1 x 10	34.03	408.4
$\frac{5}{8}$ x 8	17.02	204.2	$\frac{7}{8}$ x 1 $\frac{3}{4}$	5.211	62.53	1 x 11	37.44	449.3
$\frac{5}{8}$ x 9	19.14	229.7	$\frac{7}{8}$ x 2	5.956	71.47	1 x 12	40.84	490.1
$\frac{5}{8}$ x 10	21.27	255.2	$\frac{7}{8}$ x 2 $\frac{1}{4}$	6.700	80.40	1 $\frac{1}{8}$ x 1 $\frac{1}{4}$	4.786	57.43
$\frac{5}{8}$ x 11	23.40	280.8	$\frac{7}{8}$ x 2 $\frac{1}{2}$	7.445	89.33	1 $\frac{1}{8}$ x 1 $\frac{3}{8}$	5.264	63.17
$\frac{5}{8}$ x 12	25.52	306.3	$\frac{7}{8}$ x 2 $\frac{3}{4}$	8.189	98.27	1 $\frac{1}{8}$ x 1 $\frac{1}{2}$	5.743	68.91
1 $\frac{1}{16}$ x $\frac{3}{4}$	1.755	21.06	$\frac{7}{8}$ x 3	8.933	107.2	1 $\frac{1}{8}$ x 1 $\frac{5}{8}$	6.221	74.65
1 $\frac{1}{16}$ x 1	2.340	28.08	$\frac{7}{8}$ x 3 $\frac{1}{2}$	10.42	125.1	1 $\frac{1}{8}$ x 1 $\frac{3}{4}$	6.700	80.40
$\frac{3}{4}$ x $\frac{7}{8}$	2.233	26.80	$\frac{7}{8}$ x 4	11.91	142.9	1 $\frac{1}{8}$ x 2	7.657	91.89
$\frac{3}{4}$ x 1	2.552	30.63	$\frac{7}{8}$ x 4 $\frac{1}{2}$	13.40	160.8	1 $\frac{1}{8}$ x 2 $\frac{1}{4}$	8.614	103.4
$\frac{3}{4}$ x 1 $\frac{1}{8}$	2.871	34.46	$\frac{7}{8}$ x 5	14.89	178.7	1 $\frac{1}{8}$ x 2 $\frac{1}{2}$	9.572	114.9
$\frac{3}{4}$ x 1 $\frac{1}{4}$	3.191	38.29	$\frac{7}{8}$ x 5 $\frac{1}{2}$	16.38	196.6	1 $\frac{1}{8}$ x 3	11.49	137.8
$\frac{3}{4}$ x 1 $\frac{3}{8}$	3.510	42.11	$\frac{7}{8}$ x 6	17.87	214.4	1 $\frac{1}{8}$ x 4	15.31	183.8
$\frac{3}{4}$ x 1 $\frac{1}{2}$	3.829	45.94	$\frac{7}{8}$ x 8	23.82	285.9	1 $\frac{1}{8}$ x 5	19.14	229.7
$\frac{3}{4}$ x 1 $\frac{5}{8}$	4.148	49.77	$\frac{7}{8}$ x 10	29.78	357.3	1 $\frac{1}{8}$ x 6	22.97	275.7
$\frac{3}{4}$ x 1 $\frac{3}{4}$	4.467	53.60	$\frac{7}{8}$ x 11	32.76	393.1	1 $\frac{1}{8}$ x 1 $\frac{3}{8}$	5.849	70.19
$\frac{3}{4}$ x 2	5.105	61.26	$\frac{7}{8}$ x 12	35.73	428.8	1 $\frac{1}{8}$ x 1 $\frac{1}{2}$	6.381	76.57
$\frac{3}{4}$ x 2 $\frac{1}{4}$	5.743	68.91	1 x 1 $\frac{1}{8}$	3.829	45.94	1 $\frac{1}{8}$ x 1 $\frac{5}{8}$	6.913	82.96
$\frac{3}{4}$ x 2 $\frac{1}{2}$	6.381	76.57	1 x 1 $\frac{1}{4}$	4.254	51.05	1 $\frac{1}{8}$ x 1 $\frac{3}{4}$	7.445	89.33
$\frac{3}{4}$ x 2 $\frac{3}{4}$	7.019	84.23	1 x 1 $\frac{3}{8}$	4.679	56.15	1 $\frac{1}{8}$ x 1 $\frac{7}{8}$	7.976	95.71
$\frac{3}{4}$ x 3	7.657	91.89	1 x 1 $\frac{1}{2}$	5.105	61.26	1 $\frac{1}{8}$ x 2	8.508	102.1
$\frac{3}{4}$ x 3 $\frac{1}{4}$	8.295	99.54	1 x 1 $\frac{5}{8}$	5.530	66.36	1 $\frac{1}{8}$ x 2 $\frac{1}{4}$	9.572	114.9
$\frac{3}{4}$ x 3 $\frac{1}{2}$	8.933	107.2	1 x 1 $\frac{3}{4}$	5.956	71.47	1 $\frac{1}{8}$ x 2 $\frac{1}{2}$	10.64	127.6
$\frac{3}{4}$ x 3 $\frac{3}{4}$	9.572	114.9	1 x 2	6.806	81.68	1 $\frac{1}{8}$ x 2 $\frac{3}{4}$	11.70	140.4
$\frac{3}{4}$ x 4	10.21	122.5	1 x 2 $\frac{1}{4}$	7.657	91.89	1 $\frac{1}{8}$ x 3	12.76	153.1
$\frac{3}{4}$ x 4 $\frac{1}{4}$	10.85	130.2	1 x 2 $\frac{1}{2}$	8.508	102.1	1 $\frac{1}{8}$ x 3 $\frac{1}{4}$	13.83	166.0
$\frac{3}{4}$ x 4 $\frac{1}{2}$	11.49	137.8	1 x 2 $\frac{3}{4}$	9.359	112.3	1 $\frac{1}{8}$ x 3 $\frac{1}{2}$	14.89	178.7
$\frac{3}{4}$ x 4 $\frac{3}{4}$	12.12	145.4	1 x 3	10.21	122.5	1 $\frac{1}{8}$ x 3 $\frac{3}{4}$	15.95	191.4
$\frac{3}{4}$ x 5	12.76	153.1	1 x 3 $\frac{1}{4}$	11.06	132.7	1 $\frac{1}{8}$ x 4	17.02	204.2
$\frac{3}{4}$ x 5 $\frac{1}{2}$	14.04	168.5	1 x 3 $\frac{1}{2}$	11.91	142.9	1 $\frac{1}{8}$ x 4 $\frac{1}{2}$	19.14	229.7
$\frac{3}{4}$ x 6	15.31	183.8	1 x 3 $\frac{3}{4}$	12.76	153.1	1 $\frac{1}{8}$ x 5	21.27	255.2
$\frac{3}{4}$ x 6 $\frac{1}{2}$	16.59	199.1	1 x 4	13.61	163.4	1 $\frac{1}{8}$ x 5 $\frac{1}{2}$	23.40	280.8
$\frac{3}{4}$ x 7	17.87	214.4	1 x 4 $\frac{1}{4}$	14.46	173.5	1 $\frac{1}{8}$ x 6	25.52	206.3
$\frac{3}{4}$ x 8	20.42	245.0	1 x 4 $\frac{1}{2}$	15.31	183.8	1 $\frac{1}{8}$ x 7	29.78	357.3

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COLD FINISHED FLATS

ASTM C-1018
12' Random Length

SIZE (in.)			EST. WEIGHT (lb.) Per Ft. 12' Bar			SIZE (in.)			EST. WEIGHT (lb.) Per Ft. 12' Bar			SIZE (in.)			EST. WEIGHT (lb.) Per Ft. 12' Bar		
1 1/8 x 8	34.03	408.4	1 3/4 x 10	59.56	714.7	2 1/2 x 9	76.57	918.9	1 1/8 x 9	38.29	459.4	1 3/4 x 11	65.51	786.1	2 1/2 x 10	85.08	1021
1 1/8 x 10	42.54	510.5	1 3/4 x 12	71.47	857.6	2 1/2 x 11	93.59	1123	1 1/8 x 11	46.79	561.5	2 x 2 1/4	15.31	183.8	2 1/2 x 12	102.1	1225
1 1/8 x 12	51.05	612.6	2 x 2 1/2	17.02	204.2	3 x 3 1/2	35.73	428.8	1 1/8 x 1 1/2	7.019	84.23	2 x 2 3/4	18.72	224.6	3 x 4	40.84	490.1
1 3/8 x 2	9.359	112.3	2 x 3	20.42	245.0	3 x 4 1/2	45.94	551.3	1 3/8 x 3	14.04	168.5	2 x 3 1/4	22.12	265.4	3 x 5	51.05	612.6
1 3/8 x 3	14.04	168.5	2 x 3 1/2	23.82	285.9	3 x 6	61.26	735.1	1 1/2 x 1 5/8	8.295	99.54	2 x 3 3/4	25.52	306.2	3 x 7	71.47	857.6
1 1/2 x 1 5/8	8.295	99.54	2 x 4	27.23	326.7	3 x 8	81.68	980.1	1 1/2 x 1 3/4	8.933	107.2	2 x 4 1/2	30.63	367.5	3 x 10	102.1	1225
1 1/2 x 2	10.21	122.5	2 x 5	34.03	408.4	3 x 12	122.5	1470	1 1/2 x 2 1/4	11.49	137.9	2 x 5 1/2	37.44	449.2	3 1/2 x 4	47.64	571.7
1 1/2 x 2 1/4	11.49	137.9	2 x 6	40.84	490.1	3 1/2 x 4 1/2	53.60	643.2	1 1/2 x 2 1/2	12.76	153.1	2 x 7	47.64	571.7	3 1/2 x 5	59.56	714.7
1 1/2 x 2 1/2	12.76	153.1	2 x 8	54.45	653.4	3 1/2 x 6	71.47	857.6	1 1/2 x 2 3/4	14.04	168.5	2 x 9	61.26	735.1	3 1/2 x 7	83.38	1001
1 1/2 x 3	15.31	183.8	2 x 10	68.06	816.8	3 1/2 x 8	95.29	1143	1 1/2 x 3 1/4	16.59	199.1	2 x 11	74.87	898.4	3 1/2 x 9	107.2	1286
1 1/2 x 3 1/4	16.59	199.1	2 x 12	81.68	980.1	3 1/2 x 10	119.1	1429	1 1/2 x 3 1/2	17.87	214.4	2 1/4 x 2 1/2	19.14	229.7	3 1/2 x 12	142.9	1715
1 1/2 x 3 1/2	17.87	214.4	2 1/4 x 2 3/4	21.06	252.7	4 x 4 1/2	61.26	735.1	1 1/2 x 4	20.42	245.0	2 1/4 x 3	22.97	275.7	4 x 5	68.06	816.8
1 1/2 x 4	20.42	245.0	2 1/4 x 3 1/2	26.80	321.6	4 x 6	81.68	980.1	1 1/2 x 4 1/2	22.97	275.7	2 1/4 x 4	30.63	367.5	4 x 6 1/2	88.48	1062
1 1/2 x 5	25.52	306.3	2 1/4 x 4 1/2	34.46	413.5	4 x 7	95.29	1143	1 1/2 x 5 1/2	28.08	336.9	2 1/4 x 5	38.29	459.4	4 x 8	108.9	1307
1 1/2 x 5 1/2	28.08	336.9	2 1/4 x 5 1/2	42.11	505.4	4 x 10	136.1	1634	1 1/2 x 6	30.63	367.5	2 1/4 x 6	45.94	551.3	4 x 12	163.4	1960
1 1/2 x 6	30.63	367.5	2 1/4 x 8	61.26	735.1	4 1/2 x 5	76.57	918.9	1 1/2 x 7	35.73	428.8	2 1/4 x 10	76.57	918.9	4 1/2 x 5 1/2	84.23	1011
1 1/2 x 7	35.73	428.8	2 1/2 x 3	25.52	306.3	4 1/2 x 6	91.89	1103	1 1/2 x 8	40.84	490.1	2 1/2 x 3 1/2	29.78	357.3	5 1/2 x 6	102.1	1225
1 1/2 x 8	40.84	490.1	2 1/2 x 4	34.03	408.4	5 1/2 x 7	119.1	1429	1 1/2 x 9	45.94	551.3	2 1/2 x 4 1/2	38.29	459.4	5 1/2 x 8	136.1	1633
1 1/2 x 9	45.94	551.3	2 1/2 x 5	42.54	510.5	6 x 8	163.4	1961	1 1/2 x 10	51.05	612.6	2 1/2 x 5 1/2	46.79	561.5	5 1/2 x 10	170.2	2042
1 1/2 x 10	51.05	612.6	2 1/2 x 6	51.05	612.6	6 x 10	204.2	2450	1 1/2 x 11	56.15	673.8	2 1/2 x 7	59.56	714.7	6 x 12	245.0	2940
1 1/2 x 11	56.15	673.8	2 1/2 x 8	68.06	816.8				1 1/2 x 12	61.26	735.1						
1 1/2 x 12	61.26	735.1															
1 5/8 x 2	11.06	132.7															
1 5/8 x 3	16.59	199.1															
1 3/4 x 2	11.91	142.9															
1 3/4 x 2 1/4	13.40	160.8															
1 3/4 x 2 1/2	14.89	178.7															
1 3/4 x 2 3/4	16.38	196.5															
1 3/4 x 3	17.87	214.4															
1 3/4 x 3 1/2	20.84	250.1															
1 3/4 x 4	23.82	285.9															
1 3/4 x 4 1/2	26.80	321.6															
1 3/4 x 5	29.78	357.3															
1 3/4 x 5 1/2	32.76	393.1															
1 3/4 x 6	35.73	428.8															
1 3/4 x 8	47.64	571.7															

HOT ROLLED BARS

Technical Data.....	22-26
HR Round	27
HR Half Round	27
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HR Square.....	28
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HR Strip.....	31
HR UM Plate.....	31
Reinforcing Bar (Rebar)	32
Welded Wire Reinforcement	32
HR Bar Angle	33
HR Bar Channel	33
HR Bar Tee	34
HR Handrail.....	34
HR Champfer Bar	34

ASTM A-36 HOT ROLLED BARS

A low carbon steel for use in general structural application. Easily weldable, responds well to mild hot forming, punching, mild cold forming operations. Applications include agricultural and general machinery parts, bridges, buildings and many construction and structural uses.

STOCK SIZES

DIAMETER

¼" to 3"

LENGTH

20'

CHEMICAL ANALYSIS

THICKNESS	CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	SILICONE
¾" and less	.26	—	.04	.05	.40 Max
7/8" to 1 ½" Incl.	.27	.60/.90	.04	.05	.40 Max
over 1 ½"	.28	.60/.90	.04	.05	.40 Max

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)

58/80,000

YIELD STRENGTH (PSI)

36,000 Min

ELONGATION IN 2"

23%

*The above values are average and should be considered as representative of the grade

ASTM A-569 HOT ROLLED STRIP

A low cost steel sheet, soft enough to bend flat on itself in any direction without cracking, ductile enough for shallow drawing. Surface has normal mill oxide. Typically used where finish is of secondary importance. Applications include framework, braces, supports, plates, straps, etc.

CHEMICAL ANALYSIS

CARBON

.15 Max

MANGANESE

—

PHOSPHOROUS

—

SULPHUR

—

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)

48-80,000

YIELD STRENGTH (PSI)

35-36,000

BRINELL HARDNESS

112

*The above values are average and should be considered as representative of the grade

ASTM A-615 REINFORCING BARS (REBAR)

Steel reinforcing bars help maintain integrity of concrete and stops cracking. Small lugs protrude from surface of rebar which inhibit longitudinal movement in surrounding concrete. Deformed billet steel rebars substantially stabilize concrete pouring of any size.

STOCK SIZES

DIAMETER

$\frac{3}{8}$ " to 1 $\frac{3}{4}$ "

LENGTH

20', 40', & 60'

CHEMICAL ANALYSIS

CARBON

—

MANGANESE

—

PHOSPHOROUS

.06

SULPHUR

—

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)

YIELD STRENGTH (PSI)

GRADE 40

70,000 Min

40,000 Min

GRADE 60

90,000 Min

60,000 Min

*The above values are average and should be considered as representative of the grade

ASTM A-185 WELDED WIRE REINFORCEMENT

Welded Wire Reinforcement is used to reinforce concrete. It is used in thin slabs, thin shells and other locations where space does not allow the placement of deformed bars. ASTM A-185 Welded Wire consists of smooth cold drawn wire in orthogonal patterns welded at all intersections.

STOCK SIZES	
ROLL	SHEET
150'	10'

ASTM M-1020 HOT ROLLED BARS

A merchant grade plain carbon steel bar containing nominally 0.20% carbon. Suitable for general engineering applications where the lower strength of this grade is sufficient. Grade M1020 is not able to be through-hardened and is not hardenable by either flame or induction hardening processes. It can be case hardened by a blank carburising process. Applications such as fasteners of various types, engineering applications where strength is not the major consideration (shafts, jack handles, threaded bar) and a grade is required that can be readily welded.

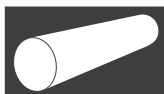
CHEMICAL ANALYSIS

CARBON	MANGANESE	PHOSPHOROUS	SULPHUR
.17/.24	.25/.60	.040 Max	.050 Max

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	REDUCTION OF AREA	BRINELL HARDNESS	ROCKWELL HARDNESS
55,000	30,000	25%	50%	111	62 B

*The above values are average and should be considered as representative of the grade



HOT ROLLED ROUNDS

ASTM A-36

20' Stock Length

SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)	
Per Ft.	20' Bar		Per Ft.	20' Bar		Per Ft.	20' Bar	
1/4	.1671	3.341	1 3/4	8.186	163.7	7	131	2619
5/16	.2610	5.220	2	10.69	213.8	7 1/2	150.4	3007
3/8	.3759	7.517	2 1/4	13.53	270.6	8	171.1	3422
1/2	.6682	13.36	2 1/2	16.71	334.1	8 1/2	193.1	3862
5/8	1.044	20.88	3	24.06	481.20	9	216.5	4330
3/4	1.504	30.07	3 1/2	32.74	655	9 1/2	241.2	4824
7/8	2.046	40.93	4	42.77	855	10	267.3	5346
1	2.673	53.46	4 1/2	54.13	1083	10 1/2	294.7	5894
1 1/8	3.383	67.66	5	66.82	1336	11	323.4	6468
1 1/4	4.176	83.53	5 1/2	80.86	1617	11 1/2	353.5	7070
1 3/8	5.053	101.1	6	96.22	1924	12	384.9	7698
1 1/2	6.014	120.3	6 1/2	112.9	2259			



HOT ROLLED HALF ROUNDS

M1020 Merchant Quality

20' Stock Length

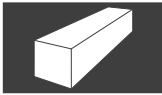
SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)	
Per Ft.	20' Bar		Per Ft.	20' Bar		Per Ft.	20' Bar	
1/2	.334	6.680	1	1.34	26.80	2	5.34	106.8
5/8	.522	10.44	1 1/4	2.09	41.80			
3/4	.751	15.02	1 1/2	3.00	60.00			



HOT ROLLED HALF OVALS

M1020 Merchant Quality
20' Stock Length

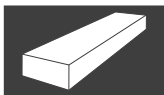
SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 20' Bar		SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 20' Bar		SIZE (in.)	EST. WEIGHT (lb.) Per Ft. 20' Bar	
1 x 1/4	.594	11.88	1 1/2 x 5/16	1.10	22.00	2 x 1/2	2.38	47.60
1 1/4 x 5/16	.928	18.56	1 1/2 x 3/8	1.34	26.80			



HOT ROLLED SQUARES

ASTM A-36
20' Stock Length

SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)	
	Per Ft.	20' Bar		Per Ft.	20' Bar		Per Ft.	20' Bar
3⁄8	.4786	9.572	7⁄8	2.606	52.11	1 3⁄4	10.42	208.4
1⁄2	.8508	17.02	1	3.403	68.06	2	13.61	272.3
5⁄8	1.329	26.59	1 1⁄4	5.318	106.4			
3⁄4	1.914	38.29	1 1⁄2	7.657	153.1			

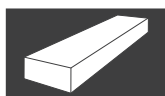


HOT ROLLED FLATS

ASTM A-36
20' Stock Length

SIZE (in.)		EST. WEIGHT (lb.) Per Ft. 20' Bar		SIZE (in.)		EST. WEIGHT (lb.) Per Ft. 20' Bar		SIZE (in.)		EST. WEIGHT (lb.) Per Ft. 20' Bar	
1/4 x 3/8	.3191 6.381	5/16 x 2 1/2	2.659 53.18	7/16 x 1 1/2	2.233 44.67						
1/4 x 1/2	.4524 8.508	5/16 x 2 3/4	2.925 58.49	7/16 x 2	2.978 59.56						
1/4 x 5/8	.5318 10.64	5/16 x 3	3.191 63.81	7/16 x 2 1/2	3.722 74.45						
1/4 x 3/4	.6381 12.76	5/16 x 3 1/4	3.456 69.13	7/16 x 3	4.467 89.33						
1/4 x 7/8	.7445 14.89	5/16 x 3 1/2	3.722 74.45	1/2 x 5/8	1.064 21.27						
1/4 x 1	.8508 17.02	5/16 x 4	4.254 85.08	1/2 x 3/4	1.276 25.52						
1/4 x 1 1/8	.9572 19.14	5/16 x 4 1/2	4.786 95.72	1/2 x 7/8	1.489 29.78						
1/4 x 1 1/4	1.064 21.27	5/16 x 5	5.318 106.4	1/2 x 1	1.702 34.03						
1/4 x 1 3/8	1.170 23.40	5/16 x 5 1/2	5.849 117.0	1/2 x 1 1/8	1.914 38.29						
1/4 x 1 1/2	1.276 25.52	5/16 x 6	6.381 127.6	1/2 x 1 1/4	2.127 42.54						
1/4 x 1 5/8	1.383 27.65	5/16 x 7	7.445 148.9	1/2 x 1 3/8	2.340 46.79						
1/4 x 1 3/4	1.489 29.78	5/16 x 8	8.508 170.2	1/2 x 1 1/2	2.552 51.05						
1/4 x 2	1.702 34.03	3/8 x 1/2	.6381 12.76	1/2 x 1 5/8	2.765 55.30						
1/4 x 2 1/8	1.808 36.16	3/8 x 5/8	.7976 15.95	1/2 x 1 3/4	2.978 59.56						
1/4 x 2 1/4	1.914 38.29	3/8 x 3/4	.9572 19.14	1/2 x 2	3.403 68.06						
1/4 x 2 1/2	2.127 42.54	3/8 x 7/8	1.117 22.33	1/2 x 2 1/4	3.829 76.57						
1/4 x 2 3/4	2.340 46.79	3/8 x 1	1.276 25.52	1/2 x 2 1/2	4.254 85.08						
1/4 x 3	2.552 51.05	3/8 x 1 1/8	1.436 28.71	1/2 x 2 3/4	4.679 93.59						
1/4 x 3 1/4	2.765 55.30	3/8 x 1 1/4	1.595 31.91	1/2 x 3	5.105 102.1						
1/4 x 3 1/2	2.978 59.56	3/8 x 1 3/8	1.755 35.10	1/2 x 3 1/4	5.530 110.6						
1/4 x 3 3/4	3.191 63.81	3/8 x 1 1/2	1.914 38.29	1/2 x 3 1/2	5.956 119.1						
1/4 x 4	3.403 68.06	3/8 x 1 5/8	2.074 41.48	1/2 x 3 3/4	6.381 127.6						
1/4 x 4 1/4	3.616 72.32	3/8 x 1 3/4	2.233 44.67	1/2 x 4	6.806 136.1						
1/4 x 4 1/2	3.829 76.57	3/8 x 2	2.552 51.05	1/2 x 4 1/2	7.657 153.1						
1/4 x 5	4.254 85.08	3/8 x 2 1/4	2.871 57.43	1/2 x 5	8.508 170.2						
1/4 x 5 1/2	4.679 93.59	3/8 x 2 1/2	3.191 63.81	1/2 x 5 1/2	9.359 187.2						
1/4 x 6	5.105 102.1	3/8 x 2 3/4	3.510 70.19	1/2 x 6	10.21 204.2						
1/4 x 6 1/2	5.530 110.6	3/8 x 3	3.829 76.57	1/2 x 6 1/2	11.06 221.2						
1/4 x 7	5.956 119.1	3/8 x 3 1/4	4.148 82.95	1/2 x 7	11.91 238.2						
1/4 x 8	6.806 136.1	3/8 x 3 1/2	4.467 89.33	1/2 x 8	13.61 272.3						
5/16 x 1/2	.5318 10.64	3/8 x 3 3/4	4.786 95.72	5/8 x 3/4	1.595 31.91						
5/16 x 5/8	.6647 13.29	3/8 x 4	5.105 102.1	5/8 x 7/8	1.861 37.22						
5/16 x 3/4	.7976 15.95	3/8 x 4 1/4	5.424 108.5	5/8 x 1	2.127 42.54						
5/16 x 7/8	.9306 18.61	3/8 x 4 1/2	5.743 114.9	5/8 x 1 1/8	2.393 47.86						
5/16 x 1	1.064 21.27	3/8 x 5	6.381 127.6	5/8 x 1 1/4	2.659 53.18						
5/16 x 1 1/8	1.196 23.93	3/8 x 5 1/2	7.019 140.4	5/8 x 1 1/2	3.191 63.81						
5/16 x 1 1/4	1.329 26.59	3/8 x 6	7.657 153.1	5/8 x 1 5/8	3.456 69.13						
5/16 x 1 3/8	1.462 29.25	3/8 x 6 1/2	8.295 165.9	5/8 x 1 3/4	3.722 74.45						
5/16 x 1 1/2	1.595 31.91	3/8 x 7	8.933 178.7	5/8 x 2	4.254 85.08						
5/16 x 1 3/4	1.861 37.22	3/8 x 8	10.21 204.2	5/8 x 2 1/4	4.786 95.72						
5/16 x 2	2.127 42.54	7/16 x 1	1.489 29.78	5/8 x 2 1/2	5.318 106.4						
5/16 x 2 1/4	2.393 47.86	7/16 x 1 1/4	1.861 37.22	5/8 x 2 3/4	5.849 117.0						

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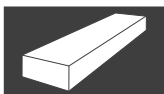


HOT ROLLED FLATS

ASTM A-36
20' Stock Length

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar
5/8 x 3	6.381	127.6	7/8 x 4	11.91	238.2	1 1/4 x 4	17.02	340.3
5/8 x 3 1/4	6.913	138.3	7/8 x 4 1/2	13.40	268.0	1 1/4 x 4 1/2	19.14	382.9
5/8 x 3 1/2	7.445	148.9	7/8 x 5	14.89	297.8	1 1/4 x 5	21.27	425.4
5/8 x 4	8.508	170.2	7/8 x 5 1/2	16.38	327.6	1 1/4 x 5 1/2	23.40	467.9
5/8 x 4 1/2	9.572	191.4	7/8 x 6	17.87	357.3	1 1/4 x 6	25.52	510.5
5/8 x 5	10.64	212.7	7/8 x 7	20.84	416.9	1 1/4 x 7	29.78	595.6
5/8 x 5 1/2	11.70	234.0	7/8 x 8	23.82	476.4	1 1/4 x 8	34.03	680.6
5/8 x 6	12.76	255.2	1 x 1 1/4	4.254	85.08	1 1/2 x 1 3/4	8.933	178.7
5/8 x 7	14.89	297.8	1 x 1 1/2	5.105	102.1	1 1/2 x 2	10.21	204.2
5/8 x 8	17.02	340.3	1 x 1 3/4	5.956	119.1	1 1/2 x 2 1/4	11.49	229.7
3/4 x 7/8	2.233	44.67	1 x 2	6.806	136.1	1 1/2 x 2 1/2	12.76	255.2
3/4 x 1	2.552	51.05	1 x 2 1/4	7.657	153.1	1 1/2 x 2 3/4	14.04	280.8
3/4 x 1 1/8	2.871	57.43	1 x 2 1/2	8.508	170.2	1 1/2 x 3	15.31	306.3
3/4 x 1 1/4	3.191	63.81	1 x 2 3/4	9.359	187.2	1 1/2 x 3 1/2	17.87	357.3
3/4 x 1 1/2	3.829	76.57	1 x 3	10.21	204.2	1 1/2 x 4	20.42	408.4
3/4 x 1 5/8	4.148	82.95	1 x 3 1/4	11.06	221.2	1 1/2 x 4 1/2	22.97	459.4
3/4 x 1 3/4	4.467	89.3	1 x 3 1/2	11.91	238.2	1 1/2 x 5	25.52	510.5
3/4 x 2	5.105	102.1	1 x 3 3/4	12.76	255.2	1 1/2 x 5 1/2	28.08	561.5
3/4 x 2 1/4	5.743	114.9	1 x 4	13.61	272.3	1 1/2 x 6	30.63	612.6
3/4 x 2 1/2	6.381	127.6	1 x 4 1/2	15.31	306.3	1 1/2 x 7	35.73	714.7
3/4 x 2 3/4	7.019	140.4	1 x 4 3/4	16.17	323.3	1 1/2 x 8	40.84	816.8
3/4 x 3	7.657	153.1	1 x 5	17.02	340.3	1 3/4 x 2	11.91	238.2
3/4 x 3 1/4	8.295	165.9	1 x 5 1/2	18.72	374.4	1 3/4 x 2 1/2	14.89	297.8
3/4 x 3 1/2	8.933	178.7	1 x 6	20.42	408.4	1 3/4 x 3	17.87	357.3
3/4 x 4	10.21	204.2	1 x 7	23.82	476.4	1 3/4 x 3 1/2	20.84	416.9
3/4 x 4 1/2	11.49	229.7	1 x 8	27.23	544.5	1 3/4 x 4	23.82	476.4
3/4 x 5	12.76	255.2	1 1/8 x 2	7.657	153.1	1 3/4 x 4 1/2	26.80	536.0
3/4 x 5 1/2	14.04	280.8	1 1/8 x 3	11.49	229.7	1 3/4 x 5	29.78	595.6
3/4 x 6	15.31	306.3	1 1/8 x 4	15.31	306.3	1 3/4 x 5 1/2	32.76	655.1
3/4 x 7	17.87	357.3	1 1/8 x 5	19.14	382.9	1 3/4 x 6	35.73	714.7
3/4 x 8	20.42	408.4	1 1/8 x 6	22.97	459.4	1 3/4 x 7	41.69	833.8
7/8 x 1	2.978	59.56	1 1/8 x 7	26.80	536.0	1 3/4 x 8	47.64	952.9
7/8 x 1 1/4	3.722	74.45	1 1/8 x 8	30.63	612.6	2 x 2 1/4	15.31	306.3
7/8 x 1 3/8	4.094	81.89	1 1/4 x 1 1/2	6.381	127.6	2 x 2 1/2	17.02	340.3
7/8 x 1 1/2	4.467	89.33	1 1/4 x 1 3/4	7.445	148.9	2 x 3	20.42	408.4
7/8 x 1 3/4	5.211	104.2	1 1/4 x 2	8.508	170.2	2 x 3 1/2	23.82	476.4
7/8 x 2	5.956	119.1	1 1/4 x 2 1/4	9.572	191.4	2 x 4	27.23	544.5
7/8 x 2 1/4	6.700	134.0	1 1/4 x 2 1/2	10.64	212.7	2 x 4 1/2	30.63	612.6
7/8 x 2 1/2	7.445	148.9	1 1/4 x 2 3/4	11.70	234.0	2 x 5	34.03	680.6
7/8 x 2 3/4	8.189	163.8	1 1/4 x 3	12.76	255.2	2 x 6	40.84	816.8
7/8 x 3	8.933	178.7	1 1/4 x 3 1/4	13.82	276.4	2 x 7	47.64	952.9
7/8 x 3 1/2	10.42	208.4	1 1/4 x 3 1/2	14.89	297.8	2 x 8	54.45	1089

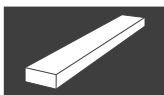
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HOT ROLLED FLATS

ASTM A-36
20' Stock Length

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar
2 ¼ x 4	30.63	612.6	2 ½ x 5	42.54	850.8	3 x 5	51.05	1021
2 ¼ x 6	45.94	918.9	2 ½ x 6	51.05	1021	3 x 6	61.26	1225
2 ½ x 3	25.52	510.5	2 ½ x 7	59.56	1191	3 x 7	71.47	1429
2 ½ x 3 ½	29.78	595.6	2 ½ x 8	68.06	1361	3 x 8	81.68	1634
2 ½ x 4	34.03	680.6	3 x 4	40.84	816.8			
2 ½ x 4 ½	38.29	765.7	3 x 4 ½	45.94	918.9			



HOT ROLLED STRIPS

ASTM A-569 Commercial Quality
20' Stock Length

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar
⅛ x ½	.213	4.26	⅛ x 3 ½	1.49	29.80	⅜ x 1 ½	.956	19.12
⅛ x ¾	.319	6.38	⅛ x 4	1.70	34.00	⅜ x 2	1.28	25.60
⅛ x 1	.425	8.50	⅛ x 5	2.13	42.60	⅜ x 2 ½	1.59	31.80
⅛ x 1 ¼	.531	10.62	⅛ x 6	.255	51.00	⅜ x 3	1.91	38.20
⅛ x 1 ½	.638	12.76	⅜ x ½	.319	6.38	⅜ x 3 ½	2.24	44.80
⅛ x 2	.850	17.00	⅜ x ¾	.478	9.56	⅜ x 4	2.55	51.00
⅛ x 2 ½	1.06	21.20	⅜ x 1	.638	12.76	⅜ x 5	3.19	63.80
⅛ x 3	1.28	25.60	⅜ x 1 ¼	.797	15.94	⅜ x 6	3.83	76.60



HOT ROLLED UM PLATE

ASTM A-36
20' Stock Length

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar
¼ x 9	7.66	153.14	⅜ x 10	12.76	255.20	⅝ x 11	23.40	468.00
¼ x 10	8.51	170.16	⅜ x 11	14.04	280.80	⅝ x 12	25.52	510.40
¼ x 11	9.36	187.18	⅜ x 12	15.31	306.20	¾ x 9	22.97	459.40
¼ x 12	10.21	204.20	½ x 9	15.31	306.20	¾ x 10	25.52	510.40
⅝ x 9	9.57	191.44	½ x 10	17.02	340.40	¾ x 11	28.08	561.60
⅝ x 10	10.64	212.80	½ x 11	18.72	374.40	¾ x 12	30.63	612.60
⅝ x 11	11.70	234.00	½ x 12	20.42	408.40	1 x 9	30.63	612.60
⅝ x 12	12.76	255.20	⅝ x 9	19.14	382.80	1 x 10	34.03	680.60
¾ x 9	11.49	229.80	⅝ x 10	21.27	425.40	1 x 12	40.84	816.80



REINFORCING BARS (REBAR)

ASTM A-615. Grade 40 (300) & Grade 60 (420)
20', 40' & 60' Stock Length

BAR DESIGNATION NUMBER	SIZE (in.)	METRIC BAR EQUIVALENT	Per Ft.	EST. WEIGHT (lb.)		
				20' Bar	40' Bar	60' Bar
#3	3/8	#10 mm	.376	7.52	15.04	22.56
#4	1/2	#13 mm	.668	13.36	26.72	40.08
#5	5/8	#16 mm	1.043	20.86	41.72	62.58
#6	3/4	#19 mm	1.502	30.04	60.08	90.12
#7	7/8	#22 mm	2.044	40.88	81.76	122.64
#8	1	#25 mm	2.670	53.40	106.80	160.20
#9	1 1/8	#29 mm	3.400	68.00	136.00	204.00
#10	1 1/4	#32 mm	4.303	86.06	172.12	258.18
#11	1 3/8	#36 mm	5.313	106.26	212.52	318.78
#14	1 3/4	#43 mm	7.65	153.00	306.00	459.00

NOTE: Metric Bar is identical to Standard Rebar in size, weight & strength.



WELDED WIRE REINFORCEMENT

ASTM A-185
20' & 40' Stock Length

WIRE SPACING	GAUGE	WIRE DIAMETER	SIZE (ft.)	EST. WEIGHT (lb.)
				Per Roll/Sheet
6 x 6	#10	W1.4/W1.4	5 x 150 Roll	155
6 x 6	#10		5 x 10 Sheet	10
6 x 6	#8	W2.1/W2.1	5 x 150 Roll	225
6 x 6	#8		5 x 10 Sheet	15
6 x 6	#6	W2.9/W2.9	5 x 150 Roll	310
6 x 6	#6		5 x 10 Sheet	21
6 x 6	#4	W4/W4	5 x 150 Roll	430
6 x 6	#4		5 x 10 Sheet	29
4 x 4	#4	W4/W4	5 x 10 Sheet	42

NOTE: 8' x 20' sheet available in above sizes.



GALV. WELDED WIRE REINFORCEMENT

ASTM A-185
20' & 40' Stock Length

WIRE SPACING	GAUGE	WIRE DIAMETER	SIZE (ft.)	EST. WEIGHT (lb.)
				Per Roll/Sheet
2 x 2	#12	W0.9/W0.9	5 x 150 Roll	278
2 x 2	#16	W0.3/W0.3	5 x 150 Roll	98
4 x 4	#4	W4/W4	5 x 10 Sheet	42



HOT ROLLED BAR ANGLES

ASTM A-36

20' & 40' Stock Length

SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)	
A	B	C	Per Ft.	20' Bar	A	B	C	Per Ft.	20' Bar
1/2 x 1/2 x 1/8			.38	7.6	2 x 1 1/4 x 1/4			2.55	51.0
5/8 x 5/8 x 1/8			.48	9.6	2 x 1 1/2 x 1/8			1.44	28.8
3/4 x 3/4 x 1/8			.59	11.8	2 x 1 1/2 x 3/16			2.12	42.4
1 x 3/4 x 1/8			.70	14.0	2 x 1 1/2 x 1/4			2.77	55.4
1 x 1 x 1/8			.80	16.0	2 x 2 x 1/8			1.65	33.0
1 x 1 x 3/16			1.16	23.2	2 x 2 x 3/16			2.44	48.8
1 x 1 x 1/4			1.49	29.8	2 x 2 x 1/4			3.19	63.8
1 1/4 x 1 1/4 x 1/8			1.01	20.2	2 x 2 x 5/16			3.92	78.4
1 1/4 x 1 1/4 x 3/16			1.48	29.6	2 x 2 x 3/8			4.70	94.0
1 1/4 x 1 1/4 x 1/4			1.92	38.4	2 x 2 x 1/2			5.92	118.4
1 1/2 x 1 1/2 x 1/8			1.23	24.6	2 1/2 x 1 1/2 x 3/16			2.44	48.8
1 1/2 x 1 1/2 x 3/16			1.80	36.0	2 1/2 x 1 1/2 x 1/4			3.19	63.8
1 1/2 x 1 1/2 x 1/4			2.34	46.8	2 1/2 x 1 1/2 x 5/16			3.92	78.4
1 1/2 x 1 1/2 x 5/16			2.86	57.2	2 1/2 x 2 x 3/16			2.75	55.0
1 1/2 x 1 1/2 x 3/8			3.35	67.0	2 1/2 x 2 x 1/4			3.62	72.4
1 3/4 x 1 1/4 x 1/8			1.23	24.6	2 1/2 x 2 x 5/16			4.50	90.0
1 3/4 x 1 1/4 x 3/16			1.80	36.0	2 1/2 x 2 x 3/8			5.30	106.0
1 3/4 x 1 1/4 x 1/4			2.34	46.8	2 1/2 x 2 1/2 x 3/16			3.07	61.4
1 3/4 x 1 3/4 x 1/8			1.44	28.8	2 1/2 x 2 1/2 x 1/4			4.10	82.0
1 3/4 x 1 3/4 x 3/16			2.12	42.4	2 1/2 x 2 1/2 x 5/16			5.00	100.0
1 3/4 x 1 3/4 x 1/4			2.77	55.4	2 1/2 x 2 1/2 x 3/8			5.90	118.0
2 x 1 1/4 x 3/16			1.96	39.2	2 1/2 x 2 1/2 x 1/2			7.70	154.0



HOT ROLLED BAR CHANNELS

ASTM A-36 or M1020 Merchant Quality

20' Stock Length

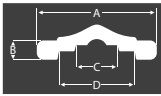
SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)	
A	B	C	Per Ft.	20' Bar	A	B	C	Per Ft.	20' Bar
3/4 x 3/8 x 1/8			.56	11.2	2 x 1/2 x 1/8			1.43	28.6
1 x 3/8 x 1/8			.68	13.6	2 x 9/16 x 3/16			1.86	37.2
1 x 1/2 x 1/8			.84	16.8	2 x 5/8 x 1/4			2.28	45.6
1 1/4 x 1/2 x 1/8			1.01	20.2	2 x 1 x 1/8			1.78	35.6
1 1/2 x 1/2 x 1/8			1.12	22.4	2 x 1 x 3/16			2.57	51.4
1 1/2 x 9/16 x 3/16			1.44	28.8	2 1/2 x 5/8 x 3/16			2.27	45.4
1 1/2 x 3/4 x 1/8			1.17	23.4					



HOT ROLLED BAR TEES

M1020 Merchant Quality
20' Stock Length

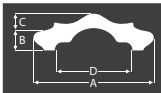
SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)	
Flange A	Stem B	Thickness C	Per Ft.	20' Bar	Flange A	Stem B	Thickness C	Per Ft.	20' Bar
$\frac{3}{4}$	$\frac{3}{4}$	$\frac{1}{8}$	.62	12.40	$1\frac{1}{2}$	$1\frac{1}{2}$	$\frac{3}{16}$	1.90	38.00
1	1	$\frac{1}{8}$	.85	17.00	$1\frac{1}{2}$	$1\frac{1}{2}$	$\frac{1}{4}$	2.43	48.60
1	1	$\frac{3}{16}$	1.20	24.00	$1\frac{3}{4}$	$1\frac{3}{4}$	$\frac{3}{16}$	2.26	45.20
$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{1}{8}$	1.09	21.80	$1\frac{3}{4}$	$1\frac{3}{4}$	$\frac{1}{4}$	2.90	58.00
$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{3}{16}$	1.55	31.00	2	2	$\frac{1}{4}$	3.62	72.40
$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{1}{4}$	1.93	38.60					



HOT ROLLED HANDRAIL (CAMBRIDGE)

ASTM A-6
20' Stock Length

SIZE (in.)				EST. WEIGHT (lb.)	
A	B	C	D	Per Ft.	20' Bar
1.730	0.250	.562	1.061	1.268	25.36



HOT ROLLED HANDRAIL (CHARLOTTE)

ASTM A-6
20' Stock Length

SIZE (in.)				EST. WEIGHT (lb.)	
A	B	C	D	Per Ft.	20' Bar
$1\frac{3}{4}$	$\frac{9}{16}$	.177	$1\frac{5}{64}$	1.268	25.4



HOT ROLLED CHAMFER BAR

AISI 1018
10' Stock Length

SIZE (in.)		EST. WEIGHT (lb.)	
A	B	Per Ft.	10' Bar
$\frac{1}{2}$	$\frac{1}{2}$	.426	4.26
$\frac{3}{4}$	$\frac{3}{4}$	.957	9.57
1	1	1.702	17.02

HOT ROLLED STRUCTURAL SHAPES

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HR Structural Channel.....	42
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HR Square Structural Tubing.....	49-50
HR Rectangular Structural Tubing.....	51-52

ASTM A-36 HOT ROLLED STRUCTURAL SHAPES

When the greatest dimension of a steel shape is less than 3", it is classified as a "Bar Shape." When at least one dimension is 3" or greater, it is classified as a "Structural Shape." A-36 is the most commonly available of the hot rolled steels. The yield strength is significantly less than 1018, so it will bend more easily. Machining this material is more difficult than 1018, but the cost is usually lower.

CHEMICAL ANALYSIS

CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	SILICONE
.26 Max	—	.04 Max	.05 Max	.40 Max

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"
58/80,000	36,000 Min	21%

*The above values are average and should be considered as representative of the grade

STRUCTURAL DESIGNATION

The American Iron and Steel Institute (AISI) has established the following alphabetical designations to classify the various groups of steel:

WIDE FLANGE BEAM	W
STRUCTURAL TEE—cut from W Beam	WT
AMERICAN STANDARD BEAM	S
STRUCTURAL TEE—cut from S Beam	ST
AMERICAN STANDARD CHANNEL	C
MISCELLANEOUS CHANNEL	MC
ANGLE—Bar and Structural	L
MISCELLANEOUS SHAPE	M

WELDABILITY

Excellent response from all types of welding processes. Produces high quality welds and joints.

ASTM A-500 HOT ROLLED STRUCTURAL SHAPES

A standard specification for cold formed welded and seamless carbon steel structural tubing in round, square and rectangular shapes. Applications include structural supports, building columns, highway signs, oil field services and communication towers.

CHEMICAL ANALYSIS

CARBON	MANGANESE	PHOSPHOROUS	SULPHUR
.26 Max	—	.035	.035

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"
58,000	42,000	23%

*The above values are average and should be considered as representative of the grade

ASTM A-513 HOT ROLLED STRUCTURAL SHAPES

Lower alloy with an excellent combination of strength, hardness and toughness. Commonly used in the automotive, appliance and construction industries.

CHEMICAL ANALYSIS				
CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	IRON
.18-.23	.3-.6	.04 Max	.05 Max	99.08-99.53

MECHANICAL PROPERTIES		
TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"
87,000	72,000	10%

*The above values are average and should be considered as representative of the grade



STRUCTURAL ANGLES

ASTM A-36

20' & 40' Stock Length

SIZE (in.)			EST. WEIGHT (lb.)			SIZE (in.)			EST. WEIGHT (lb.)		
A	B	C	Per Ft.	20' Bar	40' Bar	A	B	C	Per Ft.	20' Bar	40' Bar
3	x 2	x 3/16	3.07	61	123	5	x 3	x 5/16	8.2	164	328
3	x 2	x 1/4	4.1	82	164	5	x 3	x 3/8	9.8	196	392
3	x 2	x 5/16	5.0	100	200	5	x 3	x 1/2	12.8	256	512
3	x 2	x 3/8	5.9	118	236	5	x 3 1/2	x 1/4	7.0	140	280
3	x 2	x 1/2	7.7	154	308	5	x 3 1/2	x 5/16	8.7	174	348
3	x 2 1/2	x 3/16	3.4	68	136	5	x 3 1/2	x 3/8	10.4	208	416
3	x 2 1/2	x 1/4	4.5	90	180	5	x 3 1/2	x 1/2	13.6	272	544
3	x 2 1/2	x 5/16	5.6	112	224	5	x 3 1/2	x 5/8	16.8	336	672
3	x 2 1/2	x 3/8	6.6	132	264	5	x 3 1/2	x 3/4	19.8	396	792
3	x 2 1/2	x 1/2	8.5	170	340	5	x 5	x 5/16	10.3	206	412
3	x 3	x 3/16	3.71	74	148	5	x 5	x 3/8	12.3	246	492
3	x 3	x 1/4	4.9	98	196	5	x 5	x 1/2	16.2	324	648
3	x 3	x 5/16	6.1	122	244	5	x 5	x 5/8	20.0	400	800
3	x 3	x 3/8	7.2	144	288	5	x 5	x 3/4	23.6	472	944
3	x 3	x 1/2	9.4	188	376	6	x 3 3/4	x 5/16	9.8	196	392
3 1/2	x 2 1/2	x 1/4	4.9	98	196	6	x 3 3/4	x 3/8	11.7	234	468
3 1/2	x 2 1/2	x 5/16	6.1	122	244	6	x 3 3/4	x 1/2	15.3	306	612
3 1/2	x 2 1/2	x 3/8	7.2	144	288	6	x 4	x 5/16	10.3	206	412
3 1/2	x 2 1/2	x 1/2	9.4	188	376	6	x 4	x 3/8	12.3	246	492
3 1/2	x 3	x 1/4	5.4	108	216	6	x 4	x 1/2	16.2	324	648
3 1/2	x 3	x 5/16	6.6	132	264	6	x 4	x 5/8	20.0	400	800
3 1/2	x 3	x 3/8	7.9	158	316	6	x 4	x 3/4	23.6	472	944
3 1/2	x 3	x 1/2	10.2	204	408	6	x 6	x 5/16	12.4	248	496
3 1/2	x 3 1/2	x 1/4	5.8	116	232	6	x 6	x 3/8	14.9	298	596
3 1/2	x 3 1/2	x 5/16	7.2	144	288	6	x 6	x 1/2	19.6	392	784
3 1/2	x 3 1/2	x 3/8	8.5	170	340	6	x 6	x 5/8	24.2	484	968
3 1/2	x 3 1/2	x 1/2	11.1	222	444	6	x 6	x 3/4	28.7	574	1148
4	x 3	x 1/4	5.8	116	232	6	x 6	x 1	37.4	748	1496
4	x 3	x 5/16	7.2	144	288	7	x 4	x 3/8	13.6	272	544
4	x 3	x 3/8	8.5	170	340	7	x 4	x 1/2	17.9	358	716
4	x 3	x 1/2	11.1	222	444	7	x 4	x 5/8	22.1	442	884
4	x 3	x 5/8	13.6	272	544	7	x 4	x 3/4	26.2	524	1048
4	x 3 1/2	x 1/4	6.2	124	248	8	x 4	x 1/2	19.6	392	784
4	x 3 1/2	x 5/16	7.7	154	308	8	x 4	x 5/8	24.2	484	968
4	x 3 1/2	x 3/8	9.1	182	364	8	x 4	x 3/4	28.7	574	1148
4	x 3 1/2	x 1/2	11.9	238	476	8	x 6	x 1/2	23.0	460	920
4	x 4	x 1/4	6.6	132	264	8	x 6	x 5/8	28.5	570	1140
4	x 4	x 5/16	8.2	164	328	8	x 6	x 3/4	33.8	676	1352
4	x 4	x 3/8	9.8	196	392	8	x 6	x 1	44.2	884	1768
4	x 4	x 1/2	12.8	256	512	8	x 8	x 1/2	26.4	528	1056
4	x 4	x 5/8	15.7	314	628	8	x 8	x 5/8	32.7	654	1308
4	x 4	x 3/4	18.5	370	740	8	x 8	x 3/4	38.9	778	1556
5	x 3	x 1/4	6.6	132	264	8	x 8	x 1	51.0	1020	2040



STRUCTURAL CHANNELS

ASTM A-36

20' & 40' Stock Length

SECTION NUMBER		EST. WEIGHT (lb.)	DEPTH (in.)	WIDTH (in.)	WEB (in.)	EST. WEIGHT (lb.)	
		Per Ft.	A	B	C	20' Bar	40' Bar
C 3	x	4.1	3	1.410	.170	82	164
C 3	x	5	3	1.498	.258	100	200
C 3	x	6	3	1.596	.356	120	240
C 4	x	5.4	4	1.584	.184	108	216
C 4	x	7.25	4	1.721	.321	145	290
C 5	x	6.7	5	1.750	.190	134	268
C 5	x	9	5	1.885	.325	180	360
C 6	x	8.2	6	1.920	.200	164	328
C 6	x	10.5	6	2.034	.314	210	420
C 6	x	13	6	2.157	.437	260	520
C 7	x	9.8	7	2.090	.210	196	392
C 7	x	12.25	7	2.194	.314	245	490
C 7	x	14.75	7	2.299	.419	295	590
C 8	x	11.5	8	2.260	.220	230	460
C 8	x	13.75	8	2.343	.303	275	550
C 8	x	18.75	8	2.527	.487	375	750
C 9	x	13.4	9	2.433	.233	268	536
C 9	x	15	9	2.485	.285	300	600
C 9	x	20	9	2.648	.448	400	800
C 10	x	15.3	10	2.600	.240	306	612
C 10	x	20	10	2.739	.379	400	800
C 10	x	25	10	2.886	.526	500	1000
C 10	x	30	10	3.033	.673	600	1200
C 12	x	20.7	12	2.942	.282	414	828
C 12	x	25	12	3.047	.387	500	1000
C 12	x	30	12	3.170	.510	600	1200
C 15	x	33.9	15	3.400	.400	678	1356
C 15	x	40	15	3.520	.520	800	1600
C 15	x	50	15	3.716	.716	1000	2000



MISCELLANEOUS CHANNELS

ASTM A-36

20' & 40' Stock Length

SECTION NUMBER		EST. WEIGHT (lb.)	DEPTH (in.)	WIDTH (in.)	WEB (in.)	EST. WEIGHT (lb.)	
		Per Ft.	A	B	C	20' Bar	40' Bar
MC 3	x	7.1	3	1.938	.312	142	284
MC 4	x	13.8	4	2.500	.500	276	552
MC 6	x	12	6	2.497	.310	240	480
MC 6	x	15.1	6	2.941	.316	302	604
MC 6	x	15.3	6	3.500	.340	306	612
MC 6	x	16.3	6	3.000	.375	326	652
MC 6	x	18	6	3.504	.379	360	720
MC 7	x	17.6	7	3.000	.375	352	704
MC 7	x	19.1	7	3.452	.352	382	764
MC 7	x	22.7	7	3.603	.503	454	908
MC 8	x	8.5	8	1.875	.188	170	340
MC 8	x	18.7	8	2.978	.353	374	748
MC 8	x	20	8	3.025	.400	400	800
MC 8	x	21.4	8	3.450	.375	428	856
MC 8	x	22.8	8	3.502	.427	456	912
MC 9	x	23.9	9	3.450	.400	478	956
MC 9	x	25.4	9	3.500	.450	508	1016
MC 10	x	6.5	10	1.125	.150	130	260
MC 10	x	8.4	10	1.500	.170	168	336
MC 10	x	22	10	3.376	.312	440	880
MC 10	x	25	10	3.405	.380	500	1000
MC 10	x	28.5	10	3.950	.425	570	1140
MC 10	x	33.6	10	4.100	.575	672	1344
MC 12	x	10.6	12	1.500	.190	212	424
MC 12	x	31	12	3.670	.370	620	1240
MC 12	x	35	12	3.767	.467	700	1400
MC 12	x	37	12	3.600	.600	740	1480
MC 12	x	40	12	3.890	.590	800	1600
MC 12	x	45	12	4.012	.712	900	1800
MC 12	x	50	12	4.135	.835	1000	2000
MC 13	x	31.8	13	4.000	.375	636	1272
MC 13	x	40	13	4.185	.560	800	1600
MC 18	x	50	13	4.412	.787	1000	2000
MC 18	x	42.7	18	3.950	.450	854	1708
MC 18	x	45.8	18	4.000	.500	916	1832
MC 18	x	51.9	18	4.100	.600	1038	2076
MC 18	x	58	18	4.200	.700	1160	2320



WIDE FLANGE BEAMS

ASTM A-36

20', 40', 50' & 60' Stock Length

SECTION NUMBER		EST. WEIGHT (lb.) Per Ft.	DEPTH (in.) A	FLANGE WIDTH (in.) B	FLANGE THICK (in.) C	WEB (in.) D
W 4	x	13	4.16	4.060	.345	.280
W 5	x	16	5.01	5.000	.360	.240
W 5	x	19	5.15	5.030	.430	.270
W 6	x	9	5.90	3.940	.215	.170
W 6	x	12	6.03	4.000	.280	.230
W 6	x	15	5.99	5.990	.260	.230
W 6	x	16	6.28	4.030	.405	.260
W 6	x	20	6.20	6.020	.365	.260
W 6	x	25	6.38	6.080	.455	.320
W 8	x	10	7.89	3.940	.205	.170
W 8	x	13	7.99	4.000	.255	.230
W 8	x	15	8.11	4.015	.315	.245
W 8	x	18	8.14	5.250	.330	.230
W 8	x	21	8.28	5.270	.400	.250
W 8	x	24	7.93	6.495	.400	.245
W 8	x	28	8.06	6.535	.465	.285
W 8	x	31	8.00	7.995	.435	.285
W 8	x	35	8.12	8.020	.495	.310
W 8	x	40	8.25	8.070	.560	.360
W 8	x	48	8.50	8.110	.685	.400
W 8	x	58	8.75	8.220	.810	.510
W 8	x	67	9.00	8.280	.935	.570
W 10	x	12	9.87	3.960	.210	.190
W 10	x	15	9.99	4.000	.270	.230
W 10	x	17	10.11	4.010	.330	.240
W 10	x	19	10.24	4.020	.395	.250
W 10	x	22	10.17	5.750	.360	.240
W 10	x	26	10.33	5.770	.440	.260
W 10	x	30	10.47	5.810	.510	.300
W 10	x	33	9.73	7.960	.435	.290
W 10	x	39	9.92	7.985	.530	.315
W 10	x	45	10.10	8.020	.620	.350
W 10	x	49	9.98	10.000	.560	.340
W 10	x	54	10.09	10.030	.615	.370
W 10	x	60	10.22	10.080	.680	.420
W 10	x	68	10.40	10.130	.770	.470
W 10	x	77	10.60	10.190	.870	.530
W 10	x	88	10.84	10.265	.990	.605
W 10	x	100	11.10	10.340	1.120	.680
W 10	x	112	11.36	10.415	1.250	.755
W 12	x	14	11.91	3.970	.225	.200
W 12	x	16	11.99	3.990	.265	.220

continued on next page...



WIDE FLANGE BEAMS

ASTM A-36

20', 40', 50' & 60' Stock Length

SECTION NUMBER		EST. WEIGHT (lb.) Per Ft.	DEPTH (in.) A	FLANGE WIDTH (in.) B	FLANGE THICK (in.) C	WEB (in.) D
W 12	x	19	12.16	4.005	.350	.235
W 12	x	22	12.31	4.030	.425	.260
W 12	x	26	12.22	6.490	.380	.230
W 12	x	30	12.34	6.520	.440	.260
W 12	x	35	12.50	6.560	.520	.300
W 12	x	40	11.94	8.005	.515	.295
W 12	x	45	12.06	8.045	.575	.335
W 12	x	50	12.19	8.080	.640	.370
W 12	x	53	12.06	9.995	.575	.345
W 12	x	58	12.19	10.010	.640	.360
W 12	x	65	12.12	12.000	.605	.390
W 12	x	72	12.25	12.040	.670	.430
W 12	x	79	12.38	12.080	.735	.470
W 12	x	87	12.53	12.125	.810	.515
W 12	x	96	12.71	12.160	.900	.550
W 12	x	106	12.89	12.220	.990	.610
W 12	x	120	13.12	12.320	1.105	.710
W 12	x	136	13.41	12.400	1.250	.790
W 14	x	22	13.74	5.000	.335	.230
W 14	x	26	13.91	5.025	.420	.255
W 14	x	30	13.84	6.730	.385	.270
W 14	x	34	13.98	6.745	.455	.285
W 14	x	38	14.10	6.770	.515	.310
W 14	x	43	13.66	7.995	.530	.305
W 14	x	48	13.79	8.030	.595	.340
W 14	x	53	13.92	8.060	.660	.370
W 14	x	61	13.89	9.995	.645	.375
W 14	x	68	14.04	10.035	.720	.415
W 14	x	74	14.17	10.070	.785	.450
W 14	x	82	14.31	10.130	.855	.510
W 14	x	90	14.02	14.520	.710	.440
W 14	x	99	14.16	14.565	.780	.485
W 14	x	109	14.32	14.605	.860	.525
W 16	x	26	15.69	5.500	.345	.250
W 16	x	31	15.88	5.525	.440	.275
W 16	x	36	15.86	6.985	.430	.295
W 16	x	40	16.01	6.995	.505	.305
W 16	x	45	16.13	7.035	.565	.345
W 16	x	50	16.26	7.070	.630	.380
W 16	x	57	16.43	7.120	.715	.430
W 16	x	67	16.33	10.235	.665	.395
W 16	x	77	16.52	10.295	.760	.455

continued on next page...



WIDE FLANGE BEAMS

ASTM A-36

20', 40', 50' & 60' Stock Length

SECTION NUMBER		EST. WEIGHT (lb.) Per Ft.	DEPTH (in.) A	FLANGE WIDTH (in.) B	FLANGE THICK (in.) C	WEB (in.) D
W 16	x	89	16.75	10.365	.875	.525
W 16	x	100	16.97	10.425	.985	.585
W 18	x	35	17.70	6.000	.425	.300
W 18	x	40	17.90	6.015	.525	.315
W 18	x	46	18.06	6.060	.605	.360
W 18	x	50	17.99	7.495	.570	.355
W 18	x	55	18.11	7.530	.630	.390
W 18	x	60	18.24	7.555	.695	.415
W 18	x	65	18.35	7.590	.750	.450
W 18	x	71	18.47	7.635	.810	.495
W 18	x	76	18.21	11.035	.680	.425
W 18	x	86	18.39	11.090	.770	.480
W 18	x	97	18.59	11.145	.870	.535
W 18	x	106	18.73	11.200	.940	.590
W 18	x	119	18.97	11.265	1.060	.655
W 18	x	44	20.66	6.500	.450	.350
W 18	x	50	20.83	6.530	.535	.380
W 18	x	57	21.06	6.555	.650	.405
W 18	x	62	20.99	8.240	.615	.400
W 18	x	68	21.13	8.270	.685	.430
W 18	x	73	21.24	8.295	.740	.455
W 18	x	83	21.43	8.355	.835	.515
W 18	x	101	21.36	12.290	.800	.500
W 18	x	111	21.51	12.340	.875	.550
W 18	x	132	21.83	12.440	1.035	.650
W 18	x	147	22.06	12.510	1.150	.720
W 24	x	55	23.57	7.005	.505	.395
W 24	x	62	23.74	7.040	.590	.430
W 24	x	68	23.73	8.965	.585	.415
W 24	x	76	23.92	8.990	.680	.440
W 24	x	84	24.10	9.020	.770	.470
W 24	x	94	24.31	9.065	.875	.515
W 24	x	104	24.06	12.750	.750	.500
W 24	x	117	24.26	12.800	.850	.550
W 24	x	131	24.48	12.855	.960	.605
W 24	x	146	24.74	12.900	1.090	.650
W 27	x	84	26.71	9.960	.640	.460
W 27	x	94	26.92	9.990	.745	.490
W 27	x	102	27.09	10.015	.830	.515
W 27	x	114	27.29	10.070	.930	.570
W 27	x	146	27.38	13.965	.975	.605
W 30	x	108	29.83	10.475	.760	.545

continued on next page...



WIDE FLANGE BEAMS

ASTM A-36

20', 40', 50' & 60' Stock Length

SECTION NUMBER		EST. WEIGHT (lb.) Per Ft.	DEPTH (in.) A	FLANGE WIDTH (in.) B	FLANGE THICK (in.) C	WEB (in.) D
W 30	x	116	30.01	10.495	.850	.565
W 30	x	124	30.17	10.515	.930	.585
W 30	x	132	30.31	10.545	1.000	.615
W 30	x	173	30.44	14.985	1.065	.655
W 30	x	191	30.68	15.040	1.185	.710
W 30	x	211	30.94	15.015	1.315	.775
W 33	x	118	32.86	11.480	.740	.550
W 33	x	130	33.09	11.510	.855	.580
W 33	x	201	33.68	15.745	1.150	.715
W 36	x	135	35.55	11.950	.790	.600
W 36	x	150	35.85	11.975	.940	.625



STANDARD I BEAMS

ASTM A-36

20', 40' & 60' Stock Length

SECTION NUMBER		EST. WEIGHT (lb.) Per Ft.	DEPTH (in.) A	FLANGE WIDTH (in.) B	FLANGE THICK (in.) C	WEB (in.) D
S 3	x	5.7	3.00	2.330	.260	.170
S 3	x	7.5	3.00	2.509	.260	.349
S 4	x	7.7	4.00	2.663	.293	.193
S 4	x	9.5	4.00	2.796	.293	.326
S 5	x	10.0	5.00	3.004	.326	.214
S 5	x	14.75	5.00	3.284	.326	.494
S 6	x	12.5	6.00	3.332	.359	.232
S 6	x	17.25	6.00	3.565	.359	.465
S 7	x	15.3	7.00	3.662	.392	.252
S 7	x	20.0	7.00	3.860	.392	.450
S 8	x	18.4	8.00	4.001	.426	.271
S 8	x	23.0	8.00	4.171	.426	.441
S 10	x	25.4	10.00	4.661	.491	.311
S 10	x	35.0	10.00	4.944	.491	.594
S 12	x	31.8	12.00	5.000	.544	.350
S 12	x	35.0	12.00	5.078	.544	.428
S 12	x	40.8	12.00	5.252	.659	.462
S 15	x	42.9	15.00	5.501	.622	.411
S 15	x	50.0	15.00	5.640	.622	.550
S 18	x	54.7	18.00	6.001	.691	.461
S 18	x	70.0	18.00	6.251	.691	.711
S 20	x	66.0	20.00	6.255	.795	.505
S 24	x	80.0	24.00	7.000	.870	.500

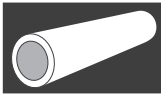


M BEAMS (JR BEAMS)

ASTM A-36

20' & 40' Stock Length

SECTION NUMBER		EST. WEIGHT (lb.) Per Ft.	DEPTH (in.) A	FLANGE WIDTH (in.) B	FLANGE THICK (in.) C	WEB (in.) D
M 4	x	13.0	4.00	3.940	.371	.254
M 5	x	18.9	5.00	5.003	.416	.316
M 6	x	4.40	6.00	1.844	.171	.114
M 8	x	6.50	8.00	2.281	.189	.135
M 10	x	9.00	10.00	2.690	.206	.157
M 12	x	11.80	12.00	3.065	.225	.177



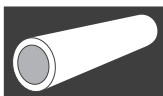
STANDARD PIPE

ASTM A-500 & A-513. Black—Plain Ends

Untested—Schedule 40

SIZE (in.)	OUTSIDE DIAMETER	INSIDE DIAMETER	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
1/8	.405	.269	.068	.244
1/4	.540	.364	.088	.424
3/8	.675	.493	.091	.567
1/2	.840	.622	.109	.850
3/4	1.050	.824	.113	1.130
1	1.315	1.049	.133	1.678
1 1/4	1.660	1.380	.140	2.272
1 1/2	1.900	1.610	.145	2.717
2	2.375	2.067	.154	3.652
2 1/2	2.875	2.469	.203	5.793
3	3.500	3.068	.216	7.575
3 1/2	4.000	3.5548	.226	9.109
4	4.500	4.026	.237	10.791
5	5.563	5.047	.258	14.617
6	6.625	6.065	.280	18.974
8	8.625	7.981	.322	28.554
10	10.750	10.020	.365	40.483
12*	12.750	12.000	.375	49.562

*STANDARD WALL

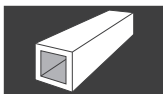


STANDARD PIPE

ASTM A-500 & A-513. Black—Plain Ends
Untested—Schedule 80

SIZE (in.)	OUTSIDE DIAMETER	INSIDE DIAMETER	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
½	.840	.546	.147	1.09
¾	1.050	.742	.154	1.473
1	1.315	.957	.179	2.171
1 ¼	1.660	1.278	.191	3.000
1 ½	1.900	1.500	.200	3.630
2	2.375	1.939	.218	5.022
2 ½	2.875	2.323	.276	7.861
3	3.500	2.900	.300	10.252
3 ½	4.000	3.364	.318	12.510
4	4.500	3.826	.337	14.983
5	5.563	4.813	.375	20.781
6	6.625	5.761	.432	28.579
8	8.625	7.625	.500	43.388
10*	10.750	9.750	.500	54.735
12*	12.750	11.75	.500	65.415

*EXTRA HEAVY WALL

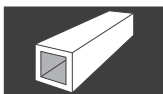


SQUARE STRUCTURAL TUBING

Sizes up to 2" w/wall thicknesses less than .120 are ASTM A-513.
Sizes over 2" w/wall thicknesses of .120 & thicker are ASTM A-500.

OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.	OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
½ x ½	.49	.3005	1 ½ x 1 ½	.065	1.268
½ x ½	.65	.3845	1 ½ x 1 ½	.083	1.599
5/8 x 5/8	.065	.4950	1 ½ x 1 ½	.120	2.252
¾ x ¾	.065	.6055	1 ½ x 1 ½	.188	3.040
¾ x ¾	.083	.7530	1 ½ x 1 ½	.250	4.000
¾ x ¾	.120	1.028	1 ¾ x 1 ¾	.083	1.882
7/8 x 7/8	.065	.7160	1 ¾ x 1 ¾	.120	2.660
7/8 x 7/8	.083	.8940	2 x 2	.065	1.710
1 x 1	.049	.6337	2 x 2	.083	2.164
1 x 1	.065	.8265	2 x 2	.120	3.068
1 x 1	.072	.9090	2 x 2	.188	4.320
1 x 1	.083	1.035	2 x 2	.250	5.410
1 x 1	.120	1.436	2 ½ x 2 ½	.083	2.728
1 ¼ x 1 ¼	.065	1.047	2 ½ x 2 ½	.120	3.844
1 ¼ x 1 ¼	.083	1.317	2 ½ x 2 ½	.188	5.500
1 ¼ x 1 ¼	.120	1.844	2 ½ x 2 ½	.250	7.110
1 ¼ x 1 ¼	.188	2.400	2 ½ x 2 ½	.313	8.43

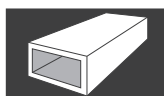
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SQUARE STRUCTURAL TUBING

Sizes up to 2" w/wall thicknesses less than .120 are ASTM A-513.
 Sizes over 2" w/wall thicknesses of .120 & thicker are ASTM A-500.

OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.	OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
3 x 3	.083	3.292	7 x 7	.250	22.42
3 x 3	.120	4.700	7 x 7	.313	27.59
3 x 3	.188	6.870	7 x 7	.375	32.58
3 x 3	.250	8.810	7 x 7	.500	42.05
3 x 3	.313	10.580	8 x 8	.188	19.63
3 x 3	.375	12.170	8 x 8	.250	25.82
3 x 3	.500	17.00	8 x 8	.313	31.84
3 1/2 x 3 1/2	.120	5.516	8 x 8	.375	37.69
3 1/2 x 3 1/2	.188	8.150	8 x 8	.500	42.05
3 1/2 x 3 1/2	.313	12.70	10 x 10	.188	19.63
3 1/2 x 3 1/2	.375	14.720	10 x 10	.250	25.82
4 x 4	.083	4.422	10 x 10	.313	31.84
4 x 4	.120	6.330	10 x 10	.375	37.69
4 x 4	.188	9.420	10 x 10	.500	48.85
4 x 4	.250	12.21	10 x 10	.625	59.32
4 x 4	.313	14.83	10 x 10	.188	24.73
4 x 4	.375	17.27	10 x 10	.250	32.63
4 x 4	.500	21.63	10 x 10	.313	40.35
5 x 5	.188	11.97	12 x 12	.188	29.84
5 x 5	.250	15.62	12 x 12	.250	39.43
5 x 5	.313	19.08	12 x 12	.313	48.86
5 x 5	.375	22.37	12 x 12	.375	58.10
5 x 5	.500	28.43	12 x 12	.500	76.07
6 x 6	.188	14.53	12 x 12	.625	93.34
6 x 6	.250	19.02	14 x 14	.313	57.360
6 x 6	.313	23.34	14 x 14	.375	68.310
6 x 6	.375	27.48	14 x 14	.500	69.680
6 x 6	.500	35.24	16 x 16	.375	78.50
6 x 6	.625	42.26	16 x 16	.500	103.300
7 x 7	.188	17.08			



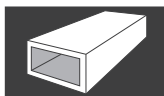
RECTANGULAR STRUCTURAL TUBING

Sizes up to 2" w/wall thicknesses less than .120 are ASTM A-513.

Sizes over 2" w/wall thicknesses of .120 & thicker are ASTM A-500.

OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.	OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
1 x 1½	.065	.6055	4 x 2	.188	6.870
1 ½ x ¾	.065	.9370	4 x 2	.250	8.810
1 ½ x ¾	.120	1.640	4 x 2	.313	10.58
1 ½ x 1	.049	.8000	4 x 2	.375	12.17
1 ½ x 1	.065	1.048	4 x 3	.120	5.516
1 ½ x 1	.083	1.317	4 x 3	.188	8.150
1 ½ x 1	.120	1.844	4 x 3	.250	10.51
2 x 1	.065	1.269	4 x 3	.313	12.70
2 x 1	.083	1.600	4 x 3	.375	14.72
2 x 1	.095	1.815	5 x 2	.120	5.52
2 x 1	.120	2.252	5 x 2	.188	8.15
2 x 1	.188	3.350	5 x 2	.250	10.51
2 x 1 ¼	.065	1.379	5 x 3	.120	6.33
2 x 1 ¼	.083	1.741	5 x 3	.188	9.42
2 x 1 ¼	.120	2.456	5 x 3	.250	12.21
2 x 1 ½	.065	1.490	5 x 3	.313	14.83
2 x 1 ½	.083	1.882	5 x 3	.375	17.27
2 x 1 ½	.120	2.660	5 x 3	.500	21.63
2 ½ x 1	.083	1.882	5 x 4	.188	10.70
2 ½ x 1	.120	2.660	5 x 4	.250	13.91
2 ½ x 1 ½	.083	2.164	6 x 2	.120	6.460
2 ½ x 1 ½	.120	3.068	6 x 2	.188	9.420
2 ½ x 1 ½	.188	4.490	6 x 2	.250	12.21
2 ½ x 1 ½	.250	5.400	6 x 2	.313	14.83
3 x 1	.065	1.711	6 x 2	.375	17.27
3 x 1	.083	2.164	6 x 3	.120	7.150
3 x 1	.120	3.068	6 x 3	.188	10.70
3 x 1 ½	.083	2.446	6 x 3	.250	13.91
3 x 1 ½	.120	3.476	6 x 3	.313	16.96
3 x 1 ½	.188	5.070	6 x 3	.375	19.82
3 x 2	.083	2.728	6 x 3	.500	25.03
3 x 2	.120	3.884	6 x 4	.188	11.97
3 x 2	.188	5.590	6 x 4	.250	15.62
3 x 2	.250	7.110	6 x 4	.313	19.08
3 x 2	.313	8.450	6 x 4	.375	22.37
3 ½ x 2 ½	.120	4.700	6 x 4	.500	28.43
3 ½ x 2 ½	.188	6.870	7 x 4	.188	13.25
3 ½ x 2 ½	.250	8.810	7 x 4	.250	17.32
4 x 1 ½	.083	3.011	7 x 4	.313	21.21
4 x 1 ½	.120	4.292	7 x 4	.375	24.93
4 x 2	.083	3.293	7 x 5	.188	14.53
4 x 2	.120	4.700	7 x 5	.250	19.02

continued on next page...



RECTANGULAR STRUCTURAL TUBING

Sizes up to 2" w/wall thicknesses less than .120 are ASTM A-513.
 Sizes over 2" w/wall thicknesses of .120 & thicker are ASTM A-500.

OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.	OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
7 x 5	.313	23.34	10 x 8	.500	55.66
7 x 5	.375	27.48	12 x 2	.188	17.08
7 x 5	.500	35.24	12 x 2	.250	22.42
8 x 2	.188	11.97	12 x 3	.250	24.12
8 x 2	.250	15.62	12 x 4	.188	19.63
8 x 2	.313	19.08	12 x 4	.250	25.82
8 x 2	.375	22.37	12 x 4	.313	31.84
8 x 3	.188	13.25	12 x 4	.375	37.69
8 x 3	.250	17.32	12 x 4	.500	48.85
8 x 3	.313	21.21	12 x 6	.188	22.18
8 x 3	.375	24.93	12 x 6	.250	29.23
8 x 3	.500	31.84	12 x 6	.313	36.10
8 x 4	.188	14.53	12 x 6	.375	42.79
8 x 4	.250	19.02	12 x 6	.500	55.66
8 x 4	.313	23.34	12 x 8	.250	32.63
8 x 4	.375	27.48	12 x 8	.313	40.30
8 x 4	.500	35.24	12 x 8	.375	47.90
8 x 6	.188	17.08	12 x 8	.500	62.50
8 x 6	.250	22.42	14 x 6	.250	32.60
8 x 6	.313	27.59	14 x 6	.313	40.30
8 x 6	.375	32.58	14 x 6	.375	47.90
8 x 6	.500	42.05	14 x 6	.500	62.50
9 x 7	.188	19.63	16 x 4	.313	40.30
9 x 7	.250	25.82	16 x 4	.375	47.90
9 x 7	.313	31.84	16 x 4	.500	62.50
9 x 7	.375	37.69	16 x 8	.313	48.80
10 x 2	.188	14.53	16 x 8	.375	58.10
10 x 2	.250	19.02	16 x 8	.500	76.10
10 x 2	.313	23.34	16 x 12	.313	57.30
10 x 2	.375	27.48	16 x 12	.375	68.30
10 x 3	.250	20.72	16 x 12	.500	89.70
10 x 4	.188	17.08	16 x 12	.625	110.30
10 x 4	.250	22.42	20 x 4	.313	48.80
10 x 4	.313	27.59	20 x 4	.375	58.10
10 x 4	.375	32.58	20 x 4	.500	76.10
10 x 4	.500	42.05	20 x 8	.313	57.30
10 x 6	.188	19.63	20 x 8	.375	68.30
10 x 6	.250	25.82	20 x 8	.500	89.70
10 x 6	.313	31.84	20 x 12	.313	65.80
10 x 6	.375	37.69	20 x 12	.375	78.50
10 x 6	.500	48.85	20 x 12	.500	103.30
10 x 8	.250	29.23	20 x 12	.625	127.40
10 x 8	.375	42.79			

CARBON STEEL PLATE & SHEET

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ASTM A-36 HOT ROLLED PLATES

ASTM A-36 plates are widely used for structural and constructional applications. Easily weldable and responds to forming, punching and rolling. Applications include construction of machinery, bridges, storage tanks, buildings, transportation and agricultural equipment.

CHEMICAL ANALYSIS

THICKNESS	CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	SILICON
¾" and less	.25 Max	—	.04 Max	.05 Max	.40
¾" to 1 ½" Incl.	.25 Max	.80/1.20	.04 Max	.05 Max	.40
1 ½" to 2 ½" Incl.	.26 Max	.80/1.20	.04 Max	.05 Max	.15/.40
2 ½" to 4" Incl.	.27 Max	.85/1.20	.04 Max	.05 Max	.15/.40
4" to 8" Incl.	.29 Max	.85/1.20	.04 Max	.05 Max	.15/.40

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	BRINELL HARDNESS	ROCKWELL HARDNESS
58/80,000	36,000 Min	23%	137	76 B

*The above values are average and should be considered as representative of the grade

ASTM A-786 HOT ROLLED FLOOR PLATES

ASTM A-786 is characterized by a raised, evenly dispersed angular pattern embossed onto the surface of a steel sheet or plate. These pattern lugs allow for self draining and are easily cleaned. Diamond plate is an economical alternative for solid floors where skid resistance is required. Easily weldable and cold formed. Used extensively for decks, catwalks, trench covers, platforms, running board steps, dock boards, truck compartment and tool storage boxes, conveyors, floors, etc.

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)

60,000

YIELD STRENGTH (PSI)

33,000

*The above values are average and should be considered as representative of the grade

ASTM A-569 HOT ROLLED SHEETS

ASTM A-569 is a low cost steel sheet soft enough to bend flat on itself in any direction without cracking and ductile enough for shallow drawing. Surface has normal mill oxide. Typically used where finish is of secondary importance.

CHEMICAL ANALYSIS

CARBON

.15

MANGANESE

.6

PHOSPHOROUS

.03

SULPHUR

.035

MECHANICAL PROPERTIES

**TENSILE STRENGTH
(PSI)**

52,000

**YIELD STRENGTH
(PSI)**

38,000

ELONGATION IN 2"

25%

**BRINELL
HARDNESS**

95

*The above values are average and should be considered as representative of the grade

ASTM A-1008 TYPE B COLD FINISHED SHEETS

ASTM A-1008 Type B offers a closer size tolerance, broader range of sizes and better surface than pickled and oiled. Smooth dull surface is ideal for paints, enamels, lacquers and it can be electroplated. It is soft enough to bend flat on itself without cracking and ductile enough for many drawing applications.

CHEMICAL ANALYSIS			
CARBON	MANGANESE	PHOSPHOROUS	SULPHUR
.15	.60	.030	.035

MECHANICAL PROPERTIES		
TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	BRINELL HARDNESS
50,000	35,000	97

*The above values are average and should be considered as representative of the grade

AR-235 ABRASION RESISTING PLATE

AR-235 is a hot roll plate with higher carbon content, this plate is hard and tough with excellent abrasion resistance. It can be machined, drilled, punched and formed within limits. Applications include conveyors, mixers, dirt and stone moving equipment, dump truck bodies, bucket lips, liner plates and coal and rock screens.

CHEMICAL ANALYSIS

THICKNESS	CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	SILICON
1"	.40/.50	.60/.90	.040	.050	.10/.40

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	BRINELL HARDNESS
115,000	70,000	235 Approx.	235 Nom.

*The above values are average and should be considered as representative of the grade

AR-400 ABRASION RESISTING PLATE

AR-400 is a medium carbon, low alloy plate designed to provide the best possible abrasion and impact resistance. Heat treated by quenching and tempering to improve yield strength. Resists atmospheric corrosion approximately 2 to 4 times more than regular carbon steel plate. AR-400 plate will reduce downtime and repair cost.

CHEMICAL ANALYSIS

CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	SILICON
.3	.48	.035	.04	.25

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	BRINELL HARDNESS
177,000	145,000	360-444

*The above values are average and should be considered as representative of the grade

ASTM A-514 PLATE

ASTM A-514 plates are high strength, heat treated structural quality plates. They offer a high strength to weight ratio which allows reduction in weight without loss of strength. Applications include fabricated bridge parts, heavy earth moving equipment, storage containers, crane room and bucket parts, mining equipment and truck bodies. Resistance to atmospheric corrosion is 4 to 6 times that of regular carbon steel plate. Low carbon content improves general weldability.

	TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	BRINELL HARDNESS
¾" and less	110/130,000	100,000 Min	18%	235/293
over ¾" to 2 ½"	110/130,000	100,000 Min	18%	235/293
over 2 ½" to 4"	100/130,000	90,000 Min	16%	229/293

*The above values are average and should be considered as representative of the grade

ASTM A-516 GRADE 70 PLATE

ASTM A-516 Grade 70 is a fine grain carbon manganese silicon steel plate intended for service in pressure vessels at temperatures where improved notch toughness is required. It has been rigidly inspected and tested to withstand the pressure found in vessels, boilers, etc. This plate can be easily drilled, machined and welded using approved industry methods.

CHEMICAL ANALYSIS

THICKNESS	CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	SILICON
½" and less	.27	.85/1.20*	.025	.025	.15/.40
½" to 2" Incl.	.28	.85/1.20*	.025	.025	.15/.40
2" to 4" Incl.	.30	.85/1.20*	.025	.025	.15/.40
over 4"	.31	.85/1.20*	.025	.025	.15/.40

*Mn of 1.50 Max is permitted with reduction of C Max of 0.01% for each 0.06% increase in Mn

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	BRINELL HARDNESS
70/90,000	38,000 Min	21%	163

*The above values are average and should be considered as representative of the grade

ASTM A-588 PLATE

ASTM A-588 is a high strength, copper bearing plate with outstanding resistance to atmospheric corrosion (up to 4 times that of structural carbon steel). Tightly adherent oxide coating forms to slow progressive oxidation, which can be of value in architectural applications. Recommended when weight reduction or maintenance cost downtime is critical. Applications include material handling equipment, building and platform rigging. Offers excellent weldability.

MECHANICAL PROPERTIES			
TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	BRINELL HARDNESS
70,000 Min	50,000 Min	21%	145

*The above values are average and should be considered as representative of the grade

ASTM A-572-50 PLATE

ASTM A-572-50 is a high strength low alloy steel. It is basically a low carbon plate with the addition of vanadium and other alloying elements. This raises the yield strength to 50,000 psi minimum while still keeping desirable welding and forming characteristics. Corrosion resistance is similar to plain low carbon steel plate. Uses include construction equipment, truck trailers, transmission towers, formed pipe and other structural applications.

CHEMICAL ANALYSIS

THICKNESS	CARBON	MANGANESE	PHOSPHOROUS	SULPHUR	SILICON
1 ½" and less	.23	1.35*	.04	.05	.40
over 1 ½"	.23	1.35*	.04	.05	.15/.40

*For each 0.01% reduction below the specified maximum for carbon, an increase of 0.06% Mn above the specified maximum is permitted up to 1.60%

MECHANICAL PROPERTIES

TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2"	BRINELL HARDNESS
65,000 Min	50,000 Min	21%	145

*The above values are average and should be considered as representative of the grade



HOT ROLLED PLATE

ASTM A-36. Available mill rolled to size, cut & leveled from coil, sheared or burned to exact customer specification.

THICKNESS	STOCK SIZE	EST. WEIGHT (lb.)	THICKNESS	STOCK SIZE	EST. WEIGHT (lb.)
(in.)	Per Ft.	Plate	(in.)	Per Ft.	Plate
$\frac{3}{16}$	36 x 96	7.66 183.84	$\frac{3}{8}$	96 x 288	15.31 2,449.52
$\frac{3}{16}$	36 x 120	7.66 229.80	$\frac{1}{2}$	48 x 96	20.42 653.44
$\frac{3}{16}$	48 x 96	7.66 245.12	$\frac{1}{2}$	48 x 120	20.42 816.80
$\frac{3}{16}$	48 x 120	7.66 306.40	$\frac{1}{2}$	48 x 240	20.42 1,633.60
$\frac{3}{16}$	48 x 144	7.66 367.68	$\frac{1}{2}$	60 x 120	20.42 1,021.00
$\frac{3}{16}$	48 x 240	7.66 612.80	$\frac{1}{2}$	60 x 240	20.42 2,042.00
$\frac{3}{16}$	60 x 120	7.66 383.00	$\frac{1}{2}$	72 x 120	20.42 1,225.20
$\frac{3}{16}$	60 x 240	7.66 766.00	$\frac{1}{2}$	72 x 144	20.42 1,470.24
$\frac{3}{16}$	72 x 120	7.66 459.60	$\frac{1}{2}$	72 x 240	20.42 2,450.40
$\frac{3}{16}$	72 x 144	7.66 551.52	$\frac{1}{2}$	96 x 240	20.42 3,267.20
$\frac{3}{16}$	72 x 240	7.66 919.20	$\frac{1}{2}$	96 x 288	20.42 3,920.64
$\frac{3}{16}$	96 x 240	7.66 1,225.60	$\frac{5}{8}$	48 x 96	25.52 816.64
$\frac{3}{16}$	96 x 288	7.66 1,470.72	$\frac{5}{8}$	48 x 120	25.52 1,020.80
$\frac{1}{4}$	36 x 96	10.21 245.04	$\frac{5}{8}$	60 x 120	25.52 1,276.00
$\frac{1}{4}$	36 x 120	10.21 306.30	$\frac{5}{8}$	72 x 120	25.52 1,531.20
$\frac{1}{4}$	48 x 96	10.21 326.72	$\frac{5}{8}$	96 x 240	25.52 4,083.20
$\frac{1}{4}$	48 x 120	10.21 408.40	$\frac{5}{8}$	96 x 288	25.52 4,900.00
$\frac{1}{4}$	48 x 144	10.21 490.08	$\frac{3}{4}$	48 x 96	30.63 980.16
$\frac{1}{4}$	48 x 240	10.21 816.80	$\frac{3}{4}$	48 x 120	30.63 1,225.20
$\frac{1}{4}$	60 x 120	10.21 510.50	$\frac{3}{4}$	60 x 120	30.63 1,531.50
$\frac{1}{4}$	60 x 240	10.21 1,021.00	$\frac{3}{4}$	60 x 240	30.63 3,063.00
$\frac{1}{4}$	72 x 120	10.21 612.60	$\frac{3}{4}$	72 x 240	30.63 3,675.60
$\frac{1}{4}$	72 x 144	10.21 735.12	$\frac{3}{4}$	96 x 240	30.63 4,900.80
$\frac{1}{4}$	72 x 240	10.21 1,225.20	$\frac{3}{4}$	96 x 288	30.63 5,880.96
$\frac{1}{4}$	96 x 240	10.21 1,633.60	$\frac{7}{8}$	48 x 96	35.73 1,143.36
$\frac{1}{4}$	96 x 288	10.21 1,960.32	$\frac{7}{8}$	72 x 240	35.73 4,287.60
$\frac{5}{16}$	48 x 96	12.76 408.32	$\frac{7}{8}$	96 x 240	35.73 5,716.80
$\frac{5}{16}$	48 x 120	12.76 510.40	1	48 x 96	40.84 1,306.88
$\frac{5}{16}$	60 x 120	12.76 638.00	1	60 x 120	40.84 2,042.00
$\frac{5}{16}$	72 x 120	12.76 765.60	1	60 x 240	40.84 4,084.00
$\frac{5}{16}$	72 x 240	12.76 1,531.20	1	72 x 240	40.84 4,900.80
$\frac{5}{16}$	96 x 240	12.76 2,041.60	1	96 x 240	40.84 6,534.40
$\frac{5}{16}$	96 x 288	12.76 2,449.92	1	96 x 288	40.84 7,841.28
$\frac{3}{8}$	48 x 96	15.31 489.92	1 $\frac{1}{8}$	96 wide	45.94 —
$\frac{3}{8}$	48 x 120	15.31 612.40	1 $\frac{1}{4}$	96 wide	51.05 —
$\frac{3}{8}$	48 x 240	15.31 1,224.80	1 $\frac{3}{8}$	96 wide	56.16 —
$\frac{3}{8}$	60 x 120	15.31 765.50	1 $\frac{1}{2}$	96 wide	61.26 —
$\frac{3}{8}$	60 x 240	15.31 1,531.00	1 $\frac{5}{8}$	96 wide	66.36 —
$\frac{3}{8}$	72 x 144	15.31 1,102.32	1 $\frac{3}{4}$	96 wide	71.47 —
$\frac{3}{8}$	72 x 240	15.31 1,837.20	2	96 wide	81.68 —
$\frac{3}{8}$	96 x 240	15.31 2,449.60	2 $\frac{1}{4}$	96 wide	91.89 —

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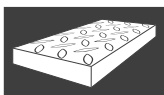


HOT ROLLED PLATE

ASTM A-36. Available mill rolled to size, cut & leveled from coil, sheared or burned to exact customer specification.

THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate	THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate
2 1/2	96 wide	102.10 —	3 3/4	96 wide	153.14 —
2 3/4	96 wide	112.31 —	4	96 wide	163.35 —
3	96 wide	122.52 —	4 1/2	96 wide	183.77 —
3 1/4	96 wide	132.73 —	5	96 wide	204.19 —
3 1/2	96 wide	142.93 —	6	96 wide	245.03 —

NOTE: 120" x 240" plates available in selected sizes.

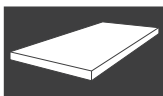


HOT ROLLED FLOOR PLATE

ASTM A-786. Available cut & leveled from coil, sheared or burned to exact customer specification.

THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate	THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate
14 gauge	48 x 96	3.75 120.00	1/4	72 x 120	11.26 675.60
14 gauge	48 x 120	3.75 150.00	1/4	72 x 240	11.26 1,351.20
1/8	48 x 96	6.15 196.80	1/4	96 x 240	11.26 1,801.60
1/8	48 x 120	6.15 246.00	5/16	48 x 96	13.81 441.92
1/8	48 x 144	6.15 295.00	5/16	48 x 120	13.81 552.40
1/8	60 x 120	6.15 307.50	5/16	60 x 120	13.81 690.50
1/8	72 x 120	6.15 369.00	3/8	48 x 96	16.37 523.84
3/16	48 x 96	8.71 278.72	3/8	48 x 120	16.37 654.80
3/16	48 x 120	8.71 348.40	3/8	48 x 144	16.37 785.76
3/16	48 x 144	8.71 418.08	3/8	60 x 120	16.37 818.50
3/16	48 x 240	8.71 696.80	3/8	72 x 120	16.37 982.20
3/16	60 x 120	8.71 435.50	3/8	72 x 240	16.37 1,964.40
3/16	72 x 120	8.71 522.60	3/8	96 x 240	16.37 2,619.20
3/16	72 x 240	8.71 1,045.20	1/2	48 x 96	21.47 687.04
3/16	96 x 240	8.71 1,393.60	1/2	96 x 240	21.47 3,435.20
1/4	48 x 96	11.26 360.32	3/4	48 x 96	31.68 1,013.76
1/4	48 x 120	11.26 450.40	3/4	96 x 240	31.68 5,068.80
1/4	48 x 144	11.26 540.48	1	96 x 240	41.89 6,702.00
1/4	60 x 120	11.26 563.00			

NOTE: Thickness refers to body of plate, not including raised pattern.

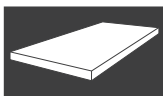


HOT ROLLED SHEETS

ASTM A-569 Commercial Quality.

Available sheared to exact customer specification.

THICKNESS (gauge)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet	THICKNESS (gauge)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet
#10	36 x 96	5.625 135.00	#12	48 x 96	4.375 140.00
#10	36 x 120	5.625 168.75	#12	48 x 120	4.375 175.00
#10	36 x 144	5.625 202.50	#12	48 x 144	4.375 210.00
#10	48 x 96	5.625 180.00	#12	60 x 96	4.375 175.00
#10	48 x 120	5.625 225.00	#12	60 x 120	4.375 218.75
#10	48 x 144	5.625 270.00	#12	60 x 144	4.375 262.50
#10	60 x 96	5.625 225.00	#12	72 x 96	4.375 210.00
#10	60 x 120	5.625 281.25	#12	72 x 120	4.375 262.50
#10	60 x 144	5.625 337.50	#12	72 x 144	4.375 315.00
#10	72 x 96	5.625 270.00	#14	36 x 96	3.125 75.00
#10	72 x 120	5.625 337.50	#14	36 x 120	3.125 93.75
#10	72 x 144	5.625 405.00	#14	36 x 144	3.125 112.50
#11	36 x 96	5.000 120.00	#14	48 x 96	3.125 100.00
#11	36 x 120	5.000 150.00	#14	48 x 120	3.125 125.00
#11	36 x 144	5.000 180.00	#14	48 x 144	3.125 150.00
#11	48 x 96	5.000 160.00	#14	60 x 96	3.125 125.00
#11	48 x 120	5.000 200.00	#14	60 x 120	3.125 156.25
#11	48 x 144	5.000 240.00	#14	60 x 144	3.125 187.50
#11	60 x 96	5.000 200.00	#16	36 x 96	2.500 60.00
#11	60 x 120	5.000 250.00	#16	36 x 120	2.500 75.00
#11	60 x 144	5.000 300.00	#16	36 x 144	2.500 90.00
#11	72 x 96	5.000 240.00	#16	48 x 96	2.500 80.00
#11	72 x 120	5.000 300.00	#16	48 x 120	2.500 100.00
#11	72 x 144	5.000 360.00	#16	48 x 144	2.500 120.00
#12	36 x 96	4.375 105.00	#16	60 x 96	2.500 100.00
#12	36 x 120	4.375 131.25	#16	60 x 120	2.500 125.00
#12	36 x 144	4.375 157.50	#16	60 x 144	2.500 150.00



COLD FINISHED SHEETS

ASTM A-1008 Commercial Steel Type B.

Available sheared to exact customer specification.

THICKNESS (gauge)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet	THICKNESS (gauge)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet
#10	48 x 96	5.625 180.00	#16	60 x 120	2.500 125.00
#10	48 x 120	5.625 225.00	#18	36 x 96	2.000 48.00
#11	36 x 96	5.00 120.00	#18	48 x 96	2.000 64.00
#11	48 x 96	5.00 160.00	#18	48 x 120	2.000 80.00
#11	48 x 120	5.00 200.00	#18	48 x 144	2.000 96.00
#11	60 x 120	5.00 250.00	#18	60 x 120	2.000 100.00
#12	36 x 120	4.375 131.25	#20	36 x 120	1.500 45.00
#12	48 x 96	4.375 140.00	#20	48 x 96	1.500 48.00
#12	48 x 120	4.375 175.00	#20	48 x 120	1.500 60.00
#12	60 x 120	4.375 218.75	#20	48 x 144	1.500 72.00
#14	48 x 96	3.125 100.00	#20	60 x 120	1.500 75.00
#14	48 x 120	3.125 125.00	#20	60 x 144	1.500 90.00
#14	48 x 144	3.125 150.00	#22	36 x 120	1.250 37.50
#14	60 x 120	3.125 156.25	#22	48 x 96	1.250 40.00
#16	36 x 96	2.500 60.00	#22	48 x 120	1.250 50.00
#16	36 x 120	2.500 72.00	#22	60 x 120	1.250 62.50
#16	36 x 144	2.500 90.00	#24	36 x 96	1.000 24.00
#16	48 x 96	2.500 80.00	#24	48 x 96	1.000 32.00
#16	48 x 120	2.500 100.00	#24	48 x 120	1.000 40.00



ABRASION RESISTING PLATE

AR-235.

48" x 96" & 96" x 240" Stock Sizes.

THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate	THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate
3/16	48 x 96	7.66 245.12	3/8	96 x 240	15.31 2449.60
3/16	96 x 240	7.66 1225.60	1/2	48 x 96	20.42 653.44
1/4	48 x 96	10.21 326.72	1/2	96 x 240	20.42 3267.20
1/4	96 x 240	10.21 1633.60	3/4	48 x 96	30.63 980.16
5/16	48 x 96	12.76 408.32	3/4	96 x 240	30.63 4900.80
5/16	96 x 240	12.76 2041.60	1	48 x 96	40.84 1306.88
3/8	48 x 96	15.31 489.92	1	96 x 240	40.84 6534.40

NOTE: Inquire for plates over 1" thick.



ABRASION RESISTING PLATE

AR-400.

48" x 96" & 96" x 240" Stock Sizes.

THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate	THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate
$\frac{3}{16}$	48 x 96	7.66 245.12	$\frac{3}{8}$	96 x 240	15.31 2449.60
$\frac{3}{16}$	96 x 240	7.66 1225.60	$\frac{1}{2}$	48 x 96	20.42 653.44
$\frac{1}{4}$	48 x 96	10.21 326.72	$\frac{1}{2}$	96 x 240	20.42 3267.20
$\frac{1}{4}$	96 x 240	10.21 1633.60	$\frac{3}{4}$	48 x 96	30.63 980.16
$\frac{5}{16}$	48 x 96	12.76 408.32	$\frac{3}{4}$	96 x 240	30.63 4900.80
$\frac{5}{16}$	96 x 240	12.76 2041.60	1	48 x 96	40.84 1306.88
$\frac{3}{8}$	48 x 96	15.31 489.92	1	96 x 240	40.84 6534.40

NOTE: Inquire for plates over 1" thick.



HIGH STRENGTH PLATE

ASTM A-514.

48" x 96" & 96" x 240" Stock Sizes.

THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate	THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate
$\frac{3}{16}$	48 x 96	7.66 245.12	$\frac{3}{8}$	96 x 240	15.31 2449.60
$\frac{3}{16}$	96 x 240	7.66 1225.60	$\frac{1}{2}$	48 x 96	20.42 653.44
$\frac{1}{4}$	48 x 96	10.21 326.72	$\frac{1}{2}$	96 x 240	20.42 3267.20
$\frac{1}{4}$	96 x 240	10.21 1633.60	$\frac{3}{4}$	48 x 96	30.63 980.16
$\frac{5}{16}$	48 x 96	12.76 408.32	$\frac{3}{4}$	96 x 240	30.63 4900.80
$\frac{5}{16}$	96 x 240	12.76 2041.60	1	48 x 96	40.84 1306.88
$\frac{3}{8}$	48 x 96	15.31 489.92	1	96 x 240	40.84 6534.40

NOTE: Inquire for plates over 1" thick.



HIGH STRENGTH PLATE

ASTM A-588.

48" x 96" & 96" x 240" Stock Sizes.

THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate	THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate
$\frac{3}{16}$	48 x 96	7.66 245.12	$\frac{3}{8}$	96 x 240	15.31 2449.60
$\frac{3}{16}$	96 x 240	7.66 1225.60	$\frac{1}{2}$	48 x 96	20.42 653.44
$\frac{1}{4}$	48 x 96	10.21 326.72	$\frac{1}{2}$	96 x 240	20.42 3267.20
$\frac{1}{4}$	96 x 240	10.21 1633.60	$\frac{3}{4}$	48 x 96	30.63 980.16
$\frac{5}{16}$	48 x 96	12.76 408.32	$\frac{3}{4}$	96 x 240	30.63 4900.80
$\frac{5}{16}$	96 x 240	12.76 2041.60	1	48 x 96	40.84 1306.88
$\frac{3}{8}$	48 x 96	15.31 489.92	1	96 x 240	40.84 6534.40

NOTE: Inquire for plates over 1" thick.

GALVANIZED

Technical Data.....	76-78
Hot Dipped Galvanized	76
Galvanized Sheet.....	77
Galvannealed Sheet.....	78

ASTM A-123 HOT DIPPED GALVANIZED

The hot dip galvanizing process is simple and effective. The carbon steel is first dipped into an acid bath (pickling) to clean the surface. Then it is dipped into a bath of molten zinc to produce a corrosion resistant coating that bonds with the steel. The dipping process assures complete and consistent application of the zinc coating even in the hard to reach spaces of complex equipment where painting is costly and time consuming. Galvanized steel offers substantial corrosion resistance at a low cost while providing extended, maintenance free protection. Many industries make extended use of galvanizing, including the automotive and transportation industries, public utilities, chemical processing and paper industries, along with many general industrial applications where rust is a multibillion dollar concern.

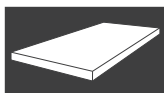
GALVANIZED VARIETIES

SHEETS	26 ga. to 10 ga.
PLATES	$\frac{3}{16}$ " thick to 1" thick
FLAT BARS	$\frac{1}{8}$ " x 1" to 1" x 12"
ANGLES	$\frac{1}{2}$ " x $\frac{1}{2}$ " x $\frac{1}{8}$ " to 8" x 8" x $\frac{3}{4}$ "
CHANNELS	1" x $\frac{1}{2}$ " x $\frac{1}{8}$ " to 18" x 42.7#
WIDE FLANGE BEAMS	4" x 13# to 12" x 26#
STANDARD I BEAMS	3" x 5.7# to 15" x 42.9#
STRUCTURAL PIPE	$\frac{1}{2}$ " Schedule 40 to 8" Schedule 40
SQUARE TUBING	$\frac{1}{2}$ " to 16"
RECTANGULAR TUBING	1" x $\frac{1}{2}$ " to 20" x 12"
ROUNDS & SQUARES	$\frac{1}{4}$ " to 2"
HALF ROUNDS & HALF OVALS	Inquire
BAR GRATING	1" x $\frac{1}{8}$ " BB to 1 $\frac{1}{2}$ " x $\frac{3}{16}$ " BB
EXPANDED METAL	$\frac{1}{2}$ " #16 flat to 1 $\frac{1}{2}$ " #9 flat
DIAMOND GRIP	4 $\frac{3}{4}$ " wide to 24" wide
BAR & STRUCTURAL TEES	Inquire
WELDED WIRE REINFORCEMENT	Inquire

NOTE: Inquire for other sizes.

ASTM A-653 GALVANIZED SHEET

Galvanized sheets are continuously hot-dipped with a protective coating of zinc. Coating is G90 (.90 oz per Sq. Ft.). Galvanized sheets can be formed, rolled or otherwise fabricated at room temperature without disrupting their protective qualities. Applications include heating and ventilation ducts, roof flashing, electrical boxes and many general maintenance applications.



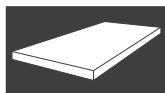
GALVANIZED SHEET

ASTM A-653 Commercial Quality.
Coating Class .90 oz. per Sq. Ft.

THICKNESS (gauge)	STOCK SIZE (in.)			EST. WEIGHT (lb.) Per Ft. Sheet		THICKNESS (gauge)	STOCK SIZE (in.)			EST. WEIGHT (lb.) Per Ft. Sheet	
#10	48	x	96	5.781	185.00	#16	60	x	120	2.656	132.80
#10	48	x	120	5.781	231.24	#18	48	x	96	2.156	68.99
#10	60	x	120	5.781	289.05	#18	48	x	120	2.156	86.24
#11	48	x	96	5.156	165.00	#18	60	x	120	2.156	107.80
#11	48	x	120	5.156	206.24	#20	36	x	96	1.656	39.74
#11	60	x	120	5.156	257.80	#20	48	x	96	1.656	53.00
#12	36	x	96	4.531	108.75	#20	48	x	120	1.656	66.24
#12	48	x	96	4.531	145.00	#20	60	x	120	1.656	82.80
#12	48	x	120	4.531	181.24	#22	36	x	96	1.406	33.74
#12	60	x	120	4.531	226.55	#22	48	x	96	1.406	45.00
#14	36	x	96	3.281	78.75	#22	48	x	120	1.406	56.24
#14	48	x	96	3.281	105.00	#24	36	x	96	1.156	27.74
#14	48	x	120	3.281	131.24	#24	48	x	96	1.156	37.00
#14	60	x	120	3.281	164.05	#24	48	x	120	1.156	46.24
#16	36	x	96	2.656	63.74	#26	36	x	96	.906	21.74
#16	48	x	96	2.656	85.00	#26	48	x	96	.906	29.00
#16	48	x	120	2.656	106.24	#26	48	x	120	.906	36.24

ASTM A-653 GALVANNEALED SHEET

Galvannealed sheet is recommended when a superior paint retaining surface is required. These sheets are heat treated after coating to eliminate spangle. Coating weight is A60. Only normal cleaning is required and sheet is ready for paint. Possesses many favorable fabricating properties associated with galvanized sheets. Applications include signs, truck trailer bodies, metal doors and furnace parts. Common trade names include Paint-Tite, Jetcoat and Redi-Kote.



GALVANNEALED SHEET

ASTM A-653 Commercial Quality.

THICKNESS (gauge)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet	THICKNESS (gauge)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet
#10	48 x 96	5.781 185.00	#16	60 x 120	2.656 132.80
#10	48 x 120	5.781 231.24	#18	48 x 96	2.156 68.99
#10	60 x 120	5.781 289.05	#18	48 x 120	2.156 86.24
#11	48 x 96	5.156 165.00	#20	36 x 96	1.656 39.74
#11	48 x 120	5.156 206.24	#20	48 x 96	1.656 53.00
#12	36 x 96	4.531 108.75	#20	48 x 120	1.656 66.24
#12	48 x 96	4.531 145.00	#22	36 x 96	1.406 33.74
#12	48 x 120	4.531 181.24	#22	48 x 96	1.406 45.00
#12	60 x 120	4.531 226.55	#22	48 x 120	1.406 56.24
#14	36 x 96	3.281 78.75	#24	36 x 96	1.156 27.74
#14	48 x 96	3.281 105.00	#24	48 x 96	1.156 37.00
#14	48 x 120	3.281 131.24	#24	48 x 120	1.156 46.24
#14	60 x 120	3.281 164.05	#26	36 x 96	.906 21.74
#16	36 x 96	2.656 63.74	#26	48 x 96	.906 29.00
#16	48 x 96	2.656 85.00	#26	48 x 120	.906 36.24
#16	48 x 120	2.656 106.24			

ALUMINUM

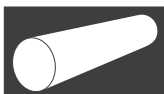
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ALUMINUM

MECHANICAL PROPERTIES

GRADE	TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	CHARACTERISTICS
1100	13,000 (O Temper) through 24,000 (H18 Temper)	5,000 (O Temper) through 22,000 (H18 Temper)	ASTM B-209 & QQ-A-250/1 is pure aluminum. Soft w/excellent workability & weldability. It cannot be heat treated.
2024-T3	70,000	50,000	QQ-A-250/4 has a high strength to weight ratio, good machinability & can be formed & heat treated in annealed condition.
3003-H14	22,000	21,000	QQ-A-250/2, ASTM B-209, SAE 29, & AMS 4008 are the most widely used grade. Pure aluminum w/addition of manganese for 20% more strength than 1100. Retains excellent corrosion resistance & workability. It cannot be heat treated.
5052-H32	33,000	28,000	QQ-A-250/8, ASTM B-209 has the highest strength of non-heat treatable grades. Excellent marine & salt water corrosion resistance. Great workability. Anodizes bright & clear.
6061-T6	45,000	40,000	QQ-A-250/11 (Sheet & Plate), QQ-A-200/8 (Bars & Shapes), QQ-A-200/16 (Structural Shapes), ASTM B-209, B-211, B-308, SAE 281, AMS 4027 (Sheet), & AMS 4150 (Bars) are the most versatile of the heat treatable grades. Combines good corrosion resistance, weldability & workability. Used for a wide variety of products and applications.
6063-T6	27,000	21,000	QQ-A-200/9 & ASTM B-221 are the “architectural alloy”, extruded square corners, excellent corrosion resistance & finishing characteristics. Best suited alloy for anodizing.

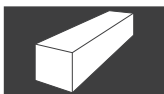
*The above values are average and should be considered as representative of the grade



ALUMINUM ROUNDS

6061-T6 & 6061-T651. Federal Spec QQ-A-225/8 Cold Finished
Federal Spec QQ-A-200/8 Extruded. 12' Stock Length.

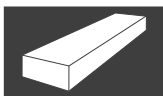
SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)	
	Per Ft.	12' Bar		Per Ft.	12' Bar		Per Ft.	12' Bar
1⁄8	.014	.17	1 1⁄2	2.078	24.94	4 1⁄4	16.683	200.20
3⁄16	.033	.39	1 5⁄8	2.439	29.27	4 1⁄2	18.704	244.45
1⁄4	.058	.70	1 3⁄4	2.829	33.95	5	23.901	286.82
5⁄16	.090	1.08	1 13⁄16	3.034	36.41	5 1⁄2	27.940	335.38
3⁄8	.130	1.56	1 7⁄8	3.247	38.96	6	33.251	399.02
7⁄16	.177	2.12	2	3.695	44.34	6 1⁄2	39.023	R/L
1⁄2	.231	2.77	2 1⁄8	4.171	50.05	7	45.258	R/L
9⁄16	.292	3.50	2 1⁄4	4.676	56.11	7 1⁄2	51.954	R/L
5⁄8	.361	4.33	2 1⁄2	5.773	69.28	8	59.112	R/L
3⁄4	.520	6.24	2 5⁄8	6.364	76.37	8 1⁄2	66.840	R/L
7⁄8	.707	8.48	2 3⁄4	6.985	83.82	9	74.814	R/L
1	.924	11.09	3	8.313	99.76	10	92.363	R/L
1 1⁄8	1.169	14.03	3 1⁄4	9.776	117.31	11	113.04	R/L
1 1⁄4	1.443	17.32	3 1⁄2	11.315	135.78	12	132.96	R/L
1 5⁄16	1.591	19.09	3 5⁄8	12.152	145.82	12 1⁄2	146.28	R/L
1 3⁄8	1.746	20.95	3 3⁄4	12.989	155.87			
1 7⁄16	1.909	22.91	4	14.778	177.34			



ALUMINUM SQUARES

6061-T6511. Federal Spec QQ-A-200/8 Extruded.
12' Stock Length.

SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)	
	Per Ft.	12' Bar		Per Ft.	12' Bar		Per Ft.	12' Bar
¼	.073	.88	7⁄8	.919	11.03	2 ¼	5.954	71.45
5⁄16	.118	1.42	1	1.176	14.11	2 ½	7.350	88.20
¾	.165	1.98	1 ¼	1.838	22.06	3	10.584	127.01
½	.294	3.53	1 ½	2.646	31.75	3 ¼	12.422	149.06
5⁄8	.460	5.52	1 ¾	3.602	43.22	3 ½	14.406	172.87
¾	.662	7.94	2	4.704	56.45	4	18.816	225.79



ALUMINUM FLATS

6061-T6. Federal Spec QQ-A-200/8 Extruded.
12' Stock Length.

SIZE (in.)		EST. WEIGHT (lb.) Per Ft. 12' Bar		SIZE (in.)		EST. WEIGHT (lb.) Per Ft. 12' Bar		SIZE (in.)		EST. WEIGHT (lb.) Per Ft. 12' Bar	
1/8 x 1/2	.074	0.89	3/8 x 1	.441	5.29	3/4 x 3 1/2	3.087	37.04	1 x 1 1/4	1.470	17.64
1/8 x 5/8	.092	1.10	3/8 x 1 1/4	.551	6.61	3/4 x 4	3.528	42.34	1 x 1 1/2	1.764	21.17
1/8 x 3/4	.110	1.32	3/8 x 1 1/2	.661	7.93	3/4 x 5	4.410	52.92	1 x 2	2.352	28.22
1/8 x 1	.147	1.76	3/8 x 2	.882	10.58	3/4 x 6	5.292	63.50	1 x 2 1/2	2.940	35.28
1/8 x 1 1/4	.184	2.21	3/8 x 2 1/2	1.103	13.24	1 x 1 1/4	1.470	17.64	1 x 3	3.528	42.34
1/8 x 1 1/2	.221	2.65	3/8 x 3	1.323	15.88	1 x 1 1/2	1.764	21.17	1 x 3 1/2	4.12	49.44
1/8 x 1 3/4	.257	3.08	3/8 x 3 1/2	1.544	18.53	1 x 2	2.352	28.22	1 x 4	4.704	56.45
1/8 x 2	.294	3.53	3/8 x 4	1.764	21.17	1 x 2 1/2	2.940	35.28	1 x 5	5.88	70.56
1/8 x 2 1/2	.368	4.42	3/8 x 5	2.206	26.48	1 x 3	3.528	42.34	1 x 6	7.056	84.67
1/8 x 3	.441	5.29	3/8 x 6	2.646	31.75	1 x 3 1/2	4.12	49.44	1 1/4 x 1 1/2	2.205	26.46
1/8 x 4	.588	7.06	3/8 x 7	3.087	37.05	1 x 4	4.704	56.45	1 1/4 x 2	2.940	35.28
1/8 x 6	.882	10.58	1/2 x 3/4	.441	5.29	1 x 5	5.88	70.56	1 1/4 x 2 1/2	3.675	44.10
3/16 x 3/4	.165	1.98	1/2 x 1	.588	7.06	1 x 6	7.056	84.67	1 1/4 x 3	4.410	52.92
3/16 x 1	.221	2.65	1/2 x 1 1/4	.735	8.82	1 1/4 x 1 1/2	2.205	26.46	1 1/4 x 3 1/2	5.15	61.80
3/16 x 1 1/4	.276	3.31	1/2 x 1 1/2	.882	10.58	1 1/4 x 2	2.940	35.28	1 1/4 x 4	5.880	70.56
3/16 x 1 1/2	.331	3.97	1/2 x 1 3/4	1.029	12.35	1 1/4 x 2 1/2	3.675	44.10	1 1/4 x 5	7.36	88.32
3/16 x 2	.441	5.29	1/2 x 2	1.176	14.11	1 1/4 x 3	4.410	52.92	1 1/4 x 6	8.82	105.84
3/16 x 3	.662	7.94	1/2 x 2 1/2	1.470	17.64	1 1/2 x 2	3.528	42.34	1 1/2 x 2 1/2	4.410	52.92
3/16 x 4	.882	10.58	1/2 x 3	1.764	21.17	1 1/2 x 3 1/2	6.18	74.16	1 1/2 x 3	5.292	63.50
1/4 x 1/2	.147	1.76	1/2 x 3 1/2	2.058	24.70	1 1/2 x 4	7.056	84.67	1 1/2 x 3 1/2	6.18	74.16
1/4 x 3/4	.221	2.65	1/2 x 4	2.352	28.22	1 1/2 x 5	8.83	105.96	1 1/2 x 4	7.056	84.67
1/4 x 1	.294	3.53	1/2 x 5	2.940	35.28	1 1/2 x 6	10.584	127.01	2 x 2 1/2	5.880	70.56
1/4 x 1 1/4	.368	4.42	1/2 x 6	3.528	42.34	2 x 2 1/2	5.880	70.56	2 x 3	7.056	84.67
1/4 x 1 1/2	.441	5.29	5/8 x 3/4	.551	6.61	2 x 3	7.056	84.67	2 x 3 1/2	8.24	98.88
1/4 x 1 3/4	.515	6.18	5/8 x 1	.735	8.82	2 x 3 1/2	8.24	98.88	2 x 4	9.408	112.90
1/4 x 2	.588	7.06	5/8 x 1 1/4	.919	11.03	2 x 4	9.408	112.90	2 x 5	11.76	141.12
1/4 x 2 1/2	.735	8.82	5/8 x 1 1/2	1.103	13.24	2 x 5	11.76	141.12	2 x 6	14.112	169.35
1/4 x 3	.882	10.50	5/8 x 1 3/4	1.29	15.48	2 x 6	14.112	169.35	3 x 4	14.112	169.34
1/4 x 3 1/2	1.029	12.35	5/8 x 2	1.470	17.64	3 x 4	14.112	169.34	3 x 5	17.640	211.68
1/4 x 4	1.176	14.11	5/8 x 2 1/2	1.764	21.17	3 x 5	17.640	211.68	3 x 6	21.167	254.00
1/4 x 5	1.470	17.64	5/8 x 3	2.205	26.46	3 x 6	21.167	254.00	4 x 6	28.25	339.00
1/4 x 6	1.764	21.17	5/8 x 4	3.00	36.00	4 x 6	28.25	339.00			
5/16 x 3/4	.276	3.31	5/8 x 5	3.75	45.00						
5/16 x 1	.368	4.42	5/8 x 6	4.41	52.92						
5/16 x 1 1/4	.459	5.51	3/4 x 1	.882	10.58						
5/16 x 1 1/2	.551	6.61	3/4 x 1 1/4	1.103	13.24						
5/16 x 2	.735	8.82	3/4 x 1 1/2	1.323	15.88						
5/16 x 3	1.10	13.20	3/4 x 2	1.764	21.17						
3/8 x 1/2	.221	2.65	3/4 x 2 1/4	2.02	24.24						
3/8 x 3/4	.331	3.97	3/4 x 2 1/2	2.205	26.46						
			3/4 x 3	2.646	31.75						

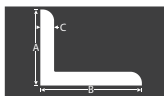
NOTE: See page 93 for flat bar over 6".



ALUMINUM AMERICAN STANDARD ANGLES

6061-T6. Federal Spec QQ-A-200/16
EQUAL LEGS. 25' Stock Length

SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)	
A	B	C	Per Ft.	25' Bar	A	B	C	Per Ft.	25' Bar
3/4 x 3/4 x 1/8			.201	5.03	2 1/2 x 2 1/2 x 3/8			2.047	51.18
1 x 1 x 1/8			.275	6.88	3 x 3 x 3/16			1.275	31.88
1 x 1 x 3/16			.400	10.00	3 x 3 x 1/4			1.684	42.10
1 x 1 x 1/4			5.14	12.85	3 x 3 x 5/16			2.082	52.05
1 1/4 x 1 1/4 x 1/8			.343	8.58	3 x 3 x 3/8			2.474	61.85
1 1/4 x 1 1/4 x 3/16			.510	12.75	3 x 3 x 1/2			3.227	80.68
1 1/4 x 1 1/4 x 1/4			.656	16.40	3 1/2 x 3 1/2 x 1/4			1.989	49.73
1 1/2 x 1 1/2 x 1/8			.423	10.58	3 1/2 x 3 1/2 x 5/16			2.461	61.53
1 1/2 x 1 1/2 x 3/16			.619	15.48	3 1/2 x 3 1/2 x 3/8			2.923	73.15
1 1/2 x 1 1/2 x 1/4			.809	20.23	3 1/2 x 3 1/2 x 1/2			3.826	95.65
1 3/4 x 1 3/4 x 1/8			.497	12.43	4 x 4 x 1/4			2.283	57.08
1 3/4 x 1 3/4 x 3/16			.731	18.28	4 x 4 x 5/16			2.829	70.73
1 3/4 x 1 3/4 x 1/4			.956	23.90	4 x 4 x 3/8			3.366	84.15
2 x 2 x 1/8			.577	14.43	4 x 4 x 1/2			4.414	110.35
2 x 2 x 3/16			.850	21.25	4 x 4 x 5/8			5.425	135.63
2 x 2 x 1/4			1.110	27.75	5 x 5 x 3/8			4.237	105.93
2 x 2 x 5/16			1.364	34.10	5 x 5 x 1/2			5.578	139.45
2 x 2 x 3/8			1.606	40.15	6 x 6 x 3/8			5.119	127.98
2 1/2 x 2 1/2 x 1/8			.724	18.10	6 x 6 x 1/2			6.754	168.85
2 1/2 x 2 1/2 x 3/16			1.070	26.75	6 x 6 x 5/8			8.352	208.80
2 1/2 x 2 1/2 x 1/4			1.404	35.10	8 x 8 x 1/2			9.141	228.53
2 1/2 x 2 1/2 x 5/16			1.729	43.23	8 x 8 x 3/4			13.478	336.95



ALUMINUM AMERICAN STANDARD ANGLES

6061-T6. Federal Spec QQ-A-200/16.

UNEQUAL LEGS. 25' Stock Length.

SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)	
A	B	C	Per Ft.	25' Bar	A	B	C	Per Ft.	25' Bar
1	x ¾	x ⅛	.238	5.95	3	x ½	x ⅜	1.071	26.78
1 ¼	x ¾	x ⅛	.272	6.80	3	x 2	x ¼	1.403	35.08
1 ¼	x 1	x ⅛	.314	7.85	3	x 2	x ⅜	2.046	51.15
1 ½	x ¾	x ⅛	.314	7.85	3	x 2 ½	x ¼	1.537	38.43
1 ½	x ¾	x ⅜	.454	11.35	3	x 2 ½	x ⅜	2.253	56.33
1 ½	x 1	x ⅛	.347	8.68	3 ½	x 2 ½	x ¼	1.684	42.10
1 ½	x 1	x ¼	.662	16.55	3 ½	x 2 ½	x ⅜	2.474	61.85
1 ½	x 1 ¼	x ⅛	.387	9.68	3 ½	x 2 ½	x ½	3.227	80.68
1 ½	x 1 ¼	x ⅜	.566	14.15	3 ½	x 3	x ¼	1.842	46.05
1 ½	x 1 ¼	x ¼	.734	18.35	3 ½	x 3	x ⅜	2.705	67.63
1 ¾	x 1 ¼	x ⅛	.421	10.53	3 ½	x 3	x ½	3.532	88.30
1 ¾	x 1 ¼	x ⅜	.621	15.53	4	x 3	x ¼	1.988	49.70
1 ¾	x 1 ¼	x ¼	.809	20.23	4	x 3	x ⅜	2.926	73.15
2	x 1	x ⅛	.421	10.53	4	x 3	x ½	3.826	95.65
2	x 1 ½	x ⅛	.496	12.40	4	x 3 ½	x ⅜	3.128	78.20
2	x 1 ½	x ⅜	.731	18.28	4	x 3 ½	x ½	4.102	102.55
2	x 1 ½	x ¼	.956	23.90	5	x 3	x ⅜	3.349	83.73
2 ½	x 1 ¼	x ⅜	.797	19.93	5	x 3	x ½	4.396	109.90
2 ½	x 1 ½	x ⅛	.577	14.43	5	x 3 ½	x ⅜	3.582	89.95
2 ½	x 1 ½	x ⅜	.850	21.25	5	x 3 ½	x ½	4.704	117.60
2 ½	x 1 ½	x ¼	1.110	27.75	6	x 3 ½	x ⅜	3.385	84.63
2 ½	x 2	x ⅛	.652	16.30	6	x 3 ½	x ⅜	4.037	100.93
2 ½	x 2	x ⅜	.961	24.03	6	x 3 ½	x ½	5.306	132.65
2 ½	x 2	x ¼	1.257	31.43	6	x 4	x ⅜	4.237	105.93
2 ½	x 2	x ⅜	1.828	45.70	6	x 4	x ½	5.578	139.45

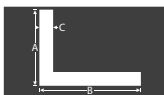


ALUMINUM ARCHITECTURAL ANGLES

6063-T5. Federal Spec QQ-A-200/9

EQUAL LEGS. 16' Stock Length

SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)		
A	B	C	Per Ft.	16' Bar	A	B	C	Per Ft.	16' Bar	
½	x	½	x ⅛	.070	1.12	1 ¼	x 1 ¼	x ⅜	.519	8.30
½	x	½	x ⅛	.131	2.10	1 ½	x 1 ½	x ⅛	.431	6.90
⅝	x	⅝	x ⅛	.168	2.69	1 ½	x 1 ½	x ⅜	.633	10.13
¾	x	¾	x ⅛	.110	1.73	1 ¾	x 1 ¾	x ⅛	.506	8.10
¾	x	¾	x ⅛	.206	3.30	2	x 2	x ⅛	.581	9.30
1	x	1	x ⅛	.140	2.32	2	x 2	x ⅜	.857	13.71
1	x	1	x ⅛	.281	4.50	2	x 2	x ¼	1.124	17.98
1	x	1	x ⅜	.408	6.53	3	x 3	x ⅜	1.308	20.9
1 ¼	x	1 ¼	x ⅛	.356	5.70					



ALUMINUM ARCHITECTURAL ANGLES

6063-T5. Federal Spec QQ-A-200/9

UNEQUAL LEGS. 16' Stock Length

SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)					
A	B	C	Per Ft.	16' Bar	A	B	C	Per Ft.	16' Bar				
3⁄8	x	3⁄4	x	3⁄32	.116	1.86	1	x	1 1⁄2	x	1⁄8	.356	5.70
1⁄2	x	3⁄4	x	1⁄8	.168	2.69	1	x	1 1⁄2	x	3⁄16	.501	8.02
1⁄2	x	1	x	3⁄32	.158	2.53	1	x	2	x	1⁄8	.431	6.90
1⁄2	x	1	x	1⁄8	.206	3.30	1	x	2	x	3⁄16	.65	10.00
1⁄2	x	1 1⁄4	x	1⁄8	.244	3.90	1	x	3	x	1⁄8	.581	9.30
1⁄2	x	2	x	1⁄8	.355	5.68	1 1⁄4	x	3 1⁄2	x	1⁄8	.694	11.10
5⁄8	x	1	x	1⁄8	.226	3.61	1 1⁄2	x	2 1⁄2	x	1⁄8	.581	9.30
3⁄4	x	1	x	1⁄8	.244	3.91	2	x	2 1⁄2	x	1⁄8	.656	10.50
3⁄4	x	1 1⁄2	x	1⁄8	.319	5.10	2	x	2 1⁄2	x	3⁄16	.973	15.60
7⁄8	x	1	x	1⁄8	.263	4.21	3	x	4	x	1⁄8	1.03	16.50



ALUMINUM AMERICAN STANDARD CHANNELS

6061-T6. Federal Spec QQ-A-200/8.

25' Stock Length.

SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)	
A	B	C	Per Ft.	25' Bar	A	B	C	Per Ft.	25' Bar
3 x	1.410 x	.170	1.42	35.5	7 x	2.194 x	.314	4.23	106
3 x	1.498 x	.258	1.73	43.4	7 x	2.299 x	.419	5.10	128
3 x	1.596 x	.356	2.07	51.8	8 x	2.290 x	.250	4.25	106
4 x	1.580 x	.180	1.85	46.3	8 x	2.343 x	.303	4.75	119
4 x	1.647 x	.247	2.16	54.0	8 x	2.435 x	.395	5.62	141
4 x	1.720 x	.320	2.50	62.5	8 x	2.527 x	.487	6.48	162
5 x	1.750 x	.190	2.32	58.0	9 x	2.430 x	.230	4.60	115
5 x	1.885 x	.325	3.11	77.8	9 x	2.648 x	.448	6.91	173
5 x	2.032 x	.472	3.97	99.3	10 x	2.600 x	.240	5.28	132
6 x	1.920 x	.200	2.83	70.8	10 x	2.886 x	.526	8.64	216
6 x	1.945 x	.225	3.00	75.0	12 x	2.940 x	.300	7.41	185
6 x	2.034 x	.314	3.63	90.8	12 x	3.047 x	.387	8.64	216
6 x	2.157 x	.437	4.48	112.0	12 x	3.170 x	.510	10.37	259
7 x	2.110 x	.230	3.54	88.5	15 x	3.400 x	.400	11.71	293



ALUMINUM ASSOCIATION CHANNELS

6061-T6. Federal Spec QQ-A-200/8.

25' Stock Length.

SIZE (in.)				EST. WEIGHT (lb.)		SIZE (in.)				EST. WEIGHT (lb.)	
A	B	C	D	Per Ft.	25' Bar	A	B	C	D	Per Ft.	25' Bar
2 x	1 ¼ x	.17 x	.26	1.071	26.78	7 x	3 ½ x	.21 x	.38	4.715	117.88
3 x	1 ½ x	.13 x	.20	1.135	28.375	8 x	3 x	.19 x	.35	4.147	103.68
3 x	1 ¾ x	.17 x	.26	1.597	39.93	8 x	3 ¾ x	.25 x	.41	5.789	144.73
4 x	2 x	.15 x	.23	1.738	43.45	10 x	3 ½ x	.25 x	.41	6.136	153.40
4 x	2 ¼ x	.19 x	.29	2.331	58.28	10 x	4 ¼ x	.31 x	.50	8.36	209.00
5 x	2 ¼ x	.15 x	.26	2.212	55.30	12 x	4 x	.29 x	.47	8.274	206.85
6 x	2 ½ x	.17 x	.29	2.834	70.85	12 x	5 x	.35 x	.62	11.822	295.60
6 x	3 ¼ x	.21 x	.35	4.030	100.75						



ALUMINUM ARCHITECTURAL CHANNELS

6063-T5. Federal Spec QQ-A-200/9.

16' Stock Length.

SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)					
A	B	C	Per Ft.	16' Bar	A	B	C	Per Ft.	16' Bar				
3/8	x	3/8	x	.109	.12	1.92	1 3/4	x	1/2	x	1/8	.374	5.98
1/2	x	3/8	x	1/8	.150	2.40	1 3/4	x	3/4	x	1/8	.450	7.20
1/2	x	1/2	x	3/32	.148	2.37	1 3/4	x	1	x	1/8	.524	8.38
1/2	x	3/4	x	1/8	.263	4.21	2	x	1/2	x	1/8	.413	6.61
5/8	x	5/8	x	1/8	.244	3.90	2	x	1	x	1/8*	.564	11.28
3/4	x	3/8	x	1/8	.187	2.99	2	x	1	x	3/16*	.817	16.34
3/4	x	3/4	x	1/8	.300	4.80	2	x	2	x	1/8	.863	13.81
1	x	3/8	x	1/8	.226	3.62	2	x	2	x	1/4	1.67	36.67
1	x	1/2	x	1/8*	.263	5.26	2 1/4	x	7/8	x	1/8	.563	9.01
1	x	1	x	1/8	.413	6.61	2 3/8	x	1 1/4	x	3/16*	1.03	20.60
1 1/4	x	1/2	x	1/8*	.300	6.00	2 1/2	x	1 1/4	x	1/8	.713	11.4
1 1/4	x	3/4	x	1/8*	.374	7.48	2 1/2	x	1 1/2	x	1/8*	.787	15.74
1 1/4	x	1 1/4	x	1/8	.526	8.42	3	x	1/2	x	1/8	.563	9.01
1 1/2	x	1/2	x	1/8*	.337	6.74	3	x	1	x	1/8	.713	11.41
1 1/2	x	3/4	x	1/8	.413	6.61	4 1/2	x	1	x	1/8	.937	15.00
1 1/2	x	1	x	1/8	.487	7.79	5	x	2	x	3/16	1.940	31.04
1 1/2	x	1 1/2	x	1/8	.637	10.19	*20' length available						



ALUMINUM AMERICAN STANDARD I BEAMS

6061-T6. Federal Spec QQ-A-200/8.

25' Stock Length.

DEPTH (in.)		FLANGE WIDTH (in.)		WEB (in.)	EST. WEIGHT (lb.)	
A		B		D	Per Ft.	25' Bar
3	x	2.330	x	.170	1.96	49.0
3	x	2.509	x	.349	2.59	64.8
4	x	2.660	x	.190	2.64	66.0
4	x	2.796	x	.326	3.28	82.0
5	x	3.000	x	.210	3.43	85.8
5	x	3.284	x	.494	5.10	128
6	x	3.330	x	.230	4.30	108
6	x	3.443	x	.343	5.10	128
7	x	3.755	x	.345	6.05	151
8	x	4.000	x	.270	6.35	159
8	x	4.262	x	.532	8.81	220
10	x	4.660	x	.310	8.76	219
12	x	5.000	x	.350	10.99	275



ALUMINUM WIDE FLANGE BEAMS

6061-T6. Federal Spec QQ-A-200/8.

25' Stock Length.

DEPTH (in.) A		FLANGE WIDTH (in.) B		WEB (in.) D	EST. WEIGHT (lb.)	
					Per Ft.	25' Bar
6	x	4	x	.230	4.16	104
6	x	6	x	.240	5.40	135
8	x	5.25	x	.230	5.90	148
8	x	6.50	x	.245	8.32	208
8	x	8	x	.288	10.72	268



ALUMINUM ASSOCIATION I BEAMS

6061-T6. Federal Spec QQ-A-200/8.

25' Stock Length.

DEPTH (in.) A	FLANGE WIDTH (in.) B	FLANGE THICK (in.) C	WEB (in.) D	EST. WEIGHT (lb.)	
				Per Ft.	25' Bar
3	2.50	.20	.13	1.64	41.00
3	2.50	.26	.15	2.03	50.75
4	3	.23	.15	2.311	57.78
4	3	.29	.17	2.793	69.83
5	3.50	.32	.19	3.70	92.50
6	4	.29	.19	4.03	100.75
6	4	.35	.21	4.69	117.25
8	5	.35	.23	6.18	154.5
10	6	.41	.25	8.646	216.2
10	6	.50	.29	10.286	257.0

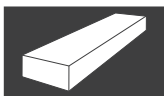


ALUMINUM H BEAMS

6061-T6. Federal Spec QQ-A-200/8.

25' Stock Length.

DEPTH (in.) A		FLANGE WIDTH (in.) B		WEB (in.) D	EST. WEIGHT (lb.)	
					Per Ft.	25' Bar
4	x	4.000	x	.313	4.76	119
5	x	5.000	x	.313	6.49	162
6	x	5.938	x	.250	7.85	196
8	x	7.938	x	.313	11.24	281
8	x	8.125	x	.500	12.99	325

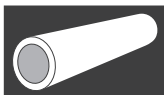


ALUMINUM FLATS (OVER 6" WIDE)

6061-T6. Federal Spec QQ-A-200/8 Extruded.
12' Stock Length.

SIZE (in.)		EST. WEIGHT (lb.)		SIZE (in.)		EST. WEIGHT (lb.)		SIZE (in.)		EST. WEIGHT (lb.)	
		Per Ft.	12' Bar			Per Ft.	12' Bar			Per Ft.	12' Bar
1/4 x	8	2.350	28.20	1/2 x	10	5.874	70.49	1 x	10	11.75	141.00
1/4 x	10	2.937	35.25	1/2 x	12	7.049	84.59	1 x	12	14.10	169.20
1/4 x	12	3.524	42.29	5/8 x	8	5.880	70.56	1 1/4 x	8	11.76	141.12
3/8 x	8	3.524	42.29	3/4 x	8	7.044	84.53	1 1/2 x	8	14.112	169.35
3/8 x	10	4.406	52.88	3/4 x	10	8.812	105.75	2 x	8	18.82	225.84
3/8 x	12	5.287	63.45	3/4 x	12	10.570	126.84				
1/2 x	8	4.704	56.45	1 x	8	9.398	112.78				

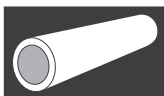
NOTE: See page 86 for flat bar 6" and less.



ALUMINUM PIPE

6061-T6. 6063-T6. 6063-T52.
Schedule 40—20' Stock Length.

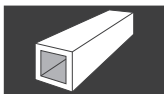
SIZE (in.)	OUTSIDE DIAMETER	INSIDE DIAMETER	WALL THICKNESS	EST. WEIGHT (lb.)
				Per Ft.
1/2	.840	.622	.109	.294
3/4	1.050	.824	.113	.391
1	1.315	1.049	.133	.581
1 1/4	1.660	1.380	.140	.786
1 1/2	1.900	1.610	.145	.940
2	2.375	2.067	.154	1.264
2 1/2	2.875	2.469	.203	2.004
3	3.500	3.068	.216	2.621
3 1/2	4.000	3.548	.226	3.151
4	4.500	4.026	.237	3.733
5	5.563	5.047	.258	5.057
6	6.625	6.065	.280	6.564
8	8.625	7.981	.322	9.878



ALUMINUM PIPE

6061-T6. 6063-T6. 6063-T52.
Schedule 80—20' Stock Length.

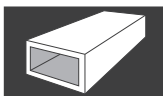
SIZE (in.)	OUTSIDE DIAMETER	INSIDE DIAMETER	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
1	1.315	.957	.179	.751
1 ¼	1.660	1.278	.191	1.037
1 ½	1.900	1.500	.200	1.256
2	2.375	1.939	.218	1.737
2 ½	2.875	2.323	.276	2.650
3	3.500	2.900	.300	3.547
3 ½	4.000	3.364	.318	4.326
4	4.500	3.826	.337	5.183
5	5.563	4.813	.375	7.188
6	6.625	5.761	.432	9.984
8	8.625	7.625	.500	15.009



ALUMINUM SQUARE TUBING

6063-T52. Federal Spec QQ-A-200/9.
21'1" Stock Length.

OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.)		OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.)	
		Per Ft.	21'1" Bar			Per Ft.	21'1" Bar
¾ x ¾	.062	.199	4.20	2 x 2	.188	1.550	32.68
¾ x ¾	.125	.125	7.67	2 x 2	.250	2.058	43.39
1 x 1	.062	.271	5.71	3 x 3	.125	1.673	35.27
1 x 1	.125	.509	10.73	3 x 3	.250	3.172	66.88
1 ¼ x 1 ¼	.125	.655	13.81	4 x 4	.125	2.255	45.54
1 ½ x 1 ½	.062	.425	8.96	4 x 4	.250	4.500	94.88
1 ½ x 1 ½	.125	.800	16.87	5 x 5	.125	2.927	61.71
1 ¾ x 1 ¾	.125	.946	19.94	6 x 6	.125	3.528	74.39
2 x 2	.125	1.091	23.00				

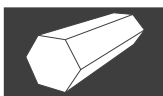


ALUMINUM RECTANGULAR TUBING

6063-T52. Federal Spec QQ-A-200/9.

21'1" Stock Length.

OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.)		OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.)	
		Per Ft.	21'1" Bar			Per Ft.	21'1" Bar
$\frac{3}{4}$ x 1	.125	.364	7.67	$1\frac{1}{2}$ x 3	.125	1.272	26.82
$\frac{3}{4}$ x $1\frac{1}{2}$	.125	.582	12.27	$1\frac{3}{4}$ x 3	.125	1.310	27.62
1 x $1\frac{1}{2}$	.125	.655	13.81	$1\frac{3}{4}$ x 4	.125	1.601	33.75
1 x 2	.125	.800	16.87	2 x 3	.125	1.382	29.1
1 x 3	.125	1.091	23.00	2 x 4	.125	1.673	35.27
1 x 4	.125	1.382	29.14	2 x 5	.125	1.964	41.41
$1\frac{1}{2}$ x 2	.125	.946	19.94	2 x 6	.125	2.294	48.40

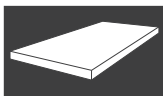


ALUMINUM HEXAGONS

6061-T6 & 6061-T651. Federal Spec QQ-A-200/8.

12' Stock Length.

SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)	
	Per Ft.	12' Bar		Per Ft.	12' Bar		Per Ft.	20' Bar
$\frac{1}{4}$	.066	.797	$\frac{5}{8}$	.415	5.52	$1\frac{1}{4}$	1.651	19.81
$\frac{5}{16}$	.099	1.19	$\frac{3}{4}$	.573	7.94	$1\frac{1}{2}$	2.291	27.49
$\frac{3}{8}$	.149	1.98	$\frac{7}{8}$	.814	9.77	$1\frac{3}{4}$	3.118	37.42
$\frac{1}{2}$	.266	3.53	1	1.020	12.24	2	4.704	48.89

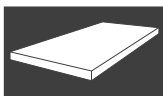


ALUMINUM SHEETS

6061-T651.

Federal Spec QQ-A-250/11.

THICKNESS (gauge)	STOCK SIZE (in.)	EST. WEIGHT (lb.)		THICKNESS (gauge)	STOCK SIZE (in.)	EST. WEIGHT (lb.)	
		Per Ft.	Sheet			Per Ft.	Sheet
.032	48 x 144	.452	21.70	.090	60 x 144	1.270	76.20
.040	48 x 144	.565	27.12	.100	48 x 144	1.411	67.73
.050	48 x 144	.706	33.89	.125	48 x 96	1.764	56.45
.050	60 x 144	.706	42.36	.125	48 x 144	1.764	84.67
.063	48 x 144	.889	42.67	.125	60 x 144	1.764	105.84
.063	60 x 144	.889	53.34	.160	48 x 144	2.258	108.38
.071	48 x 144	1.002	48.10	.190	48 x 144	2.681	128.69
.080	48 x 144	1.129	54.19	.190	60 x 144	2.681	160.86
.080	60 x 144	1.129	67.74	.190	72 x 144	2.681	193.03
.090	48 x 144	1.270	60.96				



ALUMINUM SHEETS

3003-H14 & 5052-H32.

Federal Spec QQ-A-250/2 & QQ-A-250/8.

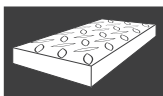
THICKNESS (in.)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet	THICKNESS (in.)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet
.025	36 x 96	.356 8.54	.080	48 x 120	1.141 45.64
.025	36 x 120	.356 10.68	.080	48 x 144	1.141 54.77
.025	48 x 96	.356 11.39	.080	60 x 120	1.141 57.05
.025	48 x 120	.356 14.24	.080	60 x 144	1.141 68.46
.025	48 x 144	.356 17.09	.090	36 x 96	1.283 30.79
.032	36 x 96	.456 10.94	.090	36 x 120	1.283 38.49
.032	36 x 120	.456 13.68	.090	48 x 96	1.283 41.06
.032	48 x 96	.456 14.59	.090	48 x 120	1.283 51.32
.032	48 x 120	.456 18.24	.090	48 x 144	1.283 61.58
.032	48 x 144	.456 21.89	.090	60 x 120	1.283 64.15
.032	60 x 120	.456 22.80	.090	60 x 144	1.283 76.98
.032	60 x 144	.456 27.36	.100	36 x 96	1.426 34.22
.040	36 x 96	.570 13.68	.100	36 x 120	1.426 42.78
.040	36 x 120	.570 17.10	.100	48 x 96	1.426 45.63
.040	48 x 96	.570 18.24	.100	48 x 120	1.426 57.04
.040	48 x 120	.570 22.80	.100	48 x 144	1.426 68.45
.040	48 x 144	.570 27.36	.100	60 x 120	1.426 71.30
.040	60 x 120	.570 28.50	.100	60 x 144	1.426 85.56
.040	60 x 144	.570 34.20	.125	36 x 96	1.782 42.77
.050	36 x 96	.713 17.11	.125	36 x 120	1.782 53.46
.050	36 x 120	.713 21.39	.125	48 x 96	1.782 57.02
.050	48 x 96	.713 22.82	.125	48 x 120	1.782 71.28
.050	48 x 120	.713 28.52	.125	48 x 144	1.782 85.54
.050	48 x 144	.713 34.22	.125	60 x 120	1.782 89.10
.050	60 x 120	.713 35.65	.125	60 x 144	1.782 106.92
.050	60 x 144	.713 42.78	.190	36 x 96	2.709 65.02
.063	36 x 96	.898 21.55	.190	36 x 120	2.709 81.27
.063	36 x 120	.898 26.94	.190	48 x 96	2.709 86.69
.063	48 x 96	.898 28.74	.190	48 x 120	2.709 108.36
.063	48 x 120	.898 35.92	.190	48 x 144	2.709 130.03
.063	48 x 144	.898 43.10	.190	60 x 120	2.709 135.45
.063	60 x 120	.898 44.90	.250	48 x 96	3.528 112.90
.063	60 x 144	.898 53.88	.250	48 x 120	3.528 141.12
.080	36 x 96	1.141 27.38	.250	48 x 144	3.528 169.34
.080	36 x 120	1.141 34.23	.250	60 x 120	3.528 176.40
.080	48 x 96	1.141 36.51			



ALUMINUM PLATE

6061-T651. Federal Spec QQ-A-250/11.
Mill Finish.

THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate	THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate
.250	36 x 96	3.528 84.67	1.000	36 x 96	14.112 338.69
.250	48 x 96	3.528 112.90	1.000	48 x 144	14.112 677.38
.250	48 x 144	3.528 169.34	1.000	60 x 144	14.112 846.72
.250	60 x 144	3.528 211.68	1.250	36 x 96	17.640 423.36
.313	36 x 96	4.417 106.01	1.250	48 x 144	17.640 846.72
.313	48 x 144	4.417 212.02	1.500	36 x 96	21.168 508.03
.375	36 x 96	5.292 127.01	1.500	48 x 144	21.168 1016.06
.375	48 x 96	5.292 169.35	1.500	60 x 144	21.168 1270.08
.375	48 x 144	5.292 254.02	1.750	36 x 96	24.696 592.70
.375	60 x 144	5.292 317.52	1.750	48 x 144	24.696 1185.41
.500	36 x 96	7.056 169.34	2.000	36 x 96	28.224 677.38
.500	48 x 96	7.056 225.79	2.000	48 x 144	28.224 1354.75
.500	48 x 144	7.056 338.69	2.500	36 x 96	35.280 846.72
.500	60 x 144	7.056 423.36	2.500	48 x 144	35.280 1693.44
.625	36 x 96	8.820 211.68	3.000	36 x 96	42.336 1016.06
.625	48 x 144	8.820 423.36	3.000	48 x 144	42.336 2032.13
.625	60 x 144	8.820 529.20	3.500	48 x 144	49.392 2370.82
.750	36 x 96	10.584 254.02	4.000	36 x 96	56.448 1354.75
.750	48 x 144	10.584 508.03	4.000	48 x 144	56.448 2709.50
.750	60 x 144	10.584 635.04	5.000	48 x 144	70.560 3386.88
.875	48 x 144	12.348 592.70	6.000	48 x 144	84.672 4064.26



ALUMINUM FLOOR PLATE

3003-H22 Diamond Tread Brite or 6061-T6 Diamond Tread Plate.
Military Spec MIL-F-17132.

THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate	THICKNESS	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Plate
1/16	48 x 96	1.00 32.00	1/4	48 x 96	3.67 117.44
1/8	48 x 96	1.92 61.44	1/4	48 x 120	3.67 146.80
1/8	48 x 120	1.92 76.80	1/4	48 x 144	3.67 176.16
1/8	48 x 144	1.92 92.16	1/4	48 x 192	3.67 234.88
1/8	48 x 192	1.92 122.88	1/4	60 x 192	3.67 293.60
1/8	60 x 192	1.92 153.60	3/8	48 x 96	5.60 177.20
3/16	48 x 96	2.82 90.24	3/8	48 x 192	5.60 358.40
3/16	48 x 120	2.82 112.80	3/8	60 x 192	5.60 448.00
3/16	48 x 144	2.82 135.36	1/2	48 x 96	7.30 233.60
3/16	48 x 192	2.82 180.48	1/2	48 x 192	7.30 467.20
3/16	60 x 192	2.82 225.60	1/2	60 x 192	7.30 584.00

6061-T6 DIAMOND TREAD PLATE has a dull gray finish because it is heat treated for more strength. It is not recommended for forming, but designed to provide a longer lasting surface where constant foot traffic and abrasion is the primary concern.

3003-H22 DIAMOND TREAD BRITE is the most economical grade of aluminum floor plate available. It has a shiny, bright finish that can be formed easily. Typical applications include bumpers and running boards on fire engines, telephone repair trucks or any application where a slip resistant surface is important. Another popular application is equipment boxes on trucks because their exposure to the elements makes rusting a primary concern. Also, the raised diamond surface effectively hides dents and dings.

STAINLESS STEEL & BRASS

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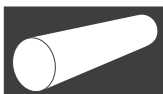
STAINLESS STEEL

The American Iron & Steel Institute (AISI) has assigned the following designations for stainless steel and are considered industry standards:

MECHANICAL PROPERTIES

GRADE	TENSILE STRENGTH (PSI)	YIELD STRENGTH (PSI)	CHARACTERISTICS
304	80/90,000	30/40,000	The basic 18-8 chromium nickel steel. The most widely used of the stainless heat resisting steel, offers good corrosion resistance, formability, readily welded by most common methods. Particularly good corrosion resistance after welding where heat treating is not possible. Hardness & tensile strength increased by cold working.
340L	Slightly lower than straight grade above		L means extra low carbon, avoids harmful, carbide precipitation following welding or stress relieving. Same corrosion resistance, slightly lower mechanical properties. Low carbon chromium nickel steel.
303	85/95,000	30/40,000	18-8 chromium nickel steel w/addition of selenium or sulphur, phosphorous to improve machinability (rating of 60%, B-1112 rated 100%). Used for parts requiring machining, polishing or grinding. Maximum corrosion resistance in annealed condition. Fairly good forming properties. Fair weldability.
316	75/90,000	30/40,000	18-8 chromium nickel steel w/addition of molybdenum for increased corrosion resistance & higher strength at elevated temperatures. Good cold forming & drawing properties make it the choice for many applications. Good weldability.
318L	Slightly lower than straight grade above		Extra low carbon avoids harmful carbide precipitation following welding or stress relieving. Retains many of the excellent characteristics of T-316.

*The above values are average and should be considered as representative of the grade



STAINLESS STEEL ROUNDS

T304, T304L, T316L, T303, & T303 ACCURACY*
ASTM A-276. MIL-S-7720. 12' Random Length.

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar
1/8	.042	.50	1 1/8	3.380	40.56	2 7/8	22.072	264.87
5/32	.065	.78	1 3/16	3.766	45.19	2 15/16	23.060	461.20
3/16	.094	1.13	1 1/4	4.172	50.06	3	24.003	288.40
7/32	.128	1.54	1 5/16	4.600	55.20	3 1/8	26.078	312.94
1/4	.167	2.00	1 3/8	5.049	60.59	3 1/4	28.206	338.47
9/32	.211	2.53	1 7/16	5.518	66.22	3 7/16	31.580	631.60
5/16	.261	3.13	1 1/2	6.008	72.10	3 1/2	32.712	392.54
1 1/32	.316	3.79	1 5/8	7.051	84.61	3 15/16	41.440	828.80
3/8	.376	4.51	1 11/16	7.604	91.25	3 3/4	37.552	450.62
7/16	.511	6.13	1 3/4	8.178	98.14	4	42.726	512.71
1/2	.668	8.02	1 7/8	9.388	112.66	4 1/4	48.233	578.79
9/16	.845	10.14	1 15/16	10.030	200.60	4 1/2	54.075	648.90
5/8	1.043	12.52	2	10.681	128.17	5	66.759	801.11
11/16	1.262	15.14	2 1/8	12.058	144.70	5 1/2	80.778	969.34
3/4	1.502	18.02	2 3/16	12.790	153.48	6	96.133	1153.60
13/16	1.763	21.16	2 1/4	13.519	162.23	6 1/2	112.900	2258.00
7/8	2.044	24.53	2 3/8	15.062	180.75	7	131.000	2620.00
15/16	2.347	28.16	2 1/2	16.690	200.28	8	171.000	3422.00
1	2.670	32.04	2 5/8	18.400	220.80			
1 1/16	3.015	36.18	2 3/4	20.195	242.34			

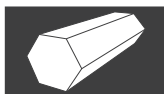
NOTE: Tolerance is +0/-0.0005.



STAINLESS STEEL SQUARES

T304. ASTM A-276. QQ-S-763.
12' Random Length.

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar
3/16	.120	1.44	5/8	1.328	15.94	1 1/4	7.650	91.80
1/4	.213	2.56	3/4	1.913	22.96	1 1/2	10.410	124.92
5/16	.332	3.98	2	2.603	31.24	1 3/4	13.600	163.20
3/8	.478	5.74	7/8	3.400	40.80			
1/2	.850	10.20	1	5.313	63.76			



STAINLESS STEEL HEXAGONS

ASTM A-276. QQ-S-763.

12' Random Length.

SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	20' Bar
1/4	.184	2.21	5/8	1.150	13.80	1 1/4	4.601	55.21
5/16	.288	3.46	1 1/16	1.392	16.70	1 1/2	6.626	79.51
3/8	.414	4.97	3/4	1.656	19.87	1 5/8	7.774	93.29
7/16	.564	6.77	7/8	2.254	27.05	2	11.780	141.36
1/2	.736	8.83	1 5/16	2.588	31.06			
9/16	.932	11.18	1	2.944	35.33			

NOTE: Type 303 & 316 also in stock. Many other grades available.



STAINLESS STEEL CHANNELS

T304 & T316.

19-22' Random Length.

EST. SIZE (in.)			ACTUAL SIZE (mm.)			EST. WEIGHT (lb.)	
A	B	C				Per Ft.	16' Bar
1 1/2	x 3/4	x 1/8	40	x 20	x 3	1.20	24.00
2	x 1	x 1/8	50	x 25	x 3	1.53	30.60
2	x 1	x 3/16				2.65	53.00
2	x 1	x 1/4				3.00	60.00
3	x 1 1/2	x 3/16	80	x 40	x 5	4.02	80.40
3	x 1 1/2	x 1/4	ANGLES WELDED TOGETHER			4.78	95.60
4	x 1 3/4	x 1/4				6.06	121.20
4	x 2	x 1/4	100	x 50	x 6	6.05	121.00
5	x 2 1/2	x 1/4	130	x 65	x 6	8.20	164.00
6	x 3	x 1/4	ANGLES WELDED TOGETHER			10.14	202.80
6	x 3	x 3/8	ANGLES WELDED TOGETHER			14.77	295.40
8	x 4	x 3/8	ANGLES WELDED TOGETHER			20.02	400.40

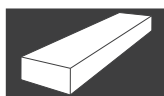


STAINLESS STEEL ANGLES

T304. ASTM A-479. QQ-S-763.

21' Random Length.

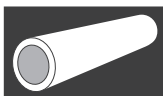
SIZE (in.)			EST. WEIGHT (lb.)		SIZE (in.)			EST. WEIGHT (lb.)					
A	B	C	Per Ft.	21' Bar	A	B	C	Per Ft.	21' Bar				
¾	x	¾	x	⅛	.59	12.39	2	x	2	x	¼	3.19	66.99
1	x	1	x	⅛	.80	16.80	2	x	2	x	⅜	4.70	98.70
1	x	1	x	⅜ ₁₆	1.16	24.36	2 ½	x	2 ½	x	⅜ ₁₆	3.07	64.47
1	x	1	x	¼	1.49	31.29	2 ½	x	2 ½	x	¼	4.10	86.10
1 ¼	x	1 ¼	x	⅛	1.01	21.21	2 ½	x	2 ½	x	⅜	5.90	123.90
1 ¼	x	1 ¼	x	⅜ ₁₆	1.48	31.08	3	x	2	x	¼	4.10	86.10
1 ¼	x	1 ¼	x	¼	1.92	40.32	3	x	3	x	¼	4.90	102.90
1 ½	x	1 ½	x	⅛	1.23	25.83	3	x	3	x	⅜	7.20	151.20
1 ½	x	1 ½	x	⅜ ₁₆	1.80	37.80	4	x	3	x	¼	5.80	121.80
1 ½	x	1 ½	x	¼	2.34	49.18	4	x	4	x	¼	6.60	138.60
2	x	2	x	⅛	1.65	34.65	4	x	4	x	⅜	9.80	205.80
2	x	2	x	⅜ ₁₆	2.44	51.24	6	x	4	x	⅜	12.30	258.30



STAINLESS STEEL FLATS

T304, ASTM A-240 (Plate Cut). ASTM A-276 (Mill Rolled).
12' Random Length.

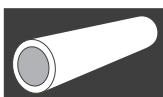
SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar
$\frac{1}{8}$ x $\frac{1}{2}$	.213	2.56	$\frac{1}{4}$ x 2	1.700	20.40	$\frac{1}{2}$ x $2\frac{1}{2}$	4.250	51.00
$\frac{1}{8}$ x $\frac{3}{4}$	.319	3.83	$\frac{1}{4}$ x $2\frac{1}{2}$	2.120	25.44	$\frac{1}{2}$ x 3	5.100	61.20
$\frac{1}{8}$ x 1	.425	5.10	$\frac{1}{4}$ x 3	2.550	30.60	$\frac{1}{2}$ x 4	6.800	81.60
$\frac{1}{8}$ x $1\frac{1}{4}$	.531	6.37	$\frac{1}{4}$ x 4	3.400	40.80	$\frac{1}{2}$ x 6	10.200	122.40
$\frac{1}{8}$ x $\frac{1}{2}$	.635	7.66	$\frac{1}{4}$ x 6	5.100	61.20	$\frac{1}{2}$ x 8	13.61	163.32
$\frac{1}{8}$ x 2	.850	10.20	$\frac{1}{4}$ x 8	6.806	81.68	$\frac{1}{2}$ x 10	17.02	204.24
$\frac{1}{8}$ x $2\frac{1}{2}$	1.060	12.72	$\frac{1}{4}$ x 10	8.508	102.10	$\frac{1}{2}$ x 12	20.42	245.04
$\frac{1}{8}$ x 3	1.280	15.36	$\frac{1}{4}$ x 12	10.21	122.52	$\frac{5}{8}$ x 1	2.125	25.50
$\frac{1}{8}$ x 4	1.700	20.40	$\frac{3}{8}$ x $\frac{3}{4}$	.956	11.47	$\frac{5}{8}$ x $1\frac{1}{2}$	3.188	38.26
$\frac{1}{8}$ x 6	2.552	30.63	$\frac{3}{8}$ x 1	1.280	15.36	$\frac{5}{8}$ x 2	4.250	51.00
$\frac{3}{16}$ x $\frac{1}{2}$	.319	3.83	$\frac{3}{8}$ x $1\frac{1}{4}$	1.594	19.13	$\frac{5}{8}$ x $2\frac{1}{2}$	5.313	62.76
$\frac{3}{16}$ x $\frac{3}{4}$	.478	5.74	$\frac{3}{8}$ x $1\frac{1}{2}$	1.920	23.04	$\frac{5}{8}$ x 3	6.375	76.50
$\frac{3}{16}$ x 1	.638	7.66	$\frac{3}{8}$ x $1\frac{3}{4}$	2.236	26.83	$\frac{5}{8}$ x 4	8.500	102.00
$\frac{3}{16}$ x $1\frac{1}{4}$	.797	9.56	$\frac{3}{8}$ x 2	2.550	30.60	$\frac{5}{8}$ x 6	12.750	153.00
$\frac{3}{16}$ x $1\frac{1}{2}$	.957	11.48	$\frac{3}{8}$ x $2\frac{1}{2}$	3.190	38.28	$\frac{3}{4}$ x 1	2.550	30.60
$\frac{3}{16}$ x $1\frac{3}{4}$	1.116	13.39	$\frac{3}{8}$ x 3	3.830	45.96	$\frac{3}{4}$ x $1\frac{1}{2}$	3.825	45.90
$\frac{3}{16}$ x 2	1.280	15.36	$\frac{3}{8}$ x 4	5.100	62.20	$\frac{3}{4}$ x 2	5.100	61.20
$\frac{3}{16}$ x $2\frac{1}{2}$	1.595	19.14	$\frac{3}{8}$ x 6	7.660	91.92	$\frac{3}{4}$ x $2\frac{1}{2}$	6.375	76.50
$\frac{3}{16}$ x 3	1.910	22.92	$\frac{3}{8}$ x 8	10.21	122.52	$\frac{3}{4}$ x 3	7.650	91.80
$\frac{3}{16}$ x 4	2.560	30.72	$\frac{3}{8}$ x 10	12.76	153.12	$\frac{3}{4}$ x 4	10.200	122.40
$\frac{3}{16}$ x 6	3.829	45.94	$\frac{3}{8}$ x 12	15.31	183.72	$\frac{3}{4}$ x 6	15.300	183.60
$\frac{1}{4}$ x $\frac{1}{2}$	.425	5.10	$\frac{1}{2}$ x $\frac{3}{4}$	1.275	15.30	1 x $1\frac{1}{2}$	5.100	61.20
$\frac{1}{4}$ x $\frac{3}{4}$	.636	7.63	$\frac{1}{2}$ x 1	1.700	20.40	1 x 2	6.800	81.60
$\frac{1}{4}$ x 1	.850	10.20	$\frac{1}{2}$ x $1\frac{1}{4}$	2.125	25.50	1 x 3	10.200	122.40
$\frac{1}{4}$ x $1\frac{1}{4}$	1.060	12.72	$\frac{1}{2}$ x $1\frac{1}{2}$	2.550	30.60	1 x 4	13.600	163.20
$\frac{1}{4}$ x $1\frac{1}{2}$	1.280	15.36	$\frac{1}{2}$ x $1\frac{3}{4}$	2.975	35.70			
$\frac{1}{4}$ x $1\frac{3}{4}$	1.488	17.86	$\frac{1}{2}$ x 2	3.400	40.80			



STAINLESS STEEL PIPE

T304 Welded. ASTM A-312.
Schedule 40—20' Random Length.

SIZE (in.)	OUTSIDE DIAMETER	INSIDE DIAMETER	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
1/8	.405	.269	.068	.245
1/4	.540	.364	.088	.425
3/8	.675	.493	.091	.568
1/2	.840	.622	.109	.851
3/4	1.050	.824	.113	1.131
1	1.315	1.049	.133	1.680
1 1/4	1.660	1.380	.140	2.273
1 1/2	1.900	1.610	.145	2.718
2	2.375	2.067	.154	3.653
2 1/2	2.875	2.469	.203	5.793
3	3.500	3.068	.216	7.576
3 1/2	4.000	3.548	.266	9.109
4	4.500	4.026	.237	10.790
5	5.563	5.047	.258	14.620
6	6.625	6.065	.280	18.970
8	8.625	7.981	.322	28.550
10	10.750	10.020	.365	40.480
12	12.750	12.000	.375	49.560

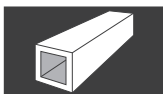


STAINLESS STEEL PIPE

T304 Welded. ASTM A-312.
Schedule 80—20' Random Length.

SIZE (in.)	OUTSIDE DIAMETER	INSIDE DIAMETER	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
1/2	.840	.546	.147	1.088
3/4	1.050	.742	.154	1.474
1	1.315	.957	.179	2.172
1 1/4	1.660	1.278	.191	2.997
1 1/2	1.900	1.500	.200	3.631
2	2.375	1.939	.218	5.022
2 1/2	2.875	2.323	.276	7.661
3	3.500	2.900	.300	10.250
3 1/2	4.000	3.364	.318	12.500
4	4.500	3.826	.337	14.980
5	5.563	4.813	.375	20.780
6	6.625	5.761	.432	28.570
8	8.625	7.625	.500	43.390
10	10.750	9.750	.500	54.740
12	12.750	11.750	.500	65.420

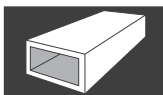
NOTE: Type 316 & Seamless are available upon request.



STAINLESS STEEL SQUARE TUBING

T304. ASTM A-554.
20' Random Length.

OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.	OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
$\frac{3}{4} \times \frac{3}{4}$	.065	.605	$2 \frac{1}{2} \times 2 \frac{1}{2}$	.120	3.900
$\frac{3}{4} \times \frac{3}{4}$	.120	1.028	$2 \frac{1}{2} \times 2 \frac{1}{2}$	.180	5.352
1 x 1	.049	.634	$2 \frac{1}{2} \times 2 \frac{1}{2}$	.250	7.110
1 x 1	.065	.827	3 x 3	.083	3.290
1 x 1	.120	1.436	3 x 3	.120	4.750
1 $\frac{1}{4}$ x 1 $\frac{1}{4}$	.065	1.047	3 x 3	.180	6.578
1 $\frac{1}{4}$ x 1 $\frac{1}{4}$	.083	1.317	3 x 3	.250	8.810
1 $\frac{1}{4}$ x 1 $\frac{1}{4}$	.120	1.844	4 x 4	.120	6.460
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	.065	1.268	4 x 4	.180	9.351
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	.083	1.599	4 x 4	.250	12.210
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	.120	2.252	5 x 5	.250	16.350
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	.180	3.330	6 x 6	.250	19.020
2 x 2	.065	1.710	6 x 6	.375	27.120
2 x 2	.083	2.164	6 x 6	.500	38.123
2 x 2	.120	3.050	8 x 8	.250	26.528
2 x 2	.180	4.136	8 x 8	.375	39.291
2 x 2	.250	5.410	8 x 8	.500	51.721
2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	.083	2.730			

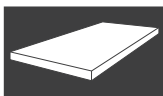


STAINLESS STEEL RECTANGULAR TUBING

T304. ASTM A-554.
20' Random Length.

OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.	OUTSIDE DIMENSIONS	WALL THICKNESS	EST. WEIGHT (lb.) Per Ft.
$\frac{3}{4} \times 1 \frac{1}{2}$	.065	.937	2 x 4	.250	8.810
1 x 1 $\frac{1}{2}$	.083	1.317	2 x 5	.180	8.060
1 x 2	.065	1.270	2 x 6	.180	9.420
1 x 2	.120	2.252	2 x 6	.250	12.210
1 x 3	.065	1.710	2 x 8	.180	11.970
1 x 3	.120	3.068	3 x 4	.120	5.610
1 $\frac{1}{2}$ x 2	.065	1.490	3 x 4	.180	8.150
1 $\frac{1}{2}$ x 2 $\frac{1}{2}$	.083	1.710	3 x 4	.250	10.510
2 x 3	.120	3.900	4 x 6	.180	11.900
2 x 3	.180	5.352	4 x 6	.250	15.620
2 x 4	.120	4.750	4 x 6	.375	23.994
2 x 4	.180	6.578	4 x 6	.500	31.324

NOTE: Type 316 is available upon request.



STAINLESS STEEL SHEETS

Cold Rolled & Annealed. 2B or Polished 1 Side.
ASTM A-240. QQ-S-766. MIL-S-5059.

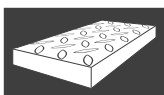
THICKNESS (in.)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet	THICKNESS (in.)	STOCK SIZE (in.)	EST. WEIGHT (lb.) Per Ft. Sheet
.135 (10 Ga.)	36 x 96	5.670 136.08	.060	60 x 120	2.520 126.00
.135	36 x 120	5.670 170.10	.060	60 x 144	2.520 151.20
.135	36 x 144	5.670 204.12	.048 (18 Ga.)	36 x 96	2.016 48.38
.135	48 x 96	5.670 181.44	.048	36 x 120	2.016 60.48
.135	48 x 120	5.670 226.80	.048	36 x 144	2.016 72.58
.135	48 x 144	5.670 272.16	.048	48 x 96	2.016 64.51
.1376 (10 Ga.)	60 x 120	5.779 288.95	.048	48 x 120	2.016 80.64
.1376	60 x 144	5.779 346.74	.048	48 x 144	2.016 96.77
.120 (11 Ga.)	36 x 96	5.040 120.96	.048	60 x 120	2.016 100.80
.120	36 x 120	5.040 151.20	.048	60 x 144	2.016 120.96
.120	36 x 144	5.040 181.44	.036 (20 Ga.)	36 x 96	1.512 36.29
.120	48 x 96	5.040 161.28	.036	36 x 120	1.512 45.36
.120	48 x 120	5.040 201.60	.036	36 x 144	1.512 54.43
.120	48 x 144	5.040 241.92	.036	48 x 96	1.512 48.38
.120	60 x 120	5.040 252.00	.036	48 x 120	1.512 60.48
.105 (12 Ga.)	36 x 96	4.410 105.84	.036	48 x 144	1.512 72.58
.105	36 x 120	4.410 132.30	.036	60 x 120	1.512 75.60
.105	36 x 144	4.410 158.76	.036	60 x 144	1.512 90.72
.105	48 x 96	4.410 141.12	.030 (22 Ga.)	36 x 96	1.260 30.24
.105	48 x 120	4.410 176.40	.030	36 x 120	1.260 37.80
.105	48 x 144	4.410 211.68	.030	36 x 144	1.260 45.36
.105	60 x 120	4.410 220.50	.030	48 x 96	1.260 40.32
.105	60 x 144	4.410 264.60	.030	48 x 120	1.260 50.40
.075 (14 Ga.)	36 x 96	3.150 75.60	.030	48 x 144	1.260 60.48
.075	36 x 120	3.150 94.50	.024 (24 Ga.)	36 x 96	1.008 24.19
.075	36 x 144	3.150 113.40	.024	36 x 120	1.008 30.24
.075	48 x 96	3.150 100.80	.024	36 x 144	1.008 36.29
.075	48 x 120	3.150 126.00	.024	48 x 96	1.008 32.26
.075	48 x 144	3.150 151.20	.024	48 x 120	1.008 40.32
.075	60 x 120	3.150 157.50	.024	48 x 144	1.008 48.38
.075	60 x 144	3.150 189.00	.018 (26 Ga.)	36 x 96	.756 18.14
.060 (16 Ga.)	36 x 96	2.520 60.48	.018	36 x 120	.756 22.68
.060	36 x 120	2.520 75.60	.018	36 x 144	.756 27.22
.060	36 x 144	2.520 90.72	.018	48 x 96	.756 24.19
.060	48 x 96	2.520 80.64	.018	48 x 120	.756 30.24
.060	48 x 120	2.520 100.80	.018	48 x 144	.756 36.29
.060	48 x 144	2.520 120.96			



STAINLESS STEEL PLATE

T304, T304L, T316, & T316L. Hot Rolled, Annealed & Pickled.
ASTM A-240. QQ-S-766. MIL-S-5059.

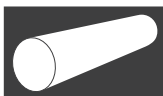
THICKNESS	STOCK SIZE		EST. WEIGHT (lb.)		THICKNESS	STOCK SIZE		EST. WEIGHT (lb.)	
	(in.)		Per Ft.	Plate		(in.)		Per Ft.	Plate
$\frac{3}{16}$	48	x 96	8.579	274.53	$\frac{3}{8}$	48	x 120	16.496	659.84
$\frac{3}{16}$	48	x 120	8.579	343.16	$\frac{3}{8}$	48	x 240	16.496	1319.68
$\frac{3}{16}$	48	x 144	8.579	411.79	$\frac{3}{8}$	60	x 240	16.496	1649.60
$\frac{3}{16}$	48	x 240	8.579	686.32	$\frac{3}{8}$	72	x 240	16.496	1979.52
$\frac{3}{16}$	60	x 120	8.579	428.95	$\frac{3}{8}$	84	x 240	16.496	2309.44
$\frac{3}{16}$	60	x 240	8.579	857.90	$\frac{3}{8}$	96	x 240	16.496	2639.36
$\frac{3}{16}$	72	x 240	8.579	1029.48	$\frac{1}{2}$	48	x 120	21.663	866.52
$\frac{3}{16}$	84	x 240	8.579	1201.06	$\frac{1}{2}$	48	x 240	21.663	1733.04
$\frac{3}{16}$	96	x 240	8.579	1372.64	$\frac{1}{2}$	60	x 240	21.663	2166.30
$\frac{1}{4}$	48	x 96	11.162	357.18	$\frac{1}{2}$	72	x 240	21.663	2599.56
$\frac{1}{4}$	48	x 120	11.162	446.48	$\frac{1}{2}$	84	x 240	21.663	3032.82
$\frac{1}{4}$	48	x 240	11.162	892.96	$\frac{1}{2}$	96	x 240	21.663	3466.08
$\frac{1}{4}$	60	x 120	11.162	558.10	$\frac{5}{8}$	72	x 240	26.831	3219.72
$\frac{1}{4}$	60	x 240	11.162	1116.20	$\frac{5}{8}$	96	x 240	26.831	4292.96
$\frac{1}{4}$	72	x 240	11.162	1339.44	$\frac{3}{4}$	72	x 240	32.123	3854.76
$\frac{1}{4}$	84	x 240	11.162	1562.68	$\frac{3}{4}$	96	x 240	32.123	5139.68
$\frac{1}{4}$	96	x 240	11.162	1785.92	1	96	x 240	42.665	6826.40
$\frac{5}{16}$	72	x 240	13.746	1649.52	1 $\frac{1}{4}$	cut to size		53.001	
$\frac{5}{16}$	96	x 240	13.746	2199.36	1 $\frac{1}{2}$	cut to size		63.337	
$\frac{3}{8}$	48	x 96	16.496	527.87					



STAINLESS STEEL FLOOR PLATE

T304.

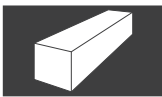
THICKNESS	STOCK SIZE		EST. WEIGHT (lb.)		THICKNESS	STOCK SIZE		EST. WEIGHT (lb.)	
	(in.)		Per Ft.	Plate		(in.)		Per Ft.	Plate
$\frac{1}{8}$	36	x 120	6.16	184.80	$\frac{1}{4}$	48	x 96	11.25	360.00
$\frac{1}{8}$	48	x 96	6.16	197.12	$\frac{1}{4}$	48	x 120	11.25	450.00
$\frac{1}{8}$	48	x 120	6.16	246.40	$\frac{1}{4}$	48	x 144	11.25	540.00
$\frac{3}{16}$	48	x 144	8.70	417.60	$\frac{3}{8}$	48	x 96	16.72	535.04



BRASS ROUNDS

Alloy 360. ASTM B16. QQ-B-626.
12' Random Length.

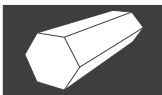
SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar	SIZE (in.)	EST. WEIGHT (lb.) Per Ft.	12' Bar
1/16	.0113	.1356	5/8	1.130	13.56	2	11.57	138.8
3/32	.0255	.3060	21/32	1.246	14.95	2 1/16	12.31	147.7
7/64	.0346	.4152	11/16	1.368	16.42	2 1/8	13.07	156.8
1/8	.0452	.5424	23/32	1.495	17.94	2 3/16	13.85	166.2
9/64	.0572	.6864	3/4	1.628	19.54	2 1/4	14.65	175.8
5/32	.0707	.8484	25/32	1.766	21.19	2 3/8	16.32	195.8
11/64	.0855	1.026	13/16	1.910	22.92	2 1/2	18.08	217.0
3/16	.1017	1.220	27/32	2.060	24.72	2 5/8	19.94	239.3
13/64	.1194	1.433	7/8	2.215	26.58	2 3/4	21.88	262.6
7/32	.1385	1.662	29/32	2.377	28.52	2 7/8	23.92	287.0
15/64	.1590	1.908	15/16	2.543	30.52	3	26.04	312.5
1/4	.1808	2.170	31/32	2.716	32.59	3 1/8	28.26	339.1
17/64	.2401	2.449	1	2.893	34.72	3 1/4	30.56	366.7
9/32	.2290	2.748	1 1/32	3.077	36.92	3 1/2	35.44	425.3
19/64	.2551	3.061	1 1/16	3.266	39.19	3 5/8	38.02	456.2
5/16	.2826	3.391	1 3/32	3.462	41.54	3 3/4	40.69	488.3
21/64	.3115	3.738	1 1/8	3.662	43.94	4	46.29	555.5
11/32	.3420	4.104	1 3/16	4.080	48.96	4 1/8	49.23	590.8
23/64	.3737	4.484	1 1/4	4.521	54.25	4 1/4	52.26	627.1
3/8	.4069	4.883	1 5/16	4.984	59.81	4 1/2	58.59	703.1
25/64	.4414	5.297	1 3/8	5.470	65.64	4 3/4	65.28	783.4
13/32	.4776	5.731	1 7/16	5.979	71.75	5	72.34	868.1
27/64	.5150	6.180	1 1/2	6.510	78.12	5 1/2	87.53	1050.4
7/16	.5538	6.646	1 9/16	7.064	84.77	6	104.2	1250.4
29/64	.5940	7.128	1 5/8	7.640	91.68	7	141.8	1701.6
15/32	.6359	7.631	1 11/16	8.239	98.87	8	185.2	2222.4
1/2	.7234	8.681	1 3/4	8.861	106.3	9	234.4	2812.8
17/32	.8167	9.800	1 13/16	9.505	114.1	10	289.3	3471.6
9/16	.9155	10.99	1 7/8	10.17	122.0			
19/32	1.020	12.24	1 15/16	10.86	130.3			



BRASS SQUARES

Alloy 360. ASTM B16. QQ-B-626.
12' Random Length.

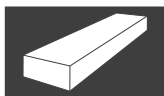
SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)	
Per Ft.	12' Bar	Per Ft.	12' Bar	Per Ft.	12' Bar	Per Ft.	12' Bar	12' Bar
$\frac{3}{32}$	.0324	.3888	$\frac{9}{16}$	1.166	13.99	1 $\frac{1}{2}$	8.289	99.47
$\frac{1}{8}$	.0576	.6912	$\frac{5}{8}$	1.439	17.27	1 $\frac{5}{8}$	9.728	116.7
$\frac{5}{32}$	.0900	1.080	1 $\frac{1}{16}$	1.741	20.89	1 $\frac{3}{4}$	11.28	135.4
$\frac{3}{16}$	.1295	1.554	$\frac{3}{4}$	2.072	24.86	2	14.74	176.9
$\frac{7}{32}$	.1764	2.117	1 $\frac{3}{16}$	2.432	29.18	2 $\frac{1}{4}$	18.65	223.8
$\frac{1}{4}$	.2303	2.764	$\frac{7}{8}$	2.821	33.85	2 $\frac{1}{2}$	23.03	276.4
$\frac{9}{32}$	.2915	3.498	1 $\frac{5}{16}$	3.238	38.86	2 $\frac{3}{4}$	27.86	334.3
$\frac{5}{16}$	.3598	4.318	1	3.684	44.21	3	33.16	397.9
$\frac{3}{8}$	.5181	6.217	1 $\frac{1}{8}$	4.663	55.96	4	58.96	706.8
$\frac{7}{16}$	.7051	8.461	1 $\frac{1}{4}$	5.756	69.07			
$\frac{1}{2}$	.9210	11.05	1 $\frac{3}{8}$	6.965	83.58			



BRASS HEXAGONS

Alloy 360. ASTM B16. QQ-B-626.
12' Random Length.

SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)	
Per Ft.	12' Bar	Per Ft.	12' Bar	Per Ft.	12' Bar	Per Ft.	20' Bar	20' Bar
$\frac{1}{8}$	.0498	.5976	$\frac{3}{4}$	1.795	21.54	1 $\frac{11}{16}$	9.085	109.0
$\frac{5}{32}$	.0779	.9348	1 $\frac{3}{16}$	2.106	25.27	1 $\frac{3}{4}$	9.770	117.2
$\frac{3}{16}$	.1122	1.346	$\frac{7}{8}$	2.443	29.32	1 $\frac{13}{16}$	10.48	125.8
$\frac{7}{32}$	.1527	1.832	1 $\frac{5}{16}$	2.804	33.65	1 $\frac{7}{8}$	11.22	134.6
$\frac{1}{4}$	.1994	2.393	1	3.190	38.28	2	12.76	153.1
$\frac{9}{32}$	.2524	3.029	1 $\frac{1}{16}$	3.602	43.22	2 $\frac{1}{8}$	14.41	172.9
$\frac{5}{16}$	.3116	3.739	1 $\frac{1}{8}$	4.038	48.46	2 $\frac{1}{4}$	16.15	193.8
1 $\frac{1}{32}$	.3771	4.525	1 $\frac{3}{16}$	4.499	53.99	2 $\frac{3}{8}$	18.00	216.0
$\frac{3}{8}$	.4486	5.383	1 $\frac{1}{4}$	4.985	59.82	2 $\frac{1}{2}$	19.94	239.3
1 $\frac{3}{32}$	.5267	6.320	1 $\frac{1}{2}$	5.496	65.95	2 $\frac{3}{4}$	24.13	289.6
$\frac{7}{16}$	.6106	7.327	1 $\frac{3}{8}$	6.032	72.38	3	28.71	344.5
$\frac{1}{2}$	.7976	9.571	1 $\frac{7}{16}$	6.593	79.12	3 $\frac{1}{8}$	31.16	373.9
$\frac{9}{16}$	1.009	12.11	1 $\frac{1}{2}$	7.178	86.14	3 $\frac{1}{4}$	33.70	404.4
$\frac{5}{8}$	1.246	14.95	1 $\frac{9}{16}$	7.789	93.47	3 $\frac{1}{2}$	39.08	469.0
1 $\frac{1}{16}$	1.508	18.10	1 $\frac{5}{8}$	8.424	101.1	4	51.04	612.5

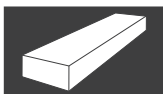


BRASS FLATS

Alloy 360. ASTM B16. QQ-B-626.
12' Random Length.

SIZE (in.)			EST. WEIGHT (lb.) Per Ft. 20' Bar			SIZE (in.)			EST. WEIGHT (lb.) Per Ft. 20' Bar			SIZE (in.)			EST. WEIGHT (lb.) Per Ft. 20' Bar		
3/32 x 1/2	.1728	2.074	1/4 x 1/2	.4605	5.526	3/8 x 3	4.145	49.74	1/4 x 3/8	.5756	6.907	3/8 x 3 1/2	4.835	58.02	1/4 x 3/4	.6908	8.290
3/32 x 3/4	.2592	3.110	1/4 x 5/8	.5756	6.907	3/8 x 4	5.526	66.31	1/4 x 7/8	.8059	9.671	3/8 x 5	6.908	82.90	1/4 x 1	.9210	11.05
3/32 x 1	.3456	4.147	1/4 x 3/4	.6908	8.290	3/8 x 6	8.289	99.47	1/4 x 1 1/4	1.151	13.81	7/16 x 1	1.612	19.34	1/4 x 1 1/2	1.382	16.58
3/32 x 1 1/4	.4319	5.183	1/4 x 7/8	.8059	9.671	1/2 x 5/8	1.151	13.81	1/4 x 1 3/4	1.612	19.34	1/2 x 3/4	1.382	16.58	1/4 x 2	1.842	22.10
3/32 x 1 1/2	.5183	6.220	1/4 x 1	.9210	11.05	1/2 x 7/8	1.612	19.34	1/4 x 2 1/4	2.072	24.86	1/2 x 1	1.842	22.10	1/4 x 2 1/2	2.303	27.64
1/8 x 3/16	.0863	1.036	1/4 x 1 1/4	1.151	13.81	1/2 x 1 1/4	2.303	27.64	1/4 x 2 3/4	2.533	30.40	1/2 x 1 1/2	2.763	33.16	1/4 x 3	2.763	33.16
1/8 x 1/4	.1151	1.381	1/4 x 1 1/2	1.382	16.58	1/2 x 1 3/4	3.224	38.69	1/4 x 4	3.684	44.21	1/2 x 2	3.684	44.21	1/4 x 3 1/2	3.224	38.69
1/8 x 5/16	.1439	1.727	1/4 x 1 3/4	1.612	19.34	1/2 x 2 1/4	4.163	49.96	1/4 x 4 1/2	4.145	49.74	1/2 x 2 1/2	4.605	55.26	1/4 x 5	4.605	55.26
1/8 x 3/8	.1727	2.072	1/4 x 2	1.842	22.10	1/2 x 2 3/4	5.526	66.31	1/4 x 5 1/2	5.526	66.31	1/2 x 3	5.526	66.31	1/4 x 6	5.526	66.31
1/8 x 7/16	.2015	2.418	1/4 x 2 1/4	2.072	24.86	1/2 x 4	7.368	88.42	1/4 x 6 1/2	6.907	82.90	1/2 x 4 1/2	8.289	99.47	1/4 x 7/8	1.007	12.08
1/8 x 1/2	.2303	2.764	1/4 x 2 1/2	2.303	27.64	1/2 x 5	9.210	110.5	1/4 x 8	8.290	99.47	1/2 x 5 1/2	10.36	124.8	1/4 x 1	1.151	13.81
1/8 x 5/8	.2878	3.454	1/4 x 3	2.763	33.16	1/2 x 6	11.05	132.6	1/4 x 8 1/2	9.671	115.6	1/2 x 6 1/2	12.08	145.1	1/4 x 1 1/4	1.439	17.27
1/8 x 3/4	.3454	4.145	1/4 x 3 1/2	3.224	38.69	1/2 x 7	12.43	149.1	1/4 x 9	11.05	132.6	1/2 x 7 1/2	13.81	165.8	1/4 x 1 1/2	1.727	20.72
1/8 x 7/8	.4029	4.835	1/4 x 4	3.684	44.21	1/2 x 8	13.81	165.8	1/4 x 9 1/2	12.43	149.1	1/2 x 8 1/2	15.19	182.3	1/4 x 1 3/4	2.015	24.18
1/8 x 1	.4605	5.526	1/4 x 4 1/2	4.145	49.74	1/2 x 9	15.19	182.3	1/4 x 10	13.81	165.8	1/2 x 9 1/2	16.58	198.9	1/4 x 2	2.303	27.64
1/8 x 1 1/8	.5181	6.217	1/4 x 5	4.605	55.26	1/2 x 10	16.58	198.9	1/4 x 10 1/2	15.19	182.3	1/2 x 10 1/2	18.23	218.7	1/4 x 2 1/4	2.533	30.40
1/8 x 1 1/4	.5756	6.907	1/4 x 5 1/2	5.526	66.31	1/2 x 11	18.23	218.7	1/4 x 11	16.58	198.9	1/2 x 11 1/2	20.72	248.6	1/4 x 2 3/4	2.763	33.16
1/8 x 1 1/2	.6908	8.290	1/4 x 6	5.526	66.31	1/2 x 12	20.72	248.6	1/4 x 11 1/2	18.23	218.7	1/2 x 12 1/2	23.03	276.4	1/4 x 3	2.763	33.16
1/8 x 1 3/4	.8059	9.671	1/4 x 6 1/2	6.907	82.90	1/2 x 13	23.03	276.4	1/4 x 12	20.72	248.6	1/2 x 13 1/2	25.33	304.0	1/4 x 3 1/2	3.224	38.69
1/8 x 2	.9210	11.05	1/4 x 7	7.368	88.42	1/2 x 14	25.33	304.0	1/4 x 12 1/2	23.03	276.4	1/2 x 14 1/2	27.64	331.6	1/4 x 4	3.684	44.21
1/8 x 2 1/4	1.036	12.43	1/4 x 7 1/2	8.289	99.47	1/2 x 15	27.64	331.6	1/4 x 13	25.33	304.0	1/2 x 15 1/2	30.40	361.6	1/4 x 4 1/2	4.145	49.74
1/8 x 2 1/2	1.151	13.81	1/4 x 8	8.290	99.47	1/2 x 16	30.40	361.6	1/4 x 13 1/2	27.64	331.6	1/2 x 16 1/2	33.16	391.6	1/4 x 5	4.605	55.26
1/8 x 3	1.382	16.58	1/4 x 8 1/2	9.671	115.6	1/2 x 17	33.16	391.6	1/4 x 14	30.40	361.6	1/2 x 17 1/2	36.16	421.6	1/4 x 5 1/2	5.526	66.31
1/8 x 3 1/2	1.612	19.34	1/4 x 9	11.05	132.6	1/2 x 18	36.16	421.6	1/4 x 14 1/2	33.16	391.6	1/2 x 18 1/2	39.16	451.6	1/4 x 6	5.526	66.31
1/8 x 4	1.842	22.10	1/4 x 9 1/2	12.43	149.1	1/2 x 19	39.16	451.6	1/4 x 15	36.16	421.6	1/2 x 19 1/2	42.16	481.6	1/4 x 6 1/2	6.907	82.90
3/16 x 3/8	.2590	3.108	1/4 x 10	13.81	165.8	1/2 x 20	42.16	501.6	1/4 x 15 1/2	39.16	421.6	1/2 x 20 1/2	45.16	511.6	1/4 x 7	7.368	88.42
3/16 x 1/2	.3454	4.145	1/4 x 10 1/2	15.19	182.3	1/2 x 21	45.16	541.6	1/4 x 16	42.16	451.6	1/2 x 21 1/2	48.16	551.6	1/4 x 7 1/2	8.289	99.47
3/16 x 5/8	.4317	5.180	1/4 x 11	16.58	198.9	1/2 x 22	48.16	581.6	1/4 x 16 1/2	45.16	481.6	1/2 x 22 1/2	51.16	591.6	1/4 x 8	8.290	99.47
3/16 x 3/4	.5181	6.217	1/4 x 11 1/2	18.23	218.7	1/2 x 23	51.16	621.6	1/4 x 17	48.16	511.6	1/2 x 23 1/2	54.16	621.6	1/4 x 8 1/2	9.671	115.6
3/16 x 7/8	.6044	7.253	1/4 x 12	20.72	248.6	1/2 x 24	54.16	651.6	1/4 x 17 1/2	51.16	541.6	1/2 x 24 1/2	57.16	651.6	1/4 x 9	11.05	132.6
3/16 x 1	.6908	8.290	1/4 x 12 1/2	23.03	276.4	1/2 x 25	57.16	681.6	1/4 x 18	54.16	571.6	1/2 x 25 1/2	60.16	681.6	1/4 x 9 1/2	12.43	149.1
3/16 x 1 1/4	.8634	10.36	1/4 x 13	25.33	304.0	1/2 x 26	60.16	721.6	1/4 x 18 1/2	57.16	601.6	1/2 x 26 1/2	63.16	721.6	1/4 x 10	13.81	165.8
3/16 x 1 1/2	1.036	12.43	1/4 x 13 1/2	27.64	331.6	1/2 x 27	63.16	751.6	1/4 x 19	60.16	631.6	1/2 x 27 1/2	66.16	751.6	1/4 x 10 1/2	15.19	182.3
3/16 x 1 3/4	1.209	14.51	1/4 x 14	30.40	361.6	1/2 x 28	66.16	781.6	1/4 x 19 1/2	63.16	661.6	1/2 x 28 1/2	69.16	781.6	1/4 x 11	16.58	198.9
3/16 x 2	1.382	16.58	1/4 x 14 1/2	33.16	391.6	1/2 x 29	69.16	821.6	1/4 x 20	66.16	691.6	1/2 x 29 1/2	72.16	821.6	1/4 x 11 1/2	18.23	218.7
3/16 x 2 1/2	1.727	20.72	1/4 x 15	36.16	421.6	1/2 x 30	72.16	851.6	1/4 x 20 1/2	69.16	721.6	1/2 x 30 1/2	75.16	851.6	1/4 x 12	20.72	248.6
3/16 x 3	2.072	24.86	1/4 x 15 1/2	39.16	451.6	1/2 x 31	75.16	881.6	1/4 x 21	72.16	751.6	1/2 x 31 1/2	78.16	881.6	1/4 x 12 1/2	23.03	276.4
3/16 x 3 1/2	2.418	29.02	1/4 x 16	42.16	481.6	1/2 x 32	78.16	921.6	1/4 x 21 1/2	75.16	781.6	1/2 x 32 1/2	81.16	921.6	1/4 x 13	25.33	304.0
3/16 x 4	2.763	33.16	1/4 x 16 1/2	45.16	511.6	1/2 x 33	81.16	951.6	1/4 x 22	78.16	811.6	1/2 x 33 1/2	84.16	951.6	1/4 x 13 1/2	27.64	331.6
1/4 x 5/16	.2878	3.454	1/4 x 17	48.16	541.6	1/2 x 34	84.16	981.6	1/4 x 22 1/2	81.16	841.6	1/2 x 34 1/2	87.16	981.6	1/4 x 14	30.40	361.6
1/4 x 3/8	.3454	4.145	1/4 x 17 1/2	51.16	571.6	1/2 x 35	87.16	1011.6	1/4 x 23	84.16	871.6	1/2 x 35 1/2	90.16	1011.6	1/4 x 14 1/2	33.16	391.6

continued on next page...



BRASS FLATS

Alloy 360. ASTM B16. QQ-B-626.

12' Random Length.

SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)		SIZE (in.)	EST. WEIGHT (lb.)	
	Per Ft.	20' Bar		Per Ft.	20' Bar		Per Ft.	20' Bar
$\frac{3}{4}$ x 4	11.05	132.6	1 x 4	14.74	176.9	$1\frac{1}{2}$ x $2\frac{1}{2}$	13.82	165.8
$\frac{3}{4}$ x 6	16.58	199.0	1 x 5	18.42	221.0	$1\frac{1}{2}$ x 3	16.58	199.0
1 x $1\frac{1}{4}$	4.605	55.26	1 x 6	22.10	265.2	$1\frac{1}{2}$ x 4	22.10	265.2
1 x $1\frac{1}{2}$	5.526	66.31	$1\frac{1}{4}$ x $1\frac{1}{2}$	6.908	82.90	$1\frac{3}{4}$ x 2	12.89	154.7
1 x $1\frac{3}{4}$	6.447	77.36	$1\frac{1}{4}$ x $1\frac{3}{4}$	8.059	96.71	$1\frac{3}{4}$ x 3	19.34	232.1
1 x 2	7.368	88.42	$1\frac{1}{4}$ x 2	9.210	110.5	2 x $2\frac{1}{2}$	18.42	221.0
1 x $2\frac{1}{4}$	8.289	99.47	$1\frac{1}{4}$ x $2\frac{1}{2}$	11.51	138.1	2 x 3	22.10	265.2
1 x $2\frac{1}{2}$	9.210	110.5	$1\frac{1}{4}$ x 3	13.82	165.8	2 x 4	29.47	353.6
1 x 3	11.05	132.6	$1\frac{1}{4}$ x 4	18.42	221.0	3 x 4	44.21	530.5
1 x $3\frac{1}{2}$	12.89	154.7	$1\frac{1}{2}$ x 2	11.05	132.6			

SPECIALTY ITEMS

Expanded Metal Flattened	120-121
Expanded Metal Raised	122-123
Expanded Metal Grating.....	124-125
Diamond Grip Channel.....	128
Bar Grating.....	129
Bar Grating Stair Tread.....	130
Safety-Grip Channel/Tread	131-132
Galvanized Corrugated Siding	133
Galvanized B-Decking.....	134
Perforated Metal.....	135

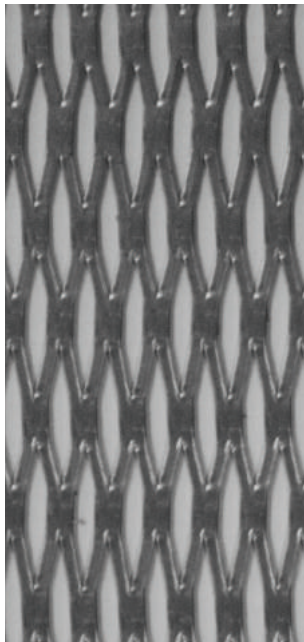


EXPANDED METAL FLATTENED

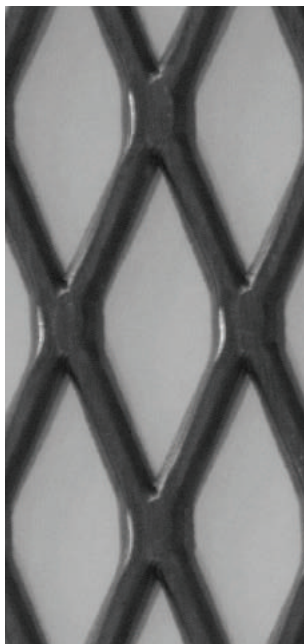
Specification EMMA 557-99.

STYLE	GAUGE	EST. WEIGHT (lb.) per CSF	STANDARD SIZES (ft.)			SIZE OF OPENINGS (in.)			CENTER TO CENTER BOND (in.)			SIZE OF STRANDS (in.)		PERCENT	OVERALL
(in.)	PLAIN	GALV.	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH	THICKNESS	THICKNESS	OPEN AREA	THICKNESS (in.)
1/4	#20	83	124	4	8	.094	.688	.255	1.03	.086	.030	.047	.030		.030
1/4	#18	111	165	4	8	.094	.688	.255	1.03	.086	.040	40	.040		.040
1/2	#18	66	88	3, 4, 6	8-10	.281	1.000	.500	1.26	.109	.039	69	.039		.039
1/2	#16	82	100	3, 4, 6	8-10	.250	1.000	.500	1.26	.103	.050	60	.050		.050
1/2	#13	140	162	3, 4, 6	8-10	.250	1.000	.500	1.26	.122	.070	57	.070		.070
3/4	#16	51	61	3, 4, 6	8-10	.750	1.750	.923	2.10	.115	.048	75	.048		.048
3/4	#13	75	86	3, 4, 6	8-10	.688	1.782	.923	2.10	.119	.070	73	.070		.070
3/4	#9	171	186	3, 4, 6	8-10-12	.563	1.688	.923	2.12	.164	.120	63	.120		.120
1 1/2	#16	38	44	4	8	1.063	2.750	1.330	3.20	.123	.048	82	.048		.048
1 1/2	#13	57	68	3, 4, 6	8	1.063	2.750	1.330	3.20	.138	.070	80	.070		.070
1 1/2	#9	111	128	3, 4, 6	8-10-12	1.000	2.563	1.330	3.20	.175	.110	77	.110		.110

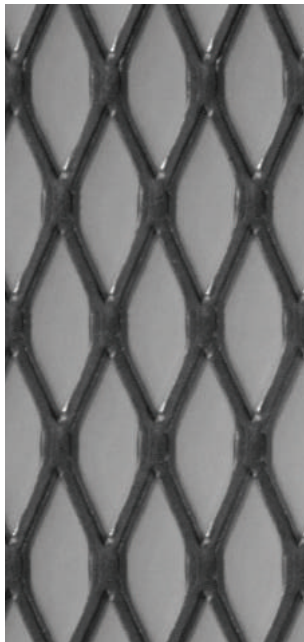
NOTE: Type 304 & 316 Stainless Steel available upon request.



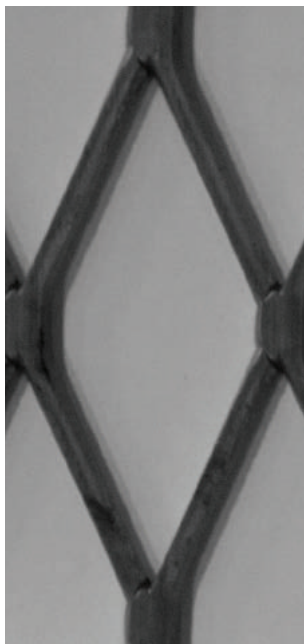
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3/4 #9 FLATTENED



1/2 #16 FLATTENED



1-1/2 #9 FLATTENED

NOTE: Patterns are shown actual size.

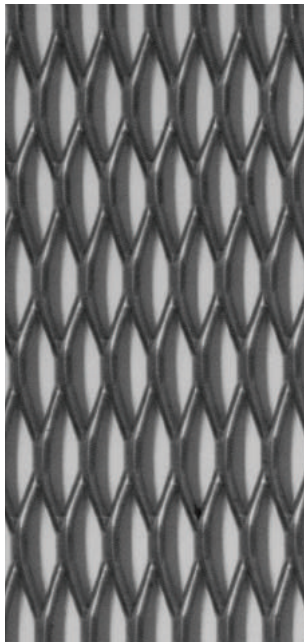


EXPANDED METAL RAISED

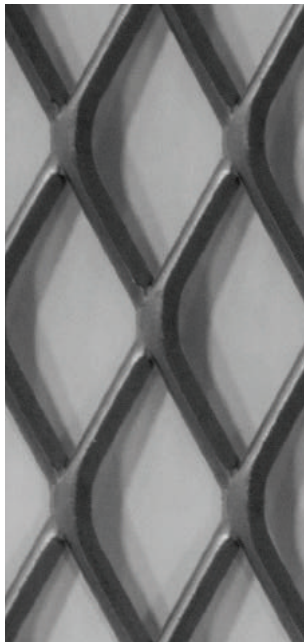
Specification EMMA 557-99.

STYLE	GAUGE	PLAIN	GALV.	EST. WEIGHT (lb.) per CSF	STANDARD SIZES (ft.)	SIZE OF OPENINGS (in.)	CENTER TO CENTER BOND (in.)	SIZE OF STRANDS (in.)	PERCENT OPEN AREA	OVERALL THICKNESS (in.)
(in.)					WIDTH	LENGTH	WIDTH	LENGTH		
1/4	#20	86	129	4	4	8	.172	.719	.255	.073
1/4	#18	114	171	4	4	8	.172	.719	.255	.073
1/2	#18	70	85	4-6	4-6	8, 10	.438	.938	.500	.088
1/2	#16	86	97	4-6	4-6	8, 10	.375	.938	.500	.086
1/2	#13	147	173	4-6	4-6	8, 10	.313	.938	.500	.096
3/4	#16	54	65	4-6	4-6	8, 10	.813	1.750	.923	.099
3/4	#13	80	92	4-6	4-6	8, 10	.750	1.688	.923	.096
3/4	#9	180	195	4-6	4-6	8, 10	.688	1.563	.923	.148
1 1/2	#16	40	48	4	4	8, 10	1.250	2.625	1.330	.107
1 1/2	#13	60	68	4-6	4-6	8, 10	1.188	2.500	1.330	.104
1 1/2	#9	120	131	4-6	4-6	8, 10	1.125	2.375	1.330	.142
1 1/2	#6	250	273	4-6	4-6	8, 10	1.000	2.313	1.330	.201

NOTE: Type 304 & 316 Stainless Steel available upon request.



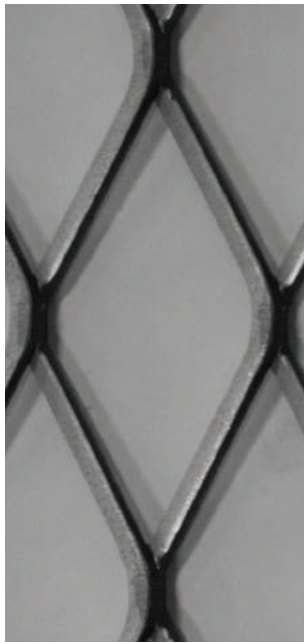
1/4 #18 RAISED



3/4 #9 RAISED



1/2 #16 RAISED



1-1/2 #9 RAISED

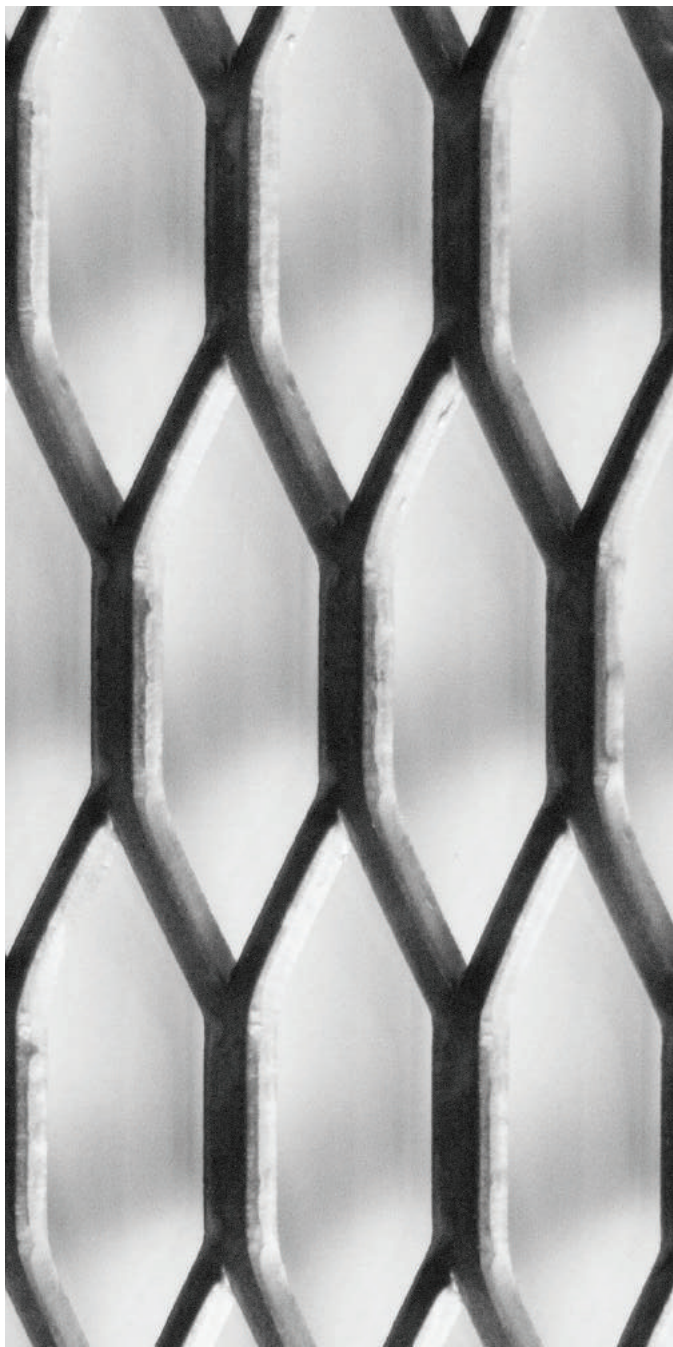
NOTE: Patterns are shown actual size.



EXPANDED METAL GRATING

Specification EMMA 557-99.

STYLE (lb.)	EST. WEIGHT (lb.) per CSF	STANDARD SIZES (ft.)			SIZE OF OPENINGS (in.)			CENTER TO CENTER BOND (in.)			SIZE OF STRANDS (in.)		PERCENT OPEN AREA	OVERALL THICKNESS (in.)
		PLAIN	GALV.	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH	LENGTH	THICKNESS		
3	300	300	320	4-6	8, 12	.938	3.438	1.333	5.33	.261	.183	.73	.500	
4	400	400	430	4-5-6	8, 10	.938	3.438	1.333	5.33	.297	.215	.65	.625	
4.27	427	427	457	4-6	8, 10	1.000	2.875	1.412	4.00	.297	.250	.58	.625	
5	500	500	550	4-5-6	8, 10	.813	3.375	1.333	5.33	.327	.250	.52	.625	
6.25	625	625	685	4-6	8	.813	3.375	1.412	5.33	.347	.312	.55	.750	
7	700	700	750	4-6	8	.813	3.375	1.412	5.33	.388	.312	.60	.750	



4 lb. Expanded Metal Grating

NOTE: Pattern is shown actual size.



W8-115 QUICK 4.5" Angle Grinder
#600264420

WP8-115 QUICK 4.5" Angle Grinder w/non-locking Paddle Switch
#600267420

- LongLife motor
- Quick wheel change system
- Switch with lock on capability
- AC/DC capability
- Spindle lock
- Aluminum die-cast gear housing
- Burst proof guard w/7 stops
- Anti-vibration side handle
- Auto stop carbon brushes
- Metabo slip clutch
- Winding protection grid

Max. Wheel Diameter	: 4-1/2"
No-load Speed RPM	: 10000
Amps	: 8.0
Spindle Thread	: 5/8"-11
Rated Input Watts	: 800



WE14-150 QUICK Electronic 5"/6" Angle Grinder #600160420

WEP14-150 QUICK Electronic 6" Angle Grinder/Cut-off Machine w/non-locking Paddle Switch #600290420

- Tacho constamatic (TC) electronics
- LongLife motor
- Quick wheel change system
- Current interruption protection
- Spindle lock
- Aluminum die-cast gear housing
- Burst-proof guard w/7 stops
- Anti-vibration side handle
- Electronic winding temperature monitor w/LED display
- Metabo slip clutch
- Auto-stop carbon brushes
- Winding protection grid
- Electronic soft start and speed stabilization

Max. Wheel Diameter	: 6"
No-load Speed RPM	: 8000
Amps	: 12.2
Spindle Thread	: 5/8"-11
Rated Input Watts	: 1400



**Fits where
no other grinder
can reach!**

WEPF9-125 4.5"/5" Flat Head Angle Grinder w/non-locking Paddle Switch
#613069420

- Tacho constamatic (TC) electronics
- Current interruption protection
- Spindle lock
- Aluminum die-cast gear housing
- Flat Head gear box design
- Burst proof guard
- Ergonomic side handle
- Electronic winding temperature monitor
- Electronic clutch
- Auto-stop carbon brushes
- Electronic soft start
- Electronic speed stabilization

Max. Wheel Diameter	: 5"
No-load Speed RPM	: 10,000
Amps	: 8.0
Arbor Size	: 7/8"
Spindle Thread	: 5/8"-11
Rated Input Watts	: 910



MAG32 1-1/4" Electromagnetic Drill Press #600330620

- LongLife motor
- Aluminum die-cast gear housing
- Integrated collant container

Max. Drilling Depth	: 2"
No-load Speed RPM	: 700
Amps	: 9.0
Rated Input Watts	: 1010



MAG50 2" Electromagnetic Drill Press #600636620

- Vario tacho constamatic (VTC) electronics
- LongLife motor
- Aluminum die-cast gear housing
- 2-speed gearbox
- Variable speed dial
- Reversing switch (for tapping)
- Electronic overload protection
- Power interruption protection
- Integrated collant container

Max. Drilling Depth	: 2"
No-load Speed RPM	: 100-250
	: 200-400
Amps	: 9.0
Rated Input Watts	: 1200



MAG28 LTX 25.2V Cordless Magnetic Drill Press #600334520

- Aluminum die-cast gear housing
- 2-speed permanently lubricated gearbox
- Adjustable permanent magnet for precise alignment
- V-base for mounting to flat or curved surfaces
- External carbon brush access
- LED electronic overload protection
- Electronic safety lockout
- Integrated coolant container
- Electronic single cell protection

Capacity using Annular Cutter	: 1-1/4"
Capacity using Twist Drill Bit	: 1/2"
Pipe Size (min.)	: 3-1/2"
No-load Speed	
-speed 1: 380 rpm/for cutters > 3/4"	
-speed 2: 680 rpm/for cutters < 3/4"	
Rated Input Watts	: 6-5/16"
Weight	: 32 lbs.

DIAMOND-GRIP® CHANNEL

Diamond-Grip® Channel is a one-piece metal grating widely used by industry for work platforms, mezzanines, cat-walks, stair-treads and wherever safe footing is important; especially around machinery and all wet and oily areas where accidents frequently occur. This grating has many design advantages: anti-skid, self cleaning, excellent load carrying capacity and above all rugged design, light weight, easy to handle, install and maintain. Installation is another advantage. One or two men can handle and fit Diamond-Grip® in the field without expensive handling equipment. Available in channels and walkway with various methods of fastening to steel structures such as “J” clips, bolt seats and welding.

VARIETIES	
ASTM A-525/G90 PREGALVANIZED	12 & 14 gauge
5052-H32 ALUMINUM	.080” thick to 12” wide
5052-H32 ALUMINUM	.100” thick to 18 ¾” wide
TYPE 304 2B STAINLESS STEEL	16 gauge to 11 ¾” wide on special order



DIAMOND-GRIP® CHANNEL

144” Stock Length

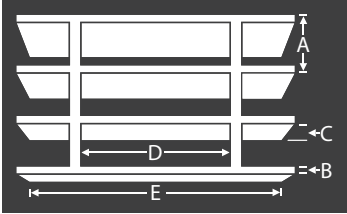
WIDTH (in.)	# of DIAMONDS	STOCK LENGTH (in.)	CHANNEL HEIGHT (in.)
4 ¾	2	144	1 ½, 2, 2 ½
7	3	144	1 ½, 2, 2 ½, 3
9 ½	4	144	1 ½, 2, 2 ½, 3
11 ¾	5	144	1 ½, 2, 2 ½, 3
18 ¾	8	144	1 ½, 2, 2 ½, 3
24	10	144	1 ½, 2, 2 ½, 3

NOTE: 120” Stock Length available upon request.

BAR GRATING

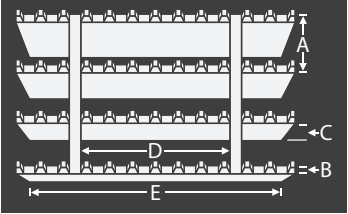
Bar Grating consists of a series of bearing bars welded (or otherwise joined) at various intervals to perpendicular cross bars to form a load-bearing panel. Panels are manufactured by welding, locked by swaging, or press-locked processes.

SMOOTH



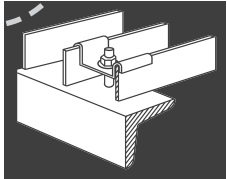
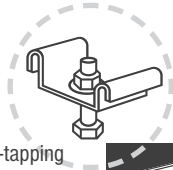
- A — Bearing Bar Spacing — 1 3/16"
- B — Bearing Bar Thickness
- C — Bearing Bar Depth
- D — Cross Bar Spacing — 4"
- E — Span

SERRATED



SADDLE CLIP

Bridges two bearing bars and is attached with 1/4" self-tapping bolt, 1/4" self threader, 1/4" weld stud or 1/4" bolt and nut when hole is drilled through supporting flange. Standard Saddle Clips fit 1 3/16" center bearing bar spacing.



BAR GRATING

Painted Black or Galvanized, Smooth or Serrated.
20' & 24' Stock Length.

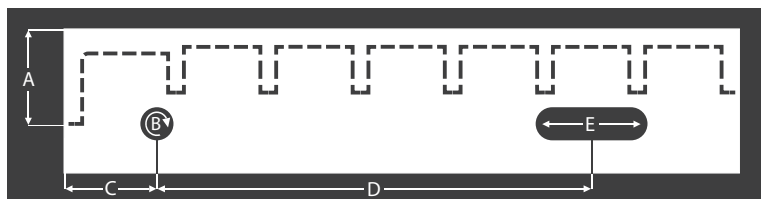
SIZE OF BEARING BAR (in.)			WIDTH OF PANEL (ft.)	BEARING BAR SPACING (in.)	CROSS BAR SPACING (in.)	EST. WEIGHT (lb.) Per Ft.
Depth		Thickness				
3/4	x	1/8	2, 3	1 3/16	4	3.99
1	x	1/8	2, 3	1 3/16	4	5.15
1 1/4	x	1/8	2, 3	1 3/16	4	6.20
1 1/2	x	1/8	2, 3	1 3/16	4	7.35
3/4	x	3/16	2, 3	1 3/16	4	5.67
1	x	3/16	2, 3	1 3/16	4	7.35
1 1/4	x	3/16	2, 3	1 3/16	4	9.03
1 1/2	x	3/16	2, 3	1 3/16	4	10.94
1 3/4	x	3/16	2, 3	1 3/16	4	12.62
2	x	3/16	2, 3	1 3/16	4	14.30
2 1/4	x	3/16	2, 3	1 3/16	4	15.87
2 1/2	x	3/16	2, 3	1 3/16	4	17.55

NOTE: Other sizes available upon request.

BAR GRATING STAIR TREAD

Welded stair treads are manufactured from standard 19-W-4 grating with a patterned floor plate nosing and pre-punched end plates to facilitate installation. Special nosings, sizes and finishes are available on application.

END PLATE DETAIL



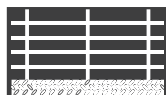
A — Front of Tread — $1 \frac{3}{4}$ "

B — Diameter of Hole — $\frac{7}{16}$ "

C — $1 \frac{1}{8}$ "

D — End Plate Dimension

E — Dimensions of Slot — $\frac{7}{16}$ " x 2"



BAR GRATING STAIR TREADS

Painted Black or Galvanized, Smooth or Serrated.

WIDTH OF TREAD (in.)		NUMBER OF BEARING BARS	END PLATE DIMENSION (in.)
$\frac{1}{8}$ Bearing Bar	$\frac{3}{16}$ Bearing Bar		
6 $\frac{1}{8}$	6 $\frac{3}{16}$	5	2 $\frac{1}{2}$
7 $\frac{5}{16}$	7 $\frac{3}{8}$	6	4 $\frac{1}{2}$
8 $\frac{1}{2}$	8 $\frac{9}{16}$	7	4 $\frac{1}{2}$
9 $\frac{11}{16}$	9 $\frac{3}{4}$	8	7
10 $\frac{7}{8}$	10 $\frac{15}{16}$	9	7
12 $\frac{1}{16}$	12 $\frac{1}{8}$	10	7

SAFETY-GRIP CHANNEL

Safety-Grip Channel is a one-piece metal grating with a unique design of large debossed holes with perforated buttons produced by a cold forming process. Safety-Grip has many design advantages like excellent slip resistance in all directions due to the circular edges. Installation is another advantage. One or two men can handle and fit Safety-Grip in the field without expensive handling equipment. Available in channels and walkway with various methods of fastening to steel structures such as “S” clips, bolt seats and welding.

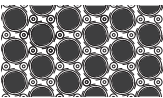
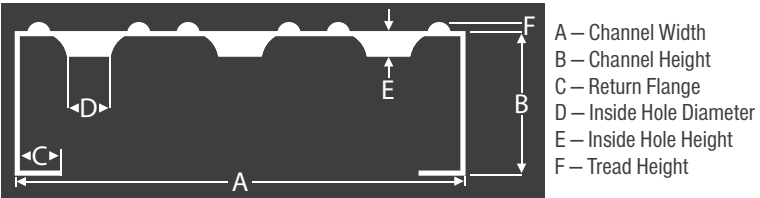
VARIETIES

PREGALVANIZED STEEL	13 & 11 gauge
5052-H32 ALUMINUM	.125” thick to 18” wide
TYPE 304 2B STAINLESS STEEL	16 gauge to 12” wide

TOLERANCES

WIDTH	LENGTH	HEIGHT
$\pm \frac{1}{16}$ ”	$+\frac{1}{2}$ ”, $-\frac{1}{4}$ ”	$\pm \frac{1}{16}$ ”

SIDE VIEW



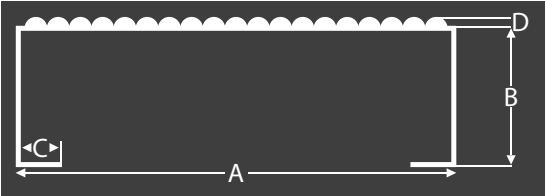
SAFETY-GRIP CHANNEL

CHANNEL WIDTH (in.)	STOCK LENGTH (in.)	CHANNEL HEIGHT (in.)
5	144	1 ½, 2
7	144	1 ½, 2, 3
10	144	1 ½, 2, 3
12	144	1 ½, 2, 3
18	144	1 ½, 2, 3
24	144	2, 3
30	144	2, 3, 4

SAFETY-TREAD

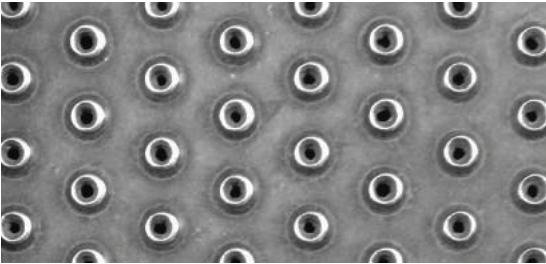
Safety-Tread is ideal for pedestrian traffic. Women in heels can walk over Safety-Tread flooring as easily and safely as a man in work boots. The perforations drain spillage and break oil film from the gripping edges.

SIDE VIEW



- A — Channel Width
- B — Channel Height
- C — Return Flange
- D — Tread Height

TOP VIEW



SAFETY-TREAD

MATERIAL	GAUGE	SIZE (in.)	EST. WEIGHT (lb.) Per Sq. Ft.
HOT ROLLED P & O	10	—	5.6
	11	—	5.0
	13	—	3.8
	16	—	2.5
5052-H32 ALUMINUM	—	.123	1.6
TYPE 304 2B STAINLESS STEEL	16	—	2.4

NOTE: Other Thicknesses available upon request.

GALVANIZED CORRUGATED SIDING

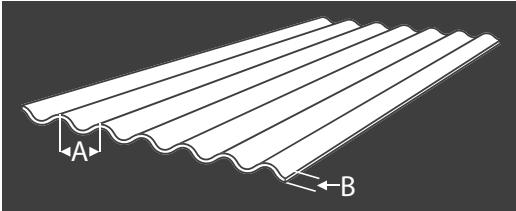
2 ½ x ½ Galvanized Corrugated Siding is a heavy duty roofing and siding which has proven to be a popular choice for many applications. Pick the gauge that's right for your application and know that you will receive a quality product, strong and durable. The G-90 Galvanized Coating promises years of resistance to wind, rain and corrosion.

VARIETIES

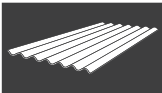
COLD ROLLED STEEL

G-90 GALVANIZED

SIDE VIEW



- A — Rib Spacing — 2 ½"
- B — Rib Height — ½"
- C — Width — 27 ½" exact (24" coverage)



GALVANIZED CORRUGATED SIDING

G-90 Galvanized Steel.
96", 120", & 144" x 24" Stock Sizes.

GAUGE	SIZE (in.)	EST. WEIGHT (lb.) Per 100 Sq. Ft.
18	.047	206.55
20	.036	158.21
22	.030	131.84
24	.034	105.48
26	.019	83.50

NOTE: Other Thicknesses available upon request.

GALVANIZED B-DECKING

B-Decking is strong, light weight, economical and easy to install. It is the most common structural roof deck. Normally B-Decking is used in short to medium span conditions ranging from 3 to 10 feet. This roof decking is used in a variety of applications such as roofs, canopies, awnings, trash enclosure gates, roof screens and more.

VARIETIES

GALVANIZED STEEL

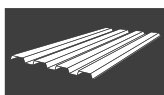
22 & 18 gauge

SIDE VIEW



A — Pitch — 6"

B — Rib Height — 1 ½"



GALVANIZED B-DECKING

G-60 Galvanized Steel.
36" x 24" Stock Sizes.

GAUGE	SIZE (in.)	EST. WEIGHT (lb.) Per Sq. Ft.
18	.047	2.9
22	.030	1.9

NOTE: Other Thicknesses available upon request.

PERFORATED METAL

Used for its variety of hole sizes, percentage of open area, high strength-to-weight ratio and aesthetic appeal. Perforated Metal has endless applications such as enclosures, partitions, sign panels, guards, screens and more.

VARIETIES

COLD ROLLED STEEL

GALVANIZED STEEL

T304 & T316 STAINLESS STEEL

3003-H14 ALUMINUM



PERFORATED METAL

CR Steel, Galvanized Steel, T304 SS, T316 SS, & 3003-H14 Aluminum.
48" x 120" Stock Size.

GAUGE	MATERIAL	HOLE DIAMETER (in.)	SPACING (in.)	PERCENT OPEN AREA
11	Cold Rolled Steel	1/8	3/16	40
11	Cold Rolled Steel	1/4	3/8	40
11	Cold Rolled Steel	3/8	1/2	51
11	Cold Rolled Steel	1/2	1 1/16	48
16	Cold Rolled Steel	.078	1/8	36
16	Cold Rolled Steel	1/8	3/16	40
16	Cold Rolled Steel	3/16	1/4	51
16	Cold Rolled Steel	1/4	5/16	59
16	Cold Rolled Steel	1/4	3/8	40
16	Cold Rolled Steel	3/8	1/2	51
16	Cold Rolled Steel	1/2	1 1/16	48
18	Cold Rolled Steel	.078	1/8	36
20	Cold Rolled Steel	3/16	1/4	51
22	Cold Rolled Steel	3/16	1/4	51
22	Cold Rolled Steel	1/4 Hex	9/32	80
22	Cold Rolled Steel	Roundcane	Roundcane	45
16	Stainless Steel	1/8	3/16	40
16	Stainless Steel	1/4	3/8	40
.063	Aluminum	1/8	3/16	40
.063	Aluminum	1/4	3/8	40
.063	Aluminum	1/4	5/16	59
22	Galvanized Steel	3/32	3/16	23

NOTE: Other Sizes, Thicknesses & Grades available upon request.

MISCELLANEOUS DATA

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FRACTION, DECIMAL & METRIC EQUIVALENTS

FRACTION	DECIMAL EQUIV.	MM	FRACTION	DECIMAL EQUIV.	MM
$\frac{1}{64}$	.01563	.397	$\frac{33}{64}$	.51563	13.097
$\frac{1}{32}$	.03125	.794	$\frac{17}{32}$	.53125	13.494
$\frac{3}{64}$	.04688	1.191	$\frac{35}{64}$	.54688	13.891
$\frac{1}{16}$	.06250	1.587	$\frac{9}{16}$	.56250	14.287
$\frac{5}{64}$	.07813	1.984	$\frac{37}{64}$	.57813	14.684
$\frac{3}{32}$	.09375	2.381	$\frac{19}{32}$	.59375	15.081
$\frac{7}{64}$	.10938	2.778	$\frac{39}{64}$	.60938	15.478
$\frac{1}{8}$	.12500	3.175	$\frac{5}{8}$	.62500	15.875
$\frac{9}{64}$	.14063	3.572	$\frac{41}{64}$	.64063	16.272
$\frac{5}{32}$	.15625	3.969	$\frac{21}{32}$	.65625	16.669
$\frac{11}{64}$	.17188	4.366	$\frac{43}{64}$	.67188	17.066
$\frac{3}{16}$	.18750	4.762	$\frac{11}{16}$	.68750	17.462
$\frac{13}{64}$	.20313	5.159	$\frac{45}{64}$	.70313	17.859
$\frac{7}{32}$	.21875	5.556	$\frac{23}{32}$	.71875	18.256
$\frac{15}{64}$	.23438	5.953	$\frac{47}{64}$	.73438	18.653
$\frac{1}{4}$	.25000	6.350	$\frac{3}{4}$	.75000	19.050
$\frac{17}{64}$	.26563	6.747	$\frac{49}{64}$	.76563	19.447
$\frac{9}{32}$	.28125	7.144	$\frac{25}{32}$	.78125	19.844
$\frac{19}{64}$	.29688	7.541	$\frac{51}{64}$	.79688	20.241
$\frac{5}{16}$	.31250	7.937	$\frac{13}{16}$	.81250	20.637
$\frac{21}{64}$	.32813	8.334	$\frac{53}{64}$	.82813	21.034
$\frac{11}{32}$	.34375	8.731	$\frac{27}{32}$	.84375	21.431
$\frac{23}{64}$	.35938	9.128	$\frac{55}{64}$	.85938	21.828
$\frac{3}{8}$	.37500	9.525	$\frac{7}{8}$	.87500	22.225
$\frac{25}{64}$	.39063	9.922	$\frac{57}{64}$	.89063	22.622
$\frac{13}{32}$	.40625	10.319	$\frac{29}{32}$	.90625	23.019
$\frac{27}{64}$	.42188	10.716	$\frac{59}{64}$	.92188	23.416
$\frac{7}{16}$	.43750	11.113	$\frac{15}{16}$	.93750	23.812
$\frac{29}{64}$	.45313	11.509	$\frac{61}{64}$	.95313	24.209
$\frac{15}{32}$	.46875	11.906	$\frac{31}{32}$	.96875	24.606
$\frac{31}{64}$	.48438	12.303	$\frac{63}{64}$	.98438	25.003
$\frac{1}{2}$	.50000	12.700	1	1.00000	25.400

SHEET METAL GAUGES & DECIMAL EQUIVALENTS

GAUGE	HOT & COLD ROLLED	GALVANIZED	STAINLESS	ALUMINUM & BRASS
30	.0120	.0157	.0125	.0100
29	.0135	.0172	.0140	.0113
28	.0149	.0187	.0156	.0126
27	.0164	.0202	.0171	.0142
26	.0179	.0217	.0187	.0159
25	.0209	.0247	.0218	.0179
24	.0239	.0276	.0250	.0201
23	.0269	.0306	.0281	.0226
22	.0299	.0336	.0312	.0253
21	.0329	.0366	.0343	.0285
20	.0359	.0396	.0375	.0320
19	.0418	.0456	.0437	.0359
18	.0478	.0516	.0500	.0403
17	.0538	.0575	.0562	.0453
16	.0598	.0635	.0625	.0508
15	.0673	.0710	.0703	.0571
14	.0747	.0785	.0781	.0641
13	.0897	.0934	.0937	.0720
12	.1046	.1084	.1093	.0808
11	.1196	.1233	.1250	.0907
10	.1345	.1382	.1406	.1019
7	.1793	—	.1875	.1443
3	.2391	—	.2500	.2294

At Dillon Supply Company, “we have your number!” Our experienced sales professionals have complete computerized records of your past purchases and special requirements right at their fingertips. When you know you did the same job last year, Dillon Supply will fill in the blanks for you.

PHYSICAL PROPERTIES OF STEEL

AIISI #	CONDITION	TENSILE STENGTH (PSI)	YIELD STRENGTH (PSI)	ELONGATION IN 2" PERCENT	REDUCTION OF AREA PERCENT	BRINELL HARDNESS
C-1008	Hot Rolled	45/55,000	26,000	45	65	90/124
C-1008	Cold Drawn	52/62,000	49,000	30	55	114/143
C-1010	Hot Rolled	48/58,000	30,000	38	65	95/134
C-1010	Cold Drawn	55/65,000	50,000	25	52	124/162
C-1015	Hot Rolled	50/70,000	32,000	35	60	105/143
C-1015	Cold Drawn	62/77,000	65,000	19	50	124/171
C-1016	Hot Rolled	52/70,000	32,000	35	60	105/143
C-1016	Cold Drawn	65/80,000	65,000	19	50	133/171
C-1017	Hot Rolled	50/70,000	32,000	35	60	105/143
C-1018	Cold Drawn	72/85,000	62,000	20	54	168
C-1019	Hot Rolled	52/70,000	32,000	35	60	105/143
C-1019	Cold Drawn	65/80,000	65,000	19	50	133/171
C-1020	Hot Rolled	54/70,000	32,000	35	60	109/152
C-1020	Cold Drawn	66/81,000	67,000	18	50	133/181
C-1022	Hot Rolled	55/70,000	32,000	35	55	114/153
C-1022	Cold Drawn	67/82,000	69,000	17	50	143/190
C-1025	Hot Rolled	60/75,000	35,000	30	55	124/171
C-1025	Cold Drawn	70/85,000	70,000	17	50	143/190
C-1030	Hot Rolled	65/80,000	38,000	30	55	133/181
C-1030	Cold Drawn	75/90,000	75,000	15	45	152/200
C-1030	Draw 1000°F	90,000	65,000	20	60	162/219
C-1035	Hot Rolled	70/85,000	43,000	25	50	143/190
C-1035	Cold Drawn	80/100,000	80,000	12	45	171/209
C-1035	Draw 1000°F	95,000	68,000	18	55	181/228
C-1040	Hot Rolled	75/90,000	48,000	25	45	152/190
C-1040	Cold Drawn	85/105,000	80,000	11	40	181/219
C-1040	Draw 1000°F	100,000	62,000	22	50	200/247
C-1045	Hot Rolled	80/95,000	50,000	25	40	162/200
C-1045	Cold Drawn	90/110,000	85,000	10	40	190/228
C-1045	Draw 1000°F	100,000	65,000	20	45	209/247
C-1050	Hot Rolled	90/110,000	55,000	20	35	171/228
C-1050	Cold Drawn	100/120,000	90,000	10	35	200/247
C-1050	Draw 1000°F	115,000	75,000	17	40	219/266
C-1095	Hot Rolled	140,000	75,000	8	10	296
C-1095	Draw 1000°F	175,000	120,000	10	20	375
B-1010	Hot Rolled	50/70,000	35,000	35	55	101/140
B-1010	Cold Drawn	65/80,000	60,000	17	50	131/170
C-1115	Hot Rolled	55/70,000	40,000	35	55	107/146
C-1115	Cold Drawn	65/80,000	60,000	20	50	140/179
C-1117	Hot Rolled	52/67,000	35,000	35	55	109/153
C-1117	Cold Drawn	70/85,000	65,000	21	45	143/179
C-1118	Hot Rolled	55/72,000	40,000	35	55	109/153
C-1118	Cold Drawn	70/90,000	65,000	19	45	143/179
C-1120	Hot Rolled	55/70,000	32,000	35	55	109/153

*The above values are approximate and are listed here only as a guide to what may be expected from the grades given.

TOLERANCES

CF Carbon Bars

COLD DRAWN or TURNED & POLISHED ROUNDS

Specified Size (in.)	Max. Carbon Range ≤.28%	Max. Carbon Range <.28% ≥.55%	Undersize Variations (in.)	
			Annealed or Stress Relieved after C.F. Max Carbon Range ≤55%	Max. Carbon Range >.55% with all grades Quenched & Tempered or Norm. & Temp. before C.F.
1 ½ or under	.002	.003	.004	.005
over 1 ½ to 2 ½ Incl.	.003	.004	.005	.006
over 2 ½ to 4 Incl.	.004	.005	.006	.007
over 4 to 6 Incl.	.005	.006	.007	.008
over 6 to 8 Incl.	.006	.007	.008	.009
over 8 to 9 Incl.	.007	.008	.009	.010
over 9	.008	.009	.010	.011

COLD DRAWN HEXAGONS

¾ or under	.002	.003	.004	.006
over ¾ to 1 ½ Incl.	.003	.004	.005	.007
over 1 ½ to 2 ½ Incl.	.004	.005	.006	.008
over 2 ½ to 3 ⅞ Incl.	.005	.006	.007	.009
over 3 ⅞ to 4 Incl.	.005	.006	—	—

COLD DRAWN SQUARES

¾ or under	.002	.004	.005	.007
over ¾ to 1 ½ Incl.	.003	.005	.006	.008
over 1 ½ to 2 ½ Incl.	.004	.006	.007	.009
over 2 ½ to 4 Incl.	.006	.008	.009	.011
over 4 to 5 Incl.	.010	—	—	—
over 5 to 6 Incl.	.014	—	—	—

COLD DRAWN FLATS (Tolerances for flats apply to thickness as well as width)

Width (in.)				
0 to ¾ Incl.	.003	.004	.006	.008
over ¾ to 1 ½ Incl.	.004	.005	.008	.010
over 1 ½ to 3 Incl.	.005	.006	.010	.012
over 3 to 4 Incl.	.006	.008	.011	.016
over 4 to 6 Incl.	.008	.010	.012	.020
over 6	.013	.015	—	—

COLD DRAWN, GROUND & POLISHED ROUNDS TURNED, GROUND & POLISHED ROUNDS

Diameter (in.)	Undersize Variations (in.)	
	Turned, Ground & Polished	Cold Drawn, Ground & Polished
1 ½ or under	.002	.003
over 1 ½ to 2 ½	.003	.004
over 2 ½ to 3 Incl.	.004	.005
over 3 to 4 Incl.	.005	.006
over 4 to 6 Incl.	.006	—
over 6	.008	—

*All tolerances are on the minus side +.000.

TOLERANCES

CF Alloy Bars

COLD DRAWN or TURNED & POLISHED ROUNDS

Specified Size (in.)	Max. Carbon Range ≤.28%	Max. Carbon Range <.28% ≥.55%	Undersize Variations (in.)	
			Annealed or Stress Relieved after C.F. Max Carbon Range ≤55%	Max. Carbon Range >.55% with or w/out Stress Relieving or Annealing after C.F. All Carb. Heat Tr. or Norm. & Temp. before C.F.
0 to 1 Incl. (in coils)	.002	.003	.004	.005
0 to 1 ½ Incl.	.003	.004	.005	.006
over 1 ½ to 2 ½	.004	.005	.006	.007
over 2 ½ to 4	.005	.006	.007	.008
over 4 to 6	.006	.007	.008	.009
over 6 to 8	.007	.008	.009	.010
over 8 to 9	.008	.009	.010	.011
over 9	.009	.010	.011	.012

COLD DRAWN HEXAGONS

0 to ¾ Incl.	.003	.004	.005	.007
over ¾ to 1 ½	.004	.005	.006	.008
over 1 ½ to 2 ½	.005	.006	.007	.009
over 2 ½ to 3 ½	.006	.007	.008	.010

COLD DRAWN SQUARES

0 to ¾ Incl.	.003	.005	.006	.008
over ¾ to 1 ½	.004	.006	.007	.009
over 1 ½ to 2 ½	.005	.007	.008	.010
over 2 ½ to 4	.007	.009	.010	.012
over 4 to 5	.011	—	—	—

COLD DRAWN FLATS (Tolerances for flats apply to thickness as well as width)

Width (in.)				
0 to ¾ Incl.	.004	.005	.007	.009
over ¾ to 1 ½	.005	.006	.009	.011
over 1 ½ to 3	.006	.007	.011	.013
over 3 to 4	.007	.009	.012	.017
over 4 to 6	.009	.011	.013	.021
over 6	.014	—	—	—

COLD DRAWN, GROUND & POLISHED ROUNDS TURNED, GROUND & POLISHED ROUNDS

Diameter (in.)	Cold Drawn, Ground & Polished	Turned, Ground & Polished	
	All Carbon with or w/out Thermal Treatment before Cold Drawing	Not Heat Treated All Carbon	Heat Treated All Carbon
0 to 1 ½ Incl.	.001	.001	.007
over 1 ½ to 2 ½ Incl.	.0015	.0015	.0015
over 2 ½ to 3 Incl.	.002	.002	.002
over 3 to 4 Incl.	.003	.003	.003
over 4 to 6 Incl.	—	.004	.005

*All tolerances are on the minus side +.000.

TOLERANCES

HR Carbon & Alloy Bars

ROUNDS & SQUARES			
Specified Size (in.)	Variation from Size (in.)		Out of Round* or Square (in.)
	Over	Under	
0 to $\frac{5}{16}$ Incl.	.005	.005	.008
over $\frac{5}{16}$ to $\frac{7}{16}$ Incl.	.006	.006	.009
over $\frac{7}{16}$ to $\frac{1}{2}$ Incl.	.007	.007	.010
over $\frac{1}{2}$ to $\frac{3}{8}$ Incl.	.008	.008	.012
over $\frac{3}{8}$ to 1 Incl.	.009	.009	.013
over 1 to 1 $\frac{1}{8}$ Incl.	.010	.010	.015
over 1 $\frac{1}{8}$ to 1 $\frac{1}{4}$ Incl.	.011	.011	.016
over 1 $\frac{1}{4}$ to 1 $\frac{3}{8}$ Incl.	.012	.012	.018
over 1 $\frac{3}{8}$ to 1 $\frac{1}{2}$ Incl.	.014	.014	.021
over 1 $\frac{1}{2}$ to 2 Incl.	$\frac{7}{16}$	$\frac{7}{16}$	.023
over 2 to 2 $\frac{1}{2}$ Incl.	$\frac{1}{32}$	0	.023
over 2 $\frac{1}{2}$ to 3 $\frac{1}{2}$ Incl.	$\frac{3}{64}$	0	.035
over 3 $\frac{1}{2}$ to 4 $\frac{1}{2}$ Incl.	$\frac{1}{16}$	0	.046
over 4 $\frac{1}{2}$ to 5 $\frac{1}{2}$ Incl.	$\frac{5}{64}$	0	.058
over 5 $\frac{1}{2}$ to 6 $\frac{1}{2}$ Incl.	$\frac{1}{8}$	0	.070
over 6 $\frac{1}{2}$ to 8 $\frac{1}{4}$ Incl.	$\frac{5}{32}$	0	.085
over 8 $\frac{1}{4}$ to 9 $\frac{1}{2}$ Incl.	$\frac{3}{16}$	0	.100
over 9 $\frac{1}{2}$ to 10 Incl.	$\frac{1}{4}$	0	.120

*Out of Round is the difference between the maximum & minimum diameters of a round bar measured at the same cross section. Out of Square is the difference in the two dimensions at the same cross section of a square bar—each dimension being the distance between opposite faces.

TOLERANCES

HR Carbon & Alloy Bars

FLAT BARS									
Specified Size (in.)	.023-.230 excl.	Under $\frac{1}{4}$	Variation from Thickness (in.)				Variation from Width (in.)		
			Over $\frac{1}{4}$ - $\frac{1}{2}$	Over $\frac{1}{2}$ -1	Over 1-2	Over 2-3	Over 3	Over	Under
0 to 1	.007	.007	.008	.010	—	—	—	$\frac{1}{64}$	$\frac{1}{64}$
over 1 to 2	.007	.007	.012	.015	$\frac{1}{32}$	—	—	$\frac{1}{32}$	$\frac{1}{32}$
over 2 to 4	.008	.008	.015	.020	$\frac{1}{32}$	$\frac{3}{64}$	$\frac{3}{64}$	$\frac{1}{16}$	$\frac{1}{32}$
over 4 to 6	.009	.009	.015	.020	$\frac{1}{32}$	$\frac{3}{64}$	$\frac{3}{64}$	$\frac{3}{32}$	$\frac{1}{16}$
over 6 to 8	—	.015	.015	.025	$\frac{1}{32}$	$\frac{3}{64}$	*	$\frac{1}{8}$ **	$\frac{3}{32}$

NOTE: Because of warpage, straightness tolerances do not apply if any subsequent heating operations have been performed after straightening.

*Not produced as bar flats

**Thickness & width tolerances for flats over 6" up to or equal to 8" in width & over 3" in thickness should be established in each instance.

MILLIMETERS CONVERTED TO INCHES

MM	DECIMAL INCHES	FRACTIONAL INCHES	MM	DECIMAL INCHES	FRACTIONAL INCHES	MM	DECIMAL INCHES	FRACTIONAL INCHES
1	.0394	$\frac{3}{64}$	35	1.378	$1\frac{3}{8}$	69	2.717	$2\frac{23}{32}$
2	.0787	$\frac{5}{64}$	36	1.417	$1\frac{27}{64}$	70	2.756	$2\frac{3}{4}$
3	.1181	$\frac{1}{8}$	37	1.457	$1\frac{29}{64}$	71	2.795	$2\frac{51}{64}$
4	.1575	$\frac{5}{32}$	38	1.496	$1\frac{1}{2}$	72	2.835	$2\frac{53}{64}$
5	.1969	$\frac{13}{64}$	39	1.535	$1\frac{17}{32}$	73	2.874	$2\frac{7}{8}$
6	.2362	$\frac{15}{64}$	40	1.575	$1\frac{37}{64}$	74	2.913	$2\frac{29}{32}$
7	.2756	$\frac{9}{32}$	41	1.614	$1\frac{39}{64}$	75	2.953	$2\frac{61}{64}$
8	.3150	$\frac{5}{16}$	42	1.654	$1\frac{21}{32}$	76	2.992	$2\frac{63}{64}$
9	.3543	$\frac{23}{64}$	43	1.693	$1\frac{11}{16}$	77	3.031	$3\frac{1}{32}$
10	.3937	$\frac{25}{64}$	44	1.732	$1\frac{47}{64}$	78	3.071	$3\frac{5}{64}$
11	.4331	$\frac{7}{16}$	45	1.772	$1\frac{49}{64}$	79	3.110	$3\frac{7}{64}$
12	.4724	$\frac{15}{32}$	46	1.811	$1\frac{13}{16}$	80	3.150	$3\frac{5}{32}$
13	.5118	$\frac{33}{64}$	47	1.850	$1\frac{27}{32}$	81	3.189	$3\frac{3}{16}$
14	.5512	$\frac{35}{64}$	48	1.890	$1\frac{57}{64}$	82	2.228	$3\frac{15}{64}$
15	.5906	$\frac{19}{32}$	49	1.929	$1\frac{59}{64}$	83	3.268	$3\frac{17}{64}$
16	.6299	$\frac{5}{8}$	50	1.969	$1\frac{31}{32}$	84	3.307	$3\frac{5}{16}$
17	.6693	$\frac{43}{64}$	51	2.008	$2\frac{1}{64}$	85	3.346	$3\frac{11}{32}$
18	.7087	$\frac{45}{64}$	52	2.047	$2\frac{3}{64}$	86	3.386	$3\frac{25}{64}$
19	.7480	$\frac{3}{4}$	53	2.087	$2\frac{3}{32}$	87	3.425	$3\frac{27}{64}$
20	.7874	$\frac{25}{32}$	54	2.126	$2\frac{1}{8}$	88	3.465	$3\frac{15}{32}$
21	.8268	$\frac{53}{64}$	55	2.165	$2\frac{11}{64}$	89	3.504	$3\frac{1}{2}$
22	.8661	$\frac{55}{64}$	56	2.205	$2\frac{13}{64}$	90	3.543	$3\frac{35}{64}$
23	.9055	$\frac{28}{32}$	57	2.244	$2\frac{1}{4}$	91	3.583	$3\frac{37}{64}$
24	.9449	$\frac{15}{16}$	58	2.283	$2\frac{9}{32}$	92	3.622	$3\frac{5}{8}$
25	.9843	$\frac{63}{64}$	59	2.323	$2\frac{21}{64}$	93	3.661	$3\frac{21}{32}$
26	1.024	$1\frac{1}{32}$	60	2.362	$2\frac{23}{64}$	94	3.701	$3\frac{45}{64}$
27	1.063	$1\frac{1}{16}$	61	2.402	$2\frac{13}{32}$	95	3.740	$3\frac{47}{64}$
28	1.102	$1\frac{7}{64}$	62	2.441	$2\frac{7}{16}$	96	3.780	$3\frac{25}{32}$
29	1.142	$1\frac{9}{64}$	63	2.480	$2\frac{31}{64}$	97	3.819	$3\frac{13}{16}$
30	1.181	$1\frac{3}{16}$	64	2.520	$2\frac{33}{64}$	98	3.858	$3\frac{55}{64}$
31	1.220	$1\frac{7}{32}$	65	2.559	$2\frac{9}{16}$	99	3.898	$3\frac{57}{64}$
32	1.260	$1\frac{7}{64}$	66	2.598	$2\frac{19}{32}$	100	3.937	$3\frac{15}{16}$
33	1.299	$1\frac{19}{64}$	67	2.638	$2\frac{41}{64}$			
34	1.399	$1\frac{11}{32}$	68	2.677	$2\frac{43}{64}$			

INCHES CONVERTED TO DECIMAL PARTS OF A FOOT

(in.)	DECIMAL OF FOOT	(in.)	DECIMAL OF FOOT	(in.)	DECIMAL OF FOOT	(in.)	DECIMAL OF FOOT	(in.)	DECIMAL OF FOOT
0	.0000	$\frac{13}{16}$	.2344	$\frac{5}{8}$	.4688	$\frac{7}{16}$	.7031	$\frac{1}{4}$	.9375
$\frac{1}{16}$	.0052	$\frac{7}{8}$	.2396	$\frac{11}{16}$	.4740	$\frac{1}{2}$	.7083	$\frac{5}{16}$	.9427
$\frac{1}{8}$	.0104	$\frac{15}{16}$	.2448	$\frac{3}{4}$	.4792	$\frac{9}{16}$	.7135	$\frac{3}{8}$	.9479
$\frac{3}{16}$	.0156	3	.2500	$\frac{13}{16}$	.4844	$\frac{5}{8}$	.7188	$\frac{7}{16}$	.9531
$\frac{1}{4}$	.0208	$\frac{1}{16}$	.2552	$\frac{7}{8}$	.4896	$\frac{11}{16}$	.7240	$\frac{1}{2}$	.9583
$\frac{5}{16}$	.0260	$\frac{1}{8}$	.2604	$\frac{15}{16}$	.4948	$\frac{3}{4}$	.7292	$\frac{9}{16}$	.9635
$\frac{3}{8}$	.0313	$\frac{3}{16}$	.2656	6	.5000	$\frac{13}{16}$	.7344	$\frac{5}{8}$	.9688
$\frac{7}{16}$	.0365	$\frac{1}{4}$	.2708	$\frac{1}{16}$	.5052	$\frac{7}{8}$	.7396	$\frac{11}{16}$	.9740
$\frac{1}{2}$	.0417	$\frac{5}{16}$	.2760	$\frac{1}{8}$	.5104	$\frac{15}{16}$	.7448	$\frac{3}{4}$	.9792
$\frac{9}{16}$	.0469	$\frac{3}{8}$	.2813	$\frac{3}{16}$	.5156	9	.7500	$\frac{13}{16}$	.9844
$\frac{5}{8}$	.0521	$\frac{7}{16}$	.2865	$\frac{1}{4}$	.5208	$\frac{1}{16}$	.7552	$\frac{7}{8}$	.9896
$\frac{11}{16}$	.0573	$\frac{1}{2}$	.2917	$\frac{5}{16}$	.5260	$\frac{1}{8}$	.7604	$\frac{15}{16}$	.9948
$\frac{3}{4}$	.0625	$\frac{9}{16}$	.2969	$\frac{3}{8}$	.5313	$\frac{3}{16}$	.7656	12	1.0000
$\frac{13}{16}$	.0677	$\frac{5}{8}$	.3021	$\frac{7}{16}$	.5365	$\frac{1}{4}$	.7708		
$\frac{7}{8}$	.0729	$\frac{11}{16}$	.3073	$\frac{1}{2}$	.5417	$\frac{5}{16}$	.7760		
$\frac{15}{16}$	.0781	$\frac{3}{4}$	.3125	$\frac{9}{16}$	.5469	$\frac{3}{8}$	.7813		
1	.0833	$\frac{13}{16}$	.3177	$\frac{5}{8}$	.5521	$\frac{7}{16}$	.7865		
$\frac{1}{16}$	.0885	$\frac{7}{8}$	.3229	$\frac{11}{16}$	.5573	$\frac{1}{2}$	.7917		
$\frac{1}{8}$	.0937	$\frac{15}{16}$	.3281	$\frac{3}{4}$	.5625	$\frac{9}{16}$	.7969		
$\frac{3}{16}$	.0990	4	.3333	$\frac{13}{16}$	.5677	$\frac{5}{8}$	.8021		
$\frac{1}{4}$	.1042	$\frac{1}{16}$	.3385	$\frac{7}{8}$	.5729	$\frac{11}{16}$	.8073		
$\frac{5}{16}$	.1094	$\frac{1}{8}$	.3437	$\frac{15}{16}$	.5781	$\frac{3}{4}$	.8125		
$\frac{3}{8}$	.1146	$\frac{3}{16}$	.3490	7	.5833	$\frac{13}{16}$	.8177		
$\frac{7}{16}$	.1198	$\frac{1}{4}$	.3542	$\frac{1}{16}$	.5885	$\frac{7}{8}$	.8229		
$\frac{1}{2}$	.1250	$\frac{5}{16}$	.3594	$\frac{1}{8}$	.5937	$\frac{15}{16}$	.8281		
$\frac{9}{16}$	.1302	$\frac{3}{8}$	.3646	$\frac{3}{16}$	.5990	10	.8333		
$\frac{5}{8}$	.1354	$\frac{7}{16}$	.3698	$\frac{1}{4}$	.6042	$\frac{1}{16}$	.8385		
$\frac{11}{16}$	.1406	$\frac{1}{2}$	.3750	$\frac{5}{16}$	.6094	$\frac{1}{8}$	.8439		
$\frac{3}{4}$	.1458	$\frac{9}{16}$	.3802	$\frac{3}{8}$	.6146	$\frac{3}{16}$	.8490		
$\frac{13}{16}$	.1510	$\frac{5}{8}$	.3854	$\frac{7}{16}$	.6198	$\frac{1}{4}$	.8542		
$\frac{7}{8}$	.1562	$\frac{11}{16}$	.3906	$\frac{1}{2}$	.6250	$\frac{5}{16}$	.8594		
$\frac{15}{16}$	.1615	$\frac{3}{4}$	.3958	$\frac{9}{16}$	.6302	$\frac{3}{8}$	.8646		
2	.1667	$\frac{13}{16}$	.4010	$\frac{5}{8}$	.6354	$\frac{7}{16}$	.8698		
$\frac{1}{16}$	.1719	$\frac{7}{8}$	.4062	$\frac{11}{16}$	.6406	$\frac{1}{2}$	.8750		
$\frac{1}{8}$	.1771	$\frac{15}{16}$	.4115	$\frac{3}{4}$	.6458	$\frac{9}{16}$	.8802		
$\frac{3}{16}$	.1823	5	.4167	$\frac{13}{16}$	.6510	$\frac{5}{8}$	.8854		
$\frac{1}{4}$	.1875	$\frac{1}{16}$	.4219	$\frac{7}{8}$	.6262	$\frac{11}{16}$	.8906		
$\frac{5}{16}$	.1927	$\frac{1}{8}$	.4271	$\frac{15}{16}$	.6615	$\frac{3}{4}$	.8958		
$\frac{3}{8}$	.1979	$\frac{3}{16}$	.4323	8	.6667	$\frac{13}{16}$	.9010		
$\frac{7}{16}$	.2031	$\frac{1}{4}$	.4375	$\frac{1}{16}$	.6719	$\frac{7}{8}$	.9062		
$\frac{1}{2}$	.2083	$\frac{5}{16}$	.4427	$\frac{1}{8}$	.6771	$\frac{15}{16}$	.9115		
$\frac{9}{16}$	.2135	$\frac{3}{8}$	.4479	$\frac{3}{16}$	.6823	11	.9167		
$\frac{5}{8}$	.2188	$\frac{7}{16}$	.4531	$\frac{1}{4}$	.6875	$\frac{1}{16}$	.9219		
$\frac{11}{16}$	.2240	$\frac{1}{2}$	.4583	$\frac{5}{16}$	.6927	$\frac{1}{8}$	.9271		
$\frac{3}{4}$	.2292	$\frac{9}{16}$	.4635	$\frac{3}{8}$	.6979	$\frac{3}{16}$	.9323		

HARDNESS CONVERSION NUMBERS FOR STEEL

BRINELL		ROCKWELL				SHORE	TENSILE
Diameter (mm)	Hardness #	A Scale	B Scale	C Scale	15-N Scale	SCLEROSCOPE	STRENGTH (PSI)
2.25	745	84.1	—	65.3	92.3	91	—
2.30	712	—	—	—	—	—	—
2.35	682	82.2	—	61.7	91.0	84	—
2.40	653	81.2	—	60.0	90.2	81	—
2.45	627	80.8	—	58.7	89.6	79	—
2.50	601	79.8	—	57.3	89.0	77	—
2.55	578	79.1	—	56.0	88.4	75	—
2.60	555	78.4	—	54.7	87.8	73	298000
2.65	534	77.8	—	53.5	87.2	71	288000
2.70	514	76.9	—	52.1	86.5	70	274000
2.75	495	76.3	—	51.0	85.9	68	264000
2.80	477	75.5	—	49.6	85.3	66	252000
2.85	461	74.9	—	48.5	84.7	65	242000
2.90	444	74.2	—	47.1	84.0	63	230000
2.95	429	73.4	—	45.7	83.4	61	219000
3.00	415	72.8	—	44.6	82.8	59	212000
3.05	401	72.0	—	43.1	82.0	58	202000
3.10	388	71.4	—	41.8	81.4	56	193000
3.15	375	70.6	—	40.4	80.6	54	184000
3.20	363	70.0	—	39.1	80.0	52	177000
3.25	352	69.3	110.0	37.9	79.3	51	170000
3.30	341	68.7	109.0	36.6	78.6	50	163000
3.35	331	68.1	108.5	35.5	78.0	48	158000
3.40	321	67.5	108.0	34.3	77.3	47	152000
3.45	311	66.9	107.5	33.1	76.7	46	147000
3.50	302	66.3	107.0	32.1	76.1	45	143000
3.55	293	65.7	106.0	30.9	75.5	43	139000
3.60	285	65.3	105.5	29.9	75.0	—	136000
3.65	277	64.6	104.5	28.8	74.4	41	131000
3.70	269	64.1	104.0	27.6	73.7	40	128000
3.75	262	63.6	103.0	26.6	73.1	39	125000
3.80	255	63.0	102.0	25.4	72.5	38	121000
3.85	248	62.5	101.0	24.2	71.7	37	118000
3.90	241	61.8	100.0	22.8	70.9	36	114000
3.95	235	61.4	99.0	21.7	70.3	35	111000
4.00	229	60.8	98.2	20.5	69.7	34	109000
4.05	223	—	97.3	18.8	—	—	104000
4.10	217	—	96.4	17.5	—	33	103000
4.15	212	—	95.5	16.0	—	—	100000
4.20	207	—	94.6	15.2	—	32	99000
4.25	201	—	93.8	13.8	—	31	97000
4.30	197	—	92.8	12.7	—	30	94000
4.35	192	—	91.9	11.5	—	29	92000

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HARDNESS CONVERSION NUMBERS FOR STEEL

BRINELL		ROCKWELL				SHORE	TENSILE
Diameter (mm)	Hardness #	A Scale	B Scale	C Scale	15-N Scale	SCLEROSCOPE	STRENGTH (PSI)
4.40	187	—	90.7	10.0	—	—	90000
4.45	183	—	90.0	9.0	—	28	89000
4.50	179	—	89.0	8.0	—	27	88000
4.55	174	—	87.8	6.4	—	—	86000
4.60	170	—	86.8	5.4	—	26	84000
4.65	167	—	86.0	4.4	—	—	83000
4.70	163	—	85.0	3.3	—	25	82000
4.80	156	—	80.9	0.9	—	—	80000
4.90	149	—	80.8	—	—	23	—
5.00	143	—	78.7	—	—	22	—
5.10	137	—	76.4	—	—	21	—
5.20	131	—	74.0	—	—	—	—
5.30	126	—	72.0	—	—	20	—
5.40	121	—	69.8	—	—	19	—
5.50	116	—	67.6	—	—	18	—
5.60	111	—	65.7	—	—	15	—

The information contained in this catalog is intended for reference purposes only. Data has been compiled from domestic manufacturers and is generally accepted throughout the steel industry. The data in this guide is deemed reliable, but anyone making use of this information does so at his/her own risk and assumes full responsibility and liability resulting from its use.