



ABOUT METALS!
 ABOUT METALS!

Call 1-800-547-0282 for Current Pricing.

METAL SELECTION GUIDE

MATERIAL TYPE	ABOUT	APPLICATIONS
A36 CARBON STEEL	A36 Hot Rolled Mild Steel is the most widely used metal for all general-purpose applications. This steel is a low carbon grade, having good over-all mechanical properties. It is easy to fabricate by the usual methods, such as welding, machining, cold and hot forming.	General-purpose structural work, industrial maintenance, agricultural implements, transportation equipment, and miscellaneous non-critical applications that involve mild cold bending, hot forming, punching and welding.
HOT ROLLED STRIP FLAT	A low carbon steel with good formability. It is easy to fabricate and cold form.	Used for a variety of general purposes. Ideally suited for strapping, banding, brackets, ornamental ironwork, etc.
A513 SQUARE / RECTANGLE STEEL TUBE	A welded tube made from low carbon steel. Offers good surface finish.	Widely used in all less stressful structural applications – frames, supports, etc.
A500 SQUARE / RECTANGLE STEEL TUBE	A structural grade welded tube, having a high strength to weight ratio.	Widely used in all larger structural applications requiring added strength and rigidity – frames, supports, trailers, truck beds, etc.
DOM ROUND STEEL TUBE (DRAWN OVER MANDREL)	A cold drawn electric resistance welded tube with all flash removed. Preferred over seamless tubing for its excellent OD and ID concentricity. A uniform and precision product – compared to HREW tubes, it is produced to closer tolerances and better finishes.	Ideally suited for a wide range of structural and bushing applications requiring higher strength and precision.
WELDED STRUCTURAL ROUND STEEL TUBE	1010/1020 CREW & HREW (Cold Drawn Electric Welded or Hot Roll Electric Welded) tubing is the most economical of all round tubes. Ideal for all general structural applications.	Widely used as an alternate to square or rectangle tubing for endless structural applications not requiring the close dimensional tolerances of DOM round tube.
A500 WELDED STRUCTURAL STEEL PIPE	Our welded structural steel pipe products are intended for use only in structural applications, as it has not been tested to transfer liquids or gases under pressure. It is made to less exacting specifications for dimensions, finish, and mechanical properties.	Structural pipe is an economical alternative to tubing for many fabrication projects and structural applications. Schedule 80 sizes may be coated and tested to meet ASTM A53
HOT ROLLED STEEL SHEET COMMERCIAL QUALITY C1008/C1010	Hot Rolled Commercial Quality sheets are intended for uses involving simple bending or moderate drawing and welding. Sheets may be bent flat on itself in any direction at room temperature without cracking on the outside of the bend.	Used for a wide variety of applications – agricultural implements, automotive panels, ventilating systems, drums, bins, frame skinning, sign making, etc.
COLD ROLLED STEEL SHEET COMMERCIAL QUALITY	Sheets are rolled to a close thickness tolerance and possess a fine surface finish. Suitable for stamping, forming, and moderate drawing operations. Provides an excellent base for all painting, including baked enamel and lacquer finishes, etc.	Used for a wide variety of applications – agricultural implements, automotive panels, ventilating systems, drums, bins, frame skinning, sign making, etc.
GALVANIZED STEEL SHEET	Commercial Quality Galvanized Steel sheets are intended for uses where greater corrosion protection is required without painting. The durable G-90 Chem Treat zinc coating is applied by a continuous hot-dip process and will withstand bending without flaking.	With a typical protection life span of 20 years these sheets are ideal for many applications that are exposed to the environment. Sheets are easy to form, bend, machine and weld. Special care should be taken when welding to prevent inhalation of zinc fumes.
C1018 COLD FINISH STEEL	Low carbon steel, having higher manganese content than certain other low-carbon steels. It has higher mechanical properties and better machining characteristics. Sizes are more accurate in measurements and surfaces are of higher quality than in hot rolled steels.	Ideal for fabrication or machining projects that require a higher degree of accuracy than hot roll steel offers. Suitable for shafting and for applications that do not require the greater strength of high carbon and alloy steels. Suited for carbonized parts requiring soft core and high surface hardness, such as gears, pinions, worms, king pins, chain pins, ratchets, etc.
C1045 CF TURNED-GROUND POLISHED SHAFTING	A medium-carbon steel that's ground and polished to a high degree of concentricity, surface perfection, straightness, and overall accuracy. Use this product when a higher degree of added strength, dimensional accuracy and straightness are required.	Used primarily for applications demanding a high degree of accuracy and straightness, along with added toughness – such as axel shafts, motor shafts, pins, machinery parts, bolts, pinions, gears, etc.
ALLOY 4140 COLD DRAW ANNEALED	This medium carbon alloy grade is widely used for many general-purpose parts requiring high tensile strength and toughness. 4140 contains chromium and molybdenum as alloying elements and may be heat-treated over a wide range to give the combined advantages of proper hardness, strength and ductility. More easily machined than in the pre-hard state.	Drill collars, bolts, couplings, reamer bodies, rotary table shafting, oil well tool joints, axle shafts, valves, high-temperature bolts, sprockets, trailer axles, winch shafts, piston rods, rams, hydraulic machinery shafts, precision lead screws, chain links, spindles, stay bolts, tractor axles, etc.
ALLOY 4140 PRE-HARD	Pre-hardened 4140 is an alloy steel, ready for use but is also machinable in its hardened state. Superior strength and wear resistance, excellent toughness, along with good ductility, and the ability to resist stress at elevated temperatures make this grade ideal for many demanding applications.	Drill collars, bolts, couplings, reamer bodies, rotary table shafting, oil well tool joints, axle shafts, valves, high-temperature bolts, sprockets, trailer axles, winch shafts, piston rods, rams, hydraulic machinery shafts, precision lead screws, chain links, spindles, stay bolts, tractor axles, etc.

ANY QUANTITY ... ANY SIZE ... DELIVERED ANYWHERE!



WORKING WITH METAL!

Call 1-800-547-0282 for Current Pricing.

METAL WORKABILITY GUIDE

Material Type	Tensile Strength PSI	Yield Strength PSI	Elasticity KSI Elongation 2"	Hardness		Machinability	Weldability	Formability	Corrosion Resistance
				BRN	RCK				
A36 Carbon Steel	60/80,000	36,000	29,000 / 23%	112	55	High	Very Easy	High	Very Low
Hot Rolled Strip Flat	48,000	35,000	29,000 / 25%	112	63	High	Very Easy	Very High	Very Low
Square / Rect. Steel Tube	58,000	46,000	29,000 / 23%	107	63	High	Very Easy	Medium	Very Low
DOM Round Steel Tube	85,000	75,000	29,000 / 8%	174	80	Medium	Easy	High	Very Low
Welded Round Steel Tube	58,000	42,000	29,000 / 12%	107	63	High	Very Easy	Medium	Very Low
Welded Structural Steel Pipe	58,000	42,000	29,000 / 23%	107	63	High	Very Easy	Medium	Very Low
Hot Rolled Steel Sheet	52,000	38,000	29,000 / 40%	95	56	High	Very Easy	High	Very Low
Cold Rolled Steel Sheet	50,000	35,000	29,000 / 40%	97	57	High	Very Easy	High	Very Low
G90 Galvanized Steel Sheet	52,000	38,000	29,000 / 40%	95	56	High	Moderate	High	High
C1018 Cold Finish Steel	64,000	54,000	29,700 / 15%	126	85	High	Easy	Medium	Very Low
C1045 TGP Shafting	97,000	58,000	29,700 / 24%	212	94	Medium-Low	Difficult	Very Low	Very Low
4140 CD Annealed	102,000	90,000	29,700 / 18%	223	98	Medium	Very Difficult	Not Advised	Low
4140 Pre-Hard	153,000	131,000	29,700 / 16%	311	108	Medium-Low	Very Difficult	Not Advised	Low
3003-H14 Aluminum	22,000	21,000	10,000 / 16%	40	—	Very High	Easy	Very High	High
5052-H32 Aluminum	38,000	31,000	10,200 / 14%	68	—	Very High	Easy	Medium	Very High
6061-T6 Aluminum	45,000	40,000	10,000 / 17%	95	56	Very High	Easy	Low	High
6063-T52 Aluminum	27,000	21,000	10,000 / 12%	60	—	Very High	Easy	High	High
7075-T6 Aluminum	83,000	73,000	10,400 / 11%	150	85	Medium	Moderate	Very Low	High
Precision Cast Aluminum Tool Plate	32,000	15,000	10,300 / 8%	60	—	Very High	Easy	Medium	High
T-304 Stainless Steel	85,000	35,000	29,000 / 55%	180	90	Medium	Very Easy	Medium	Very High
T-303 Stainless Steel	90,000	35,000	29,000 / 50%	160	84	High	Easy	Medium	High
T-316 Stainless Steel	85,000	35,000	29,000 / 60%	200	95	Medium	Easy	Medium	Very High
Alloy 260 Brass	62,000	52,000	16,000 / 23%	—	70	High	Moderate	High	Very High
Alloy 360 Brass	58,000	45,000	14,000 / 25%	—	78	Very High	Moderate	Medium	Very High
Alloy 110 Copper	50,000	45,000	18,900 / 12%	—	50	High	Moderate	High	High

Explanation of Terminology and Ratings

PSI = Pounds Per Square Inch KSI = Kilograms Per Square Inch

Tensile Strength – The maximum load in pounds per square inch a material will carry before breaking under a slowly applied, gradually increasing load.

Yield Strength – Point at which a material exceeds the elastic limit and will not return to its original length or shape if the stress is removed.

Hardness – The ability of a metal to resist penetration, as defined by the Brinell and Rockwell testing procedures.

Modulus of Elasticity – Force which would be required to stretch a material to double its normal length, on the assumption that it would remain elastic.

Elongation - Increase in length, which occurs before a metal is fractured, when subjected to stress. Usually expressed as a percentage of the original length and is a measure of the ductility of the metal.

Machinability – Rated by how easy the metal is to machine, drill, grind, etc.

Weldability – Rated according to the necessary skill level, process, and equipment required to fabricate and weld successfully.

Formability – Rated as to how well a particular metal responds to bending at a 90-degree angle before fracturing.

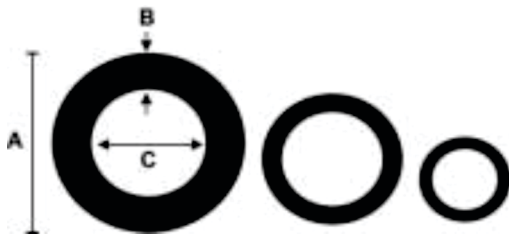
ANY QUANTITY ... ANY SIZE ... DELIVERED ANYWHERE!



CARBON STEEL

DOM STRUCTURAL ROUND STEEL TUBE

ASTM A513 TYPE 5



Outside Diameter Tolerance = plus .004" / minus .000"
 Inside Diameter Tolerance = plus .000" / minus .008"

DOM is a high strength, seamless round tube suitable for a wide range of structural and bushing applications. Primarily used in stressful applications requiring higher quality, uniformity, strength, and soundness – farm & construction equipment, race car frames, motorcycle frames, automotive parts, etc.

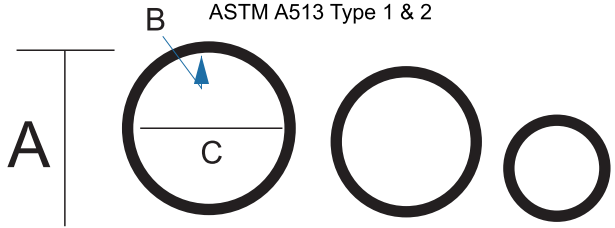
Ready to Ship! Stock Lengths random 20FT

Also Available Custom Cut to Length
Ordering Note: 20ft lengths are random, 18 – 22ft.
If you don't see the size you need we can get it for you

Item Size (Inches)			Weight per Foot (lbs)
(A) OD	(B) Wall	(C) ID	
1/2	.120	.260	.487
3/4	.065	.620	.4755
3/4	.120	.510	.8074
7/8	.120	.635	.9676
1	.065	.870	.6491
1	.120	.760	1.128
1	.250	.500	2.003
1-1/8	.065	.998	.7359
1-1/8	.125	.875	1.290
1-1/4	.095	1.06	1.172
1-1/4	.120	1.01	1.448
1-1/4	.250	.750	2.67
1-3/8	.095	1.18	1.299
1-1/2	.083	1.33	1.256
1-1/2	.095	1.31	1.426
1-1/2	.120	1.26	1.769
1-1/2	.250	1.00	3.338
1-3/4	.095	1.56	1.679
1-3/4	.125	1.50	2.169
2	.125	1.75	2.503
2 .250	1.50	4.673	
2 .375	1.25	6.508	
2-1/2	.250	2.00	6.008
2-1/2	.375	1.75	8.511
2-1/2	.500	1.50	10.68
3	.500	2.00	13.35

WELDED STRUCTURAL ROUND STEEL TUBE

ASTM A513 Type 1 & 2



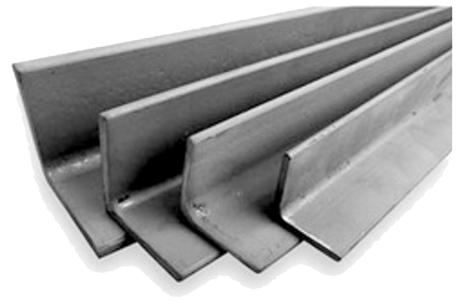
OD TOLERANCE = PLUS .002" / MINUS .008"
 WALL THICKNESS = PLUS / MINUS .003" TO .010"

AN ECONOMICAL ALTERNATIVE TO DOM, WELDED TUBE IS SUITABLE FOR A WIDE VARIETY IF STRUCTURAL APPLICATIONS WHERE DIMENSIONAL ACCURACY AND PRECISION IS NOT A PRIMARY CONCERN.

Ready to Ship! Stock Lengths random 20FT

Also Available Custom Cut to Length
Ordering Note: 20ft lengths are random, 18 – 22ft.
If you don't see the size you need we can get it for you

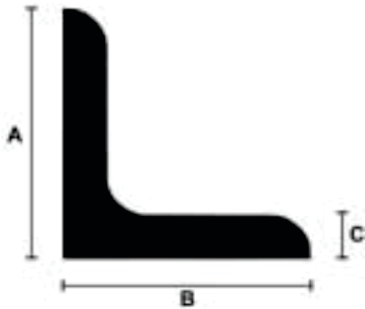
Item Size (Inches)			Weight per Foot (lbs)
(A) OD	(B) Wall	(C) ID	
1/2	.065	.370	.302
3/4	.065	.620	.4755
1	.065	.870	.6491
1	.120	.760	1.128
1-1/4	.065	1.12	.8226
1-1/4	.120	1.01	1.448
1-1/2	.065	1.37	.9964
1-1/2	.120	1.26	1.769
1-3/4	.065	1.62	1.170



CARBON STEEL

Call 1-800-547-0282 for Current Pricing.

STRUCTURAL STEEL ANGLE



Ready to Ship! Stock Lengths 20FT +/-

Also Available Custom Cut to Length
Ordering Note: 20ft lengths are random, 18 – 22ft.
 If you don't see the size you need we can get it for you

Item Size (Inches) A x B x C	Weight per Foot (lbs)
1/2 x 1/2 x 1/8	.38
3/4 x 3/4 x 1/8	.59
1 x 1 x 1/8	.80
1 x 1 x 3/16	1.16
1 x 1 x 1/4	1.49
1-1/4 x 1-1/4 x 1/8	1.01
1-1/4 x 1-1/4 x 3/16	1.48
1-1/4 x 1-1/4 x 1/4	1.92
1-1/2 x 1-1/2 x 1/8	1.22
1-1/2 x 1-1/2 x 3/16	1.80
1-1/2 x 1-1/2 x 1/4	2.34
■ 1-3/4 x 1-3/4 x 1/8	1.44
■ 1-3/4 x 1-3/4 x 3/16	2.12
■ 1-3/4 x 1-3/4 x 1/4	2.77
2 x 1-1/2 x 1/8	1.44
■ 2 x 1-1/2 x 3/16	2.12
2 x 1-1/2 x 1/4	2.77
2 x 2 x 1/8	1.65
2 x 2 x 3/16	2.44
2 x 2 x 1/4	3.19
2 x 2 x 3/8	4.70
■ 2-1/2 x 1-1/2 x 3/16	2.44

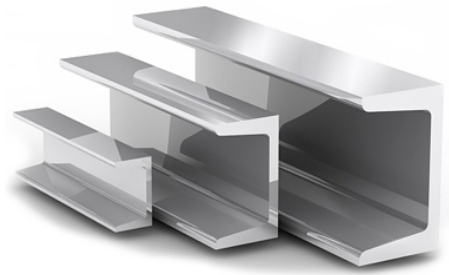
■ 2-1/2 x 1-1/2 x 1/4	3.16
■ 2-1/2 x 2 x 3/16	2.75
■ 2-1/2 x 2 x 1/4	3.62
■ 2-1/2 x 2-1/2 x 3/16	3.07
2-1/2 x 2-1/2 x 1/4	4.1
■ 2-1/2 x 2-1/2 x 3/8	5.9
3 x 2 x 3/16	3.07
3 x 2 x 1/4	4.1
■ 3 x 2 x 3/8	5.9
3 x 3 x 3/16	3.71
3 x 3 x 1/4	4.9
3 x 3 x 3/8	7.2
3 x 3 x 1/2	9.4
3-1/2 x 3-1/2 x 1/4	5.8
3-1/2 x 3-1/2 x 3/8	8.5
4 x 3 x 1/4	5.8
4 x 3 x 3/8	8.5
4 x 4 x 1/4	6.6
4 x 4 x 3/8	9.8
4 x 4 x 1/2	12.8
■ 4 x 4 x 3/4	18.5
5 x 3 x 1/4	6.6
■ 5 x 3 x 3/8	9.8
5 x 3-1/2 x 1/4	7.0
■ 5 x 3-1/2 x 3/8	10.4
5 x 5 x 3/8	12.3
■ 5 x 5 x 1/2	16.2
6 x 4 x 3/8	12.3
■ 6 x 4 x 1/2	16.2
6 x 6 x 3/8	14.9
6 x 6 x 1/2	19.6
■ 6 x 6 x 3/4	28.7
■ 8 x 4 x 1/2	19.6
■ 8 x 6 x 1/2	23.0
8 x 8 x 1/2	26.4
■ 8 x 8 x 3/4	38.9



Find What You Need?

Looking for additional sizes or types of metal not shown in our catalog ... Give Us a Call. We can usually locate just what you need ... **FAST!**

ANY QUANTITY ... ANY SIZE ... DELIVERED ANYWHERE!



CARBON STEEL

Call 250-765-2232 for Current Pricing.

STRUCTURAL STEEL CHANNEL



Ready to Ship! Stock Lengths (+/- 1/4")
20ft
Also Available Custom Cut to Length

Item Size (Inches) A x B x C	Weight per Foot (lbs)
1 x 3/8 x 1/8	.68
1 x 1/2 x 1/8	.84
1-1/2 x 1/2 x 1/8	1.12
1-1/2 x 3/4 x 1/8	1.17
2 x 1/2 x 1/8	1.43
2 x 1 x 1/8	1.59
2 x 1 x 3/16	2.32
3 x 1.41 x .170	4.1
3 x 1.498 x .258	5.0
4 x 1.58 x .180	5.4
4 x 1.72 x .320	7.25
5 x 1.75 x .190	6.7
6 x 1.92 x .200	8.2
■ 6 x 2.157 x .437	13.0
7 x 2.09 x .210	9.8
8 x 2.26 x .220	11.5
■ 8 x 2.527 x .487	18.75
9 x 2.43 x .230	13.4
10 x 1.50 x .170	8.4
10 x 2.60 x .240	15.3
10 x 2.739 x .379	20
■ 10 x 2.886 x .526	25
12 x 1.50 x .190	10.6
12 x 3.047 x .387	25



CARBON STEEL

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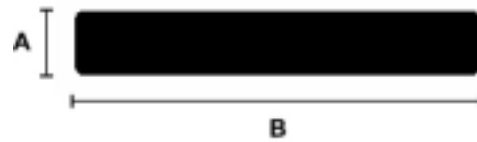
HOT ROLLED STEEL STRIP FLATS



Ready to Ship!
20ft
Also Available Custom Cut to Length

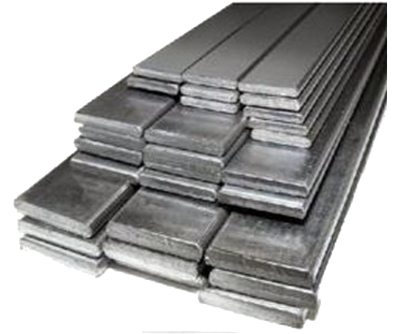
Item Size (Inches) A x B	Weight per Foot (lbs)
1/8 x 1/2	.213
1/8 x 3/4	.319
1/8 x 1	.425
1/8 x 1-1/4	.531
1/8 x 1-1/2	.638
1/8 x 2	.850
1/8 x 2-1/2	1.06
1/8 x 3	1.28
1/8 x 4	1.70
1/8 x 5	2.13
1/8 x 6	2.55
1/8 x 8	3.40
3/16 x 1/2	.319
3/16 x 3/4	.478
3/16 x 1	.638
3/16 x 1-1/4	.797
3/16 x 1-1/2	.956
3/16 x 2	1.28
3/16 x 3	1.91
3/16 x 4	2.55
3/16 x 5	3.19
3/16 x 6	3.83
3/16 x 8	5.10
3/16 x 10	6.38
3/16 x 12	7.65

HOT ROLLED STEEL FLAT BAR



Ready to Ship!
20ft
Also Available Custom Cut to Length

Item Size (Inches) A x B	Weight per Foot (lbs)
1/4 x 1/2	.425
1/4 x 3/4	.638
1/4 x 1	.850
1/4 x 1-1/4	1.06
1/4 x 1-1/2	1.28
1/4 x 2	1.70
1/4 x 2-1/2	2.13
1/4 x 3	2.55
1/4 x 3-1/2	2.98
1/4 x 4	3.40
1/4 x 5	4.25
1/4 x 5-1/2	4.68
1/4 x 6	5.10
1/4 x 7	5.95
1/4 x 8	6.80
1/4 x 9	7.65
1/4 x 10	8.50
1/4 x 11	9.35
1/4 x 12	10.2
3/8 x 3/4	.956
3/8 x 1	1.28
3/8 x 1-1/2	1.91
3/8 x 2	2.55
3/8 x 2-1/2	3.19
3/8 x 3	3.83



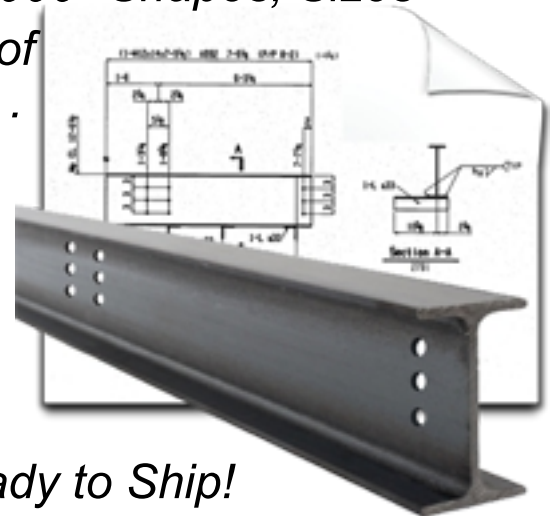
CARBON STEEL

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3/8 x 3-1/2	4.46
3/8 x 4	5.10
3/8 x 5	6.38
3/8 x 6	7.65
3/8 x 7	8.93
3/8 x 8	10.20
3/8 x 9	11.48
3/8 x 10	12.80
3/8 x 11	14.03
3/8 x 12	15.30
1/2 x 3/4	1.28
1/2 x 1	1.70
1/2 x 1-1/2	2.55
1/2 x 2	3.40
1/2 x 2-1/2	4.25
1/2 x 3	5.10
1/2 x 3-1/2	5.95
1/2 x 4	6.80
1/2 x 5	8.50
1/2 x 6	10.20
1/2 x 7	11.90
1/2 x 8	13.60
1/2 x 9	15.45
1/2 x 10	17.00
1/2 x 11	18.70
1/2 x 12	20.40
5/8 x 1	2.13
5/8 x 1-1/2	3.19
5/8 x 2	4.25
5/8 x 2-1/2	5.31
5/8 x 3	6.38
5/8 x 4	8.50
5/8 x 6	12.75
5/8 x 8	17.00
5/8 x 10	21.25
5/8 x 12	25.50
3/4 x 1	2.55
3/4 x 1-1/2	3.83
3/4 x 2	5.10
3/4 x 2-1/2	6.38
3/4 x 3	7.65
3/4 x 4	10.20

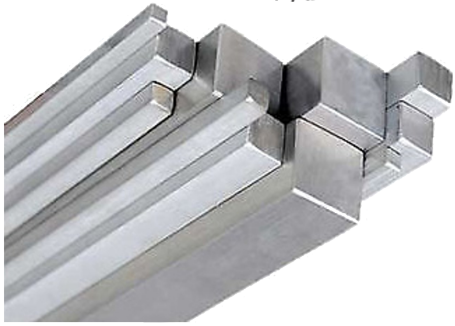
3/4 x 6	15.30
3/4 x 8	20.40
3/4 x 10	25.50
3/4 x 12	30.60
1 x 1-1/2	5.10
1 x 2	6.80
1 x 3	10.20
1 x 4	13.60
1 x 6	20.40
1 x 8	27.20
1 x 10	34.00
1 x 12	40.80
1-1/2 x 3	15.30
1-1/2 x 4	20.40
1-1/2 x 6	30.60
1-1/2 x 8	40.80
2 x 3	20.40
2 x 4	27.20
2 x 6	40.80
2 x 8	54.40
3 x 4	40.80
3 x 6	61.20

Over 10,000 Shapes, Sizes
& Types of
Metal . . .



Ready to Ship!

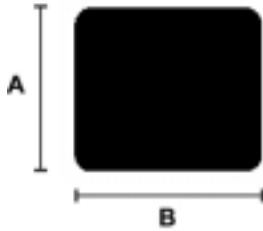
**MILLENNIUM SPECIALTY ALLOYS
EST 1999**



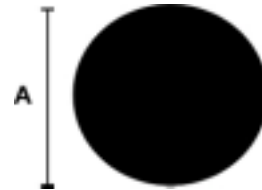
CARBON STEEL

Call 1-800-547-0282 for Current Pricing.

HOT ROLLED STEEL SQUARE BAR



HOT ROLLED STEEL ROUND BAR



CQ = 1020 Cold Quenched (smooth/oily)
A36 = ASTM A36 Hot Rolled

Ready to Ship!

Also Available Custom Cut to Length

Item Size (Inches) A x B	Weight per Foot (lbs)
3/8 x 3/8	.478
1/2 x 1/2	.850
5/8 x 5/8	1.33
3/4 x 3/4	1.91
1 x 1	3.40
1-1/4 x 1-1/4	5.31
1-1/2 x 1-1/2	7.65
2 x 2	13.60
2-1/2 x 2-1/2	21.25
■ 3 x 3	30.60

Ready to Ship!

Also Available Custom Cut to Length

Item Size (Inches) A = Diameter	Type	Weight per Foot (lbs)
1/4	CQ	.167
5/16	CQ	.261
3/8	A36	.376
1/2	A36	.668
5/8	A36	1.04
3/4	A36	1.50
1	A36	2.67
1-1/4	A36	4.17
1-1/2	A36	6.01
1-3/4	A36	8.18
2	A36	10.68
2-1/2	A36	16.69
■ 3	A36	24.03



**NEED LONGER LENGTHS?
LARGER QUANTITY?
WE CAN SHIP ... EVERYWHERE!**

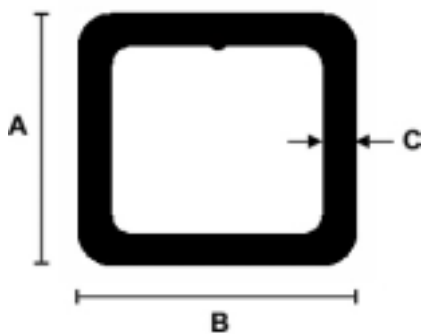
BIG OR SMALL WE CUT THEM ALL



CARBON STEEL

Call 1-800-547-0282 for Current Pricing.

Square Steel Tube



A = Mechanical Tubing
B = Structural Tubing

16ga = .065"	14ga = .083"	11ga = .120"
--------------	--------------	--------------

Ready to Ship!
Also Available Custom Cut to Length

Item Size (Inches) A x B x C		Weight per Foot (lbs)
1/2 x 1/2 x 16ga	A	.385
5/8 x 5/8 x 16ga	A	.495
3/4 x 3/4 x 16ga	A	.606
3/4 x 3/4 x 14ga	A	.753
3/4 x 3/4 x 11ga	A	1.03
1 x 1 x 16ga	A	.827
1 x 1 x 14ga	A	1.035
1 x 1 x 11ga	A	1.436
1-1/4 x 1-1/4 x 16ga	A	1.048
1-1/4 x 1-1/4 x 14ga	A	1.317
1-1/4 x 1-1/4 x 11ga	A	1.844
■ 1-1/4 x 1-1/4 x 3/16	B	2.408
1-1/2 x 1-1/2 x 16ga	A	1.268
1-1/2 x 1-1/2 x 14ga	A	1.599
1-1/2 x 1-1/2 x 11ga	A	2.252
1-1/2 x 1-1/2 x 3/16	B	3.047
1-1/2 x 1-1/2 x 1/4	B	4.067
1-3/4 x 1-3/4 x 14ga	A	1.882
1-3/4 x 1-3/4 x 11ga	A	2.66

2 x 2 x 16ga	A	1.71
2 x 2 x 14ga	A	2.164
2 x 2 x 11ga	A	3.12
2 x 2 x 3/16	B	4.32
2 x 2 x 1/4	B	5.41
2-1/2 x 2-1/2 x 11ga	A	3.98
2-1/2 x 2-1/2 x 3/16	B	5.59
2-1/2 x 2-1/2 x 1/4	B	7.11
3 x 3 x 11ga	A	4.83
3 x 3 x 3/16	B	6.87
3 x 3 x 1/4	B	8.81
3 x 3 x 3/8	B	12.17
3-1/2 x 3-1/2 x 11ga	A	5.68
3-1/2 x 3-1/2 x 3/16	B	8.15
3-1/2 x 3-1/2 x 1/4	B	10.51
■ 3-1/2 x 3-1/2 x 3/8	B	14.72
4 x 4 x 11ga	A	6.53
4 x 4 x 3/16	B	9.42
4 x 4 x 1/4	B	12.21
4 x 4 x 3/8	B	17.27
■ 4 x 4 x 1/2	B	21.63
■ 5 x 5 x 3/16	B	11.97
5 x 5 x 1/4	B	15.62
■ 5 x 5 x 3/8	B	22.37
6 x 6 x 3/16	B	14.53
6 x 6 x 1/4	B	19.02
6 x 6 x 3/8	B	27.48
■ 6 x 6 x 1/2	B	35.24
8 x 8 x 1/4	B	25.82
■ 8 x 8 x 3/8	B	37.69
■ 8 x 8 x 1/2	B	48.85
■ 10 x 10 x 1/4	B	32.63
■ 10 x 10 x 3/8	B	47.90
■ 10 x 10 x 1/2	B	62.46
■ 12 x 12 x 1/4	B	39.43
■ 12 x 12 x 3/8	B	58.10
■ 12 x 12 x 1/2	B	76.07
■ 14 x 14 x 3/8	B	68.31

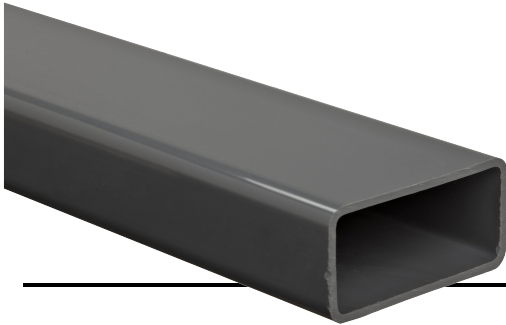


Find What You Need?

Looking for additional sizes or types of metal not shown in our catalog ... Give Us a Call. We can usually locate just what you need ... **FAST!**

250-765-2232

ANY QUANTITY ... ANY SIZE ... DELIVERED ANYWHERE!



CARBON STEEL

Call 1-800-547-0282 for Current Pricing.

Rectangle Steel Tube



A = Mechanical Tubing
B = Structural Tubing

16ga = .065"	14ga = .083"	11ga = .120"
--------------	--------------	--------------

Ready to Ship!
Also Available Custom Cut to Length

Item Size (Inches) A x B x C		Weight per Foot (lbs)
1 x 1/2 x 16ga	A	.606
1-1/2 x 1/2 x 16ga	A	.827
1-1/2 x 3/4 x 14ga	A	1.176
1-1/2 x 3/4 x 11ga	A	1.601
1-1/2 x 1 x 14ga	A	1.317
1-1/2 x 1 x 11ga	A	1.844
2 x 1 x 14ga	A	1.60
2 x 1 x 11ga	A	2.252
2 x 1-1/2 x 14ga	A	1.882
2 x 1-1/2 x 11ga	A	2.66
2-1/2 x 1-1/2 x 14ga	A	2.16
2-1/2 x 1-1/2 x 11ga	A	3.07
3 x 1 x 14ga	A	2.16
3 x 1 x 11ga	A	3.07
3 x 1-1/2 x 14ga	A	2.39
3 x 1-1/2 x 11ga	A	3.48
■ 3 x 1-1/2 x 3/16	B	4.96
3 x 2 x 14ga	A	2.67
3 x 2 x 11ga	A	3.90
3 x 2 x 3/16	B	5.59
3 x 2 x 1/4	B	7.11

4 x 2 x 14ga	A	3.24
4 x 2 x 11ga	A	4.75
4 x 2 x 3/16	B	6.87
4 x 2 x 1/4	B	8.81
4 x 3 x 11ga	A	5.61
4 x 3 x 3/16	B	8.15
4 x 3 x 1/4	B	10.51
5 x 3 x 1/4	B	12.21
6 x 2 x 11ga	A	6.46
6 x 2 x 3/16	B	9.42
6 x 2 x 1/4	B	12.21
6 x 3 x 11ga	A	7.30
■ 6 x 3 x 3/16	B	10.70
6 x 3 x 1/4	B	13.91
6 x 4 x 3/16	B	11.97
6 x 4 x 1/4	B	15.62
■ 6 x 4 x 3/8	B	22.37
■ 8 x 2 x 1/4	B	15.62
■ 8 x 4 x 1/4	B	19.02
■ 8 x 4 x 3/8	B	27.48
■ 8 x 6 x 1/4	B	22.42
■ 8 x 6 x 3/8	B	32.58
■ 10 x 2 x 1/4	B	19.02
■ 10 x 4 x 1/4	B	22.42
■ 10 x 4 x 3/8	B	32.58
■ 10 x 6 x 1/4	B	25.82
■ 10 x 6 x 3/8	B	37.69
■ 12 x 2 x 1/4	B	22.42
■ 12 x 4 x 1/4	B	25.82
■ 12 x 4 x 3/8	B	37.69
■ 12 x 6 x 1/4	B	29.23
■ 12 x 6 x 3/8	B	42.79





CARBON STEEL

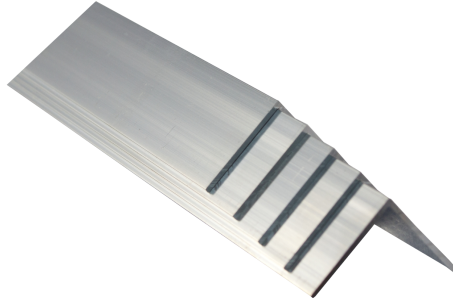
Call 1-800-547-0282 for Current Pricing.

CARBON STEEL SHEET & PLATE PRODUCTS



<i>Ready to Ship!</i>		
48" x 48"	48" x 96"	60" x 120"
<ul style="list-style-type: none"> • Available Custom Cut to Size • Stock Sheets are Shear Cut + 1/8" – 0" • Stock Plates are Sawed or Burned to + 1/8" – 0" 		

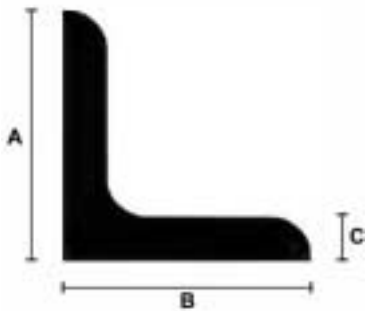
(A) Gauge	Item Thickness (Inches)		Material Type	Specification	Weight per Foot (lbs)
20ga	.036	1/32	Cold Roll – Commercial Quality - Oiled	ASTM A 366	1.50
18ga	.048	3/64	Cold Roll – Commercial Quality - Oiled	ASTM A 366	2.00
16ga	.060	1/16	HR Commercial Quality – C1008/C1010	ASTM A 569	2.50
14ga	.075	3/32	HR Commercial Quality – C1008/C1010	ASTM A 569	3.13
11ga	.120	1/8	HR Commercial Quality – C1008/C1010	ASTM A 569	5.00
20ga	.040	1/32	G90 Galvanized Steel Sheet	ASTM A 527	1.66
18ga	.052	3/64	G90 Galvanized Steel Sheet	ASTM A 527	2.16
16ga	.064	1/16	G90 Galvanized Steel Sheet	ASTM A 527	2.66
14ga	.079	3/32	G90 Galvanized Steel Sheet	ASTM A 526	3.29
11ga	.124	1/8	G90 Galvanized Steel Sheet	ASTM A 526	5.16
3/16"	.188	---	A36 Carbon Steel Plate	ASTM A36	7.66
1/4"	.250	---	A36 Carbon Steel Plate	ASTM A36	10.21
3/8"	.375	---	A36 Carbon Steel Plate	ASTM A36	15.31
1/2"	.500	---	A36 Carbon Steel Plate	ASTM A36	20.42
5/8"	.625	---	A36 Carbon Steel Plate	ASTM A36	25.50
3/4"	.375	---	A36 Carbon Steel Plate	ASTM A36	30.63
1"	1.00	---	A36 Carbon Steel Plate	ASTM A36	40.84
1-1/4"	1.25	---	A36 Carbon Steel Plate	ASTM A36	51.05
1-1/2"	1.50	---	A36 Carbon Steel Plate	ASTM A36	61.26
1-3/4"	1.750	---	A36 Carbon Steel Plate	ASTM A36	71.47
2"	2.00	---	A36 Carbon Steel Plate	ASTM A36	81.50
3"	3.00	---	A36 Carbon Steel Plate	ASTM A36	122.52
4"	4.00	---	A36 Carbon Steel Plate	ASTM A36	163.36
6"	6.00	---	A36 Carbon Steel Plate	ASTM A36	245.03



ALUMINUM

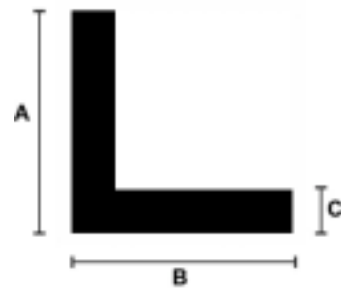
Call 1-800-547-0282 for Current Pricing.

6061-T6 Structural Aluminum Angle



3 x 3 x 3/8	2.48
4 x 3 x 1/4	1.99
4 x 4 x 1/4	2.29
4 x 4 x 3/8	3.37
■ 5 x 3 x 3/8	3.35
■ 6 x 4 x 3/8	4.24
■ 6 x 6 x 3/8	5.12

6063 Sharp Corner Aluminum Angle

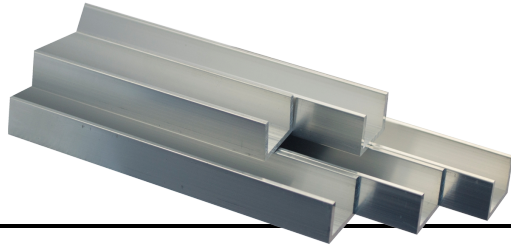
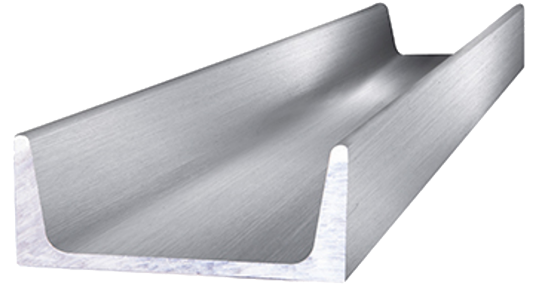


Ready to Ship! Stock Lengths	
20ft	25ft
Also Available Custom Cut to Length	

Item Size (Inches) A x B x C	Weight per Foot (lbs)
3/4 x 3/4 x 1/8	.201
1 x 1 x 1/8	.275
1 x 1 x 3/16	.400
1 x 1 x 1/4	.514
1-1/4 x 1-1/4 x 1/8	.343
1-1/4 x 1-1/4 x 3/16	.510
1-1/4 x 1-1/4 x 1/4	.656
1-1/2 x 1-1/2 x 1/8	.423
1-1/2 x 1-1/2 x 3/16	.619
1-1/2 x 1-1/2 x 1/4	.809
2 x 1-1/2 x 1/8	.494
2 x 1-1/2 x 1/4	.953
2 x 2 x 1/8	.577
2 x 2 x 3/16	.850
2 x 2 x 1/4	1.11
2 x 2 x 3/8	1.61
2-1/2 x 2-1/2 x 1/4	1.41
3 x 2 x 3/16	1.07
3 x 2 x 1/4	1.40
3 x 3 x 3/16	1.25
3 x 3 x 1/4	1.69

Ready to Ship! Stock Lengths	
20ft	25ft
Also Available Custom Cut to Length	

Item Size (Inches) A x B x C	Weight per Foot (lbs)
1/2 x 1/2 x 1/16	.069
1/2 x 1/2 x 1/8	.128
3/4 x 3/4 x 1/16	.105
3/4 x 3/4 x 1/8	.202
1 x 1/2 x 1/8	.202
1 x 1 x 1/16	.141
1 x 1 x 1/8	.275
1-1/2 x 1 x 1/8	.349
1-1/2 x 1-1/2 x 1/8	.422
2 x 1 x 1/8	.422
2 x 2 x 1/8	.569
■ 2 x 2 x 1/4	1.11
■ 3 x 1 x 1/8	.569



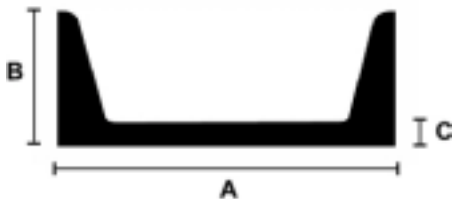
ALUMINUM

Call 1-800-547-0282 for Current Pricing.

6061-T6 Structural Aluminum Channel

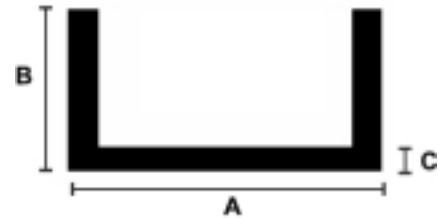


Aluminum Association = AA



American Standard = AS

6063 Sharp Corner Aluminum Channel



Ready to Ship! Stock Lengths	
20ft	25ft
Also Available Custom Cut to Length	

Item Size (Inches) A x B x C	Weight per Foot (lbs)
3/4 x 3/4 x 1/8	.294
1 x 1/2 x 1/8	.258
1 x 1 x 1/8	.405
1-1/4 x 1-1/4 x 1/8	.516
1-1/2 x 1/2 x 1/8	.330
2 x 1/2 x 1/8	.405
2 x 1 x 1/8	.552
2 x 2 x 1/4	1.634
3 x 1 x 1/8	.699
■ 5 x 2 x 3/16	1.906

Ready to Ship! Stock Lengths	
20ft	25ft
Also Available Custom Cut to Length	

Item Size (Inches) A x B x C	Type	Weight per Foot (lbs)
2 x 1.00 x .130	AA	.557
3 x 1.41 x .170	AS	1.417
3 x 1.50 x .130	AA	1.135
4 x 1.58 x .180	AS	1.846
4 x 2.00 x .150	AA	1.738
5 x 1.75 x .190	AS	2.316
6 x 1.95 x .225	AS	3.002
6 x 2.50 x .170	AA	2.834
8 x 2.29 x .250	AS	4.252
8 x 3.00 x .190	AA	4.147
10 x 2.60 x .240	AS	5.278
10 x 3.50 x .250	AA	6.136
12 x 2.96 x .300	AS	7.411
12 x 4.00 x .290	AA	8.274

CONVENIENT SHOPPING ANYTIME!



Find What You Need?

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250-765-2232

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ALUMINUM

Call 1-800-547-0282 for Current Pricing.

6061 Aluminum Flat

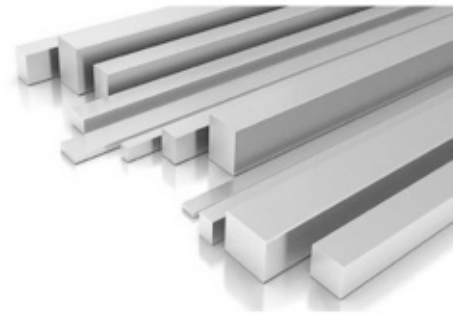


Thickness & Width Tolerance = plus / minus .008" to .063"

Ready to Ship! Stock Lengths	
10ft	20ft
Also Available Custom Cut to Length	

Item Size (Inches) A x B	Weight per Foot (lbs)
1/8 x 1/2	.074
1/8 x 3/4	.110
1/8 x 1	.147
1/8 x 1-1/4	.184
1/8 x 1-1/2	.220
1/8 x 1-3/4	.257
1/8 x 2	.294
1/8 x 2-1/2	.368
1/8 x 3	.441
1/8 x 3-1/2	.514
1/8 x 4	.588
1/8 x 5	.735
1/8 x 6	.880
3/16 x 1/2	.111
3/16 x 3/4	.166
3/16 x 1	.221
3/16 x 1-1/4	.276
3/16 x 1-1/2	.332
3/16 x 2	.442
3/16 x 2-1/2	.553
3/16 x 3	.663
3/16 x 4	.884
3/16 x 5	1.105
3/16 x 6	1.327
1/4 x 1/2	.147

1/4 x 3/4	.220
1/4 x 1	.294
1/4 x 1-1/4	.368
1/4 x 1-1/2	.441
1/4 x 1-3/4	.514
1/4 x 2	.588
1/4 x 2-1/2	.735
1/4 x 3	.882
1/4 x 3-1/2	1.029
1/4 x 4	1.176
1/4 x 5	1.470
1/4 x 6	1.764
1/4 x 8	2.352
1/4 x 10	2.940
1/4 x 12	3.528
3/8 x 1/2	.220
3/8 x 3/4	.331
3/8 x 1	.441
3/8 x 1-1/2	.662
3/8 x 2	.882
3/8 x 2-1/2	1.102
3/8 x 3	1.323
3/8 x 3-1/2	1.544
3/8 x 4	1.764
3/8 x 5	2.205
3/8 x 6	2.646
3/8 x 8	3.528
3/8 x 10	4.410
3/8 x 12	5.292
1/2 x 3/4	.441
1/2 x 1	.588
1/2 x 1-1/2	.882
1/2 x 2	1.176
1/2 x 2-1/2	1.470
1/2 x 3	1.764
1/2 x 3-1/2	2.058
1/2 x 4	2.352
1/2 x 5	2.94
1/2 x 6	3.528
1/2 x 8	4.704
1/2 x 10	5.88
1/2 x 12	7.056



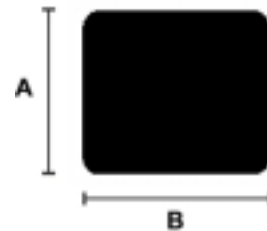
ALUMINUM

Call 1-800-547-0282 for Current Pricing.

5/8 x 1	.735
5/8 x 1-1/2	1.102
5/8 x 2	1.47
5/8 x 2-1/2	1.838
5/8 x 3	2.205
5/8 x 4	2.94
5/8 x 6	4.41
5/8 x 8	5.88
5/8 x 10	7.35
5/8 x 12	8.82
3/4 x 1	.882
3/4 x 1-1/2	1.323
3/4 x 2	1.764
3/4 x 2-1/2	2.205
3/4 x 3	2.646
3/4 x 4	3.578
3/4 x 5	4.41
3/4 x 6	5.292
3/4 x 8	7.056
3/4 x 10	8.82
3/4 x 12	10.584
1 x 1-1/2	1.764
2 x 1	2.352
3 x 1	3.528
4 x 1	4.704
5x1	5.88
7x1	7.056
8 x 1	9.408
10x1	11.76
12x1	14.112
1-1/2 x 2	3.528
1-1/2 x 3	5.292
1-1/2 x 4	7.056
1-1/2 x 6	10.584
1-1/2 x 8	14.112
1-1/2 x 10	17.64
1-1/2 x 12	21.168
2 x 3	7.056
4 x 2	9.408
6 x 2	14.112
8 x 2	18.816
10x2	23.520

2 x 12	28.224
3 x 4	14.112
3 x 6	21.168

6061 Aluminum Square



Size Tolerance = plus / minus .008" to .034"

Ready to Ship! Stock Lengths (+/- 1/4")
12ft
 Also Available Custom Cut to Length

Item Size (Inches) A x B	Weight per Foot (lbs)
1/4 x 1/4	.074
3/8 x 3/8	.165
1/2 x 1/2	.294
5/8 x 5/8	.459
3/4 x 3/4	.662
7/8 x 7/8	.900
1 x 1	1.176
1-1/4 x 1-1/4	1.838
1-1/2 x 1-1/2	2.646
2 x 2	4.704
2-1/2 x 2-1/2	7.350
3 x 3	10.584
4 x 4	18.816
6 x 6	42.336

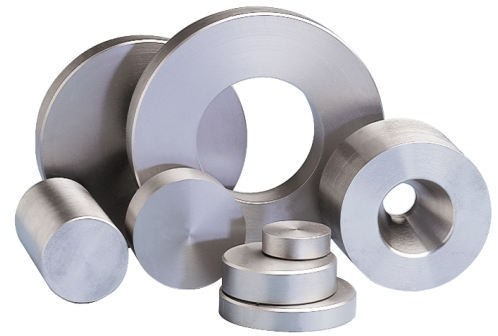


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250-765-2232

ANY QUANTITY ... ANY SIZE ... DELIVERED ANYWHERE!



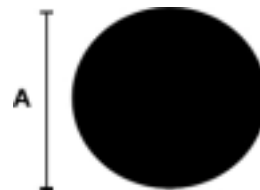
ALUMINUM

Call 1-800-547-0282 for Current Pricing.

Item Size (Inches) A = Diameter	Type	Weight per Foot (lbs)
1/8	B	.014
3/16	B	.030
1/4	A	.057
5/16	B	.090
3/8	A	.130
7/16	B	.175
1/2	A	.235
9/16	B	.292
5/8	A	.368
3/4	A	.530
7/8	A	.707
1	A	.924
1-1/8	A	1.192
1-1/4	A	1.472
1-3/8	A	1.782
1-1/2	A	2.120
1-5/8	A	2.456
1-3/4	A	2.886
1-7/8	A	3.247
2	A	3.77
2-1/4	A	4.771
2-1/2	A	5.891
2-3/4	A	6.985
3	A	8.312
3-1/2	A	11.545
4	A	15.079
5	A	23.55
6	A	33.912
8	A	59.20
10	B	93.00
12	B	133.056

6061 Aluminum Round

B = Cold Finished T651:



Cold Finish Diameter Tolerances = plus / minus .002" to .008"
 Extruded Diameter Tolerance = plus / minus .006" to .044"

Ready to Ship!
12ft
Also Available Custom Cut to Length

**NEED LONGER LENGTHS?
 LARGER QUANTITY?
 WE CAN SHIP ... EVERYWHERE!**



WHY PAY FOR AN A ARM & LEG WHEN YOU ONLY NEED A FOOT

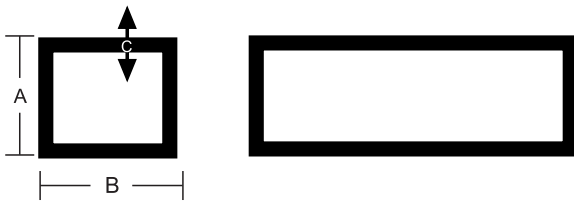
Call 1-800-547-0282 for Current Pricing.



6061 Aluminum Tube Square & Rectangle

ART061

Some sizes may be available in 6063 (20 ft and 25 ft lengths)



Ready to Ship!		Stock Lengths	
10ft	20ft	25ft	
Also Available Custom Cut to Length			

Item Size (Inches) A x B x C	Weight per Foot (lbs)
3/4 x 3/4 x 1/16	.200
3/4 x 3/4 x 1/8	.368
1 x 1/2 x 1/8	.368
1 x 1 x 1/16	.274
1 x 1 x 1/8	.514
1-1/4 x 1-1/4 x 1/8	.662
1-1/2 x 1 x 1/8	.662
1-1/2 x 1-1/2 x 1/8	.808
1-3/4 x 1-3/4 x 1/8	.956
■ 2 x 1 x 1/16	.436
2 x 1 x 1/8	.821
2 x 1-1/2 x 1/8	.970
2 x 2 x 1/8	1.102
■ 2 x 2 x 1/4	2.058
2-1/2 x 2-1/2 x 1/8	1.396
3 x 1 x 1/8	1.102
3 x 1-1/2 x 1/8	1.250
3 x 2 x 1/8	1.396
3 x 3 x 1/8	1.69
■ 3 x 3 x 1/4	3.234
4 x 2 x 1/8	1.690
■ 4 x 2 x 1/4	3.234
4 x 3 x 1/8	1.984

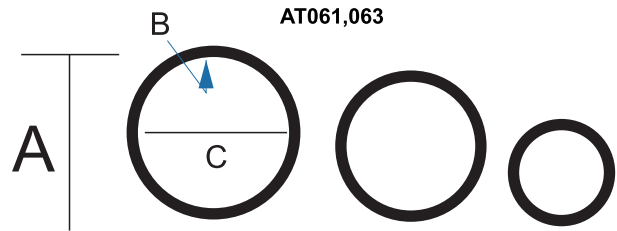
4 x 4 x 1/8	2.278
■ 4 x 4 x 1/4	4.410
6 x 2 x 1/8	2.278
■ 6 x 4 x 1/4	5.586
■ 6 x 6 x 1/4	6.762

6061 Aluminum Round Tube

Seamless T6511

Drawn 6061

Soft 6063



Diameter Tolerances = plus / minus .003" to .015"

Ready to Ship!		Stock Lengths	
10ft	20ft	25ft	
Also Available Custom Cut to Length			

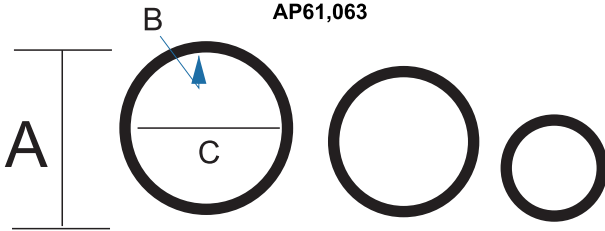
Item Size (Inches)			Weight per Foot (lbs)
A OD	B Wall	C ID	
1/2	.065	.370	.105
1/2	.120	.260	.171
3/4	.065	.620	.168
3/4	.125	.500	.462
1	.065	.870	.225
1	.125	.750	.404
1-1/2	.065	1.37	.352
1-1/2	.125	1.25	.635
1-1/2	.250	1.00	1.16
2	.065	1.87	.465
2	.125	1.75	.866
2	.250	1.50	1.620
3	.125	2.75	1.33
3	.250	2.50	2.54



Aluminum Structural Pipe

6063-T6 = Soft
6061-T6 = Hard

AP61,063



? See Material Characteristics & Specifications on Page 4-6

Ready to Ship! Stock Lengths (+/- 1/4")					
2ft	4ft	6ft	8ft	10ft	21ft
Also Available Custom Cut to Length					
Item Size (Inches) A x B x C			Weight per Foot (lbs)		
1/2" sch 40 .840 OD x .109W x .622 ID			.293		
3/4" sch 40 1.05 OD x .113W x .824 ID			.391		
1" sch 40 1.315 OD x .133W x 1.049 ID			.581		
1-1/4" sch 40 1.660 OD x .140W x 1.38 ID			.786		
1-1/2" sch 40 1.90 OD x .145W x 1.61 ID			.940		
2" sch 40 2.375 OD x .154W x 2.067 ID			1.264		
2-1/2" sch 40 2.875 OD x .203W x 2.469 ID			2.004		
3" sch 40 3.50 OD x .216W x 3.068 ID			2.621		
3-1/2" sch 40 4 OD x .226W x 3.548 ID			3.151		
4" sch 40 4.50 OD x .237W x 4.026 ID			3.733		
■ 5" sch 40 5.563 OD x .258W x 5.047 ID			5.057		
■ 6 sch 40 6.625 OD x .280W x 6.065 ID			6.564		

Aluminum Diamond Tread Plate

ATS300



Diamond Plate is highly reflective & brightly polished.

Thousands of Applications! Easy to Install ...

- Flooring
- Wall Covering
- Base Trim
- Counter Tops
- Stone Guards
- Fenders
- Running Boards
- Hot Rods
- Trailer Flooring
- Truck Beds
- Tool Boxes
- Bumpers
- Ramps

Ready to Ship! Stock Sizes (+/- 1/4")		
12" x 12"	24" x 24"	36" x 48"
12" x 24"	24" x 48"	48" x 48"
12" x 48"	24" x 96"	48" x 96"
12" x 96"	24" x 120"	48" x 120"
Also Available Custom Cut to Size		
Item Size (Inches) Thickness	Weight per Sq. Foot (lbs)	
3003 Diamond Tread Plate – Bright Polished		
.063	1/16	1.00
.100	3/32	1.57
.125	1/8	1.92
.188	3/16	2.82
.250	1/4	3.70
6061-T6 Diamond Tread Plate – Mill Finish (Dull)		
■ .125	1/8	1.92
■ .188	3/16	2.84
■ .250	1/4	3.70
■ .375	3/8	5.49
■ .500	1/2	7.27



Find What You Need?

Looking for additional sizes or types of metal not shown in our catalog ... Give Us a Call. We can usually locate just what you need ... FAST!

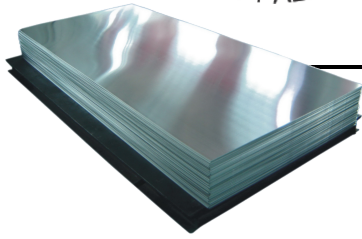
250-765-2232

WHY PAY FOR AN A ARM & LEG WHEN YOU ONLY NEED A FOOT



ALUMINUM

Call 1-800-547-0282 for Current Pricing.



Aluminum Sheet & Plate

APLT061 (6061) AS052(5052)



Ready to Ship! Stock Sizes		
48" x 48"	48" x 96"	48" x 120"
Available Custom Cut to Size Stock Sheets are Shear Cut + 1/8" – 0"		

Item Size (Inches)		3003-H14	6061-T6	5052-H32	7075-T6	K100 / Mic 6 +/- .005" Tolerance	
A = Thickness	Weight	Stock.	Stock	Stock	Stock	Stock	
.040	3/64"	.571	✓	NA	✓	NA	NA
.063	1/16"	.899	✓	✓	✓	NA	NA
.080	5/64"	1.14	✓	✓	✓	NA	NA
.125	1/8"	1.79	✓	✓	✓	NA	NA
.190	3/16"	2.72	✓	✓	✓	NA	NA
.250	1/4"	3.53	✓	✓	✓	✓	✓
.375	3/8"	5.30	NA	✓	✓	✓	✓
.500	1/2"	7.06	NA	✓	✓	✓	✓
.625	5/8"	8.82	NA	✓	✓	✓	✓
.750	3/4"	10.59	NA	✓	✓	✓	✓
.875	7/8"	12.36	NA	✓	✓	✓	✓
1.00	1"	14.11	NA	✓	✓	✓	✓
1.25	1-1/4"	17.64	NA	✓	✓	✓	✓
1.50	1-1/2"	21.17	NA	✓	✓	✓	✓
1.75	1-3/4"	24.70	NA	✓	✓	✓	✓
2.00	2"	28.22	NA	✓	✓	✓	✓
2.50	2-1/2"	35.28	NA	✓	✓	✓	✓
3.00	3"	42.34	NA	✓	✓	✓	✓
4.00	4"	56.45	NA	✓	✓	✓	✓
6.00	6"	84.67	NA	✓	✓	✓	✓

BIG OR SMALL WE CUT THEM ALL



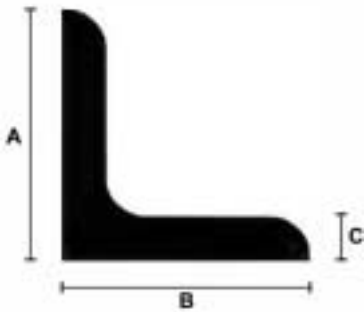
STAINLESS STEEL

Call 1-800-547-0282 for Current Pricing.

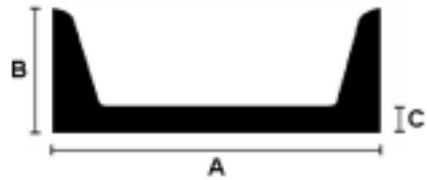


T-304 Stainless Steel Angle

ASTMA276, QQS-763



T-304 Stainless Steel Channel



Ready to Ship! Stock Lengths (+/- 1/4")					
2ft	4ft	6ft	8ft	10ft	20ft
Also Available Custom Cut to Length					

Item Size (Inches) A x B x C	Weight per Foot (lbs)
3/4 x 3/4 x 1/8	.59
1 x 1 x 1/8	.82
1 x 1 x 3/16	1.16
1 x 1 x 1/4	1.49
1-1/4 x 1-1/4 x 1/8	1.01
1-1/4 x 1-1/4 x 1/4	1.92
1-1/2 x 1-1/2 x 1/8	1.23
1-1/2 x 1-1/2 x 3/16	1.80
1-1/2 x 1-1/2 x 1/4	2.34
2 x 2 x 1/8	1.65
2 x 2 x 3/16	2.44
2 x 2 x 1/4	3.19
■ 2-1/2 x 2-1/2 x 3/16	3.07
■ 2-1/2 x 2-1/2 x 1/4	4.10
■ 3 x 2 x 3/16	3.07
■ 3 x 2 x 1/4	4.10
■ 3 x 3 x 1/4	4.90
■ 3 x 3 x 3/8	7.20
■ 4 x 3 x 1/4	5.80
■ 4 x 4 x 1/4	6.60
■ 4 x 4 x 3/8	9.80

Ready to Ship! Stock Lengths (+/- 1/4")					
---	---	---	---	10ft	20ft
Also Available Custom Cut to Length					

Item Size (Inches) A x B x C	Weight per Foot (lbs)
■ 2 x 1 x 1/4	2.60
■ 3 x 1-3/8 x 3/16	3.55
■ 3 x 1-1/2 x 1/4	4.75
■ 4 x 2 x 1/4	6.58
■ 5 x 2-1/2 x 1/4	8.40
■ 6 x 3 x 1/4	10.10
■ 8 x 4 x 3/8	20.00

NEED IT CUT-TO-SIZE?



NO PROBLEM ...GIVE US A CALL!

ANY QUANTITY ... ANY SIZE ... DELIVERED ANYWHERE!



STAINLESS STEEL

Call 1-800-547-0282 for Current Pricing.



T-304 Stainless Steel Flat Bar

SSF304



Thickness Tolerance = plus / minus .008" to .060"
 Width Tolerance = plus .015" to .125 / minus .015" to .187"
 1/8" to 1/2" Sheared & Edged Flats, over 1/2" True Bar Flats

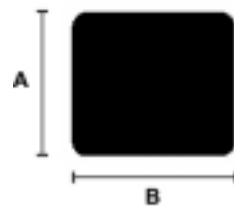
Ready to Ship! Stock Lengths (+/- 1/4")				
1ft	2ft	4ft	6ft	12ft
Also Available Custom Cut to Length				

Item Size (Inches) A x B	Weight per Foot (lbs)
1/8 x 1/2	.213
1/8 x 3/4	.326
1/8 x 1	.435
1/8 x 1-1/2	.653
1/8 x 2	.870
1/8 x 3	1.310
1/8 x 4	1.74
1/4 x 1/2	.435
1/4 x 3/4	.698
1/4 x 1	.870
1/4 x 1-1/2	1.305
1/4 x 2	1.74
1/4 x 3	2.61
1/4 x 4	3.48
1/4 x 6	5.22
1/4 x 8	6.96
3/8 x 3/4	.979
3/8 x 1	1.305
3/8 x 1-1/2	1.956
3/8 x 2	2.552
3/8 x 3	3.915
3/8 x 4	5.22
3/8 x 6	7.83

1/2 x 1	1.74
1/2 x 1-1/2	2.61
1/2 x 2	3.48
1/2 x 3	5.22
1/2 x 4	6.96
1/2 x 6	10.40
3/4 x 2	5.105
3/4 x 3	7.657
3/4 x 4	10.21
3/4 x 6	15.31
1 x 2	6.806
1 x 3	10.21
1 x 4	13.61
1 x 6	20.42

T-304 Stainless Steel Square Bar

ASTM A276, ASTM A479, QQS-763, AMS 5639



Size Tolerance = plus 0" / minus .002" to .006"



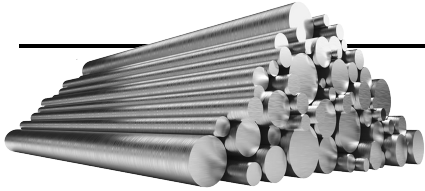
Ready to Ship! Stock Lengths (+/- 1/4")	
12ft	
Also Available Custom Cut to Length	

Item Size (Inches) A x B	Weight per Foot (lbs)
3/16 x 3/16	.120
1/4 x 1/4	.214
3/8 x 3/8	.478
1/2 x 1/2	.850
5/8 x 5/8	1.33
3/4 x 3/4	1.91
1 x 1	3.40
1-1/2 x 1-1/2	7.65
2 x 2	13.60



STAINLESS STEEL

Call 1-800-547-0282 for Current Pricing.



T-304 Stainless Steel Round Bar

SSR304

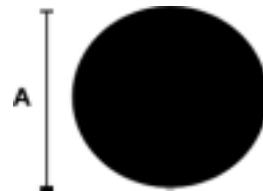


Diameter Tolerance = plus / minus .001" to .004"

2-3/4	20.195
3	24.033
3-1/2	32.712
4	42.726
5	66.759
6	96.133
8	170.90

T-303 Stainless Steel TGP Precision Shafting

ASTM A581, ASTM A582, AMS 5640



Diameter Tolerance = plus / minus .002"

Ready to Ship! Stock Lengths (+/- 1/4")
12ft
Also Available Custom Cut to Length

Item Size (Inches) A = Diameter	Weight per Foot (lbs)
1/8	.042
3/16	.094
1/4	.167
5/16	.261
3/8	.376
7/16	.511
1/2	.668
9/16	.845
5/8	1.043
3/4	1.502
7/8	2.044
1	2.670
1-1/8	3.379
1-1/4	4.173
1-3/8	5.049
1-1/2	6.008
1-5/8	7.051
1-3/4	8.178
1-7/8	9.388
2	10.681
2-1/4	13.519
2-1/2	16.690

Ready to Ship! Stock Lengths (+/- 1/4")
12ft
Also Available Custom Cut to Length

Item Size (Inches) Diameter	Weight per Foot (lbs)
1/2	.668
5/8	1.043
3/4	1.502
7/8	2.044
1	2.670
1-1/4	4.173
1-1/2	6.008

**NEED LONGER LENGTHS?
LARGER QUANTITY?
WE CAN SHIP ... EVERYWHERE!**



T-304 Stainless Steel Square & Rect. Tube

SSRT 304 SSQT304



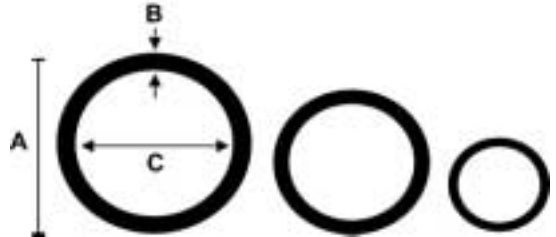
16ga = .062"	14ga = .083"	11ga = .120"
--------------	--------------	--------------

Ready to Ship! Stock Lengths (+/- 1/4")	
10ft	20ft
Also Available Custom Cut to Length	

Item Size (Inches) A x B x C	Weight per Foot (lbs)
1 X 1 X 16 GA.	.827
1 X 1 X 11 GA.	1.436
1-1/4 X 1-1/4 X 16 GA.	1.050
1-1/4 X 1-1/4 X 11 GA.	1.844
1-1/2 X 1-1/2 X 16 GA.	1.270
1-1/2 X 1-1/2 X 11 GA.	2.522
■ 1-1/2 X 1-1/2 X 3/16	3.63
2 X 1 X 16 GA.	1.269
■ 2 X 1 X 11 GA.	2.252
2 X 2 X 11 GA.	3.068
■ 2 X 2 X 3/16	4.455
■ 2 X 2 X 1/4	6.01
■ 2-1/2 X 2-1/2 X 11 GA.	3.88
■ 3 X 2 X 11 GA.	3.884
■ 3 X 3 X 11 GA.	4.70
■ 3 x 3 x 1/4	10.00
■ 4 x 2 x 11 GA.	5.741
■ 4 X 4 X 11 GA.	6.45
■ 4 x 4 x 1/4	12.68

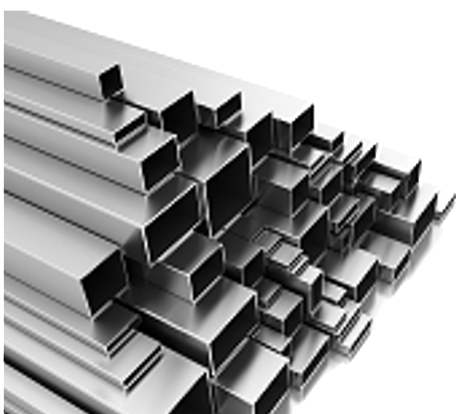
T-304 Stainless Steel Welded Pipe

SSP304



Ready to Ship! Stock Lengths (+/- 1/4")					
2ft	4ft	6ft	8ft	10ft	20ft
Also Available Custom Cut to Length					

Item Size (Inches) A x B x C	Weight per Foot (lbs)
1/2" sch 40 ■ .840 OD x .109W x .622 ID	.860
3/4" sch 40 ■ 1.05 OD x .113W x .824 ID	1.14
1" sch 40 ■ 1.315 OD x .133W x 1.049 ID	1.70
1-1/4" sch 40 ■ 1.660 OD x .140W x 1.38 ID	2.29
1-1/2" sch 40 ■ 1.90 OD x .145W x 1.61 ID	2.74
2" sch 40 ■ 2.375 OD x .154W x 2.067 ID	3.70
2-1/2" sch 40 ■ 2.875 OD x .203W x 2.469 ID	5.85
3" sch 40 ■ 3.50 OD x .216W x 3.068 ID	7.65
4" sch 40 ■ 4.50 OD x .237W x 4.026 ID	10.89
5" sch 40 ■ 5.563 OD x .258W x 5.047 ID	14.75
6 sch 40 ■ 6.625 OD x .280W x 6.065 ID	19.15



T-304 Stainless Steel Sheet & Plate

ASTM A240, AMS 5513, QQS-766, MIL-S-5059



See Material Characteristics & Specifications on Page 4-6

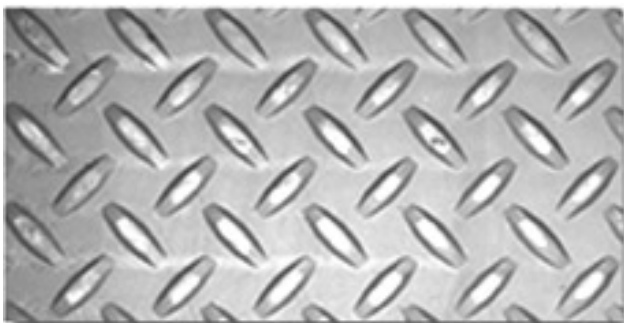
Ready to Ship! Stock Sizes		
12" x 12"	24" x 24"	48" x 48"
12" x 24"	24" x 48"	48" x 96"
12" x 48"	24" x 96"	48" x 120"
12" x 96"	24" x 120"	60" x 120"

#\$ Available Custom Cut to Size
 #\$ Stock Sheets are Shear Cut + 1/8" – 0"
 #\$ Stock Plates are Sawed or Plazma Cut to + 1/8" – 0"

(A) Gauge	Item Thickness (Inches)		Material Finish Type	Weight per Foot (lbs)
**20ga	.036	1/32	Polished / Brushed Finish #4 (fine grain lines)	1.49
**18ga	.048	3/64	Polished / Brushed Finish #4 (fine grain lines)	2.02
16ga	.060	1/16	Mill Finish	2.50
14ga	.075	3/32	Mill Finish	3.15
11ga	.120	1/8	Mill Finish	5.04
3/16	.188	--	Mill Finish	8.579
1/4	.250	--	Mill Finish	11.162
3/8	.375	--	Mill Finish	16.496
1/2	.500	--	Mill Finish	21.663
3/4	.750	--	Mill Finish	32.123
1	1.00	--	Mill Finish	42.665

T-304 Stainless Steel Floor Plate

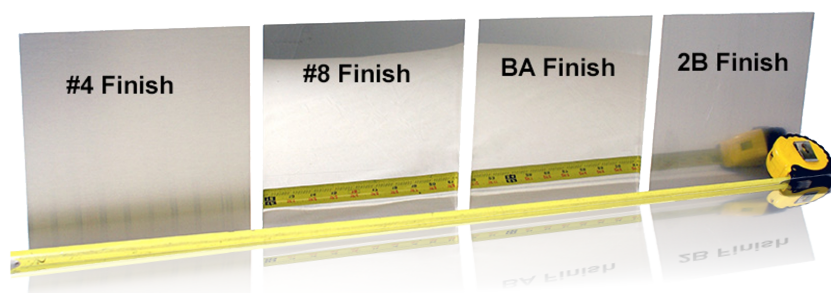
ASTMA793-85



Ready to Ship! Stock Sizes		
---	48" x 96"	48" x 120"

#\$ Available Custom Cut to Size
 #\$ Stock Plates are Sheared, Sawed or Plazma Cut to + 1/8" – 0"

Item Size (Inches)		Weight per Sq. Foot (lbs)
GA	Thickness	
1/8	.125	6.15
3/16	.188	8.70
1/4	.250	11.25

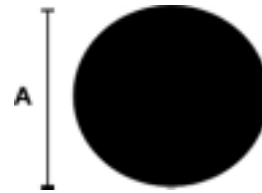


T-316 Stainless Flat Bar



Thickness Tolerance = plus / minus .008" to .060"
 Width Tolerance = plus .015" to .125 / minus .015" to .187"
 1/8" to 1/2" Sheared & Edged Flats, over 1/2" True Bar Flats

T-316 Stainless Round



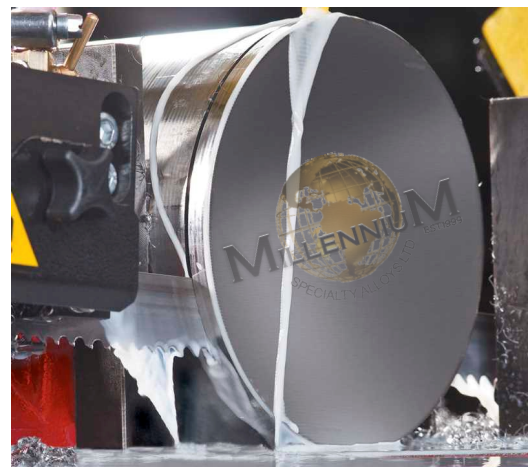
Diameter Tolerance: plus/ minus .001" to .003"

Ready to Ship! Stock Lengths (+/- 1/4")				
---	---	---	6ft	12ft
Also Available Custom Cut to Length				

Item Size (Inches) A x B	Weight per Foot (lbs)
1/8 x 1	.435
1/8 x 1-1/2	.653
1/8 x 2	.870
1/8 x 3	1.310
1/4 x 1	.870
1/4 x 1-1/2	1.305
1/4 x 2	1.740
1/4 x 3	2.610
1/4 x 4	3.480
3/8 x 1	1.305
3/8 x 1-1/2	1.956
3/8 x 2	2.552
3/8 x 3	3.915
3/8 x 4	5.22
1/2 x 1	1.74
1/2 x 1-1/2	2.610
1/2 x 2	3.480
1/2 x 3	5.220
1/2 x 4	6.960
3/4 x 2	5.105
3/4 x 3	7.657
3/4 x 4	10.21
1 x 2	6.806
3 x 1	10.21
4 x 1	13.61

Ready to Ship! Stock Lengths (+/- 1/4")				
---	---	---	6ft	12ft
Also Available Custom Cut to Length				

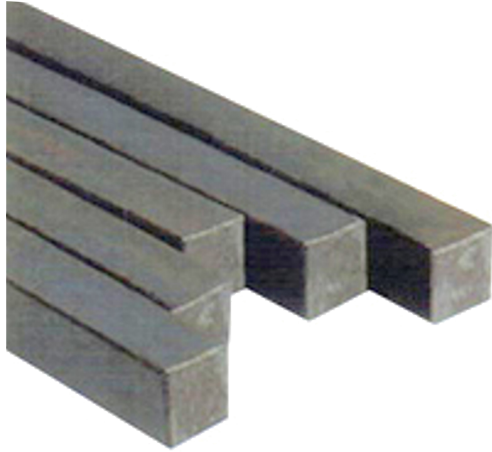
Item Size (Inches) A = Diameter	Weight per Foot (lbs)
1/4	.167
3/8	.376
1/2	.668
5/8	1.043
3/4	1.502
7/8	2.044
1	2.670
1-1/4	4.173
1-1/2	6.008
2	10.681





COLD FINISH STEEL

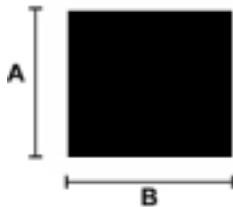
Call 1-800-547-0282 for Current Pricing.



2-1/4 x 2-1/4	17.21
2-1/2 x 2-1/2	21.25
2-3/4 x 2-3/4	25.71
3 x 3	30.60
3-1/2 x 3-1/2	41.65
4 x 4	54.40
5 x 5	65.04
6 x 6	122.40

C1018 Cold Finish Steel Square Bar

ASTMA108



Size Tolerance: plus 0" / minus .002" to .006"

C1018 Cold Finish Steel Hexagon Bar

ASTMA108



Size Tolerance: plus 0" / minus .002" to .004"

Ready to Ship! Stock Lengths (+/- 1/4")				
1ft	2ft	4ft	6ft	12ft
Also Available Custom Cut to Length				

Item Size (Inches) A x B	Weight per Foot (lbs)
1/8 x 1/8	.053
3/16 x 3/16	.120
1/4 x 1/4	.213
5/16 x 5/16	.332
3/8 x 3/8	.478
7/16 x 7/16	.651
1/2 x 1/2	.850
9/16 x 9/16	1.08
5/8 x 5/8	1.33
11/16 x 11/16	1.61
3/4 x 3/4	1.91
7/8 x 7/8	2.60
15/16 x 15/16	2.99
1 x 1	3.40
■ 1-1/8 x 1-1/8	4.30
1-1/4 x 1-1/4	5.31
1-3/8 x 1-3/8	6.43
1-1/2 x 1-1/2	7.65
■ 1-5/8 x 1-5/8	8.98
1-3/4 x 1-3/4	10.41
■ 1-7/8 x 1-7/8	11.95
2 x 2	13.60

Ready to Ship! Stock Lengths (+/- 1/4")				
1ft	2ft	4ft	6ft	12ft
Also Available Custom Cut to Length				

Item Size (Inches) A = OD – Flat to Flat	Weight per Foot (lbs)
1/4	.184
3/8	.414
1/2	.736
5/8	1.15
3/4	1.66
1	2.94
■ 1-1/8	3.73
■ 1-1/4	4.60
■ 1-3/8	5.57
■ 1-1/2	6.63
■ 1-3/4	9.02
■ 2	11.78





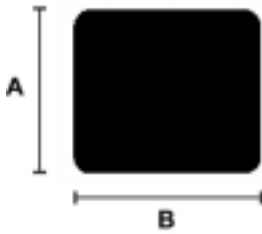
BRASS
BRASS



Call 1-800-547-0282 for Current Pricing.

Alloy 360 Brass Square Bar

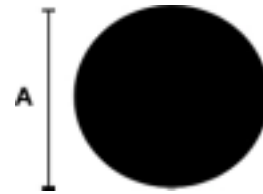
ASTM B16 (1/2 Hard Temper HO2)



Size Tolerance: plus / minus .004" to .005"

Alloy 360 Brass Round Bar

ASTM B16 (1/2 Hard Temper HO2)



Diameter Tolerance: plus / minus .002" to .005"

Item Size (Inches) A x B	Weight per Foot (lbs)
1/8 x 1/8	.058
3/16 x 3/16	.130
1/4 x 1/4	.230
5/16 x 5/16	.360
3/8 x 3/8	.518
1/2 x 1/2	.921
5/8 x 5/8	1.439
3/4 x 3/4	2.072
7/8 x 7/8	2.821
1 x 1	3.684
1-1/2 x 1-1/2	8.289
2 x 2	14.74

Ready to Ship! Stock Lengths (+/- 1/4")				
1ft	2ft	4ft	6ft	12ft
Also Available Custom Cut to Length				

Item Size (Inches) A = Diameter	Weight per Foot (lbs)
1/8	.045
3/16	.102
1/4	.181
5/16	.282
3/8	.407
7/16	.554
1/2	.723
9/16	.916
5/8	1.13
3/4	1.627
7/8	2.214
1	2.893
1-1/8	3.66
1-1/4	4.519
1-3/8	5.468
1-1/2	6.507
1-3/4	8.861
2	11.57
2-1/2	18.08
3	26.03



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ANY QUANTITY ... ANY SIZE ... DELIVERED ANYWHERE!

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C1018 Cold Finish Steel Round Bar

ASTMA108



Size Tolerance = plus 0" / minus .002" to .007"

? See Material Characteristics & Specifications on Page 4-6

Ready to Ship! Stock Lengths (+/- 1/4")				
1ft	2ft	4ft	6ft	12ft
Also Available Custom Cut to Length				

Item Size (Inches) A = Diameter	Weight per Foot (lbs)
1/8"	.042
3/16"	.094
1/4"	.167
5/16"	.261
3/8"	.375
7/16"	.511
1/2"	.668
9/16"	.845
5/8"	1.05
11/16"	1.27
3/4"	1.51
13/16"	1.77
7/8"	2.05
15/16"	2.35
1"	2.68
1-1/16"	3.02
1-1/8"	3.38
1-3/16"	3.77
1-1/4"	4.18
1-5/16"	4.60
1-3/8"	5.05
1-7/16"	5.52
1-1/2"	6.01

◆ 1-9/16"	6.52
1-5/8"	7.05
◆ 1-11/16"	7.61
1-3/4"	8.18
◆ 1-13/16"	8.77
1-7/8"	9.39
1-15/16"	10.02
2"	10.68
■ 2-1/8"	12.06
2-3/16"	12.78
2-1/4"	13.52
■ 2-5/16"	14.28
2-3/8"	15.06
■ 2-7/16"	15.86
2-1/2"	16.69
■ 2-9/16"	17.53
2-5/8"	18.40
■ 2-11/16"	19.28
2-3/4"	20.19
2-7/8"	22.07
2-15/16"	23.04
3"	24.03
3-1/4"	28.20
3-1/2"	32.71
3-3/4"	37.55
4"	42.72
4-1/2"	54.07
5"	66.75
5-1/2"	80.77
6"	96.12
6-1/2"	112.81
7"	130.83
8"	170.88
10"	267.00
12"	384.48

**NEED LONGER LENGTHS?
LARGER QUANTITY?
WE CAN SHIP ... EVERYWHERE!**





COLD FINISH STEEL

Call 1-800-547-0282 for Current Pricing.

C1045 Cold Finish Turned, Ground, & Polished Shafting

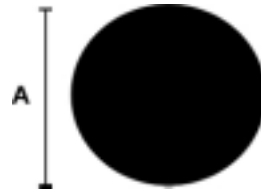
ASTM A108



Size Tolerance = plus 0" / minus .001"

Alloy 4140 Cold Drawn Annealed & Pre-Hard TGP Shafting

AISI 4140, (CDA) ASTM A331, (PH) ASTM A193



CDA Tolerance = plus 0" / minus .005"
TGP Tolerance = plus 0" / minus .001"

Ready to Ship! Stock Lengths (+/- 1/4")					
1ft	2ft	4ft	6ft	10ft	20ft
Also Available Custom Cut to Length					

Item Size (Inches) A = Diameter	Weight per Foot (lbs)
1/2	.668
■ 9/16	.845
5/8	1.043
■ 11/16	1.262
3/4	1.502
■ 13/16	1.763
7/8	2.044
■ 15/16	2.347
1	2.670
1-1/8	3.379
1-1/4	4.172
1-3/8	5.048
1-1/2	6.008
1-5/8	7.050
1-3/4	8.177
1-7/8	9.387
2	10.68
2-1/2	16.69
3	24.03



Ready to Ship! Stock Lengths (+/- 1/4")				
1ft	2ft	4ft	6ft	12ft
Also Available Custom Cut to Length				

Item Size (Inches) A = Diameter	Weight per Foot (lbs)
■ 1/4	.167
■ 3/8	.375
■ 1/2	.668
■ 5/8	1.043
■ 3/4	1.502
■ 7/8	2.044
■ 1	2.670
■ 1-1/8	3.379
■ 1-1/4	4.172
■ 1-3/8	5.048
1-7/16	
■ 1-1/2	6.008
■ 1-5/8	7.050
■ 1-3/4	8.177
■ 1-7/8	9.387
■ 2	10.68
■ 2-1/2	16.69
■ 3	24.03



A2 Tool Steel

About: A2 is an air-hardening tool steel containing five percent chromium. Replaces the oil-hardening (O-1) when safer hardening, less distortion, and increased wear resistance are required. Provide an intermediate grade between the oil-hardening and the high carbon, high chromium D-2.

Applications: blanking dies, punches, rolls, forming dies, precision tools, mandrels, shear blades & slitters, cutting tools for woodworking, tooling for plastic injection, dowel pins, hammers, industrial knives, wear inserts, etc.

Annealed Brinell Hardness:	200-235
Machinability	Medium
Weldability	Difficult
Wear Resistance	High
Overall Toughness	Medium
Strength	Medium
Corrosion Resistance	Low
Depth of Hardening:	Deep
Grindability:	Medium
Distortion in Heat Treating:	Lowest
Decarburization Resistance:	Medium
Typical Analysis: Carbon .85/1.05%, Manganese 1.00%, Silicon 0.50%, Chromium 4.75/5.50%, Molybdenum .90/1.40%, Vanadium .15/.50%, Nickel .30%	
Forging: Start forging at: 1850-2000°F Do not forge below: 1650°F	
Normalizing: Do not normalize	
Annealing: Temperature: 1550-1600°F Rate of cooling, per hour: 40°F	
Hardening: Rate of heating: Slowly Preheat temperature: 1450°F Hardening temperature: 1700-1800°F Time at temperature, minutes: 20-45	
Tempering: Tempering temperature: 350-1000°F Approx. tempered hardness, Rockwell C: 57-62	

O1 Tool Steel

About: O1 is an oil-hardening, non-deforming tool steel which can be hardened at relatively low temperatures. Tools and dies made from O1 will have good wearing qualities since the tungsten and higher chromium content gives improved wear resistance over the straight manganese grades

Applications: blanking dies, bushings, forming dies, master tools, forming rolls, gauges, trim dies, etc.

Annealed Brinell Hardness:	183-212
Machinability	High
Weldability	Medium
Wear Resistance	Medium
Overall Toughness	Medium
Strength	Medium
Corrosion Resistance	Low
Depth of Hardening:	Medium
Grindability:	High
Distortion in Heat Treating:	Low
Decarburization Resistance:	High
Typical Analysis: Carbon .85/1.00%, Manganese 1.00/1.40%, Silicon 0.50%, Chromium .40/.60%, Tungsten .40/.60, Vanadium 0.30%, Nickel .30%	
Forging: Start forging at: 1800-1950°F Do not forge below: 1550°F	
Normalizing: 1600°F	
Annealing: Temperature: 1400 -1450°F Rate of cooling, per hour: 40°F	
Hardening: Rate of heating: Slowly Preheat temperature: 1200°F Hardening temperature: 1450-1500°F Time at temperature, minutes: 10-30	
Tempering: Tempering temperature: 350-500°F Approx. tempered hardness, Rockwell C: 57-62	

D2 Tool Steel

About: O1 is an air-hardening, high carbon , high chromium tool steel with extremely high wear resisting properties. It is a very deep hardening steel and will be practically free from size change after proper treatment. The high percentage of chromium gives it mild corrosion resisting properties in the harden condition.

Applications: blanking dies, forming dies, coining dies, slitting cutters, forming rolls, master tools, beading rolls, intricate punches, threading dies, shear blades, wear parts, etc.

Annealed Brinell Hardness:	217-255
Machinability	Low
Weldability	Difficult
Wear Resistance	Very High
Overall Toughness	Low
Strength	Medium
Corrosion Resistance	Medium
Depth of Hardening:	Very High
Grindability:	Low
Distortion in Heat Treating:	Lowest
Decarburization Resistance:	Medium
Typical Analysis: Carbon 1.40/1.60%, Manganese .60%, Silicon 0.60%, Molybdenum .70/1.20%, Chromium 11.00/13.00%, Vanadium 1.10%, Cobalt 1.00%, Nickel .30%	
Forging: Start forging at: 1850-2000°F Do not forge below: 1700°F	
Normalizing: Do not normalize	
Annealing: Temperature: 1600 -1650°F Rate of cooling, per hour: 40°F	
Hardening: Rate of heating: Very Slowly Preheat temperature: 1500°F Hardening temperature: 1800-1875°F Time at temperature, minutes: 15-45	
Tempering: Tempering temperature: 400-1000°F Approx. tempered hardness, Rockwell C: 54-61	

W1 Drill Rod

W-1 is the most popular, versatile, and least expensive grade of drill rod. Its high carbon contents allow it to be used often without heat treatment, for maintenance applications. Treats evenly and provides toughness and maximum wear resistance. Features a high carbon content and fine grain structure.

Typical Analysis: Carbon .95-1.05, Manganese .30-.40, Silicon .10-.25, Phosphorus .025, Sulfur .025.	Brinell Hardness = 341	Characteristics: Wear Resistance: Low - Medium, Toughness: Low - Medium, Machinability: Medium - High	Heat Treatment: Heat thoroughly at 1425-1500°F. Hold one-half hour per inch of section, quench in water.
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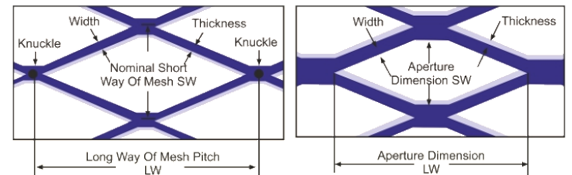
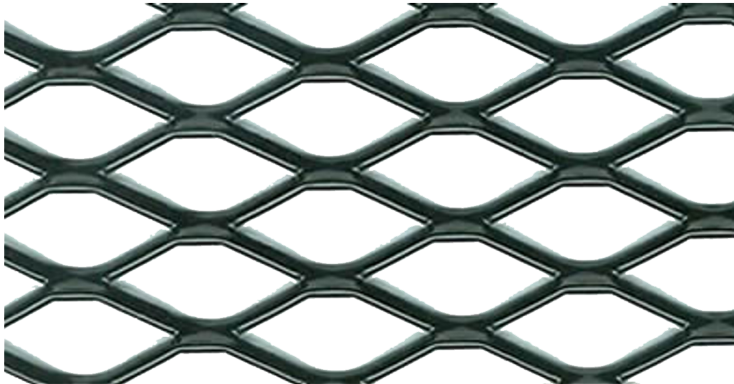
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- Available Custom Cut to Size
- Stock Sheets are Shear Cut + 1/4" – 0"

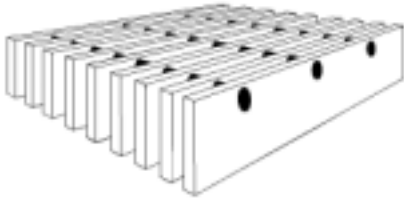
Expanded Metal is sheet metal that has been slit and expanded up to ten times its original width. The formation of the diamond-shaped pattern adds to the strength and rigidity of the sheet. This material offers savings in weight and metal, free passage of light, liquid, and air, while providing a decorative or ornamental effect. Widely used for security, sifting, machinery guards, flooring, walkways, etc.

Flattened – Smooth & Flat Surface **Standard** – Raised Surface, more rigid

Style / Description	Overall Thickness (Inches)	% Open	Diamond Opening (Inches)		Material Type	Weight per Sq. Foot (lbs)
			Short Way	Long Way		
Steel Expanded						
1/4 x #18	.040	35%	.118	.715	Flattened	1.08
1/2 x #13	.078	52%	.265	1.00	Flattened	1.40
3/4 x #9	.120	63%	.563	1.69	Flattened	1.71
3/4 x #9	.312	68%	.688	1.562	Standard	1.80
1-1/2" x #9	.110	75%	1.00	2.563	Flattened	1.14
1-1/2" x #9	.312	76%	1.125	2.375	Standard	1.20
1-1/2" x #13	.078	80%	1.062	2.75	Flattened	.570
■ 3 lb Expanded Grating	.540	60%	.940	3.44	Standard	3.00
Aluminum Expanded						
■ 1/2 x .081	.060	58%	.312	1.00	Flattened	.420
■ 1/2 x .081	.186	60%	.375	.937	Standard	.440
■ 3/4 x .125	.095	62%	.625	1.175	Flattened	.620
■ 1-1/2 x .125	.080	70%	1.00	2.75	Flattened	.430
Stainless Steel Expanded						
■ 1/2 x #13	.080	45%	.240	.915	Flattened	1.78
■ 1/2 x #13	.225	52%	.325	.875	Standard	1.87
■ 3/4 x #9	.119	61%	.562	1.697	Flattened	1.95
■ 3/4 x #9	.300	67%	.687	1.562	Standard	2.05
■ 1-1/2 x #9	.119	75%	.937	2.625	Flattened	1.37



Bar Grating



Primarily used for pedestrian and light, vehicle traffic. Applications include – walkways, flooring, ramps, bridge flooring, trench covers, machine bases, mezzanine floors, platforms, etc.

Ready to Ship! Stock Sizes	
2ft x 10ft	2ft x 20ft
3ft x 10ft	3ft x 20ft
Also Available Custom Cut to Size	
A = Standard Type – Top surface is smooth, 19W4 spacing	
B = Serrated Type – Top surface has ridges for added traction, 19W4 spacing.	

Item Size (Inches)	Type	Stock No.
--------------------	------	-----------

Carbon Steel – Painted Black

1/8 x 1	A
3/16 x 1	A
3/16 x 1-1/4	A
3/16 x 1-1/4	B
3/16 x 1-1/2	A
3/16 x 1-1/2	B
3/16 x 2	A
3/16 x 2	B

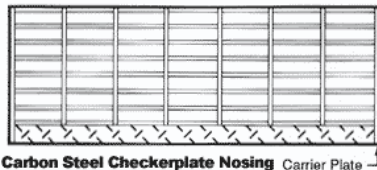
Galvanized Steel

1/8 x 1	A
3/16 x 1	A
3/16 x 1-1/4	A
3/16 x 1-1/4	B
3/16 x 1-1/2	A
3/16 x 1-1/2	B
3/16 x 2	A
3/16 x 2	B

Aluminum

1/8 x 1	A
3/16 x 1	A
3/16 x 1-1/4	A
3/16 x 1-1/2	A
3/16 x 2	A

Grating Stair Treads



Pre-fabricated stair treads make building stairways and steps easy. Each tread has serrated surface, weld/bolt plates, and abrasive nosing. Black or Galvanized

Ready to Ship! Stock Sizes	
10" x 36"	10" x 42"
12" x 36"	12" x 42"
Also Available Custom Made to Size	

Item Size (Inches)

3/16 x 1
3/16 x 1-1/4
3/16 x 1-1/2
3/16 x 2

Trench Grates



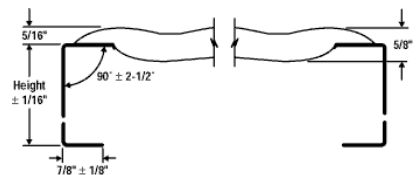
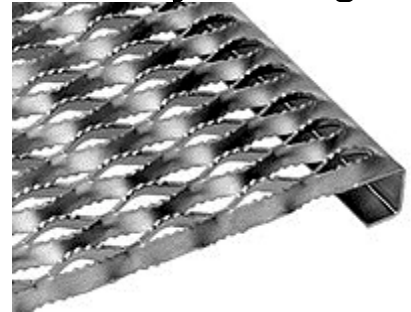
Pre-fabricated trench grates are ideal for pedestrian or vehicle traffic. Standard 3ft sections allow for easy removal and cleaning. Painted Black or Galvanized.

Ready to Ship! Stock Sizes	
8" x 36"	12" x 36"
Also Available Custom Made to Size	

Item Size (Inches)

3/16 x 1
3/16 x 1-1/4
3/16 x 1-1/2
3/16 x 2

Safety Grating



These galvanized planks have diamond shaped openings (11/16 inch x 1-7/8 inches) edged with serrated teeth meant for grabbing in every direction. Surfaces are ideally suited for all inside and outside conditions—grease, snow, mud, ice, detergent, etc. Openings are small enough to catch most falling items, such as tools. The products also have a high load capacity, long life, and are easy to install. Ideally suited for – walkways, platforms, landings, stairs, decks, mezzanines, ramps, catwalks, industrial flooring, running boards, etc.

Ready to Ship! Stock Sizes	
5ft	10ft
Also Available Custom Cut to Length	

Item Size (Inches)

Width	Height	Gauge
4-3/4	1-1/2	12ga
7	2	12ga
9-1/2	2	12ga
11-3/4	2	12ga
18-3/4	2	12ga
24	2	12ga

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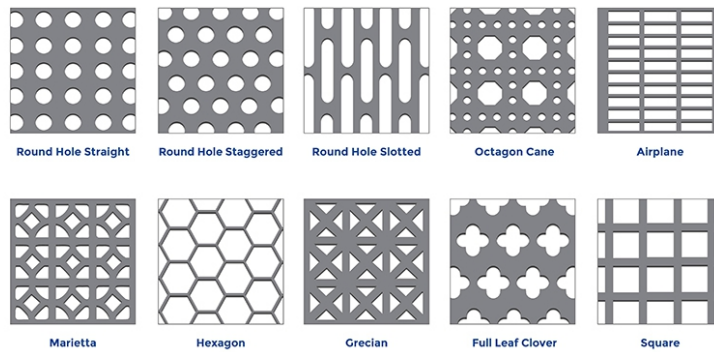


PERFORATED SHEET METAL

Call 1-800-547-0282 for Current Pricing.

Perforated Metal is one of the most versatile products on the market today. Used widely for separating and screening applications, it's also great for diffusing light, air and sound. You'll find it in automotive, lighting, construction, agriculture, petrochemical, laundry, mining, military and acoustical applications, etc.

If you are manufacturing a product that needs to be lighter, consider using perforated metal as it retains a high percentage of it's strength without the costly weight.



Hole Size Diameter	Centers (inches)	% Open	Shape / Configuration	Thickness / Gauge
1/16	1/8	23%	Staggered Centers	20 GA (.036")
1/16	1/8	23%	Staggered Centers	16 GA (.060")
1/8	3/16	40%	Staggered Centers	20 GA (.036")
1/8	3/16	40%	Staggered Centers	16 GA (.060")
3/16	1/4	51%	Staggered Centers	20 GA (.036")
3/16	1/4	51%	Staggered Centers	16 GA (.060")
1/4	3/8	40%	Staggered Centers	20 GA (.036")
1/4	3/8	40%	Staggered Centers	16 GA (.060")
1/4	3/8	40%	Staggered Centers	11 GA (.120")
3/8	9/16	40%	Staggered Centers	16 GA (.060")
3/8	9/16	40%	Staggered Centers	11 GA (.120")
1/2	11/16	47%	Staggered Centers	16 GA (.060")
1/2	11/16	47%	Staggered Centers	11 GA (.120")



Welded Wire Mesh

Welded wire mesh typically has large openings with the strands welded at each intersection, and is capable of maintaining its shape when stressed. Used widely for security applications, it is also ideal for – Horse Stalls, Dozer Brush Guards, Machinery Guards, Cages, Screens, Fencing, Stairway Guards, Racking & Shelving, Containers, Grills, Suspended Ceilings, Etc.

1/4" Wire X 2" x 2" Square Openings – 4ft x 8ft sheets

1/8" Wire X 1" X 1" Square Openings – 4ft x 8ft sheets



GLOSSARY OF METAL TERMS

Call 1-800-547-0282 for Current Pricing.

Alloy Steel – Steel containing substantial quantities of elements other than carbon and the commonly accepted limited amounts of manganese, sulfur, silicon, and phosphorus. Addition of such alloying elements is usually for the purpose of increased hardness, strength or chemical resistance.

Annealing – The process of putting material in its softest condition for further processing. This is normally done by heating material to a certain temperature, then cooling it under controlled conditions.

Anodizing – Is an electrochemical process that works with the porous structure of aluminum. The electrochemical process thickens and toughens the natural occurring protective oxide, offering a higher life span to the product. Anodizing adds durability and color stability.

CF, CRS (Cold Finished) – Cold Finish Bars are produced from Special Bar Quality Hot Rolled Bars by cold drawing through a set of dies at room temperature, turning or grinding or by a combination of these methods. The cross sectional area of the hot rolled bar is cold reduced, resulting in accurate size and smooth surface.

Chromoly – An abbreviation for chromium-molybdenum steel, AKA 4130. Chromoly is used to produce a high strength; very malleable tubing that is easily welded.

Coefficient of Thermal Expansion - A physical property value representing the change in length per unit length, the change in area per unit area, or the change in volume per unit volume per one degree increase in temperature.

DCF (Decarb Free) – DCF indicates steels with all mill scale removed. It is produced oversize to permit finish grinding after heat treatment and is free of decarburization at nominal ordered size. Since DCF comes pre-finished, no rough grinding, milling, or shaping is required. Less time is needed for squaring and truing.

Dimension ID – Inside Diameter of a round tube or pipe.

Dimension OD – Outside Diameter of a round shape.

Dimension Wall - Wall thickness or gauge. As specified by the Birmingham iron wire gauge.

Drops – Lengths or Sheets of metal less than the standard mill produced sizes. Drops retain their full retail value until reaching a size that is no longer saleable.

Ductility – Ability of metal to undergo permanent changes in shape without fracture at room temperature.

Edge Condition – Mill edge is the normal edge produced in rolling, and does not conform to any definite contour. A cut edge is one that has been cut after rolling. This may be done by shearing or flame cutting. A slit edge results when a coil is cut into multiple widths by means of a rotary knife.

Elasticity – A measure of the maximum stress that may be applied to a material without leaving a permanent deformation or strain after the stress is released.

Elongation – The change in length of a tensile specimen expressed as a percentage of the original gauge length.

Forging – A hot working operation generally involving plastic deformation of metal into desired shapes with compressive force.

Free Machining – A term used to describe a type of steel that has been modified, usually by adding sulfur, lead, or selenium to increase its machinability.

Galvanizing – The process of applying a coating of zinc to cold-reduced sheet, bar, structurals, or to fabricated parts made of steel. The coating is applied by hot dipping and is applied to make the product more resistant to corrosion.

HR (Hot Rolled) – Hot Rolled material is rolled at the mill with the scale/bark intact on the exterior of the product. The most widely used metal for all types of welding fabrication.

Hardness – The ability of a metal to resist penetration, defined in terms of the measurement Brinell, Rockwell, etc.

Heat – The quantity of metal produced by a mill or furnace in one melting.

Heat Treatment – Any process of involving heating metal to an elevated temperature to obtain change in properties of metallurgical structure.

Kerf – The part of the material lost through processing. The amount will vary depending on the type and thickness of material, and the process used.

Malleability – The property that determines the ease of deforming a metal when the material is subjected to rolling or hammering.

Pickled – Chemical or electrochemical removal of surface oxides (surface scale). Pickled sheets must be oiled or they will rust rapidly.

Quenching – A process of rapid cooling from an elevated temperature by contact with liquids, gases, or solids.

Scrap – Discarded, waste metal that no longer is wanted, usable, or saleable. Sold to reprocessing facilities to make new steel. (lathe turnings, saw shavings, slugs, etc.)

Stress Relieving – A process of reducing residual stresses in material by heating to a suitable temperature and holding for a sufficient time.

Temper – The state of or condition of a metal as to its hardness or toughness produced by either thermal treatment or heat treatment and quench or cold working or a combination in order to bring the metal to its specified consistency.

TGP (Turned, Ground & Polished) – Round bars that have extreme size accuracy, straightness, and concentricity to minimize wear in high speed applications.

Thermal Conductivity – A measure of the ease with which heat is transmitted through a material.

Tolerance – The permissible deviation from the desired value. Generally expressed as an upper and lower (+/-) limit of dimensional acceptance.

Ultimate Strength – The maximum conventional stress, tensile, compressive, or shear, that a material can withstand.

Useful Formulas

Circumference = Diameter X 3.1416
 Diameter = Radius X 2
 Area of Circle = Diameter X Diameter X .7854
 Area of Square or Rectangle = Length X Width
 Diagonal of Square = Side X 1.4142
 Diagonal of Rectangle = Square Root of sum of squares of W & L
 Area of Triangle = Base X 1/2 of Perpendicular Height
 Radius of Arc = Length + (Degrees X .01745)
 Volume of Cube = Width X Height X Length
 Volume of Cylinder = Length X Area of Base
 Gallon Capacity of Cylinder = Diameter X Diameter X Length X .0034

Conversion Multipliers

To Change:	To:	Multiply By:
Inches	Millimeters	25.4
Square Inches	Square Feet	.00694
Square Feet	Square Inches	144
Cubic Inches	Cubic Feet	.00058
Cubic Feet	Cubic Inches	1728
Cubic Inches	Gallons	.00433
Gallons	Cubic Inches	231
Gallons	Pounds of Water	8.33
Inches of Water	Pounds per Sq. Foot	5.2
Short Tons	Pounds	2000

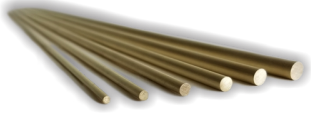


SIZE CHART DECIMAL TO MM

Call 1-800-547-0282 for Current Pricing.

	Decimal	MM	MM	Decimal		
	1/64	.016	.396	13.096	.516	33/64
	1/32	.031	.793	13.493	.531	17/32
	3/64	.047	1.190	13.890	.547	35/64
1/16		.063	1.587	14.287	.563	9/16
	5/64	.078	1.984	14.684	.578	37/64
	3/32	.094	2.381	15.081	.594	19/32
	7/64	.109	2.778	15.478	.609	39/64
1/8		.125	3.175	15.875	.625	5/8
	9/64	.141	3.571	16.271	.641	41/64
	5/32	.156	3.968	16.668	.656	21/32
	11/64	.172	4.365	17.065	.672	43/64
3/16		.188	4.762	17.462	.688	11/16
	13/64	.203	5.159	17.859	.703	45/64
	7/32	.219	5.556	18.256	.719	23/32
	15/64	.234	5.953	18.653	.734	47/64
1/4		.250	6.350	19.050	.750	3/4
	17/64	.266	6.746	19.446	.766	49/64
	9/32	.281	7.143	19.843	.781	25/32
	19/64	.297	7.540	20.240	.797	51/64
5/16		.313	7.937	20.637	.813	13/16
	21/64	.328	8.334	21.034	.828	53/64
	11/32	.344	8.731	21.431	.844	27/32
	23/64	.359	9.128	21.828	.859	55/64
3/8		.375	9.525	22.225	.875	7/8
	25/64	.391	9.921	22.621	.891	57/64
	13/32	.406	10.318	23.018	.906	29/32
	27/64	.422	10.715	23.415	.922	59/64
7/16		.438	11.112	23.812	.938	15/16
	29/64	.453	11.509	24.209	.953	61/64
	15/32	.469	11.906	24.606	.969	31/32
	31/64	.484	12.303	25.003	.984	63/64
1/2		.500	12.700	25.400	1.00	1

BRASS



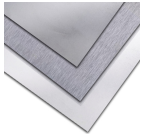
Free Cutting brass rod
(round, square, hexagon, rectangular)
Naval Brass
Sheet & Plate (lead & non-lead)
Tubing

STEEL TUBING



Electric resistance welded
4140, 4130, HSS
1026 DOM, HFSM & CDSM

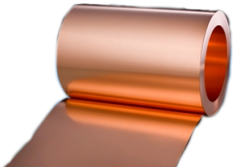
STAINLESS STEEL



Bars, pipe and tube
Sheet and Plate
2B, No4, No8 finishes
Round, Square, Hex, Rectangular

COPPER

Roofing copper sheet, coil & plate
Bus bar (round, square, hex, rectangular)
Wire



ATTENTION: PURCHASING DEPARTMENT
1-800-547-0282

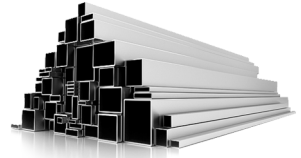
CONTINUOUS CAST BEARING BRONZE

Leaded & non-leaded Alloys
High Strength aluminum and manganese bronze
Tubular, solid & Custom shapes
Full Bars or cut to length as required
Centrifugally cast size to 40 inch diameter
Special Alloys - Everdur, Silicon, Phosphor, etc.



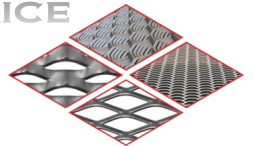
ALUMINUM

Coil
Flat sheet and plate
Tread plate
Anodize sheet
Extrusions - round, square, hex rectangular
Roofing copper sheet, coil & plate
Bare tubing
Wire



SPECIALTY ITEMS SERVICE

Expanded Sheet and bar grating
Cold Cutting to 12" diameter (13" x 18" plate)



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WE WELCOME ALL INQUIRES FOR STANDARD AND NON-STANDARD NON-FERROUS METALS.

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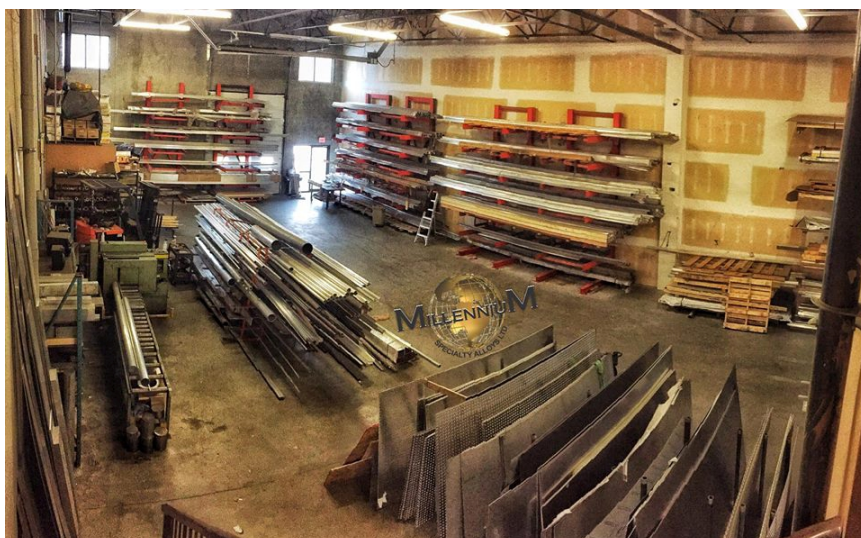
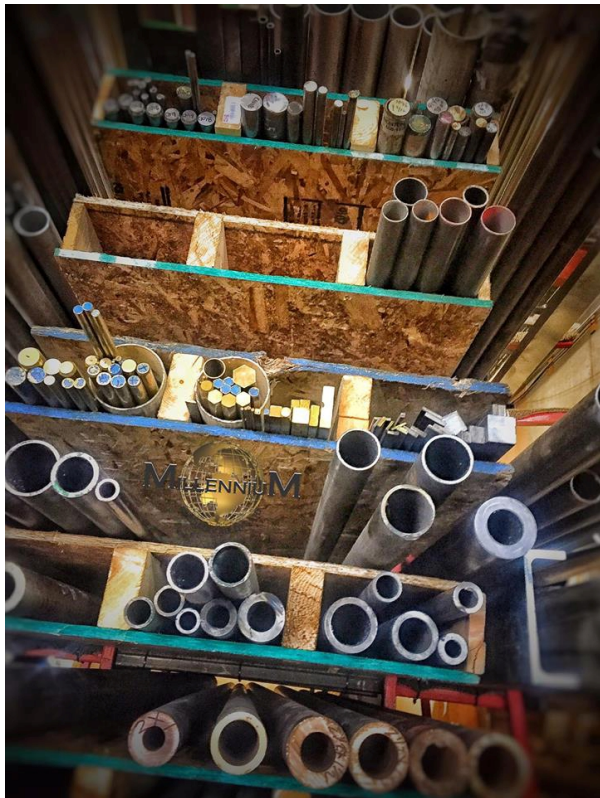
MILLENNIUM SPECIALTY ALLOYS
MILLENNIUM SPECIALTY ALLOYS

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