Mission Statement

State Steel strives to provide quality products and services at competitive prices. This commitment is demonstrated with several branch locations all offering large, diverse inventories and state-of-the-art equipment which make our products and services readily available throughout our sales area. We are sensitive to customer needs and determined to find ways to meet or exceed their requirements.

Through hard work, good customer relations, and sound management we are committed to the future growth of State Steel, to our customers, and to our dedicated employees, the backbone of our success.

Sioux City, IA

800-831-0862
712-277-4000
Fax: 712-277-3306

Grand Island, NE

800-658-4352
308-381-2040
Fax: 308-381-1613

Sioux Falls, SD

800-658-5522
605-338-9303
Fax: 605-338-6869

Des Moines, IA

800-783-3590
515-264-0000
Fax: 515-264-9345

Spencer, IA

800-747-9559
712-262-5609
Fax: 712-264-9268

Omaha, NE

800-898-4523
402-894-1900
Fax: 402-894-1910

State Steel Supply Company

a full service supply center offering a wide range of services including:

- In-Line Temper Mill (Cold Reduction Process)
  Cut to Length Coil Processing
  Up to 1/2" thick (100,000 yield) x 96" Wide
  with Improved Surface and Superior Flatness
- Laser Cutting
  3/4" thick - 80" x 216" production output
- Shearing
- Forming
- Flame and Plasma Cutting
- CNC Saw Cutting
- Die Stamping (Up to 200 ton Capacity)
- Just in Time Delivery

We also offer a full-line inventory (carbon, galvanized, stainless, aluminum) including pipe, tubing, DOM, threaded rod, expanded metal, bar grating, and grip strut.

www.statesteel.com

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Rev. 7/03

Index

Aluminum


Angle 72


Beams 72


Channel 72


Color / Painted 77


Expanded Metal 73


Flats 74


Pipe 75


Plates 76-77


Rounds 73


Sheets 76


Square & Rectangle Tube 73


Square 73


Treadbrite (Floor Plate) 77

Angles

Structural 5-6

Galvanized 7

Beams


I Beams 1


Wide Flange Beams 1-2

Beef Rail (Round Edge)

Carbon 1045 12

Galvanized 12

Channel

Bar 3

Galvanized 4

Junior 4

Structural 3-4

Coil

Cold Rolled 36

Floor Plate 36

Galvanized 36

Galvannealed 36

High Strength 37

Hot Rolled 35

Hot Rolled Pickled & Oiled 35

Expanded Metal

Flattened 61

Standard 62

Flats

Cold Drawn 19-20

Galvanized 11

Hot Rolled 9-11

Floor Plates

Aluminum 77

Carbon Steel 31

Index

 Grader Blades 12

 Grating

Bar 64

Cat Walk 64

Grip Strut 65

 Hexagons

Cold Rolled 18

Stress Relieved 18

 Pipe 39

 Plates

Abrasion Resisting 31

Aluminum 76

High Strength 32-33

Hot Rolled 28-30

Pickled & Oiled 24

Stainless Annealed & Pickled 71

 PTO Tube / Shaft 44

 Rebar 14

 Redi Rod

Carbon Steel Rod Oil Finish 15

Electro Zinc Plated 15

Stainless 15

 Rounds

Cold Rolled 16-17

Galvanized 13

Hot Rolled 13

Stainless 66

Turned Ground and Polished 17

Stainless

 Angle 66

 Annealed & Pickled Plates 71

 Annealed & Pickled Sheets 70

 Channel 66

 Expanded Metal 69

 Flats 67

 Pipe 68

 Plates 71

 Polished Sheets 70

 Rectangle Tubing 69

 Redi Rod 15

 Round 66

 Sheets 70

 Square Tubing 69

 Squares 66

 Strips 67

Index

Sheets

Cold Rolled 25
Galvanized 26
Galvannealed 27
High Strength 32-33
Hot Rolled 23-24
Paint Grip 27
Pickled & Oiled 24
Stainless 70

Squares

Cold Rolled 18
Hot Rolled 13

Stress Relieved

Cold Rolled Rounds 17
Hexagons 18
Turned Ground & Polished 17

Strips

Galvanized 8
Hot Rolled 8

T Iron 7

Tube

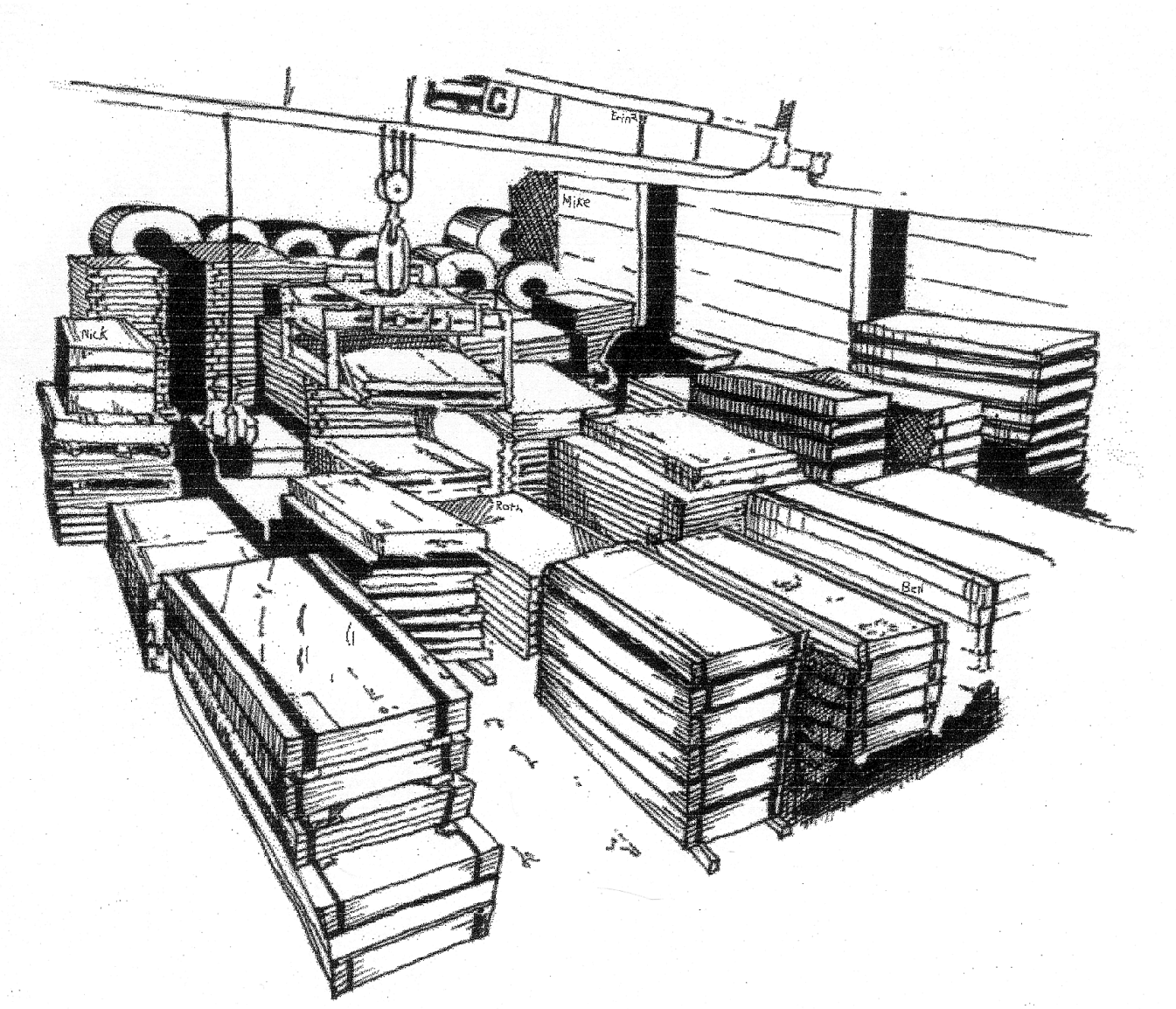
Pipe Size 43
Power Take Off 44
Rectangle 41-42
Round Mechanical Electric Weld 43
Round Mechanical 46-60
Round 45
Square 40-41

Wire Mesh

Rolls 14
Sheets 14

Wire (Blk Annealed) 14

AISI Carbon Steel Tolerance Ranges 22
Carbon Pipe Schedules 38
Decimal Conversion Table 78
Fabrication 81-85
Glossary of Terms 79-80



Tensile and Yield Strength Properties

All of the properties of standard steels that we have listed are approximations and for the most part based on physical properties of 1" rounds. Lower range tensile properties are common in larger sections, and higher properties apply to smaller sections. As a result of acceptable variations in analysis, rolling conditions, grain size, methods of treatment, and size of section, there is no guarantee that the properties we have listed will be obtained in all cases.

Only through carefully controlled heat treatment can dependable physical properties be obtained.

Beams

ASTM A-36

I Beams

				B	C
A				Web	Flange
Size	WT/FT	Length	WT/Length	Thick	Width
3”	5.70	20’	114.00	0.170	2.330
4”	7.70	20’	154.00	0.193	2.663
4”	7.70	40’	308.00	0.193	2.663
5”	10.00	20’	200.00	0.214	3.004
5”	10.00	40’	400.00	0.214	3.004
6”	12.50	20’	250.00	0.232	3.332
6”	12.50	40’	500.00	0.232	3.332
7”	15.30	20’	306.00	0.252	3.662
8”	18.40	20’	368.00	0.271	4.001
8”	18.40	40’	736.00	0.271	4.001
10”	25.40	20’	508.00	0.311	4.661
10”	25.40	40’	1016.00	0.311	4.661
12”	31.80	20’	636.00	0.350	5.000
12”	31.80	40’	1272.00	0.350	5.000
15”	42.90	40’	1716.00	0.411	5.501

I Beams – The edges of the flanges of I beams are tapered in for added strength. They are used for structural purposes and also for hoists and cranes.

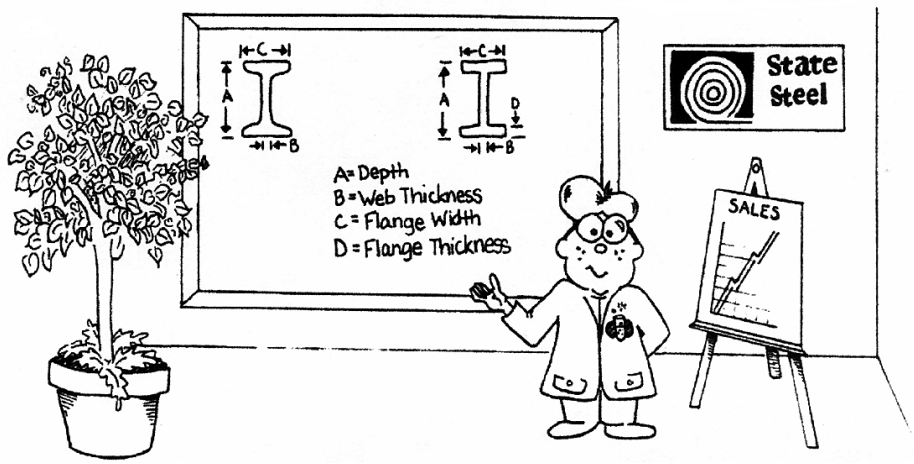
Wide Flange Beams

					B	C	D
				A	Web	Flange	Flange
Size	WT/FT	Length	WT/Length	Depth	Thick	Width	Thick
4”	13.00	20’	260.00	4.16	0.280	4.060	0.345
4”	13.00	40’	520.00	4.16	0.280	4.060	0.345
6”	9.00	20’	180.00	5.90	0.170	3.940	0.215
6”	9.00	40’	360.00	5.90	0.170	3.940	0.215
6”	12.00	20’	240.00	6.03	0.230	4.000	0.280
6”	12.00	40’	480.00	6.03	0.230	4.000	0.280
6”	12.00	50’	600.00	6.03	0.230	4.000	0.280
6”	16.00	20’	320.00	6.28	0.260	4.030	0.405
6”	16.00	40’	640.00	6.28	0.260	4.030	0.405
6”	15.00	20’	300.00	5.99	0.230	5.990	0.260
6”	15.00	40’	600.00	5.99	0.230	5.990	0.260
6”	15.00	50’	750.00	5.99	0.230	5.990	0.260
6”	20.00	20’	400.00	6.20	0.260	6.020	0.365
6”	20.00	40’	800.00	6.20	0.260	6.020	0.365

Wide Flange Beams – The web on wide flange beams is longer than the width of the flanges. Wide flange beams are used primarily for structural purposes.

H Beams – H beams are symmetrical beams where the dimensions of the height and width are equal or nearly equal. They are used mainly for structural purposes.

ASTM A-36 – Low carbon, structural quality steel used in bridges, building construction, and general structural applications. Minimum Mechanical Properties: (Yield 36,000 psi. min.) (Tensile 58,000 - 80,000 psi.)



Beams

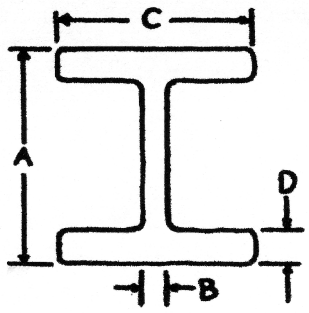
ASTM A-36

Wide Flange Beams

Size	WT/FT	Length	WT/Length	A Depth	B Web Thick	C Flange Width	D Flange Thick
8”	13.00	20’	260.00	7.99	0.230	4.000	0.255
8”	13.00	40’	520.00	7.99	0.230	4.000	0.255
8”	15.00	40’	600.00	8.11	0.245	4.015	0.315
8”	18.00	20’	360.00	8.14	0.230	5.250	0.330
8”	18.00	30’	540.00	8.14	0.230	5.250	0.330
8”	18.00	40’	720.00	8.14	0.230	5.250	0.330
8”	18.00	50’	900.00	8.14	0.230	5.250	0.330
8”	21.00	20’	420.00	8.28	0.250	5.270	0.400
8”	21.00	40’	840.00	8.28	0.250	5.270	0.400
8”	24.00	20’	480.00	7.93	0.245	6.495	0.400
8”	24.00	40’	960.00	7.93	0.245	6.495	0.400
8”	24.00	50’	1200.00	7.93	0.245	6.495	0.400
8”	28.00	20’	560.00	8.06	0.285	6.535	0.465
8”	28.00	30’	840.00	8.06	0.285	6.535	0.465
8”	28.00	40’	1120.00	8.06	0.285	6.535	0.465
8”	31.00	20’	620.00	8.00	0.285	7.995	0.435
8”	31.00	40’4”	1250.33	8.00	0.285	7.995	0.435
8”	31.00	50’	1550.00	8.00	0.285	7.995	0.435
10”	12.00	20’	240.00	9.87	0.190	3.960	0.210
10”	12.00	40’	480.00	9.87	0.190	3.960	0.210
10”	15.00	20’	300.00	9.99	0.230	4.000	0.270
10”	15.00	40’	600.00	9.99	0.230	4.000	0.270
10”	19.00	20’	380.00	10.24	0.250	4.020	0.395
10”	19.00	40’	760.00	10.24	0.250	4.020	0.395

Wide Flange Beams

Size	WT/FT	Length	WT/Length	A Depth	B Web Thick	C Flange Width	D Flange Thick
10”	22.00	20’	440.00	10.17	0.240	5.750	0.360
10”	22.00	30’	660.00	10.17	0.240	5.750	0.360
10”	22.00	40’	880.00	10.17	0.240	5.750	0.360
10”	22.00	50’	1100.00	10.17	0.240	5.750	0.360
10”	54.00	20’	1080.00	10.09	0.370	10.030	0.615
10”	54.00	40’4”	2178.00	10.09	0.370	10.030	0.615
12”	16.00	20’	320.00	11.99	0.220	3.990	0.265
12”	16.00	40’	640.00	11.99	0.220	3.990	0.265
12”	22.00	20’	440.00	12.31	0.260	4.030	0.425
12”	22.00	40’	880.00	12.31	0.260	4.030	0.425
12”	26.00	40’	1040.00	12.22	0.230	6.490	0.380
12”	26.00	50’	1300.00	12.22	0.230	6.490	0.380
12”	30.00	20’	600.00	12.34	0.260	6.520	0.440
12”	30.00	40’	1200.00	12.34	0.260	6.520	0.440
12”	65.00	20’	1300.00	12.12	0.390	12.000	0.605
12”	65.00	40’4”	2621.67	12.12	0.390	12.000	0.605
14”	30.00	40’	1200.00	13.84	0.270	6.730	0.385
14”	30.00	50’	1500.00	13.84	0.270	6.730	0.385
16”	36.00	35’	1260.00	15.86	0.295	6.985	0.430
16”	36.00	50’	1800.00	15.86	0.295	6.985	0.430
18”	40.00	40’	1600.00	17.90	0.315	6.015	0.525



All structural and bar sizes can be galvanized. Please Inquire.

Channel

ASTM A-36

Bar Channel

A x B x C

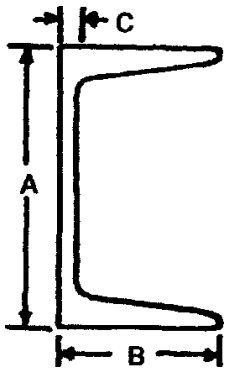
Size	Length	WT / FT	WT / Bar
1 x 1/2 x 1/8	20’	0.840	16.80
1 x 1 x 11 ga.	10’	1.280	12.80
1-1/4 x 1/2 x 1/8	20’	1.010	20.20
1-1/2 x 1/2 x 1/8	20’	1.120	22.40
1-1/2 x 9/16 x 3/16	20’	1.440	28.80
1-1/2 x 3/4 x 1/8	20’	1.170	23.40
1-5/8 x 7/8 x 11 ga.	10’	1.200	12.00
2 x 1/2 x 1/8	20’	1.430	28.60
2 x 9/16 x 3/16	20’	1.860	37.20
2 x 1 x 1/8	20’	1.590	31.80
2 x 1 x 3/16	20’	2.320	46.40
2-1/2 x 5/8 x 3/16	20’	2.270	45.40

Formed 1010 Material

Channel

A				B	C
				Flange	Web
Size	WT / FT	Length	WT / Bar	Width	Thick
3“ LC	3.500	20’	70.00	1.350	0.130
3” LC	3.500	40’	140.00	1.350	0.130
3”	4.100	20’	82.00	1.410	0.170
3”	4.100	40’	164.00	1.410	0.170
3”	5.000	20’	100.00	1.498	0.258
3”	6.000	20’	120.00	1.596	0.356
4”	5.400	20’	108.00	1.584	0.184
4”	5.400	40’	216.00	1.584	0.184
4”	7.250	20’	145.00	1.721	0.321
4”	7.250	40’	290.00	1.721	0.321
5”	6.700	20’	134.00	1.750	0.190
5”	6.700	40’	268.00	1.750	0.190
5”	9.000	20’	180.00	1.885	0.325

ASTM- A36 – Low carbon, structural quality steel used in bridges, building construction, and general structural applications. Minimum Mechanical Properties:
Yield – 36,000 psi. min. Tensile – 58,000 - 80,000 psi.



Channel

ASTM A-36

Channel

A Size	WT / FT	Length	WT / Bar	B Flange Width	C Web Thick
6”	8.200	20’	164.00	1.920	0.200
6”	8.200	40’	328.00	1.920	0.200
6”	10.500	20’	210.00	2.034	0.314
6”	10.500	40’	420.00	2.034	0.314
6”	13.000	20’	260.00	2.157	0.437
6”	13.000	40’	520.00	2.157	0.437
7”	9.800	20’	196.00	2.090	0.210
7”	9.800	40’	392.00	2.090	0.210
7”	12.250	20’	245.00	2.194	0.314
7”	14.750	20’	295.00	2.299	0.419
7”	14.750	40’	590.00	2.299	0.419
8”	11.500	20’	230.00	2.260	0.220
8”	11.500	40’	460.00	2.260	0.220
8”	13.750	20’	275.00	2.343	0.303
8”	13.750	40’	550.00	2.343	0.303
8”	18.750	20’	375.00	2.527	0.487
9”	13.400	20’	268.00	2.433	0.233
9”	13.400	40’	536.00	2.433	0.233
10”	15.300	20’	306.00	2.600	0.240
10”	15.300	40’	612.00	2.600	0.240
10”	15.300	50’	765.00	2.600	0.240
10”	20.000	20’	400.00	2.739	0.379
10”	20.000	40’	800.00	2.739	0.379
10”	25.000	20’	500.00	2.886	0.526
10”	25.000	40’	1000.00	2.886	0.526
12”	20.700	20’	414.00	2.942	0.282
12”	20.700	40’	828.00	2.942	0.282
12”	20.700	50’	1035.00	2.942	0.282
12”	30.000	20’	600.00	3.170	0.510
12”	30.000	40’	1200.00	3.170	0.510

Jr. Channel

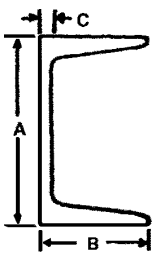
A Size	WT / FT	Length	WT / Bar	B Flange Width	C Web Thick
10”	6.500	20’	130.00	1.127	0.152
10”	6.500	40’	260.00	1.127	0.152
10”	8.400	20’	168.00	1.500	0.170
10”	8.400	40’	336.00	1.500	0.170
12”	10.600	20’	212.00	1.500	0.190
12”	10.600	40’	424.00	1.500	0.190

Galvanized Bar Channel

Size	WT / FT	Length	WT / Bar
1-1/2 x 9/16 x 3/16	1.516	20’	30.32
2 x 1 x 1/8	1.674	20’	33.48
2 x 1 x 3/16	2.442	20’	48.84

Galvanized Channel

A Size	WT / FT	Length	WT / Bar	B Flange Width	C Web Thick
3” 4.1#	4.316	20’	86.32	1.410	0.170
4” 5.4#	5.684	20’	113.68	1.584	0.184
4” 7.25#	7.632	20’	152.64	1.721	0.321
5” 6.7#	7.053	20’	141.06	1.750	0.190
6” 8.2#	8.632	20’	172.64	1.920	0.200



All Structural and bar sizes can be galvanized. Please inquire.

Angles - Bar Size

ASTM A-36

Angles

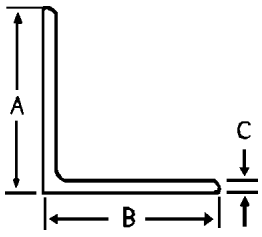
A x B x C

Size	Length	WT / FT	WT / Bar
1/2 x 1/2 x 1/8	20’	0.380	7.60
3/4 x 3/4 x 1/8	20’	0.590	11.80
7/8 x 7/8 x 1/8	20’	0.700	14.00
1 x 1 x 1/8	20’	0.800	16.00
1 x 1 x 1/8	20’6”	0.800	16.40
1 x 1 x 3/16	20’	1.160	23.20
1 x 1 x 1/4	20’	1.490	29.80
1-1/4 x 1-1/4 x 1/8	20’	1.010	20.20
1-1/4 x 1-1/4 x 3/16	20’	1.480	29.60
1-1/4 x 1-1/4 x 1/4	20’	1.920	38.40
1-3/8 x 7/8 x 1/8	20’	0.910	18.20
1-3/8 x 7/8 x 3/16	20’	1.320	26.40
1-1/2 x 1-1/2 x 1/8	20’	1.230	24.60
1-1/2 x 1-1/2 x 3/16	20’	1.800	36.00
1-1/2 x 1-1/2 x 1/4	20’	2.340	46.80
1-3/4 x 1-1/4 x 1/4	20’	2.340	46.80
1-3/4 x 1-3/4 x 1/8	20’	1.440	28.80
1-3/4 x 1-3/4 x 3/16	20’	2.120	42.40
1-3/4 x 1-3/4 x 1/4	20’	2.770	55.40

Angles

A x B x C

Size	Length	WT / FT	WT / Bar
2 x 1-1/4 x 3/16	20’	1.960	39.20
2 x 1-1/4 x 1/4	20’	2.550	51.00
2 x 1-1/2 x 1/8	20’	1.440	28.80
2 x 1-1/2 x 3/16	20’	2.120	42.40
2 x 1-1/2 x 1/4	20’	2.770	55.40
2 x 2 x 1/8	20’	1.650	33.00
2 x 2 x 3/16	20’	2.440	48.80
2 x 2 x 1/4	20’	3.190	63.80
2 x 2 x 1/4	40’	3.190	127.60
2 x 2 x 5/16	20’	3.920	78.40
2 x 2 x 3/8	20’	4.700	94.00
2-1/2 x 1-1/2 x 3/16	20’	2.440	48.80
2-1/2 x 1-1/2 x 1/4	20’	3.190	63.80
2-1/2 x 2 x 3/16	20’	2.750	55.00
2-1/2 x 2 x 1/4	20’	3.620	72.40
2-1/2 x 2 x 3/8	20’	5.300	106.00
2-1/2 x 2-1/2 x 1/8	10’	2.130	21.30
2-1/2 x 2-1/2 x 3/16	20’	3.070	61.40
2-1/2 x 2-1/2 x 1/4	20’	4.100	82.00
2-1/2 x 2-1/2 x 5/16	20’	5.000	100.00
2-1/2 x 2-1/2 x 3/8	20’	5.900	118.00
2-1/2 x 2-1/2 x 1/2	20’	7.700	154.00



Formed 1010 Material

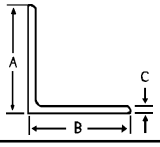
Angles - Structural

ASTM A-36

Angles

A x B x C

Size	Length	WT / FT	WT / Bar
3 x 1-1/2 x 1/8	10’	1.920	19.20
3 x 2 x 1/8	10’	2.130	21.30
3 x 2 x 3/16	20’	3.070	61.40
3 x 2 x 1/4	20’	4.100	82.00
3 x 2 x 5/16	20’	5.000	100.00
3 x 2 x 3/8	20’	5.900	118.00
3 x 2 x 1/2	20’	7.700	154.00
3 x 2-1/2 x 3/16	20’	3.390	67.80
3 x 2-1/2 x 1/4	20’	4.500	90.00
3 x 3 x 1/8	10’	2.550	25.50
3 x 3 x 3/16	20’	3.710	74.20
3 x 3 x 1/4	20’	4.900	98.00
3 x 3 x 1/4	40’	4.900	196.00
3 x 3 x 5/16	20’	6.100	122.00
3 x 3 x 3/8	20’	7.200	144.00
3 x 3 x 1/2	20’	9.400	188.00
3-1/2 x 2-1/2 x 1/4	20’	4.900	98.00
3-1/2 x 3 x 3/8	20’	7.900	158.00
3-1/2 x 3-1/2 x 1/4	20’	5.800	116.00
3-1/2 x 3-1/2 x 5/16	20’	7.200	144.00
3-1/2 x 3-1/2 x 3/8	20’	8.500	170.00
3-1/2 x 3-1/2 x 1/2	20’	11.100	222.00
4 x 2 x 1/8	10’	2.400	24.00
4 x 3 x 1/4	20’	5.800	116.00
4 x 3 x 5/16	20’	7.200	144.00
4 x 3 x 3/8	20’	8.500	170.00
4 x 3 x 3/8	40’	8.500	340.00
4 x 3 x 1/2	20’	11.100	222.00
4 x 3-1/2 x 1/4	20’	6.200	124.00
4 x 3-1/2 x 5/16	20’	7.700	154.00
4 x 3-1/2 x 3/8	20’	9.100	182.00



Formed 1010 Material

Angles

A x B x C

Size	Length	WT / FT	WT / Bar
4 x 4 x 1/4	20’	6.600	132.00
4 x 4 x 1/4	40’	6.600	264.00
4 x 4 x 5/16	20’	8.200	164.00
4 x 4 x 3/8	20’	9.800	196.00
4 x 4 x 3/8	40’	9.800	392.00
4 x 4 x 1/2	20’	12.800	256.00
4 x 4 x 1/2	40’	12.800	512.00
5 x 3 x 1/4	20’	6.600	132.00
5 x 3 x 1/4	40’	6.600	264.00
5 x 3 x 5/16	20’	8.200	164.00
5 x 3 x 3/8	20’	9.800	196.00
5 x 3 x 3/8	40’	9.800	392.00
5 x 3 x 1/2	20’	12.800	256.00
5 x 3-1/2 x 1/4	20’	7.000	140.00
5 x 3-1/2 x 5/16	20’	8.700	174.00
5 x 3-1/2 x 3/8	20’	10.400	208.00
5 x 3-1/2 x 3/8	40’	10.400	416.00
5 x 3-1/2 x 1/2	20’	13.600	272.00
5 x 5 x 5/16	20’	10.300	206.00
5 x 5 x 3/8	20’	12.300	246.00
5 x 5 x 3/8	40’	12.300	492.00
6 x 3-1/2 x 5/16	20’	9.800	196.00
6 x 4 x 5/16	20’	10.300	206.00
6 x 4 x 5/16	40’	10.300	412.00
6 x 4 x 3/8	20’	12.300	246.00
6 x 4 x 3/8	40’	12.300	492.00
6 x 4 x 1/2	20’	16.200	324.00
6 x 6 x 5/16	20’	12.500	250.00
6 x 6 x 3/8	20’	14.900	298.00
6 x 6 x 3/8	40’	14.900	596.00
6 x 6 x 1/2	20’	19.600	392.00
6 x 6 x 1/2	40’	19.600	784.00
8 x 8 x 1/2	20’	26.400	528.00

All structural and bar sizes can be galvanized. Please inquire.

T Iron

ASTM A-36

Size	Length	WT / FT	WT / Bar
1-3/4 x 1-3/4 x 3/16	20’	2.26	45.20
2 x 2 x 1/4	20’	3.62	72.40

Galvanized Angles

ASTM A-36

A x B x C

Size	Length	WT / FT	WT / Bar
1 x 1 x 1/8	20’	0.842	16.84
1 x 1 x 3/16	20’	1.221	24.42
1 x 1 x 1/4	20’	1.568	31.36
1-1/4 x 1-1/4 x 1/8	20’	1.063	21.26
1-1/4 x 1-1/4 x 3/16	20’	1.558	31.16
1-1/4 x 1-1/4 x 1/4	20’	2.021	40.42
1-1/2 x 1-1/2 x 1/8	20’	1.295	25.90
1-1/2 x 1-1/2 x 3/16	20’	1.895	37.90
1-1/2 x 1-1/2 x 1/4	20’	2.463	49.26
2 x 2 x 1/8	20’	1.737	34.74
2 x 2 x 3/16	20’	2.568	51.36
2 x 2 x 1/4	20’	3.358	67.16
2-1/2 x 2-1/2 x 3/16	20’	3.232	64.64
2-1/2 x 2-1/2 x 1/4	20’	4.316	86.32

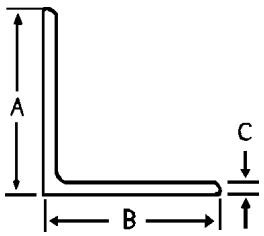
Galvanized Angles

ASTM A-36

A x B x C

Size	Length	WT / FT	WT / Bar
3 x 2 x 3/16	20’	3.232	64.64
3 x 3 x 3/16	20’	3.905	78.10
3 x 3 x 1/4	20’	5.158	103.16
3 x 3 x 3/8	20’	7.579	151.58
3-1/2 x 3-1/2 x 5/16	20’	7.579	151.58
4 x 3 x 1/4	20’	6.105	122.10
4 x 4 x 1/4	20’	6.947	138.94
4 x 4 x 3/8	20’	10.316	206.32
5 x 3 x 1/4	20’	6.947	138.94
6 x 6 x 3/8	20’	15.684	313.68

ASTM A-36 – Low carbon, structural quality steel used in bridges, building construction, and general structural applications. Estimated Minimum Mechanical Properties (EMMP): Yield 36,000 psi. min. – Tensile 58,000-80,000 psi.



Strips

Commercial Quality / M1020 / ASTM A-36

Hot Rolled Strips

Size	Length	WT / FT	WT / Bar
1/8 x 1/2	20’	0.213	4.26
1/8 x 3/4	20’	0.319	6.38
1/8 x 1	20’	0.425	8.50
1/8 x 1-1/4	20’	0.531	10.62
1/8 x 1-1/2	20’	0.638	12.76
1/8 x 1-3/4	20’	0.744	14.88
1/8 x 2	20’	0.850	17.00
1/8 x 2-1/4	20’	0.956	19.12
1/8 x 2-1/2	20’	1.063	21.26
1/8 x 3	20’	1.275	25.50
1/8 x 3-1/2	20’	1.488	29.76
1/8 x 4	20’	1.700	34.00
1/8 x 5	20’	2.125	42.50
1/8 x 6	20’	2.550	51.00
1/8 x 8	10’	3.400	34.00
1/8 x 10	10’	4.250	42.50
1/8 x 12	10’	5.100	51.00
3/16 x 1/2	20’	0.319	6.38
3/16 x 3/4	20’	0.478	9.56
3/16 x 1	20’	0.638	12.76
3/16 x 1-1/4	20’	0.797	15.94
3/16 x 1-1/2	20’	0.956	19.12
3/16 x 1-3/4	20’	1.116	22.32
3/16 x 2	20’	1.275	25.50
3/16 x 2-1/2	20’	1.594	31.88
3/16 x 3	20’	1.913	38.26
3/16 x 3-1/2	20’	2.231	44.62
3/16 x 4	20’	2.550	51.00
3/16 x 5	20’	3.188	63.76
3/16 x 5-1/2	20’	3.506	70.12
3/16 x 6	20’	3.825	76.50
3/16 x 8	10’	5.100	51.00
3/16 x 10	10’	6.375	63.75
3/16 x 12	10’	7.650	76.50

Galvanized Strips

Size	Length	WT / FT	WT / Bar
1/8 x 1	10’	0.482	4.82
1/8 x 1-1/2	10’	0.723	7.23
1/8 x 2	10’	0.963	9.63
3/16 x 1	20’	0.672	13.44
3/16 x 1-1/4	20’	0.839	16.78
3/16 x 1-1/2	20’	1.006	20.12
3/16 x 2	20’	1.342	26.84
3/16 x 3	20’	2.014	40.28
3/16 x 3-1/2	20’	2.348	46.96

ASTM A-36 – Low carbon, structural quality steel used in bridges, building construction, and general structural applications. Estimated Minimum Mechanical Properties (EMMP):

Yield – 36,000 psi.
Tensile – 58,000 - 80,000 psi.

M1020 – A low carbon, low manganese, general purpose, merchant quality steel that is suitable for forming and welding. Estimated Minimum Mechanical Properties (EMMP):

Yield – 43,000 psi.
Tensile – 65,000 psi.

Flats

Hot Rolled Flats

M1020 / ASTM A-36

Size	Length	WT / FT	WT / Length
1/4 x 1/2	20’	0.425	8.50
1/4 x 3/4	20’	0.638	12.76
1/4 x 1	20’	0.850	17.00
1/4 x 1-1/4	20’	1.063	21.26
1/4 x 1-1/2	20’	1.275	25.50
1/4 x 1-3/4	20’	1.488	29.76
1/4 x 2	20’	1.700	34.00
1/4 x 2-1/4	20’	1.913	38.26
1/4 x 2-1/2	20’	2.125	42.50
1/4 x 2-3/4	20’	2.338	46.76
1/4 x 3	20’	2.550	51.00
1/4 x 3-1/2	20’	2.975	59.50
1/4 x 4	20’	3.400	68.00
1/4 x 4-1/2	20’	3.825	76.50
1/4 x 5	20’	4.250	85.00
1/4 x 5-1/2	20’	4.675	93.50
1/4 x 6	20’	5.100	102.00
1/4 x 7	20’	5.950	119.00
1/4 x 8	20’	6.800	136.00
1/4 x 10	20’	8.500	170.00
1/4 x 12	20’	10.200	204.00
5/16 x 1	20’	1.063	21.26
5/16 x 1-1/4	20’	1.328	26.56
5/16 x 1-1/2	20’	1.594	31.88
5/16 x 1-3/4	20’	1.859	37.18
5/16 x 2	20’	2.125	42.50
5/16 x 2-1/2	20’	2.656	53.12
5/16 x 3	20’	3.188	63.76
5/16 x 3-1/2	20’	3.719	74.38
5/16 x 4	20’	4.250	85.00
5/16 x 4-1/2	20’	4.781	95.62
5/16 x 5	20’	5.313	106.26
5/16 x 6	20’	6.375	127.50

Hot Rolled Flats

M1020 / ASTM A-36

Size	Length	WT / FT	WT / Length
3/8 x 3/4	20’	0.956	19.12
3/8 x 1	20’	1.275	25.50
3/8 x 1-1/4	20’	1.594	31.88
3/8 x 1-1/2	20’	1.913	38.26
3/8 x 1-3/4	20’	2.231	44.62
3/8 x 2	20’	2.550	51.00
3/8 x 2-1/4	20’	2.869	57.38
3/8 x 2-1/2	20’	3.188	63.76
3/8 x 2-3/4	20’	3.506	70.12
3/8 x 3	20’	3.825	76.50
3/8 x 3-1/2	20’	4.463	89.26
3/8 x 4	20’	5.100	102.00
3/8 x 4-1/2	20’	5.738	114.76
3/8 x 5	20’	6.375	127.50
3/8 x 5-1/2	20’	7.013	140.26
3/8 x 6	20’	7.650	153.00
3/8 x 6-1/2	20’	8.288	165.76
3/8 x 7	20’	8.925	178.50
3/8 x 8	20’	10.200	204.00
3/8 x 9	20’	11.480	229.60
3/8 x 10	20’	12.750	255.00
3/8 x 12	10’	15.300	153.00
3/8 x 12	20’	15.300	306.00

M1020 – A low carbon, low manganese, general purpose, merchant quality steel that is suitable for forming and welding. Estimated Minimum Mechanical Properties (EMMP):

Yield – 43,000 psi.
Tensile – 65,000 psi.

Flats

Hot Rolled Flats

M1020 / ASTM A-36

Size	Length	WT / FT	WT / Length
1/2 x 3/4	20’	1.275	25.50
1/2 x 1	20’	1.700	34.00
1/2 x 1-1/4	20’	2.125	42.50
1/2 x 1-1/2	20’	2.550	51.00
1/2 x 1-3/4	20’	2.975	59.50
1/2 x 2	20’	3.400	68.00
1/2 x 2-1/4	20’	3.825	76.50
1/2 x 2-1/2	20’	4.250	85.00
1/2 x 2-3/4	20’	4.675	93.50
1/2 x 3	20’	5.100	102.00
1/2 x 3-1/4	20’	5.525	110.50
1/2 x 3-1/2	20’	5.950	119.00
1/2 x 4	20’	6.800	136.00
1/2 x 4-1/2	20’	7.650	153.00
1/2 x 5	20’	8.500	170.00
1/2 x 5-1/2	20’	9.350	187.00
1/2 x 6	20’	10.200	204.00
1/2 x 6-1/2	20’	11.050	221.00
1/2 x 7	20’	11.900	238.00
1/2 x 8	20’	13.600	272.00
1/2 x 9	20’	15.300	306.00
1/2 x 10	20’	17.000	340.00
1/2 x 12	20’	20.400	408.00
5/8 x 1	20’	2.125	42.50
5/8 x 1-1/2	20’	3.188	63.76
5/8 x 2	20’	4.250	85.00
5/8 x 2-1/2	20’	5.313	106.26
5/8 x 3	20’	6.375	127.50
5/8 x 3-1/2	20’	7.438	148.76
5/8 x 4	20’	8.500	170.00
5/8 x 4-1/2	20’	9.563	191.26
5/8 x 5	20’	10.630	212.60
5/8 x 6	20’	12.750	255.00
5/8 x 7	20’	14.880	297.60
5/8 x 8	20’	17.000	340.00
5/8 x 9	20’	19.130	382.60
5/8 x 10	20’	21.250	425.00
5/8 x 12	20’	25.500	510.00

Hot Rolled Flats

M1020 / ASTM A-36

Size	Length	WT / FT	WT / Length
3/4 x 1	20’	2.550	51.00
3/4 x 1-1/2	20’	3.825	76.50
3/4 x 2	20’	5.100	102.00
3/4 x 2-1/2	20’	6.375	127.50
3/4 x 2-3/4	20’	7.013	140.26
3/4 x 3	20’	7.650	153.00
3/4 x 3-1/2	20’	8.925	178.50
3/4 x 4	20’	10.200	204.00
3/4 x 4-1/2	20’	11.480	229.60
3/4 x 5	20’	12.750	255.00
3/4 x 6	20’	15.300	306.00
3/4 x 7	20’	17.850	357.00
3/4 x 8	20’	20.400	408.00
3/4 x 9	20’	22.950	459.00
3/4 x 10	20’	25.500	510.00
3/4 x 12	20’	30.600	612.00
1 x 1-1/2	20’	5.100	102.00
1 x 2	20’	6.800	136.00
1 x 2-1/2	20’	8.500	170.00
1 x 3	20’	10.200	204.00
1 x 3-1/2	20’	11.900	238.00
1 x 4	20’	13.600	272.00
1 x 5	20’	17.000	340.00
1 x 6	20’	20.400	408.00
1 x 7	20’	23.800	476.00
1 x 8	20’	27.200	544.00
1 x 10	20’	34.000	680.00
1 x 12	20’	40.800	816.00
1-1/4 x 2	20’	8.500	170.00
1-1/4 x 3	20’	12.750	255.00
1-1/4 x 4	20’	17.000	340.00
1-1/2 x 2-1/4	20’	11.480	229.60
1-1/2 x 4-1/2	20’	22.950	459.00
2 x 5	20’	34.000	680.00

Flats

Galvanized Flats

ASTM A-36

Size	Length	WT / FT	WT / Length
1/4 x 1	20’	0.895	17.90
1/4 x 1-1/4	20’	1.119	22.38
1/4 x 1-1/2	20’	1.342	26.84
1/4 x 2	20’	1.789	35.78
1/4 x 2-1/2	20’	2.237	44.74
1/4 x 3	20’	2.684	53.68
1/4 x 4	20’	3.579	71.58
1/4 x 6	20’	5.368	107.36
3/8 x 2	20’	2.684	53.68
3/8 x 3	20’	4.026	80.52
3/8 x 6	20’	8.053	161.06
1/2 x 7	20’	12.526	250.52

Hot Rolled Flats M1044

Size	Length	WT / FT	WT / Length
1/2 x 3	20’	5.100	102.00

Hot Rolled Flats 1045

Size	Length	WT / FT	WT / Length
5/16 x 4	24’4”	4.250	103.42
3/4 x 4	20’	10.200	204.00
3/4 x 5	20’	12.750	255.00
1 x 5	20’	17.000	340.00

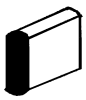
H.R. Flat M1044 – This is a medium carbon, similar to the properties of 1045 but contains lesser amounts of manganese. Strength levels and heat treatability are very close to the same. Estimated Minimum Mechanical Properties (EMMP):

Yield – 44,000 psi. Tensile – 80,000 psi.

H.R. Flat 1045 – This is a medium carbon which increases strength levels and heat treatability. Commonly used for axles, shafts, gears, and connecting rods. Estimated Minimum Mechanical Properties (EMMP):

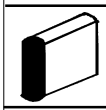
Yield – 60,000 psi. Tensile – 95,000 psi.

Beef Rail – Grader Blades



Beef Rail 1045 (Round Edge)

Size	Length	WT / FT	WT / Bar
1/2 x 2-1/2	20’	4.250	85.00



Galvanized Beef Rail 1045

Size	Length	WT / FT	WT / Bar
1/2 x 2-1/2	20’	4.474	89.48

Beef Rail 1045 – Medium carbon which increases strength levels and heat treatability. Commonly used in packing houses for hanging beef. A device that includes a hook that attaches to a side of beef and a roller that rides on the beef rail allows packing houses to maneuver the beef easily throughout the plant. Estimated Minimum Mechanical Properties (EMMP):

Yield – 60,000 psi. Tensile – 95,000 psi.

Grader Blades 1055

Size	Length	WT / FT	WT / Bar
3/8 x 3	20’6” RL	3.330	68.27
1/2 x 4	20’6” RL	6.040	123.82
1/2 x 6	20’6” RL	9.450	193.72
1/2 x 6	36’6” RL	9.450	344.93
5/8 x 6	20’6” RL	11.550	236.78
3/4 x 4	21’6” RL	8.480	182.32
3/4 x 4	24’6” RL	8.480	207.76
3/4 x 6	24’6” RL	13.600	333.20
3/4 x 8	24’6” RL	18.410	451.05
1 x 8	24’6” RL	25.170	616.66
1 x 8	36’6” RL	25.170	918.71

Grader Blades AISI - 1055 – High carbon, single bevel flats that are commonly used in the farm equipment industry for blades on front end loaders, graders, etc.

Hot Rolled Rounds

M1020 / ASTM A-36

Size	Length	WT / FT	WT / Length
1/4”	20’	0.167	3.34
5/16”	20’	0.261	5.22
3/8”	20’	0.376	7.52
7/16”	20’	0.511	10.22
1/2”	20’	0.668	13.36
9/16”	20’	0.845	16.90
5/8”	20’	1.043	20.86
3/4”	20’	1.502	30.04
7/8”	20’	2.045	40.90
1”	20’	2.670	53.40
1-1/8”	20’	3.380	67.60
1-1/4”	20’	4.173	83.46
1-3/8”	20’	5.049	100.98
1-1/2”	20’	6.008	120.16
1-3/4”	20’	8.178	163.56
2”	20’	10.680	213.60

Galvanized Rounds

M1020 / ASTM A-36

Size	Length	WT / FT	WT / Length
1/2”	20’	0.703	14.06
5/8”	20’	1.098	21.96
3/4”	20’	1.581	31.62

Hot Rolled Squares

M1020 / ASTM A-36

Size	Length	WT / FT	WT / Bar
3/8”	20’	0.478	9.56
1/2”	20’	0.850	17.00
5/8”	20’	1.328	26.56
3/4”	20’	1.913	38.26
1”	20’	3.400	68.00
1-1/4”	20’	5.313	106.26
1-1/2”	20’	7.650	153.00
2”	20’	13.600	272.00

ASTM A-36 – Low carbon, structural quality steel used in bridges, building construction, and general structural applications. Estimated Minimum Mechanical Properties (EMMP): Yield 36,000 psi. min. – Tensile 58,000-80,000 psi.

M1020 – Low carbon, low manganese, general purpose, merchant quality steel that is suitable for forming and welding. Estimated Minimum Mechanical Properties (EMMP): Yield 43,000 psi – Tensile 65,000 psi.

All structural and bar Sizes can be galvanized. Please inquire.

Rebar & Wire Mesh

Reinforcing Bars

ASTM A-615 – Billet Steel Deformed Bars – No Grade – Grades 40 & 60

Size	IMP	Grade	Length	WT / FT	WT / Length
3/8" #10mm	#3	NG	20'	0.376	7.52
1/2" #13mm	#4	NG	20'	0.668	13.36
5/8" #16mm	#5	NG	20'	1.043	20.86
3/4" #19mm	#6	NG	20'	1.502	30.04
3/8" #10mm	#3	G40	20'	0.376	7.52
1/2" #13mm	#4	G40	20'	0.668	13.36
5/8" #16mm	#5	G40	20'	1.043	20.86
3/4" #19mm	#6	G40	20'	1.502	30.04
1/2" #13mm	#4	G60	20'	0.668	13.36
1/2" #13mm	#4	G60	30'	0.668	20.04
5/8" #16mm	#5	G60	20'	1.043	20.86
3/4" #19mm	#6	G60	20'	1.502	30.04
7/8" #22mm	#7	G60	20'	2.045	40.90
1" #25mm	#8	G60	20'	2.670	53.40
1-1/8" #29mm	#9	G60	20'	3.380	67.60

Reinforcing Wire Mesh Rolls

Size	Length	WT/EA
6 x 6 10/10	5' x 150'	148.00
6 x 6 6/6	5' x 150'	305.00

Reinforcing Wire Mesh Sheets

Size	Length	WT/EA
6 x 6 10/10	4' x 8'	6.72
6 x 6 10/10	8' x 20'	33.60
6 x 6 6/6	8' x 20'	67.20

Black Annealed Wire

12-1/2 ga.	Approx. 100# rolls

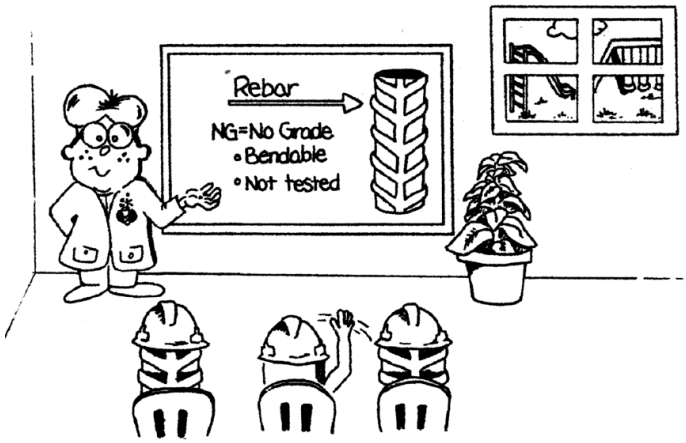
Reinforcing Bars

ASTM 615 – New billet-deformed bars. Reinforcing bars are commonly used for concrete reinforcement. The bar's surface is supplied with small lugs which eliminate motion of concrete in relation to the bar. We stock three grades.

No Grade – Bendable but can run into hard spots. This is the most economical grade.

Grade 40 – Best formability. Estimated Minimum Mechanical Properties (EMMP): Yield – 40,000 psi. Tensile – 70,000 psi.

Grade 60 – Highest strength of our three grades. Estimated Minimum Mechanical Properties (EMMP): Yield – 60,000 psi. Tensile – 90,000 psi.



Wire Mesh

6" x 6" – wire pattern = 6" x 6" squares
10/10 – wire gauge = 10ga. both directions
6/6 – wire gauge = 6ga. both directions

6 x 6 10/10 – also known as – W1.4/W1.4
6 x 6 6/6 – also known as – W2.9 / W2.9

Redi Rod

National Course

Threaded Carbon Steel Rod

(Oil Finish)

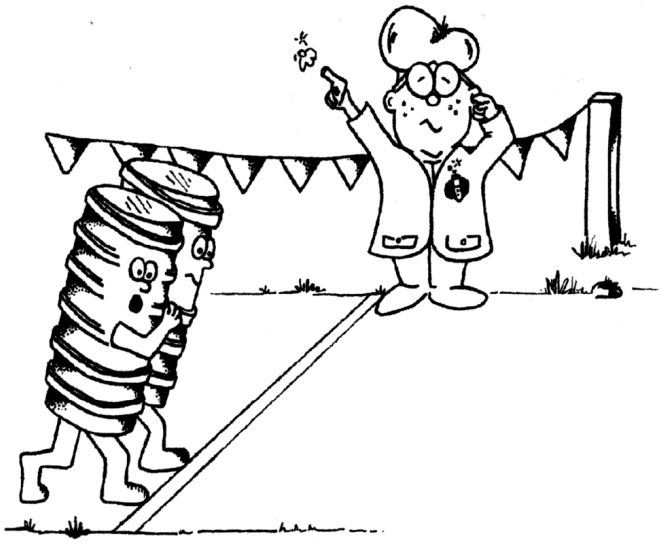
Size	Length	WT / FT	WT / Length
1/4" blk	6'	0.118	0.708
1/4" blk	10'	0.118	1.180
1/4" blk	12'	0.118	1.416
5/16" blk	6'	0.197	1.182
5/16" blk	10'	0.197	1.970
3/8" blk	6'	0.284	1.704
3/8" blk	10'	0.284	2.840
7/16" blk	6'	0.390	2.340
1/2" blk	6'	0.515	3.090
1/2" blk	10'	0.515	5.150
9/16" blk	6'	0.660	3.960
5/8" blk	6'	0.825	4.950
5/8" blk	10'	0.825	8.250
3/4" blk	6'	1.215	7.290
3/4" blk	10'	1.215	12.15
7/8" blk	6'	1.675	10.05
7/8" blk	10'	1.675	16.75
1" blk	6'	2.190	13.14
1" blk	10'	2.190	21.90
1-1/2" blk	12'	5.050	60.60

Electro Zinc Plated

Size	Length	WT / FT	WT / Length
1/4" galv	6'	0.118	0.708
1/4" galv	12'	0.118	1.416
5/16" galv	6'	0.197	1.182
3/8" galv	6'	0.284	1.704
3/8" galv	12'	0.284	3.408
7/16" galv	3'	0.390	1.170
7/16" galv	6'	0.390	2.340
1/2" galv	6'	0.515	3.090
1/2" galv	12'	0.515	6.180
5/8" galv	6'	0.825	4.950
5/8" galv	12'	0.825	9.900
3/4" galv	6'	1.215	7.290
7/8" galv	6'	1.675	10.05
1" galv	6'	2.190	13.14

Type 304 Stainless Steel Threaded Rod

Size	Length	WT / FT	WT / Length
1/4" SS	12'	0.123	1.476
5/16" SS	12'	0.201	2.412
3/8" SS	12'	0.296	3.552
7/16" SS	6'	0.406	2.436
7/16" SS	12'	0.406	4.872
1/2" SS	6'	0.539	3.234
1/2" SS	12'	0.539	6.468
5/8" SS	6'	0.852	5.112
5/8" SS	12'	0.852	10.22
3/4" SS	6'	1.249	7.49
3/4" SS	12'	1.249	14.99
7/8" SS	12'	1.724	20.69
1" SS	12'	2.256	27.07



Rounds

Cold Rolled Rounds 1018

Size	Length	WT / FT	WT / Length
5/32”	12’	0.065	0.78
3/16”	12’	0.094	1.13
1/4”	12’	0.167	2.00
1/4”	20’	0.167	3.34
5/16”	20’	0.261	5.22
3/8”	20’	0.376	7.52
7/16”	20’	0.511	10.22
1/2”	12’	0.668	8.02
1/2”	20’	0.668	13.36
9/16	20’	0.845	16.90
5/8”	20’	1.043	20.86
11/16”	20’	1.262	25.24
3/4”	20’	1.502	30.04
13/16”	20’	1.763	35.26
7/8”	20’	2.045	40.90
15/16”	20’	2.347	46.94
1”	20’	2.670	53.40
1-1/16”	20’	3.015	60.30
1-1/8”	20’	3.380	67.60
1-3/16”	20’	3.766	75.32
1-1/4”	20’	4.173	83.46
1-5/16”	20’	4.600	92.00
1-3/8”	20’	5.049	100.98
1-7/16”	20’	5.518	110.36
1-1/2”	20’	6.008	120.16
1-5/8”	20’	7.052	141.04
1-11/16”	20’	7.604	152.08
1-3/4”	20’	8.178	163.56
1-7/8”	20’	9.388	187.76
1-15/16”	20’	10.020	200.40
2”	20’	10.680	213.60
2-3/16”	20’	12.780	255.60
2-1/4”	20’	13.520	270.40
2-7/16”	20’	15.870	317.40
2-1/2”	20’	16.690	333.80
2-3/4”	20’	20.190	403.80
2-15/16”	20’	23.040	460.80

Cold Rolled Rounds 1018

Size	Length	WT / FT	WT / Length
3”	20’	24.030	480.60
3-1/4”	20’	28.210	564.20
3-7/16”	20’	31.550	631.00
3-1/2”	20’	32.710	654.20
4”	12’	42.730	512.76

Cold Rolled Rounds 1045

Size	Length	WT / FT	WT / Length
1/4”	20’	0.167	3.34
3/8”	12’	0.376	4.51
3/8”	20’	0.376	7.52
1/2”	20’	0.668	13.36
5/8”	20’	1.043	20.86
3/4”	20’	1.502	30.04
7/8”	20’	2.045	40.90
1”	20’	2.670	53.40
1-1/8”	20’	3.380	67.60
1-3/16”	20’	3.766	75.32
1-1/4”	20’	4.173	83.46
1-5/16”	20’	4.600	92.00
1-3/8”	20’	5.049	100.98
1-7/16”	20’	5.518	110.36
1-1/2”	20’	6.008	120.16
1-5/8”	20’	7.052	141.04
1-3/4”	20’	8.178	163.56
2”	20’	10.680	213.60
2-3/16”	20’	12.780	255.60
2-1/4”	20’	13.520	270.40
2-1/2”	20’	16.690	333.80
2-3/4”	20’	20.190	403.80
3”	20’	24.030	480.60
3-1/2”	20’	32.710	654.20

1018 – A low carbon steel that is easily welded or brazed with fair machinability and good hardening properties. Manufactured for cold forming and bending. Estimated Minimum Mechanical Properties (EMMP):
Yield – 54,000 psi. Tensile – 64,000 psi.

Rounds

Cold Rolled Rounds 1045

Turned Ground and Polished

Size	Length	WT / FT	WT / Length
3/4”	22’ rl	1.502	33.04
1”	21’ rl	2.670	56.07
1-1/4”	20’ rl	4.173	83.46
1-1/2”	20’ rl	6.008	120.16
1-3/4”	22’ rl	8.178	179.92
2”	24’ rl	10.680	256.32
2-1/2”	21’ rl	16.690	350.49

Cold Rolled Rounds 1144

Size	Length	WT / FT	WT / Length
1”	12’	2.670	32.04
1-1/2”	12’	6.008	72.10

Cold Rolled Rounds 1215

Size	Length	WT / FT	WT / Length
1”	12’	2.670	32.04

Cold Rolled 1144 Rounds

Stress Relieved

Size	Length	WT / FT	WT / Length
5/16”	12’ rl	0.261	3.13
3/8”	12’ rl	0.376	4.51
1/2”	12’ rl	0.668	8.02
5/8”	12’ rl	1.043	12.52
3/4”	12’ rl	1.502	18.02
7/8”	12’ rl	2.045	24.54
1”	12’ rl	2.670	32.04
1-1/8”	12’ rl	3.380	40.56
1-1/4”	12’ rl	4.173	50.08
1-3/8”	12’ rl	5.049	60.59
1-7/16”	12’ rl	5.518	66.22
1-1/2”	12’ rl	6.008	72.10

Cold Drawn 1144 Bars – Higher carbon and sulphur levels resulting in superior machinability but restricts weldability. Estimated Minimum Mechanical Properties (EMMP): Yield – 90,000 psi. Tensile – 108,000 psi.

Cold Rolled 1144 Rounds

Stress Relieved

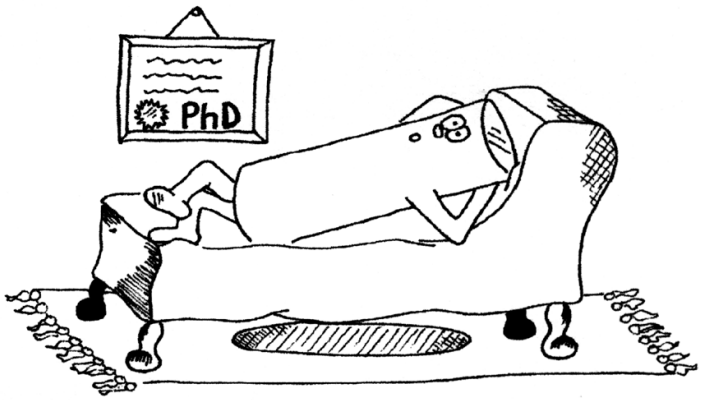
Size	Length	WT / FT	WT / Length
1-5/8”	12’ rl	7.052	84.62
1-11/16”	12’ rl	7.604	91.25
1-3/4”	12’ rl	8.178	98.14
1-7/8”	12’ rl	9.388	112.66
1-15/16”	12’ rl	10.020	120.24
2”	12’ rl	10.680	128.16
2-3/16”	12’ rl	12.780	153.36
2-1/4”	12’ rl	13.520	162.24
2-7/16”	12’ rl	15.870	190.44
2-1/2”	12’ rl	16.690	200.28
2-15/16”	12’ rl	23.040	276.48
3”	12’ rl	24.030	288.36
3”	20’ rl	24.030	480.60
3-1/4”	12’ rl	28.210	338.52
3-1/2”	12’ rl	32.710	392.52

Cold Rolled 1144 Rounds

Stress Relieved Turned Ground & Polished

Size	Length	WT / FT	WT / Length
1”	12’ rl	2.670	32.04
1-1/4”	12’ rl	4.173	50.08

1045 – This higher carbon range steel is produced with a smoother finish and has more strength than the 1018. The 1045 does not machine freely, can be forced satisfactorily, is fair for brazing, and welding requires a specific technique. Commonly used for shafts, connecting rods, bolts, wheel flanges, and gears. Response to heat treatment is excellent. Estimated Minimum Mechanical Properties (EMMP): Yield – 77,000 psi. Tensile – 91,000 psi.



Cold Rolled Squares & Hexagons

Cold Rolled Squares 1018

Size	Length	WT / FT	WT / Bar
3/16”	12’	0.120	1.44
1/4”	12’	0.213	2.56
5/16”	12’	0.332	3.98
3/8”	12’	0.478	5.74
7/16”	12’	0.651	7.81
1/2”	12’	0.850	10.20
5/8”	12’	1.328	15.94
3/4”	12’	1.913	22.96
7/8”	12’	2.603	31.24
1”	12’	3.400	40.80
1-1/8”	12’	4.303	51.64
1-1/4”	12’	5.313	63.76
1-1/2”	12’	7.650	91.80
2”	12’	13.600	163.20
3”	12’	30.600	367.20

Cold Rolled Squares 1045

Size	Length	WT / FT	WT / Bar
1-1/4”	12’	5.313	63.76

1215 – Low carbon, resulfurized, and rephosphorized screw machine steel. This is very fast machining material with a smooth and bright finish used for studs, nuts, fasteners, etc. Can be case hardened. Average Mechanical Properties:

Yield – 60,000-75,000 psi.
Tensile – 70,000-85,000 psi.

Cold Rolled Hexagons 1018

Size	Length	WT /FT	WT / Bar
3/8”	12’ rl	0.414	4.97
7/16”	12’ rl	0.564	6.77
1/2”	12’ rl	0.736	8.83
9/16”	12’ rl	0.932	11.18
5/8”	12’ rl	1.150	13.80
11/16”	12’ rl	1.392	16.70
3/4”	12’ rl	1.656	19.87
7/8”	12’ rl	2.254	27.05
1”	12’ rl	2.944	35.33
1-1/8”	12’ rl	3.727	44.72
1-1/4”	12’ rl	4.601	55.21
1-3/8”	12’ rl	5.567	66.80
1-1/2”	12’ rl	6.625	79.50

Cold Rolled Hexagons 12L14

Size	Length	WT /FT	WT / Bar
1/2”	12’ rl	0.736	8.83
5/8”	12’ rl	1.150	13.80
3/4”	12’ rl	1.656	19.87
7/8”	12’ rl	2.254	27.05
1”	12’ rl	2.945	35.34
1-1/8”	12’ rl	3.727	44.72
1-1/4”	12’ rl	4.601	55.21
1-1/2”	12’ rl	6.625	79.50

Cold Rolled 1144 Hexagons

Stress Relieved

Size	Length	WT /FT	WT / Length
9/16”	12’ rl	0.932	11.18
3/4”	12’ rl	1.656	19.87
1”	12’ rl	2.944	35.33
1-1/8”	12’ rl	3.727	44.72

Flats

Cold Drawn Flats 1018

Size	Length	WT / FT	WT / Length
1/8 x 1/2	12’	0.213	2.56
1/8 x 3/4	12’	0.319	3.83
1/8 x 1	12’	0.425	5.10
1/8 x 1-1/2	12’	0.638	7.66
1/8 x 1-3/4	12’	0.744	8.93
1/8 x 2	12’	0.850	10.20
1/8 x 2-1/2	12’	1.063	12.76
1/8 x 3	12’	1.275	15.30
1/8 x 4	12’	1.700	20.40
3/16 x 1/2	12’	0.319	3.83
3/16 x 3/4	12’	0.478	5.74
3/16 x 1	12’	0.638	7.66
3/16 x 1-1/2	12’	0.956	11.47
3/16 x 2	12’	1.275	15.30
3/16 x 2-1/2	12’	1.594	19.13
3/16 x 3	12’	1.913	22.96
3/16 x 4	12’	2.550	30.60
3/16 x 5	12’	3.188	38.26
3/16 x 6	12’	3.825	45.90
1/4 x 1/2	12’	0.425	5.10
1/4 x 3/4	12’	0.638	7.66
1/4 x 7/8	12’	0.744	8.93
1/4 x 1	12’	0.850	10.20
1/4 x 1-1/4	12’	1.063	12.76
1/4 x 1-1/2	12’	1.275	15.30
1/4 x 1-3/4	12’	1.488	17.86
1/4 x 2	12’	1.700	20.40
1/4 x 2-1/2	12’	2.125	25.50
1/4 x 3	12’	2.550	30.60
1/4 x 3-1/2	12’	2.975	35.70
1/4 x 4	12’	3.400	40.80
1/4 x 5	12’	4.250	51.00
1/4 x 6	12’	5.100	61.20
1/4 x 7	12’	5.950	71.40

Cold Drawn Flats 1018

Size	Length	WT / FT	WT / Length
5/16 x 1/2	12’	0.531	6.37
5/16 x 1	12’	1.063	12.76
5/16 x 1-1/2	12’	1.594	19.13
5/16 x 2	12’	2.125	25.50
3/8 x 1/2	12’	0.638	7.66
3/8 x 3/4	12’	0.956	11.47
3/8 x 1	12’	1.275	15.30
3/8 x 1-1/4	12’	1.594	19.13
3/8 x 1-1/2	12’	1.913	22.96
3/8 x 2	12’	2.550	30.60
3/8 x 2-1/2	12’	3.188	38.26
3/8 x 3	12’	3.825	45.90
3/8 x 3-1/2	12’	4.463	53.56
3/8 x 3-3/4	12’	4.781	57.37
3/8 x 4	12’	5.100	61.20
3/8 x 5	12’	6.375	76.50
3/8 x 6	12’	7.650	91.80
7/16 x 1	12’	1.488	17.86
7/16 x 1-1/2	12’	2.231	26.77
7/16 x 2	12’	2.975	35.70
7/16 x 3	12’	4.463	53.56
7/16 x 4	12’	5.950	71.40

1018 – A low carbon steel that is easily welded or brazed with fair machinability and good hardening properties. Manufactured for cold forming and bending. Estimated Minimum Mechanical Properties (EMMP): Yield 54,000 psi. Tensile 64,000 psi.

Flats

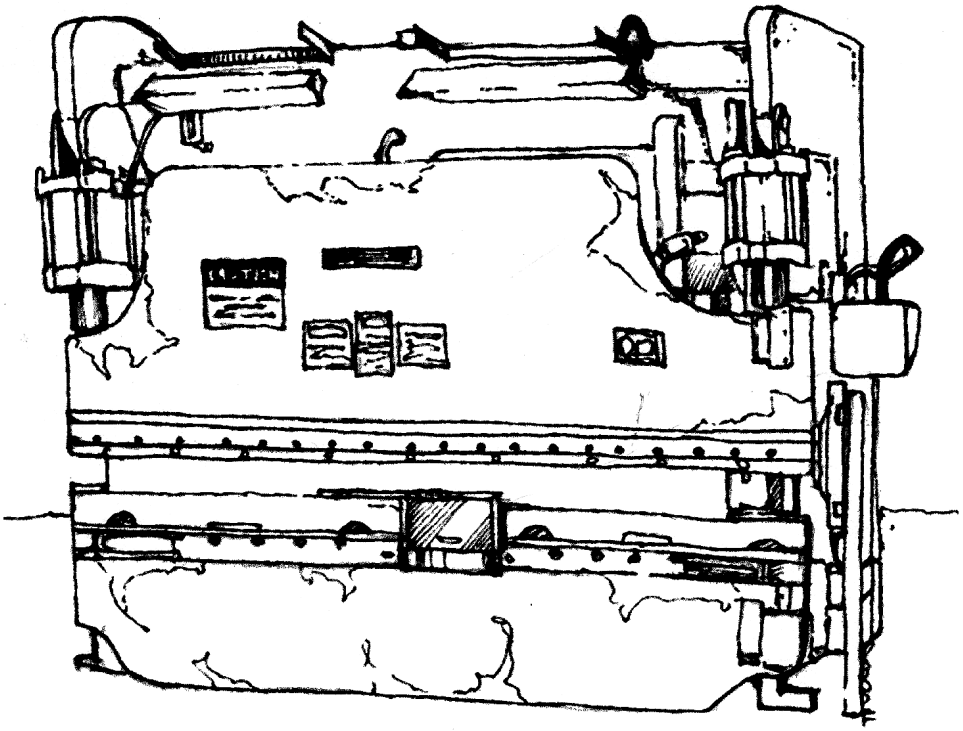
Cold Drawn Flats 1018

Size	Length	WT / FT	WT / Length
1/2 x 3/4	12’	1.275	15.30
1/2 x 1	12’	1.700	20.40
1/2 x 1-1/4	12’	2.125	25.50
1/2 x 1-1/2	12’	2.550	30.60
1/2 x 2	12’	3.400	40.80
1/2 x 2-1/2	12’	4.250	51.00
1/2 x 3	12’	5.100	61.20
1/2 x 3-1/2	12’	5.950	71.40
1/2 x 4	12’	6.800	81.60
1/2 x 4-1/2	12’	7.650	91.80
1/2 x 5	12’	8.500	102.00
1/2 x 6	12’	10.200	122.40
5/8 x 1	12’	2.125	25.50
5/8 x 1-1/4	12’	2.656	31.87
5/8 x 1-1/2	12’	3.188	38.26
5/8 x 1-3/4	12’	3.719	44.63
5/8 x 2	12’	4.250	51.00
5/8 x 2-1/2	12’	5.313	63.76
5/8 x 3	12’	6.375	76.50
5/8 x 4	12’	8.500	102.00
5/8 x 6	12’	12.750	153.00
5/8 x 7	12’	14.880	178.56

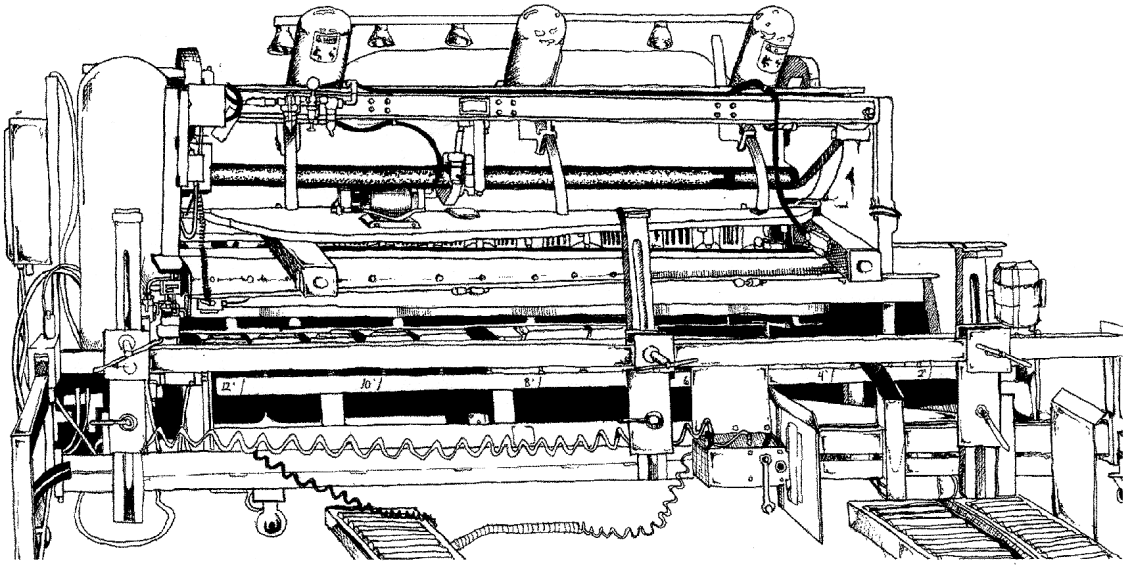
Cold Drawn Flats 1018

Size	Length	WT / FT	WT / Length
3/4 x 1	12’	2.550	30.60
3/4 x 1-1/2	12’	3.825	45.90
3/4 x 2	12’	5.100	61.20
3/4 x 2-1/2	12’	6.375	76.50
3/4 x 3	12’	7.650	91.80
3/4 x 4	12’	10.200	122.40
3/4 x 5	12’	12.750	153.00
3/4 x 5-1/2	12’	14.030	168.36
3/4 x 6	12’	15.300	183.60
1 x 1-1/4	12’	4.250	51.00
1 x 1-1/2	12’	5.100	61.20
1 x 2	12’	6.800	81.60
1 x 3	12’	10.200	122.40
1 x 3-1/2	12’	11.900	142.80
1 x 4	12’	13.600	163.20

Custom Forming



Custom Shearing



A I S I

Thickness Tolerance Ranges
Carbon Steel Sheets
Hot Rolled • Hot Rolled Pickled & Oiled • Cold Rolled

Gauge No.	Thickness, inches			lbs. per sq. ft.	Gauge No.	Thickness, inches		lbs. per sq. ft.
	Dec. Equiv.	Tol. Range HR & P&O	Tol. Range CR	Weight Equiv.		Dec. Equiv.	Tol. Range CR	Weight Equiv.
		0.2332					0.0458	
4	0.2242	0.2152		9.375	19	0.0418	0.0378	1.750
		0.2182					0.0389	
5	0.2092	0.2002		9.750	20	0.0359	0.0329	1.500
		0.2033					0.0359	
6	0.1943	0.1853		8.125	21	0.0329	0.0299	1.375
		0.1873	0.1883				0.0329	
7	0.1793	0.1713	0.1703	7.500	22	0.0299	0.0269	1.250
		0.1724	0.1734				0.0299	
8	0.1644	0.1564	0.1554	6.875	23	0.0269	0.0239	1.125
		0.1575	0.1585				0.0269	
9	0.1495	0.1415	0.1405	6.250	24	0.0239	0.0209	1.000
		0.1425	0.1405				0.0239	
10	0.1345	0.1265	0.1285	5.625	25	0.0209	0.0179	0.875
		0.1276	0.1256				0.0199	
11	0.1196	0.1116	0.1136	5.000	26	0.0179	0.0159	0.750
		0.1126	0.1106				0.0184	
12	0.1046	0.0966	0.0986	4.375	27	0.0164	0.0144	0.688
		0.0967	0.0947				0.0169	
13	0.0897	0.0827	0.0847	3.750	28	0.0149	0.0129	0.625
		0.0817	0.0797				0.0155	
14	0.0747	0.0677	0.0697	3.125	29	0.0135	0.0115	0.562
		0.0733	0.0723				0.0130	
15	0.0673	0.0613	0.0623	2.812	30	0.0120	0.0110	0.500
		0.0658	0.0648					
16	0.0598	0.0538	0.0548	2.500				
		0.0598	0.0578					
17	0.0538	0.0478	0.0498	2.250				
		0.0528	0.0518					
18	0.0478	0.0428	0.0438	2.000				

Hot Rolled Sheets

Commercial Quality – Low Carbon – ASTM A-569

Gauge	Size	WT / FT	WT / Sheet
16 ga. H.R.	36 x 96	2.500	60.00
16 ga. H.R.	36 x 120	2.500	75.00
16 ga. H.R.	36 x 144	2.500	90.00
16 ga. H.R.	42 x 120	2.500	87.50
16 ga. H.R.	48 x 96	2.500	80.00
16 ga. H.R.	48 x 120	2.500	100.00
16 ga. H.R.	48 x 144	2.500	120.00
16 ga. H.R.	60 x 96	2.500	100.00
16 ga. H.R.	60 x 120	2.500	125.00
16 ga. H.R.	60 x 144	2.500	150.00
14 ga. H.R.	36 x 96	3.125	75.00
14 ga. H.R.	36 x 120	3.125	93.75
14 ga. H.R.	36 x 144	3.125	112.50
14 ga. H.R.	42 x 96	3.125	87.50
14 ga. H.R.	42 x 120	3.125	109.38
14 ga. H.R.	48 x 96	3.125	100.00
14 ga. H.R.	48 x 120	3.125	125.00
14 ga. H.R.	48 x 144	3.125	150.00
14 ga. H.R.	60 x 96	3.125	125.00
14 ga. H.R.	60 x 120	3.125	156.25
14 ga. H.R.	60 x 144	3.125	187.50
14 ga. H.R.	72 x 96	3.125	150.00
14 ga. H.R.	72 x 120	3.125	187.50
14 ga. H.R.	72 x 144	3.125	225.00
13 ga. H.R.	48 x 96	3.750	120.00
13 ga. H.R.	48 x 120	3.750	150.00
12 ga. H.R.	36 x 96	4.375	105.00
12 ga. H.R.	36 x 120	4.375	131.25
12 ga. H.R.	36 x 144	4.375	157.50
12 ga. H.R.	42 x 120	4.375	153.12
12 ga. H.R.	48 x 96	4.375	140.00
12 ga. H.R.	48 x 120	4.375	175.00

Gauge	Size	WT / FT	WT / Sheet
12 ga. H.R.	48 x 144	4.375	210.00
12 ga. H.R.	60 x 96	4.375	175.00
12 ga. H.R.	60 x 120	4.375	218.75
12 ga. H.R.	60 x 144	4.375	262.50
12 ga. H.R.	72 x 96	4.375	210.00
12 ga. H.R.	72 x 120	4.375	262.50
12 ga. H.R.	72 x 144	4.375	315.00
11 ga. H.R.	36 x 96	5.000	120.00
11 ga. H.R.	36 x 120	5.000	150.00
11 ga. H.R.	48 x 96	5.000	160.00
11 ga. H.R.	48 x 120	5.000	200.00
11 ga. H.R.	48 x 144	5.000	240.00
11 ga. H.R.	60 x 96	5.000	200.00
11 ga. H.R.	60 x 120	5.000	250.00
11 ga. H.R.	60 x 144	5.000	300.00
11 ga. H.R.	72 x 120	5.000	300.00
11 ga. H.R.	72 x 144	5.000	360.00
10 ga. H.R.	36 x 96	5.625	135.00
10 ga. H.R.	36 x 120	5.625	168.75
10 ga. H.R.	36 x 144	5.625	202.50
10 ga. H.R.	42 x 120	5.625	196.88
10 ga. H.R.	48 x 96	5.625	180.00
10 ga. H.R.	48 x 120	5.625	225.00
10 ga. H.R.	48 x 144	5.625	270.00
10 ga. H.R.	60 x 96	5.625	225.00
10 ga. H.R.	60 x 120	5.625	281.25
10 ga. H.R.	60 x 144	5.625	337.50
10 ga. H.R.	72 x 96	5.625	270.00
10 ga. H.R.	72 x 120	5.625	337.50
10 ga. H.R.	72 x 144	5.625	405.00
10 ga. H.R.	84 x 96	5.625	315.00
10 ga. H.R.	84 x 120	5.625	393.75

Any length available from coil. Please see our coil inventory on pages 35-37.

Hot Rolled Sheets

Commercial Quality – Low Carbon – ASTM A-569

Gauge	Size	WT / FT	WT / Sheet
8 ga. H.R.	48 x 96	6.875	220.00
8 ga. H.R.	48 x 144	6.875	330.00
8 ga. H.R.	48-5/8 x 120	6.875	278.58
7 ga. H.R.	36 x 96	7.500	180.00
7 ga. H.R.	36 x 120	7.500	225.00
7 ga. H.R.	36 x 144	7.500	270.00
7 ga. H.R.	48 x 96	7.500	240.00
7 ga. H.R.	48 x 120	7.500	300.00
7 ga. H.R.	48 x 144	7.500	360.00
7 ga. H.R.	60 x 96	7.500	300.00
7 ga. H.R.	60 x 120	7.500	375.00
7 ga. H.R.	60 x 144	7.500	450.00
7 ga. H.R.	72 x 96	7.500	360.00
7 ga. H.R.	72 x 120	7.500	450.00
7 ga. H.R.	72 x 144	7.500	540.00
3/16 H.R.	48 x 96	7.660	245.12
3/16 H.R.	48 x 120	7.660	306.40
4 ga. H.R.	48 x 120	9.375	375.00

Low Carbon, Commercial Quality (CO) – A soft steel sheet well suited for forming and welding where surface finish is not critical. The low carbon content will allow material to bend easily in both directions. Conforms to ASTM-A569. Yield – 38,000 psi. Tensile – 52,000.

Pickled and Oiled Sheets

Hot Rolled – Low Carbon – ASTM A-569

Gauge	Size	WT / FT	WT / Sheet
14 ga. P&O	48 x 96	3.125	100.00
14 ga. P&O	48 x 120	3.125	125.00
14 ga. P&O	60 x 120	3.125	156.25
13 ga. P&O	48 x 144	3.750	180.00
12 ga. P&O	48 x 96	4.375	140.00
12 ga. P&O	48 x 120	4.375	175.00
12 ga. P&O	48 x 144	4.375	210.00
12 ga. P&O	60 x 96	4.375	175.00
12 ga. P&O	60 x 120	4.375	218.75
11 ga. P&O	48 x 96	5.000	160.00
11 ga. P&O	48 x 120	5.000	200.00
10 ga. P&O	48 x 96	5.625	180.00
10 ga. P&O	48 x 120	5.625	225.00
10 ga. P&O	48 x 144	5.625	270.00
10 ga. P&O	60 x 120	5.625	281.25
7 ga. P&O	48 x 96	7.500	240.00
7 ga. P&O	48 x 120	7.500	300.00
7 ga. P&O	48 x 144	7.500	360.00
7 ga. P&O	60 x 120	7.500	375.00
3/16 P&O	48 X 120	7.660	306.40

Pickled and Oiled Plate

Hot Rolled – Low Carbon – ASTM A-569

Gauge	Size	WT / FT	WT / Sheet
1/4 P&O	48 x 120	10.210	408.40

HR Picked and Oiled – Commercial quality steel that has been acid pickled to remove mill oxide. This improves surface appearance, finishing quality, and helps to cause less wear on tooling. Sheets are oiled to prevent surface rust. Fabrication characteristiics are the same as commercial quality. Conforms to ASTM-A569.

Cold Rolled Sheets

Commercial Quality – Low Carbon – ASTM A-366

Gauge	Size	WT / FT	WT / Sheet
22 ga. C.R.	36 x 120	1.250	37.50
22 ga. C.R.	48 x 96	1.250	40.00
22 ga. C.R.	48 x 120	1.250	50.00
20 ga. C.R.	48 x 96	1.500	48.00
20 ga. C.R.	48 x 120	1.500	60.00
20 ga. C.R.	48 x 144	1.500	72.00
20 ga. C.R.	60 x 120	1.500	75.00
18 ga. C.R.	36 x 96	2.000	48.00
18 ga. C.R.	36 x 120	2.000	60.00
18 ga. C.R.	48 x 96	2.000	64.00
18 ga. C.R.	48 x 120	2.000	80.00
18 ga. C.R.	48 x 144	2.000	96.00
18 ga. C.R.	60 x 120	2.000	100.00
18 ga. C.R.	60 x 144	2.000	120.00
16 ga. C.R.	36 x 96	2.500	60.00
16 ga. C.R.	36 x 120	2.500	75.00
16 ga. C.R.	36 x 144	2.500	90.00
16 ga. C.R.	48 x 96	2.500	80.00
16 ga. C.R.	48 x 120	2.500	100.00
16 ga. C.R.	60 x 120	2.500	125.00
16 ga. C.R.	60 x 144	2.500	150.00
16 ga. C.R.	72 x 120	2.500	150.00

Cold Rolled Sheets

Commercial Quality – Low Carbon – ASTM A-366

Gauge	Size	WT / FT	WT / Sheet
14 ga. C.R.	36 x 96	3.125	75.00
14 ga. C.R.	36 x 120	3.125	93.75
14 ga. C.R.	36 x 144	3.125	112.50
14 ga. C.R.	48 x 96	3.125	100.00
14 ga. C.R.	48 x 120	3.125	125.00
14 ga. C.R.	48 x 144	3.125	150.00
14 ga. C.R.	60 x 120	3.125	156.25
14 ga. C.R.	60 x 144	3.125	187.50
14 ga. C.R.	72 x 120	3.125	187.50
14 ga. C.R	72 x 144	3.125	225.00
12 ga. C.R.	48 x 96	4.375	140.00
12 ga. C.R.	48 x 120	4.375	175.00
12 ga. C.R.	60 x 120	4.375	218.75
11 ga. C.R.	36 x 96	5.000	120.00
11 ga. C.R.	36 x 120	5.000	150.00
11 ga. C.R.	48 x 96	5.000	160.00
11 ga. C.R.	48 x 120	5.000	200.00
10 ga. C.R.	48 x 96	5.625	180.00
10 ga. C.R.	48 x 120	5.625	225.00

Cold Rolled Sheet – A superior surface finish to hot rolled pickled and oiled and closer thickness tolerances. The matte finish is an excellent base for paints, enamels and lacquers. Cold Rolled Sheets have good weldability and formability bending easily in both directions. Oiled to prevent surface rust. Conforms to ASTM A-366.

Any length available from coil. Please see our coil inventory on pages 35-37.

Galvanized Sheets G-90

Galvanized Sheets

Gauge	Size	WT / SQ FT	WT / Sheet
30 ga.	36 x 96	0.656	15.74
30 ga.	36 x 120	0.656	19.68
28 ga.	36 x 96	0.781	18.74
28 ga.	36 x 120	0.781	23.43
26 ga.	36 x 96	0.906	21.74
26 ga.	36 x 120	0.906	27.18
26 ga.	48 x 96	0.906	28.99
26 ga.	48 x 120	0.906	36.24
26 ga.	60 x 96	0.906	36.24
26 ga.	60 x 120	0.906	45.30
24 ga.	36 x 96	1.156	27.74
24 ga.	36 x 120	1.156	34.68
24 ga.	48 x 96	1.156	36.99
24 ga.	48 x 120	1.156	46.24
24 ga.	60 x 120	1.156	57.80
22 ga.	36 x 96	1.406	33.74
22 ga.	36 x 120	1.406	42.18
22 ga.	48 x 96	1.406	44.99
22 ga.	48 x 120	1.406	56.24
22 ga.	48 x 144	1.406	67.49
22 ga.	60 x 120	1.406	70.30
20 ga.	36 x 96	1.656	39.74
20 ga.	36 x 120	1.656	49.68
20 ga.	36 x 144	1.656	59.62
20 ga.	48 x 96	1.656	52.99
20 ga.	48 x 120	1.656	66.24
20 ga.	48 x 144	1.656	79.49
20 ga.	60 x 120	1.656	82.80

Galvanized Sheet – Galvanized sheets are produced from low-carbon, pickled steel that is annealed and zinc coated in a continuous hot dip process. This material is suitable for stamping, cold drawing, and forming without causing the zinc coating to peel or flake. They can be welded and soldered. The standard thickness coating is G-90. All 14 ga. and heavier are commercial quality and all 16 ga. and lighter are lock forming quality. Conforms to ASTM-A653.

Galvanized Sheets

Gauge	Size	WT / SQ FT	WT / Sheet
18 ga.	36 x 96	2.156	51.74
18 ga.	36 x 120	2.156	64.68
18 ga.	48 x 96	2.156	68.99
18 ga.	48 x 120	2.156	86.24
18 ga.	48 x 144	2.156	103.49
18 ga.	60 x 120	2.156	107.80
18 ga.	60 x 144	2.156	129.36
16 ga.	36 x 96	2.656	63.74
16 ga.	36 x 120	2.656	79.68
16 ga.	48 x 96	2.656	84.99
16 ga.	48 x 120	2.656	106.24
16 ga.	60 x 96	2.656	106.24
16 ga.	60 x 120	2.656	132.80
14 ga.	36 x 96	3.281	78.74
14 ga.	36 x 120	3.281	98.43
14 ga.	36 x 144	3.281	118.12
14 ga.	48 x 96	3.281	104.99
14 ga.	48 x 120	3.281	131.24
14 ga.	48 x 144	3.281	157.49
14 ga.	60 x 96	3.281	131.24
14 ga.	60 x 120	3.281	164.05
12 ga.	36 x 96	4.531	108.74
12 ga.	36 x 120	4.531	135.93
12 ga.	48 x 96	4.531	144.99
12 ga.	48 x 120	4.531	181.24
12 ga.	48 x 144	4.531	217.49
12 ga.	60 x 96	4.531	181.24
12 ga.	60 x 120	4.531	226.55
12 ga.	60 x 144	4.531	271.86
11 ga.	48 x 120	5.156	206.24
10 ga.	48 x 96	5.781	184.99
10 ga.	48 x 120	5.781	231.24
10 ga.	48 x 144	5.781	277.49
10 ga.	60 x 120	5.781	289.05

Galvannealed & Paintgrip Sheets

Paintgrip Sheets

ASTM A-526 G-90

Gauge	Size	WT / SQ FT	WT / Sheet
24 ga.	48 x 96	1.156	36.99
24 ga.	48 x 120	1.156	46.24

Paintgrip Sheets – A phosphate film is added to the surface of a standard galvanized sheet for paint adherence. These sheets have a flat, dull gray appearance with no spangles. Can be rolled, formed, or stamped without losing its coating. Used primarily for signs or other applications where excellent surface finish is required.

Galvannealed Sheets – Sheets are heat treated after coating which bonds the zinc to the steel base and eliminates the spangle. No surface preparation is necessary before painting. Coating weight is A60 or A40.

Galvannealed Sheets

(A40 Coating)

Gauge	Size	WT / SQ FT	WT / Sheet
20 ga.	48 x 120	1.656	66.24
16 ga.	48 x 96	2.656	84.99
16 ga.	48 x 120	2.656	106.24
14 ga.	48 x 96	3.281	104.99
14 ga.	48 x 120	3.281	131.24
14 ga.	60 x 96	3.281	131.24
14 ga.	60 x 120	3.281	164.05
12 ga.	60 x 120	4.531	226.55

Galvannealed Sheets

(A60 Coating)

Gauge	Size	WT / SQ FT	WT / Sheet
22 ga.	48 x 120	1.406	56.24
18 ga.	48 x 120	2.156	86.24
18 ga.	60 x 144	2.156	129.36

Any length available from coil. Please see our coil inventory on pages 35-37.

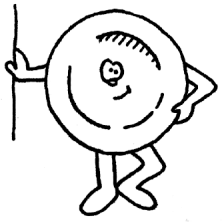
Hot Rolled Plates

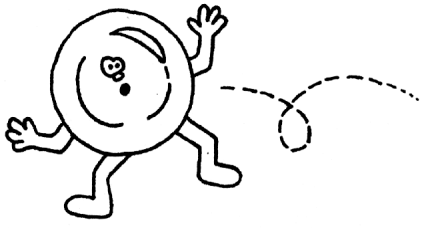
Commercial Quality – Low Carbon 1008-1010

Size	Width	WT / SQ FT	WT / Sheet
1/4”	36 x 96	10.210	245.04
1/4”	36 x 120	10.210	306.30
1/4”	36 x 144	10.210	367.56
1/4”	48 x 96	10.210	326.72
1/4”	48 x 120	10.210	408.40
1/4”	48 x 144	10.210	490.08
1/4”	50 x 120	10.210	425.42
1/4”	60 x 96	10.210	408.40
1/4”	60 x 120	10.210	510.50
1/4”	60 x 144	10.210	612.60
1/4”	60 x 240	10.210	1021.00
1/4”	72 x 96	10.210	490.08
1/4”	72 x 120	10.210	612.60
1/4”	72 x 144	10.210	735.12
5/16”	48 x 96	12.760	408.32
5/16”	48 x 120	12.760	510.40
5/16”	48 x 144	12.760	612.48
5/16”	60 x 96	12.760	510.40
5/16’	60 x120	12.760	638.00
5/16”	60 x 144	12.760	765.60

Size	Width	WT / SQ FT	WT / Sheet
3/8”	36 x 96	15.320	367.68
3/8”	36 x 120	15.320	459.60
3/8”	48 x 96	15.320	490.24
3/8”	48 x 120	15.320	612.80
3/8”	48 x 144	15.320	735.36
3/8”	60 x 96	15.320	612.80
3/8”	60 x 120	15.320	766.00
3/8”	60 x 144	15.320	919.20
1/2”	36 x 96	20.420	490.08
1/2”	36 x 120	20.420	612.60
1/2”	48 x 96	20.420	653.44
1/2”	48 x 120	20.420	816.80
1/2”	60 x 120	20.420	1021.00
1/2”	72 x 120	20.420	1225.20
1/2”	72 x 144	20.420	1470.24

ASTM A36 – Low carbon, structural quality steel used in bridges, building construction, and general structural applications. Minimum Mechanical Properties:
Yield – 36,000 spi. min. Tensile – 58,000-80,000 psi.



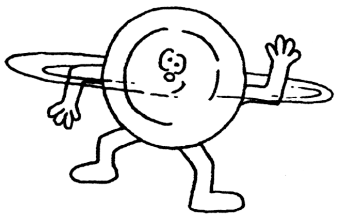


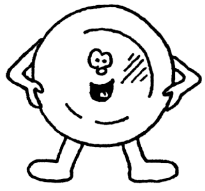
Hot Rolled Plates

ASTM A-36

Size	Width	WT / SQ FT	WT / Sheet
3/16" A-36	60 x 120	7.660	383.00
3/16" A-36	60 x 144	7.660	459.60
1/4" A-36	48 x 96	10.210	326.72
1/4" A-36	48 x 120	10.210	408.40
1/4" A-36	48 x 144	10.210	490.08
1/4" A-36	60 x 96	10.210	408.40
1/4" A-36	60 x 120	10.210	510.50
1/4" A-36	60 x 240	10.210	1021.00
1/4" A-36	72 x 120	10.210	612.60
1/4" A-36	72 x 144	10.210	735.12
1/4" A-36	72 x 240	10.210	1225.20
1/4" A-36	96 x 144	10.210	980.16
1/4" A-36	96 x 240	10.210	1633.60
1/4" A-36	120 x 240	10.210	2042.00
5/16" A-36	60 x 120	12.760	638.00
5/16" A-36	72 x 96	12.760	612.48
5/16" A-36	72 x 120	12.760	765.60
5/16" A-36	72 x 240	12.760	1531.20
5/16" A-36	96 x 240	12.760	2041.60
5/16" A-36	120 x 240	12.760	2552.00
3/8" A-36	48 x 96	15.320	490.24
3/8" A-36	48 x 120	15.320	612.80
3/8" A-36	59-3/4 x 96	15.320	610.25
3/8" A-36	59-3/4 x 120	15.320	762.81
3/8" A-36	60 x 96	15.320	612.80
3/8" A-36	60 x 120	15.320	766.00
3/8" A-36	60 x 144	15.320	919.20
3/8" A-36	60 x 240	15.320	1532.00

Size	Width	WT / SQ FT	WT / Sheet
3/8" A-36	72 x 120	15.320	919.20
3/8" A-36	72 x 144	15.320	1103.04
3/8" A-36	72 x 240	15.320	1838.40
3/8" A-36	84 x 240	15.320	2144.80
3/8" A-36	96 x 240	15.320	2451.20
3/8" A-36	120 x 240	15.320	3064.00
1/2" A-36	48 x 96	20.420	653.44
1/2" A-36	48 x 120	20.420	816.80
1/2" A-36	48 x 144	20.420	980.16
1/2" A-36	60 x 120	20.420	1021.00
1/2" A-36	60 x 144	20.420	1225.20
1/2" A-36	72 x 120	20.420	1225.20
1/2" A-36	72 x 144	20.420	1470.24
1/2" A-36	72 x 240	20.420	2450.40
1/2" A-36	84 x 240	20.420	2858.80
1/2" A-36	96 x 240	20.420	3267.20
5/8" A-36	48 x 96	25.530	816.96
5/8" A-36	48 x 120	25.530	1021.20
5/8" A-36	60 x 120	25.530	1276.50
5/8" A-36	72 x 120	25.530	1531.80
5/8" A-36	84 x 144	25.530	2144.52
5/8" A-36	84 x 240	25.530	3574.20
5/8" A-36	96 x 240	25.530	4084.80





Any length available from coil. Please see our coil inventory on pages 35-37.

Hot Rolled Plates

ASTM A-36

Size	Width	WT / SQ FT	WT / Sheet
3/4" A-36	48 x 96	30.630	980.16
3/4" A-36	48 x 120	30.630	1225.20
3/4" A-36	60 x 120	30.630	1531.50
3/4" A-36	72 x 120	30.630	1837.80
3/4" A-36	84 x 120	30.630	2144.10
3/4" A-36	84 x 144	30.630	2572.92
3/4" A-36	84 x 240	30.630	4288.20
3/4" A-36	96 x 240	30.630	4900.80
7/8" A-36	72 x 120	35.740	2144.40
7/8" A-36	96 x 240	35.740	5718.40
1" A-36	48 x 96	40.840	1306.88
1" A-36	48 x 120	40.840	1633.60
1" A-36	60 x 120	40.840	2042.00
1" A-36	72 x 120	40.840	2450.40
1" A-36	72 x 240	40.840	4900.80
1" A-36	84 x 144	40.840	3430.56
1" A-36	84 x 240	40.840	5717.60
1" A-36	96 x 144	40.840	3920.64
1" A-36	96 x 150	40.840	4084.00
1" A-36	96 x 240	40.840	6534.40
1-1/8" A-36	84 x 144	45.950	3859.80
1-1/4" A-36	48 x 72	51.050	1225.20
1-1/4" A-36	72 x 144	51.050	3675.60
1-1/4" A-36	72 x 240	51.050	6126.00
1-1/4" A-36	84 x 144	51.050	4288.20
1-1/4" A-36	84 x 240	51.050	7147.00
1-3/8" A-36	48 x 72	56.160	1347.84
1-3/8" A-36	72 x 144	56.160	4043.52

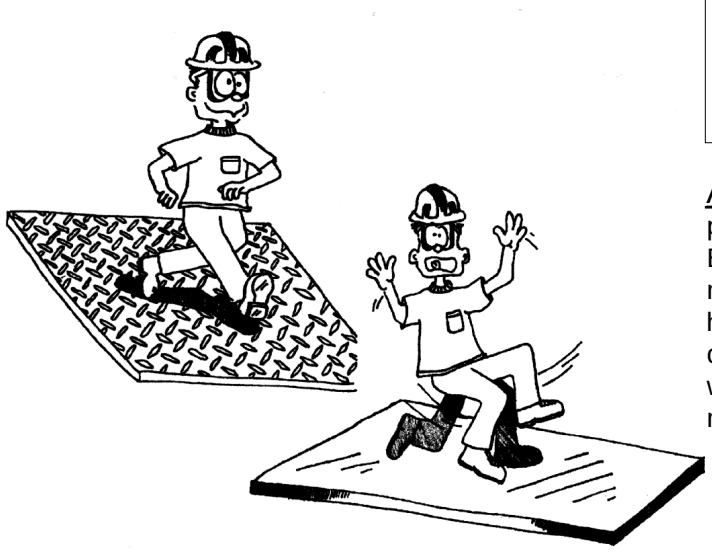
Size	Width	WT / SQ FT	WT / Sheet
1-1/2" A-36	48 x 72	61.260	1470.24
1-1/2" A-36	72 x 144	61.260	4410.72
1-1/2" A-36	84 x 144	61.260	5145.84
1-1/2" A-36	96 x 144	61.260	5880.96
1-3/4" A-36	72 x 144	71.470	5145.84
2" A-36	48 x 72	81.680	1960.32
2" A-36	72 x 144	81.680	5880.96
2" A-36	84 x 144	81.680	6861.12
2" A-36	96 x 144	81.680	7841.28
2-1/4" A-36	74 x 144	91.890	6799.86
2-1/4" A-36	84 x 144	91.890	7718.76
2-1/2" A-36	84 x 144	102.100	8576.40
2-3/4" A-36	84 x 120	112.310	7861.70
3" A-36	84 x 120	122.520	8576.40
3" A-36	84 x 144	122.520	10291.68
3-1/2" A-36	84 x 144	142.940	12006.96
4" A-36	84 x 120	163.360	11435.20

Floor Plate

Floor Plate (Medium Pattern)

Size	Width	WT / SQ FT	WT / Sheets
16 ga.	48 x 96	3.000	96.00
16 ga.	48 x 120	3.000	120.00
14 ga.	48 x 96	3.750	120.00
14 ga.	48 x 120	3.750	150.00
14 ga.	60 x 120	3.750	187.50
12 ga.	48 x 96	5.250	168.00
12 ga.	48 x 120	5.250	210.00
12 ga.	60 x 96	5.250	210.00
12 ga.	60 x 120	5.250	262.50
12 ga.	60 x 144	5.250	315.00
12 ga.	60 x 240	5.250	525.00
1/8”	48 x 96	6.160	197.12
1/8”	48 x 120	6.160	246.40
1/8”	48 x 144	6.160	295.68
1/8”	60 x 96	6.160	246.40
1/8”	60 x 120	6.160	308.00
1/8”	60 x 144	6.160	369.60
1/8”	72 x 96	6.160	295.68
1/8”	72 x 120	6.160	369.60
1/8”	72 x 144	6.160	443.52

Floor Plate – A low carbon product with raised lugs in a cross hatch pattern which provides better traction for driving or walking. Conforms to ASTM A-786. Thickness does not include projections.



Floor Plate (Medium Pattern)

Size	Width	WT / SQ FT	WT / Sheets
3/16”	48 x 96	8.710	278.72
3/16”	48 x 120	8.710	348.40
3/16”	48 x 144	8.710	418.08
3/16”	60 x 96	8.710	348.40
3/16”	60 x 120	8.710	435.50
3/16”	60 x 144	8.710	522.60
3/16”	72 x 96	8.710	418.08
3/16”	72 x 120	8.710	522.60
1/4”	48 x 96	11.260	360.32
1/4”	48 x 120	11.260	450.40
1/4”	60 x 96	11.260	450.40
1/4”	60 x 120	11.260	563.00
1/4”	60 x 144	11.260	675.60
1/4”	72 x 120	11.260	675.60
3/8”	48 x 96	16.370	523.84
3/8”	48 x 120	16.370	654.80
3/8”	60 x 96	16.370	654.80
3/8”	60 x 120	16.370	818.50

Abrasion Resisting Sheet & Plate

Size	Width	WT / SQ FT	WT / Sheet
10 ga.	48 x 120	5.625	225.00
3/16”	48 x 120	7.660	306.40
3/16”	60 x 120	7.660	383.00
1/4”	48 x 120	10.210	408.40
1/4”	60 x 120	10.210	510.50
3/8”	48 x 120	15.320	612.80
3/8”	60 x 120	15.320	766.00

AR MED Sheet and Plate – This abrasion resisting product is medium carbon, high manganese, and has a Brinell Hardness typically in the range of 200/250. This material is produced primarily for use in the materials-handling industry such as sideboards and guides on conveyors, chutes, hoppers and mixer drums. Can be welded, machined, drilled, punched, and takes a moderate amount of forming and rolling.

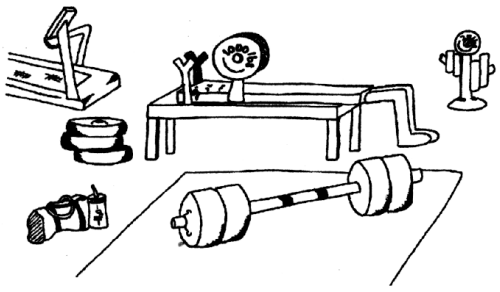
High Strength Sheets & Plate

High Strength A572-50

Thickness	Size	WT / SQ FT	WT / Sheet
5/16”	72 x 120	12.760	765.60
5/16”	84 x 120	12.760	893.20
5/16”	96 x 120	12.760	1020.80
3/8”	73 x 242	15.320	1879.47
5/8”	48 x 120	25.530	1021.20
5/8”	60 x 120	25.530	1276.50
3/4”	72 x 120	30.630	1837.80
3/4”	96 x 240	30.630	4900.80
1”	72 x 135	40.840	2756.70
2”	96 x 144	81.680	7841.28

High Strength HR A607-45

Thickness	Size	WT / SQ FT	WT / Sheet
5 ga.	48 x 125	9.750	406.25



High Strength HR A607-50

Thickness	Size	WT / SQ FT	WT / Sheet
12 ga.	48 x 120	4.375	175.00
11 ga.	72 x 144	5.000	360.00
10 ga.	48 x 120	5.625	225.00
10 ga.	72 x 120	5.625	337.50
7 ga.	60 x 120	7.500	375.00
7 ga.	60 x 144	7.500	450.00
3/16”	48 x 96	7.660	245.12
3/16	54 x 120	7.660	344.70
3/16”	72 x 96	7.660	367.68
3/16”	72 x 120	7.660	459.60
3/16”	72 x 144	7.660	551.52
1/4”	72 x 120	10.210	612.60
1/4”	72 x 144	10.210	735.12

High Strength A656-80

Thickness	Size	WT / SQ FT	WT / Sheet
3/8”	48 x 96	15.320	490.24
1/2”	60 x 120	20.420	1021.00
5/8”	84 x 132	25.530	1965.81
3/4”	85 x 241	30.630	4357.33

High Strength Sheets – High Strength/Low Alloy (HSLA) – High Strength Sheets have improved formability and better weldability than commercial quality sheets and are used where weight reduction is a factor.

ASTM A572-50 – Good cold forming and welding properties. Atmospheric corrosion resistance is the same as carbon steel. Estimated Minimum Mechanical Properties (EMMP): Yield – 50,000 psi. Tensile – 65,000 psi.

ASTM A607 – Produced to specific minimum yield strengths where corrosion resistance is not a requirement. A607 has good formability and weldability. Estimated Minimum Mechanical Properties (EMMP) –

Grade 45 – Yield – 45,000 psi. Tensile – 60,000 psi.
Grade 50 – Yield – 50,000 psi. Tensile – 65,000 psi.

ASTM A656-80 – Good cold forming, welding, and toughness properties.

High Strength Sheets & Plate

High Strength HR A715-50

Thickness	Size	WT / SQ FT	WT / Sheet
12 ga.	48 x 120	4.375	175.00
12 ga.	48 x 144	4.375	210.00
12 ga.	60 x 120	4.375	218.75
12 ga.	60 x 144	4.375	262.50
11 ga.	60 x 120	5.000	250.00
11 ga.	60 x 144	5.000	300.00
10 ga.	48 x 96	5.625	180.00
10 ga.	48 x 120	5.625	225.00
10 ga.	48 x 144	5.625	270.00
10 ga.	60 x 96	5.625	225.00
10 ga.	60 x 120	5.625	281.25
10 ga.	60 x 144	5.625	337.50
10 ga.	72 x 96	5.625	270.00
10 ga.	72 x 120	5.625	337.50
10 ga.	72 x 144	5.625	405.00
9 ga.	60 x 120	6.250	312.50
7 ga.	48 x 120	7.500	300.00
7 ga.	48 x 144	7.500	360.00
7 ga.	60 x 96	7.500	300.00
7 ga.	60 x 120	7.500	375.00
7 ga.	60 x 144	7.500	450.00
3/16”	48 x 96	7.660	245.12
3/16”	48 x 120	7.660	306.40
3/16”	48 x 144	7.660	367.68
3/16”	60 x 120	7.660	383.00
3/16”	60 x 144	7.660	459.60
3/16”	72 x 120	7.660	459.60

High Strength HR A715-50

Thickness	Size	WT / SQ FT	WT / Sheet
1/4”	48 x 96	10.210	326.72
1/4”	48 x 120	10.210	408.40
1/4”	48 x 144	10.210	490.08
1/4”	60 x 96	10.210	408.40
1/4”	60 x 120	10.210	510.50
1/4”	60 x 144	10.210	612.60
3/8”	48 x 120	15.320	612.80
3/8”	60 x 120	15.320	766.00
1/2”	60 x 120	20.420	1021.00

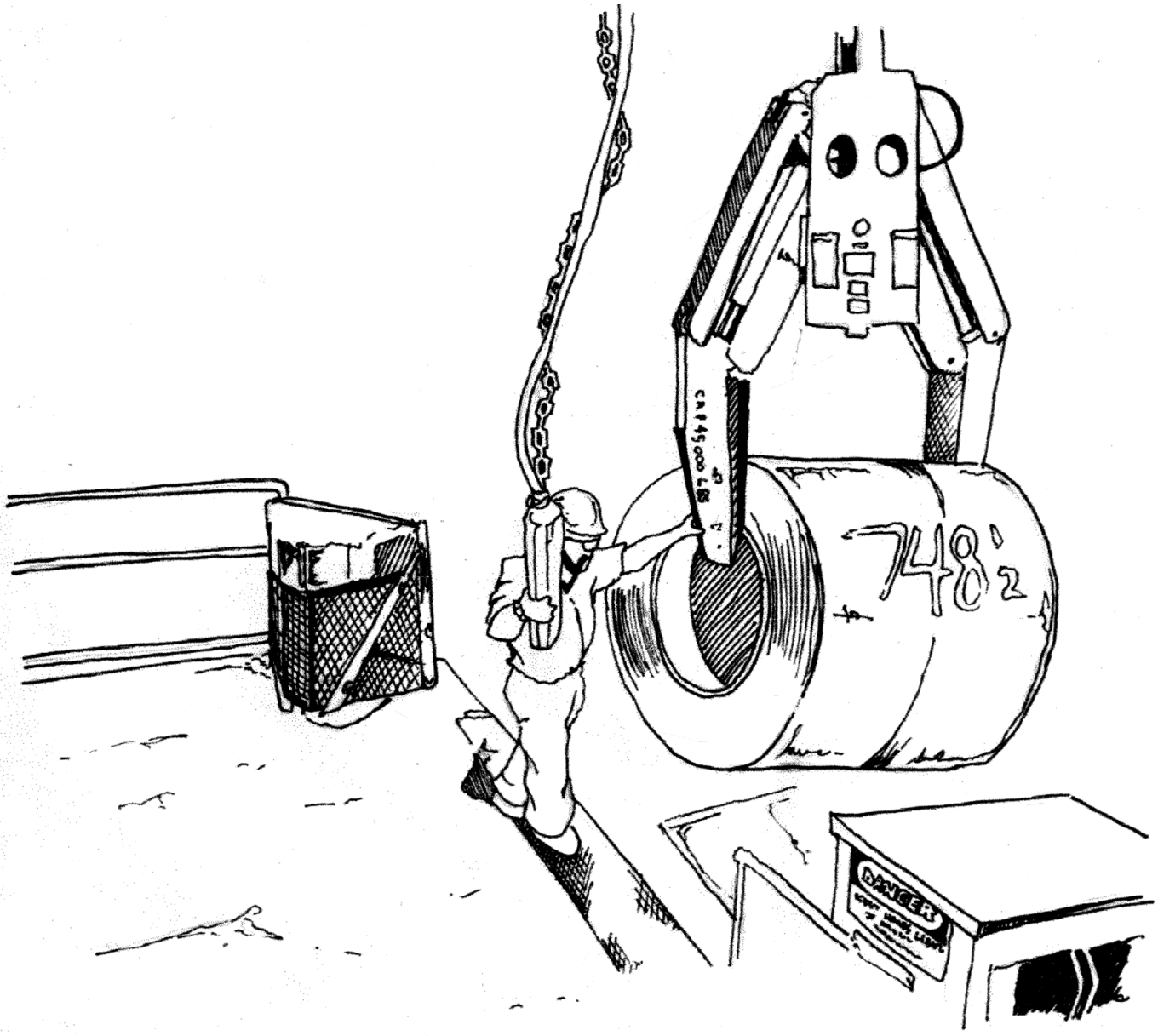
High Strength HR A715-80

Thickness	Size	WT / SQ FT	WT / Sheet
10 ga.	60 x 144	5.625	337.50
10 ga.	72 x 144	5.625	405.00
3/16”	60 x 120	7.660	383.00
1/4”	60-1/2 x 120	10.210	514.75
1/4”	61 x 96	10.210	415.21
1/4”	61 x 120	10.210	519.01
5/16”	48 x 103	12.760	438.09
3/8”	72 x 120	15.320	919.20

ASTM A 715 – Best formability and weldability with good fatigue resistance. Suited for applications involving forming tight radii. Estimated Minimum Mechanical Properties (EMMP) –

Grade 50 – Yield – 50,000 psi. Tensile 65,000 psi.
Grade 80 – Yield – 80,000 psi. Tensile – 90,000 psi.

Any length available from coil. Please see our coil inventory on pages 35-37.


48"
DANGER

Hot Rolled Coils

Thickness and Width	Lbs. per Sq. Ft.	Grade 1010	Grade P&O	Grade A36
16ga. x 36	2.500	x	–	–
16ga. x 42	2.500	x	–	–
16ga. x 48	2.500	x	–	–
16ga. x 60	2.500	x	–	–
14ga. x 36	3.125	x	–	–
14ga. x 40	3.125	x	–	–
14ga. x 42	3.125	x	–	–
14ga. x 48	3.125	x	x	–
14ga. x 50	3.125	x	–	–
14ga. x 58	3.125	x	–	–
14ga. x 60	3.125	x	x	–
14ga. x 72	3.125	x	–	–
13ga. x 48	3.750	x	x	–
13ga. x 60	3.750	–	x	–
12ga. x 36	4.375	x	–	–
12ga. x 42	4.375	x	–	–
12ga. x 48	4.375	x	x	–
12ga. x 60	4.375	x	x	–
12ga. x 72	4.375	x	–	–
11ga. x 36	5.000	x	x	–
11ga. x 48	5.000	x	x	–
11ga. x 60	5.000	x	–	–
10ga. x 36	5.625	x	–	–
10ga. x 42	5.625	x	–	–
10ga. x 48	5.625	x	x	–
10ga. x 60	5.625	x	x	–
10ga. x 72	5.625	x	–	–
10ga. x 84	5.625	x	–	–
8ga. x 36	6.875	x	–	–
8ga. x 48	6.875	x	–	–
8ga. x 52	6.875	x	–	–

Thickness and Width	Lbs. per Sq. Ft.	Grade 1010	Grade P&O	Grade A36
7ga. x 36	7.500	x	–	–
7ga. x 38	7.500	x	–	–
7ga. x 42	7.500	x	–	–
7ga. x 48	7.500	x	x	–
7ga. x 54	7.500	x	–	–
7ga. x 60	7.500	x	x	–
7ga. x 72	7.500	x	–	–
3/16 0.177 min x 60	7.660	–	–	x
3/16 0.180 min x 48	7.660	x	x	–
3/16 0.180 min x 54-1/2	7.660	x	–	–
4 ga. 0.221 min x 48	9.375	x	–	–
1/4” x 36	10.210	x	–	–
1/4” x 37	10.210	x	–	–
1/4” x 43	10.210	x	–	–
1/4” x 46	10.210	x	–	–
1/4” x 48	10.210	x	x	x
1/4” x 50	10.210	x	–	–
1/4” x 60	10.210	x	–	x
1/4” x 72	10.210	x	–	x
5/16” x 48	12.760	x	–	–
5/16” x 60	12.760	x	–	x
5/16” x 72	12.760	–	–	x
3/8” x 36	15.320	x	–	–
3/8” x 48	15.320	x	–	x
3/8” x 60	15.320	x	–	x
3/8” x 72	15.320	x	–	x
1/2” x 36	20.420	x	–	–
1/2” x 40	20.420	–	x	–
1/2” x 48	20.420	x	–	x
1/2” x 54	20.420	–	x	–
1/2” x 60	20.420	x	–	x
1/2” x 72	20.420	–	–	x

Eliminate waste by ordering material from coils cut to your exact length requirements.

Please inquire if requirements include items not listed.

Cold Rolled Coils

Thickness and Width	Lbs. per Sq. Ft.
22ga. x 48	1.250
22ga. x 60	1.250
20ga. x 48	1.500
20ga. x 60	1.500
18ga. x 36	2.000
18ga. x 48	2.000
18ga. x 60	2.000
16ga. x 36	2.500
16ga. x 48	2.500
16ga. x 60	2.500
16ga. x 72	2.500
14ga. x 36	3.125
14ga. x 48	3.125
14ga. x 60	3.125
14ga. x 72	3.125
12ga. x 48	4.375
11ga. x 36	5.000
11ga. x 48	5.000

Galvanized Coils

Thickness and Width	Lbs. per Sq. Ft.
30ga. x 36	0.656
28ga. x 36	0.781
26ga. x 36	0.906
26ga. x 48	0.906
26ga. x 60	0.906
24ga. x 36	1.156
24ga. x 48	1.156
24ga. x 60	1.156
22ga. x 36	1.406
22ga. x 48	1.406
22ga. x 60	1.406
20ga. x 36	1.656
20ga. x 48	1.656
20ga. x 60	1.656
18ga. x 36	2.156
18ga. x48	2.156
18ga. x 60	2.156
16ga. x 36	2.656
16ga. x 48	2.656
16ga. x 60	2.656
14ga. x 36	3.281
14ga. x 48	3.281
14ga. x 60	3.281
12ga. x 36	4.531
12ga. x 48	4.531
12ga. x 60	4.531
11ga. x 48	5.156
10ga. x 36	5.781
10ga. x 48	5.781
10ga. x 60	5.781

Galvannealed Coils

Thickness and Width	Lbs. Per Sq. Ft.	Coating	
		A40	A60
18ga. x 48	2.156	–	x
18ga. x 60	2.156	–	x
16ga. x 48	2.656	x	–
14ga. x 48	3.281	x	–
14ga. x 60	3.281	x	–
12ga. x 60	4.531	x	–
11ga. x 48	5.156	x	–
11ga. x 60	5.156	x	–

Floor Plate Coils

Thickness	Width	Lbs. per Sq. Ft.
14ga.	48	3.75
14ga.	60	3.75
12ga.	48	5.25
12ga.	60	5.25
1/8”	48	6.16
1/8”	60	6.16
1/8”	72	6.16
3/16”	48	8.71
3/16”	60	8.71
3/16”	72	8.71
1/4”	48	11.26
1/4”	60	11.26
3/8”	48	16.37
3/8”	60	16.37

Eliminate waste by ordering material from coils cut to your exact length requirements.

High Strength Coils

Thickness and Width	Lbs. per Sq. Ft.	Grade					
		A607-45	A607-50	A607-60	A715-50	715-50 P&O	A715-80
14ga. x 48	3.125	–	–	–	x	–	–
12ga. x 48	4.375	–	–	–	x	–	–
12ga. x 60	4.375	–	–	–	x	–	–
11ga. x 48	5.000	–	–	–	–	x	–
11ga. x 51	5.000	–	–	–	–	–	x
11ga. x 60	5.000	–	–	–	x	–	–
11ga. x 72	5.000	–	–	–	x	–	–
10ga. x 48	5.625	–	–	–	x	–	x
10ga. x 60	5.625	–	–	–	x	x	x
10ga. x 72	5.625	–	x	–	–	–	x
9ga. 0.142 min x 60	6.250	–	–	–	x	x	–
8ga. 0.154 min x 48	6.875	x	–	–	–	–	–
7ga. 0.1719 min x 48	7.500	–	–	–	x	–	–
7ga. 0.1719 min x 60	7.500	–	–	–	x	–	–
3/16” 0.177 min x 48-1/2	7.660	–	–	–	x	–	–
3/16” 0.177 min x 53	7.660	–	–	x	–	–	–
3/16” 0.177 min x 54	7.660	–	–	–	x	–	–
3/16” 0.180 min x 60	7.660	–	–	–	x	x	x
3/16” 0.180 min x 72	7.660	–	x	–	x	–	–
5ga. 0.209 min x 48	8.750	–	–	–	x	–	–
1/4” 0.240 min x 41	10.210	–	–	x	–	–	–
1/4” 0.240 min x 48	10.210	–	–	–	x	–	–
1/4” 0.240 min x 51	10.210	–	–	x	–	–	–
1/4” 0.240 min x 60	10.210	–	–	–	x	x	–
1/4” 0.240 min x 61	10.210	–	–	–	–	–	x
1/4”0.240 min x 66	10.210	–	–	x	–	–	–
1/4” 0.240 min x 72	10.210	–	x	–	x	–	–
5/16” x 48	12.760	–	–	–	–	–	x
5/16” x 56-3/4	12.760	–	–	–	–	–	x

Eliminate waste by ordering material from coils cut to your exact length requirements.

Carbon Pipe Schedules

Pipe Size	O.D. in Inches	Wall Thickness in Inches A.S.A. Pipe Schedules		I.D. in Inches	I.D. in Inches
		Sch. 40	Sch. 80	Sch. 40	Sch. 80
1/8”	0.405	0.068	0.095	0.269	0.215
1/4”	0.540	0.088	0.119	0.364	0.302
3/8”	0.675	0.091	0.126	0.584	0.423
1/2”	0.840	0.109	0.147	0.622	0.546
3/4”	1.050	0.113	0.154	0.824	0.742
1”	1.315	0.133	0.179	1.049	0.957
1-1/4”	1.660	0.140	0.191	1.380	1.278
1-1/2”	1.900	0.145	0.200	1.610	1.500
2”	2.375	0.154	0.218	2.067	1.939
2-1/2”	2.875	0.203	0.276	2.469	2.323
3”	3.500	0.216	0.300	3.068	2.900
3-1/2”	4.000	0.226	0.318	3.548	3.364
4”	4.500	0.237	0.337	4.026	3.826
5”	5.563	0.258	0.375	5.047	4.813
6”	6.625	0.280	0.432	6.065	5.761
8”	8.625	0.322	0.500	7.981	7.625
10”	10.750	0.365	0.593	10.020	9.564
12”	12.750	0.406	0.687	12.00	11.376

Continuous Butt Weld – Meets ASTM A53 type F. Available in Schedule 40 and Schedule 80 black or galvanized and includes sizes 4” and smaller. Commonly used for water, steam, gas and air lines. No minimum mechanical properties specified.

Electric Resistance Welded (ERW) – Meets ASTM A53 grade B. Includes our 5 and 6 Schedule 40 sizes.

Pipe

ASTM A-53

SCH 40 BLK P.E. (Plain End)

Size	Length	WT / FT	WT / Length
1/8" blk. 40 p.e.	21'	0.240	5.04
1/4" blk. 40 p.e.	21'	0.420	8.82
3/8" blk. 40 p.e.	21'	0.568	11.93
1/2" blk. 40 p.e.	21'	0.850	17.85
3/4" blk. 40 p.e.	21'	1.130	23.73
1" blk. 40 p.e.	21'	1.680	35.28
1-1/4" blk. 40 p.e.	21'	2.270	47.67
1-1/2" blk. 40 p.e.	21'	2.720	57.12
2" blk. 40 p.e.	21'	3.650	76.65
2-1/2" blk. 40 p.e.	21'	5.790	121.59
3" blk. 40 p.e.	21'	7.580	159.18
3-1/2" blk. 40 p.e.	21'	9.110	191.31
4" blk. 40 p.e.	21'	10.790	226.59
5" blk. 40 p.e.	21'	14.620	307.02
6" blk. 40 p.e.	21'	18.970	398.37
8" blk. 40 p.e.	21'	28.550	599.55

SCH 80 BLK P.E. (Plain End)

Size	Length	WT / FT	WT / Length
1/4" blk. 80 p.e.	21'	0.540	11.34
3/8" blk. 80 p.e.	21'	0.739	15.52
1/2" blk. 80 p.e.	21'	1.090	22.89
3/4" blk. 80 p.e.	21'	1.470	30.87
1" blk. 80 p.e.	21'	2.170	45.57
1-1/4" blk. 80 p.e.	21'	3.000	63.00
1-1/2" blk. 80 p.e.	21'	3.630	76.23
2" blk. 80 p.e.	21'	5.020	105.42
2-1/2" blk. 80 p.e.	21'	7.660	160.86
3" blk. 80 p.e.	21'	10.250	215.25
3-1/2" blk. 80 p.e.	21'	12.510	262.71
4" blk. 80 p.e.	21'	14.980	314.58

SCH 40 BLK T&C (Threaded & Coupled)

Size	Length	WT / FT	WT / Length
1/2" blk. 40 T&C	21'	0.850	17.85
3/4" blk. 40 T&C	21'	1.130	23.73
1" blk. 40 T&C	21'	1.680	35.28
1-1/4" blk. 40 T&C	21'	2.270	47.67
1-1/2" blk. 40 T&C	21'	2.720	57.12
2" blk. 40 T&C	21'	3.650	76.65
2-1/2" blk. 40 T&C	21'	5.790	121.59
3" blk. 40 T&C	21'	7.580	159.18

SCH 40 GALV T&C (Threaded & Coupled)

Size	Length	WT / FT	WT / Length
1/4" galv. 40 T&C	21'	0.420	8.82
3/8" galv. 40 T&C	21'	0.568	11.93
1/2" galv. 40 T&C	21'	0.850	17.85
3/4" galv. 40 T&C	21'	1.130	23.73
1" galv. 40 T&C	21'	1.680	35.28
1-1/4" galv. 40 T&C	21'	2.270	47.67
1-1/2" galv. 40 T&C	21'	2.720	57.12
2" galv. 40 T&C	21'	3.650	76.65
3" galv. 40 T&C	21'	7.580	159.18

SCH 40 GALV. P.E. (Plain End)

Size	Length	WT / FT	WT / Length
1/2" galv. 40 p.e.	21'	0.850	17.85
1-1/4" galv. 40 p.e.	21'	2.270	47.67
4" galv. 40 p.e.	21'	10.890	228.69

Square Tubing

Mechanical ASTM A513 / Structural ASTM A500 Grade B

Size	Length	WT / FT	WT / Length
1/2 x 1/2 x .035	20’	0.221	4.42
1/2 x 1/2 x 16 ga.	20’	0.385	7.70
1/2 x 1/2 x 16 ga.	24’	0.385	9.24
5/8 x 5/8 x 16 ga.	20’	0.495	9.90
3/4 x 3/4 x 16 ga.	20’	0.606	12.12
3/4 x 3/4 x 16 ga.	24’	0.606	14.54
3/4 x 3/4 x 14 ga.	24’	0.753	18.07
3/4 x 3/4 x 11 ga.	24’	1.028	24.67
1 x 1 x 16 ga.	20’	0.827	16.54
1 x 1 x 16 ga.	24’	0.827	19.85
1 x 1 x 15 ga.	20’	0.909	18.18
1 x 1 x 15 ga.	24’	0.909	21.82
1 x 1 x 14 ga.	20’	1.035	20.70
1 x 1 x 14 ga.	24’	1.035	24.84
1 x 1 x 13 ga.	20’	1.169	23.38
1 x 1 x 12 ga.	24’	1.321	31.70
1 x 1 x 11 ga.	20’	1.436	28.72
1 x 1 x 11 ga.	24’	1.436	34.46
1-1/4 x 1-1/4 x 16 ga.	24’	1.048	25.15
1-1/4 x 1-1/4 x 14 ga.	20’	1.317	26.34
1-1/4 x 1-1/4 x 14 ga.	24’	1.317	31.61
1-1/4 x 1-1/4 x 12 ga.	24’	1.691	40.58
1-1/4 x 1-1/4 x 11 ga.	24’	1.844	44.26
1-1/4 x 1-1/4 x 3/16	20’	2.400	48.00
1-1/2 x 1-1/2 x 18 ga.	20’	0.967	19.34
1-1/2 x 1-1/2 x 16 ga.	24’	1.269	30.46
1-1/2 x 1-1/2 x 14 ga.	20’	1.600	32.00
1-1/2 x 1-1/2 x 14 ga.	24’	1.600	38.40
1-1/2 x 1-1/2 x 13 ga.	20’	1.815	36.30
1-1/2 x 1-1/2 x 13 ga.	24’	1.815	43.56
1-1/2 x 1-1/2 x 12 ga.	24’	2.062	49.49
1-1/2 x 1-1/2 x 11 ga.	20’	2.252	45.04
1-1/2 x 1-1/2 x 11 ga.	24’	2.252	54.05
1-1/2 x 1-1/2 x 3/16	20’	3.040	60.80
1-1/2 x 1-1/2 x 3/16	24’	3.040	72.96
1-1/2 x 1-1/2 x 1/4	20’	4.067	81.34
1-1/2 x 1-1/2 x 1/4	24’	4.067	97.61

Size	Length	WT / FT	WT / Length
1-3/4 x 1-3/4 x 14 ga.	24’	1.882	45.17
1-3/4 x 1-3/4 x 11 ga.	24’	2.660	63.84
2 x 2 x 14 ga.	20’	2.164	43.28
2 x 2 x 14 ga.	24’	2.164	51.94
2 x 2 x 12 ga.	24’	2.800	67.20
2 x 2 x 11 ga.	20’	3.050	61.00
2 x 2 x 11 ga.	24’	3.050	73.20
2 x 2 x 3/16	24’	4.320	103.68
2 x 2 x 1/4	24’	5.410	129.84
2-1/2 x 2-1/2 x 11 ga.	24’	3.900	93.60
2-1/2 x 2-1/2 x 3/16	24’	5.590	134.16
2-1/2 x 2-1/2 x 1/4	24’	7.110	170.64
3 x 3 x 14 ga.	24’	3.240	77.76
3 x 3 x 11 ga.	20’	4.750	95.00
3 x 3 x 11 ga.	24’	4.750	114.00
3 x 3 x 11 ga.	40’	4.750	190.00
3 x 3 x 3/16	20’	6.870	137.40
3 x 3 x 3/16	24’	6.870	164.88
3 x 3 x 3/16	40’	6.870	274.80
3 x 3 x 1/4	20’	8.810	176.20
3 x 3 x 1/4	24’	8.810	211.44
3 x 3 x 1/4	40’	8.810	352.40
3-1/2 x 3-1/2 x 3/16	20’	8.150	163.00
3-1/2 x 3-1/2 x 3/16	24’	8.150	195.60
3-1/2 x 3-1/2 x 1/4	24’	10.510	252.24
4 x 4 x 11 ga.	20’	6.460	129.20
4 x 4 x 11 ga.	24’	6.460	155.04
4 x 4 x 11 ga.	36’4”	6.460	234.71
4 x 4 x 11 ga.	40’	6.460	258.40
4 x 4 x 3/16	20’	9.420	188.40
4 x 4 x 3/16	30’	9.420	282.60
4 x 4 x 3/16	40’	9.420	376.80

All structural and bar sizes can be galvanized. Please inqurie.

Square & Rectangle Tube

Mechanical ASTM A513 / Structural ASTM A500 Grade B

Square Tube

Size	Length	WT / FT	WT / Length
4 x 4 x 1/4	24’	12.210	293.04
4 x 4 x 3/8	20’	17.270	345.40
4 x 4 x 3/8	24’	17.270	414.48
4 x 4x 3/8	40’	17.270	690.80
4 x 4 x 1/2	24’	21.630	519.12
5 x 5 X 3/16	20’	11.970	239.40
5 x 5 X 3/16	24’	11.970	287.28
5 x 5 X 3/16	40’	11.970	478.80
5 x 5 x 1/4	20’	15.620	312.40
5 x 5 x 1/4	24’	15.620	374.88
5 x 5 x 1/4	40’	15.620	624.80
5 x 5 x 3/8	20’	22.370	447.40
5 x 5 x 3/8	40’	22.370	894.80
6 x 6 x 1/4	20’	19.020	380.40
6 x 6 x 1/4	24’	19.020	456.48
6 x 6 x 1/4	40’	19.020	760.80
6 x 6 x 3/8	20’	27.480	549.60
6 x 6 x 3/8	24’	27.480	659.52
6 x 6 x 3/8	40’	27.480	1099.20
6 x 6 x 1/2	20’	35.240	704.80
6 x 6 x 1/2	40’	35.240	1409.60
7 x 7 x 1/4	20’	22.420	448.40
7 x 7 x 1/4	24’	22.420	538.08
7 x 7 x 1/4	40’	22.420	896.80
7 x 7 x 3/8	20’	32.580	651.60
7 x 7 x 3/8	24’	32.580	781.92
7 x 7 x 3/8	40’	32.580	1303.20
8 x 8 x 3/16	20’	19.630	392.60
8 x 8 x 3/16	40’	19.630	785.20
8 x 8 x 1/4	40’	25.820	1032.80
8 x 8 x 3/8	40’	37.690	1507.60

Rectangle Tube

Size	Length	WT / FT	WT / Length
3/4 x 1-1/2 x 14 ga.	20’	1.176	23.52
1 x 1-1/2 x 14 ga.	24’	1.317	31.61
1 x 1-1/2 x 11 ga.	24’	1.844	44.26
1 x 2 x 14 ga.	24’	1.600	38.40
1 x 2 x 11 ga.	20’	2.252	45.04
1 x 2 x 11 ga.	24’	2.252	54.05
1 x 3 x 14 ga.	24’	2.164	51.94
1 x 3 x 11 ga.	24’	3.050	73.20
1-1/4 x 1-3/4 x 11 ga.	20’	2.252	45.04
1-1/4 x 1-3/4 x 11 ga.	24’	2.252	54.05
1-1/4 x 2 x 14 ga.	24’	1.741	41.78
1-1/2 x 2 x 14 ga.	24’	1.882	45.17
1-1/2 x 2 x 11 ga.	20’	2.660	53.20
1-1/2 x 2 x 11 ga.	24’	2.660	63.84
1-1/2 x 2-1/2 x 14 ga.	24’	2.164	51.94
1-1/2 x 2-1/2 x 14 ga.	40’	2.164	86.56
1-1/2 x 2-1/2 x 11 ga.	20’	3.050	61.00
1-1/2 x 2-1/2 x 11 ga.	24’	3.050	73.20
1-1/2 x 2-1/2 x 3/16	24’	4.320	103.68
1-1/2 x 2-1/2 x 1/4	20’	5.410	108.20
1-1/2 x 3 x 14 ga.	24’	2.446	58.70
1-1/2 x 3 x 11 ga.	24’	3.480	83.52
1-1/2 x 3 x 3/16	20’	4.960	99.20
1-1/2 x 3 x 3/16	24’	4.960	119.04
2 x 3 x 14 ga.	24’	2.670	64.08
2 x 3 x 11 ga.	20’	3.900	78.00
2 x 3 x 11 ga.	24’	3.900	93.60
2 x 3 x 3/16	24’	5.590	134.16
2 x 3 x 1/4	24’	7.110	170.64

Square and Rectangle Tubing ASTM A500 - Grade B – Cold formed, electric resistance weld, flash in. Easily welded, formed, drilled, punched, and cut. Estimated Minimum Mechanical Properties (EMMP) –

Yield – 46,000 psi. Tensile – 58,000 psi.

Rectangle Tube

Structural ASTM A500 Grade B

Size	Length	WT / FT	WT / Length
2 x 4 x 14 ga.	24’	3.263	65.26
2 x 4 x 11 ga.	20’	4.750	95.00
2 x 4 x 11 ga.	24’	4.750	114.00
2 x 4 x 11 ga.	40’	4.750	190.00
2 x 4 x 3/16	20’	6.870	137.40
2 x 4 x 3/16	24’	6.870	164.88
2 x 4 x 1/4	24’	8.810	211.44
2 x 5 x 11 ga.	24’	5.610	134.64
2 x 5 x 3/16	24’	8.150	195.60
2 x 5 x 3/16	40’	8.150	326.00
2 x 5 x 1/4	20’	10.510	210.20
2 x 5 x 1/4	24’	10.510	252.24
2 x 5 x 1/4	40’	10.510	420.40
2 x 6 x 11 ga.	20’	6.460	129.20
2 x 6 x 11 ga.	24’	6.460	155.04
2 x 6 x 3/16	20’	9.420	188.40
2 x 6 x 3/16	24’	9.420	226.08
2 x 6 x 3/16	40’	9.420	376.80
2 x 6 x 1/4	24’	12.210	293.04
2 x 6 x 1/4	40’	12.210	488.40
2 x 8 x 3/16	24’	11.970	287.28
2 x 8 x 1/4	40’	15.620	624.80
2 x 10 x 1/4	40’	19.020	760.80
2-1/2 x 3-1/2 x 3/16	20’	6.870	137.40
2-1/2 x 3-1/2 x 3/16	24’	6.870	164.88
2-1/2 x 3-1/2 x 3/16	40’	6.870	274.80
3 x 4 x 11 ga.	24’	5.610	134.64
3 x 4 x 11 ga.	40’	5.610	224.40
3 x 4 x 3/16	24’	8.150	195.60
3 x 4 x 1/4	20’	10.510	210.20
3 x 4 x 1/4	24’	10.510	252.24
3 x 4 x 1/4	40’	10.510	420.40
3 x 5 x 11 ga.	24’	6.460	155.04
3 x 5 x 3/16	20’	9.420	188.40
3 x 5 x 3/16	24’	9.420	226.08
3 x 5 x 3/16	40’	9.420	376.80

Size	Length	WT / FT	WT / Length
3 x 5 x 1/4	20’	12.210	244.20
3 x 5 x 1/4	24’	12.210	293.04
3 x 5 x 1/4	40’	12.210	488.40
3 x 5 x 3/8	24’	17.270	414.48
3 x 6 x 11 ga.	20’	7.200	144.00
3 x 6 x 11 ga.	24’	7.200	172.80
3 x 6 x 3/16	24’	10.700	256.80
3 x 6 x 1/4	20’	13.910	278.20
3 x 6 x 1/4	24’	13.910	333.84
3 x 6 x 1/4	40’	13.910	556.40
3 x 7 x 1/4	40’	15.620	624.80
3 x 8 x 3/16	40’	13.250	530.00
3 x 8 x 1/4	24’	17.320	415.68
4 x 6 x 3/16	20’	11.970	239.40
4 x 6 x 3/16	24’	11.970	287.28
4 x 6 x 3/16	40’	11.970	478.80
4 x 6 x 1/4	20’	15.620	312.40
4 x 6 x 1/4	24’	15.620	374.88
4 x 6 x 1/4	40’	15.620	624.80
4 x 6 x 3/8	20’	22.370	447.40
4 x 6 x 3/8	40’	22.370	894.80
4 x 8 x 1/4	20’	19.020	380.40
4 x 8 x 1/4	24’	19.020	456.48
4 x 8 x 1/4	40’	19.020	760.80
4 x 8 x 3/8	24’	27.480	659.52
4 x 8 x 3/8	40’	27.480	1099.20
4 x 10 x 3/16	20’	17.080	341.60
4 x 10 x 3/16	40’	17.080	683.20
5 x 7 x 1/4	20’	19.020	380.40
5 x 7 x 1/4	24’	19.020	456.48
5 x 7 x 1/4	40’	19.020	760.80
5 x 7 x 3/8	20’	27.480	549.60
5 x 7 x 3/8	40’	27.480	1099.20
6 x 8 x 3/16	40’	17.080	683.20
6 x 10 x 1/4	40’	25.820	1032.80

All structural and bar sizes can be galvanized. Please inquire.

Pipe Size Tube

Pipe Size Tube

Electric Resistant Weld

Size	O.D.	Gauge	Length	WT / FT	WT / Bar
1/2”	0.840	14 ga.	21’	0.671	14.09
1/2”	0.840	12 ga.	21’	0.851	17.87
3/4”	1.050	14 ga.	21’	0.857	18.00
3/4”	1.050	12 ga.	21’	1.096	23.02
1”	1.315	14 ga.	21’	1.092	22.93
1”	1.315	12 ga.	21’	1.404	29.48
1”	1.315	Sch. 40	21’	1.680	35.28
1-1/4”	1.660	14 ga.	21’	1.398	29.36
1-1/4”	1.660	12 ga.	21’	1.806	37.93
1-1/4”	1.660	Sch. 40	21’	2.270	47.67
1-1/2”	1.900	14 ga.	21’	1.611	33.83
1-1/2”	1.900	12 ga.	21’	2.085	43.78
1-1/2”	1.900	11 ga.	21’	2.281	47.90
1-1/2”	1.900	Sch. 40	21’	2.720	57.12
2”	2.375	14 ga.	21’	2.032	42.67
2”	2.375	12 ga.	21’	2.638	55.40
2”	2.375	11 ga.	21’	2.890	60.69
2”	2.375	Sch. 40	21’	3.650	76.65
2-1/2”	2.875	Sch. 40	21’	5.790	121.59
3”	3.500	Sch. 40	21’	7.580	159.18
3-1/2”	4.000	Sch. 40	21’	9.110	191.31
4”	4.500	Sch. 40	21’	10.790	226.59
5”	5.563	Sch. 40	21’	14.620	307.02
6”	6.625	Sch. 40	21’	18.970	398.37
8”	8.625	Sch. 40	21’	28.550	599.55
10”	10.750	Sch. 40	21’	40.480	850.08
12”	12.750	Sch. 40	21’	49.560	1040.76

Pipe Size Tube

Electric Resistant Weld SCH. 80

Size	O.D.	Gauge	Length	WT / FT	WT / Bar
6”	6.625	Sch. 80	21”	28.580	600.18

Round Mechanical Tube

Hot Rolled – Electric Welded – ASTM A513

Size/O.D.	Gauge	Length	WT / FT	WT / Bar
3/8”	0.035	20’	0.127	2.54
5/8”	16 ga.	20’2”	0.389	7.84
3/4”	16 ga.	20’	0.476	9.52
3/4”	14 ga.	20’	0.591	11.82
3/4”	11 ga.	20’	0.807	16.14
7/8”	14 ga.	20’	0.702	14.04
1”	16 ga.	20’	0.649	12.98
1”	14 ga.	20’	0.813	16.26
1”	11 ga.	20’	1.128	22.56
1”	5/8 ID	20’	1.630	32.60
1-1/8”	16 ga.	20’2”	0.736	14.84
1-1/4”	14 ga.	20’	1.035	20.70
1-1/4”	11 ga.	20’	1.448	28.96
1-1/2”	16 ga.	20’	0.996	19.92
1-1/2”	14 ga.	20’	1.257	25.14
1-1/2”	12 ga.	20’	1.619	32.38
1-5/8”	11 ga.	20’	1.929	38.58
2”	11 ga.	20’	2.410	48.20

Electric Resistance Welded – Is produced from low carbon steel and is the lowest cost mechanical tubing. Includes square, rectangular, and round shapes. Possesses a good surface finish and has good cold working characteristics. Produced to meet ASTM A513. A flash in product.

Rev. 7/03

Power Take Off Tube & Shaft

PTO Tube

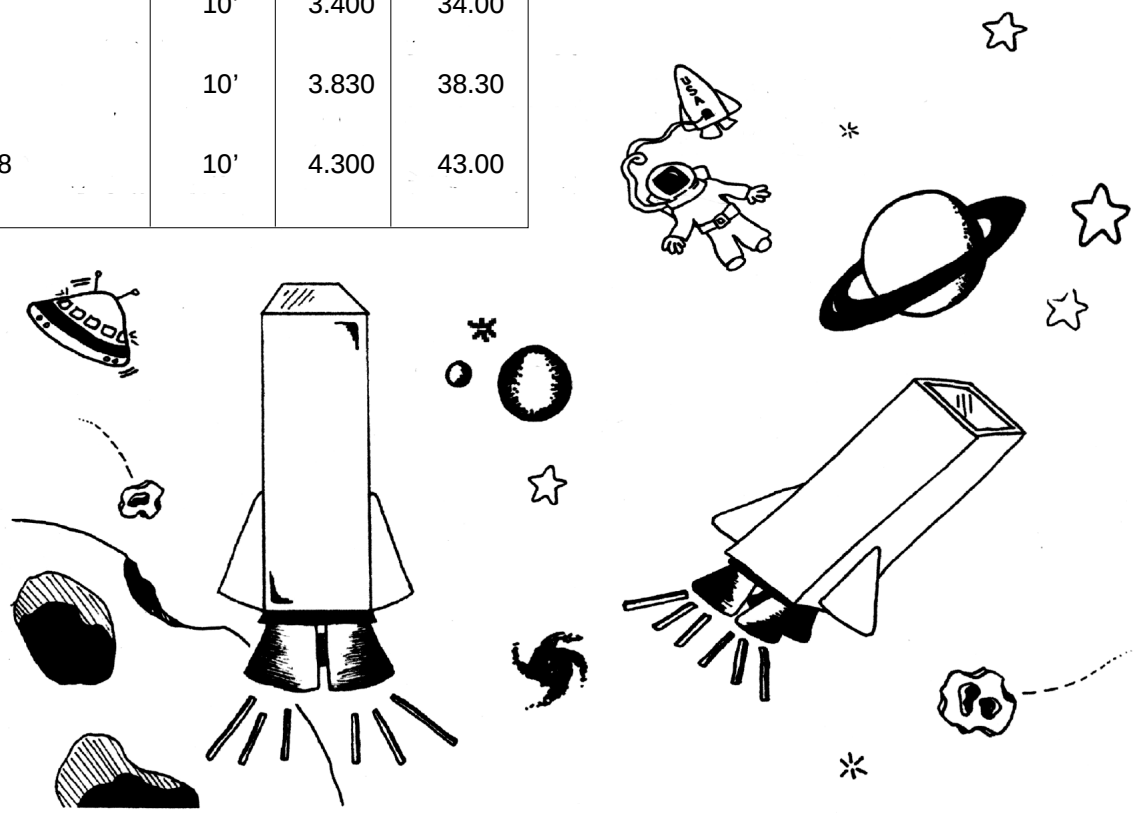
1010 / 1020 Material

Size	Length	WT / FT	WT / Bar
3/4 x 3/4 x 1/8	10’	1.250	12.50
7/8 x7/8 x 1/8	10’	1.570	15.70
3/4 x 7/8 x 1/8	10’	1.600	16.00
1 x 1 x 1/8	10’	1.700	17.00
1 x 1-1/8 x 1/8	10’	1.806	18.06
1-1/8 x 1-1/8 x 1/8	10’	1.930	19.30

PTO Shaft

1045 Cold Drawn Material

Size	Length	WT / FT	WT / Bar
3/4 x 3/4	10’	1.910	19.10
3/4 x 7/8	10’	2.230	22.30
1 x 1	10’	3.400	34.00
1 x 1-1/8	10’	3.830	38.30
1-1/8 x 1-1/8	10’	4.300	43.00



Round Tube

Round Tube

Hot Rolled – ASTM A513 – Flash in

Size	Gauge	Length	WT / FT	WT / Length
4”	16 ga.	20’	2.732	54.64
4”	14 ga.	20’	3.472	69.44
4”	12 ga.	20’	4.530	90.60
5”	14 ga.	20’	4.359	87.18
5”	12 ga.	20’	5.694	113.88
5”	7 ga.	20’	9.266	185.32
6”	16 ga.	20’	4.120	82.40
6”	14 ga.	20’	5.245	104.90
6”	12 ga.	20’	6.858	137.16
6”	10 ga.	20’	8.395	167.90
6-5/8”	10 ga.	20’	9.289	185.78
6-5/8”	7 ga.	20’	12.390	247.80
7”	14 ga.	20’	5.547	110.94
7”	12 ga.	20’	8.022	160.44
8”	14 ga.	20’	7.018	140.36
8”	12 ga.	20’	9.186	183.72
8”	10 ga.	20’	11.257	225.14
10”	14 ga.	20’	7.950	159.00
10”	12 ga.	20’	11.514	230.28
10”	10 ga.	20’	14.119	282.38
12”	12 ga.	20’	13.843	276.86
12”	10 ga.	20’	16.982	339.64
14”	10 ga.	20’	19.844	396.88

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
1/8”	24	0.022	0.081	0.0242
1/8”	22	0.028	0.069	0.0290
1/8”	20	0.035	0.055	0.0336
1/8”	18	0.049	0.027	0.0398
5/32”	22	0.028	0.100	0.0384
5/32”	21	0.032	0.092	0.0425
3/16”	26	0.018	0.152	0.0327
3/16”	24	0.022	0.143	0.0390
3/16”	22	0.028	0.131	0.0478
3/16”	21	0.032	0.123	0.0533
3/16”	20	0.035	0.117	0.0572
3/16”	19	0.042	0.103	0.0655
3/16”	18	0.049	0.089	0.0727
3/16”	17	0.058	0.072	0.0805
3/16”	16	0.065	0.057	0.0854
7/32”	24	0.022	0.175	0.0463
7/32”	22	0.028	0.166	0.0571
7/32”	20	0.035	0.148	0.0687
7/32”	18	0.049	0.120	0.0888
7/32”	16	0.065	0.088	0.1069
1/4”	24	0.022	0.206	0.0536
1/4”	23	0.025	0.200	0.0601
1/4”	22	0.028	0.194	0.0664
1/4”	21	0.032	0.187	0.0745
1/4”	20	0.035	0.180	0.0804
1/4”	19	0.042	0.166	0.0933
1/4”	18	0.049	0.152	0.1052
1/4”	17	0.058	0.134	0.1189
1/4”	16	0.065	0.120	0.1284
1/4”	14	0.083	0.084	0.1480
1/4”	13	0.095	0.060	0.1573
9/32”	18	0.049	0.183	0.1217

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
5/16”	24	0.022	0.268	0.0684
5/16”	23	0.025	0.263	0.0769
5/16”	22	0.028	0.256	0.0852
5/16”	21	0.032	0.249	0.0960
5/16”	20	0.035	0.242	0.1039
5/16”	19	0.042	0.228	0.1216
5/16”	18	0.049	0.214	0.1382
5/16”	17	0.058	0.196	0.1580
5/16”	16	0.065	0.182	0.1722
5/16”	14	0.083	0.146	0..2039
5/16”	13	0.095	0.122	0.2212
5/16”	12	0.109	0.094	0.2375
5/16”	11	0.120	0.072	0.2473
11/32”	21	0.032	0.280	0.1066
3/8”	24	0.022	0.331	0.0829
3/8”	23	0.025	0.325	0.0935
3/8”	22	0.028	0.319	0.1038
3/8”	21	0.032	0.311	0.1172
3/8”	20	0.035	0.305	0.1271
3/8”	19	0.042	0.291	0.1494
3/8”	18	0.049	0.277	0.1706
3/8”	17	0.058	0.259	0.1964
3/8”	16	0.065	0.245	0.2152
3/8”	15	0.072	0.231	0.2330
3/8”	14	0.083	0.209	0.2588
3/8”	13	0.095	0.185	0.2841
3/8”	12	0.109	0.157	0.3097
3/8”	1/8	0.125	0.125	0.3338
3/8”	10	0.134	0.107	0.3449
13/32”	16	0.065	0.276	0.2367
13/32”	14	0.083	0.240	0.2863
13/32”	13	0.095	0.216	0.3155

Cold Drawn Seamless – Is normally produced to O.D. and I.D. dimensions. Typical applications include rollers, shafts, hydraulic cylinders. Produced to ASTM A519.

Drawn Over Mandrel – An electric welded tube carefully tested for weld soundness and redrawn over mandrel. All welding flash is removed. This tube is superior in finish and wall uniformity to seamless tube. Especially suitable for hydraulic cylinders, where superior finish and accuracy are desirable. Less costly than cold drawn seamless tubing. Normally drawn to O.D. and I.D. dimensions. Produced to ASTM – A513 Type 5.

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
7/16”	24	0.022	0.393	0.0977
7/16”	23	0.025	0.388	0.1103
7/16”	22	0.028	0.381	0.1226
7/16”	21	0.032	0.373	0.1388
7/16”	20	0.035	0.367	0.1506
7/16”	18	0.049	0.339	0.2036
7/16”	17	0.058	0.321	0.2354
7/16”	16	0.065	0.307	0.2589
7/16”	14	0.083	0.271	0.3147
7/16”	13	0.095	0.247	0.3480
7/16”	12	0.109	0.219	0.3830
7/16”	1/8	0.125	0.188	0.4179
7/16”	10	0.134	0.169	0.4351
1/2”	24	0.022	0.456	0.1123
1/2”	22	0.028	0.444	0.1411
1/2”	21	0.032	0.436	0.1599
1/2”	20	0.035	0.430	0.1738
1/2”	19	0.042	0.416	0.2054
1/2”	18	0.049	0.402	0.2360
1/2”	17	0.058	0.384	0.2738
1/2”	16	0.065	0.370	0.3020
1/2”	15	0.072	0.356	0.3291
1/2”	14	0.083	0.334	0.3696
1/2”	13	0.095	0.310	0.4109
1/2”	12	0.109	0.282	0.4552
1/2”	11	0.120	0.260	0.4870
1/2”	1/8	0.125	0.250	0.5006
1/2”	10	0.134	0.232	0.5238
1/2”	5/32	0.156	0.187	0.5731
1/2”	3/16	0.187	0.125	0.6264

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
17/32”	16	0.065	0.401	0.3237
17/32”	14	0.083	0.365	0.3971
17/32”	11	0.120	0.291	0.5267
9/16”	24	0.022	0.518	0.1271
9/16”	23	0.025	0.513	0.1436
9/16”	22	0.028	0.506	0.1600
9/16”	21	0.032	0.499	0.1815
9/16”	20	0.035	0.492	0.1974
9/16”	18	0.049	0.464	0.2690
9/16”	16	0.065	0.432	0.3457
9/16”	14	0.083	0.396	0.4255
9/16”	13	0.095	0.372	0.4748
9/16”	12	0.109	0.344	0.5285
9/16”	11	0.120	0.322	0.5677
9/16”	1/8	0.125	0.313	0.5847
9/16”	10	0.134	0.294	0.6140
9/16”	5/32	0.156	0.250	0.6781
9/16”	3/16	0.187	0.187	0.7529
5/8”	24	0.022	0.581	0.1417
5/8”	23	0.025	0.575	0.1602
5/8”	22	0.028	0.569	0.1785
5/8”	21	0.032	0.561	0.2027
5/8”	20	0.035	0.555	0.2205
5/8”	18	0.049	0.527	0.3014
5/8”	17	0.058	0.509	0.3512
5/8”	16	0.065	0.495	0.3888
5/8”	15	0.072	0.481	0.4252
5/8”	14	0.083	0.459	0.4805
5/8”	13	0.095	0.435	0.5377
5/8”	12	0.109	0.407	0.6007
5/8”	11	0.120	0.385	0.6472
5/8”	1/8	0.125	0.375	0.6675
5/8”	10	0.134	0.357	0.7027
5/8”	5/32	0.156	0.312	0.7814
5/8”	3/16	0.187	0.250	0.8774
5/8”	7/32	0.219	0.187	0.9496
5/8”	1/4	0.250	0.125	1.0010

Cold Drawn Butt Welded – A low cost steel tube which may be redrawn from continuous welded steel pipe. Drawn to commercial tolerances and satisfactory for many applications where strength is not critical. Not intended for pressure applications. Produced to ASTM A512.

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
21/32”	13	0.095	0.466	0.5692
11/16”	23	0.025	0.638	0.1770
11/16”	22	0.028	0.631	0.1974
11/16”	21	0.032	0.624	0.2242
11/16”	18	0.049	0.589	0.3344
11/16”	17	0.058	0.571	0.3902
11/16”	16	0.065	0.557	0.4325
11/16”	14	0.083	0.521	0.5363
11/16”	13	0.095	0.497	0.6017
11/16”	12	0.109	0.467	0.6740
11/16”	11	0.120	0.447	0.7279
11/16”	1/8	0.125	0.438	0.7516
11/16”	10	0.134	0.419	0.7928
11/16”	5/32	0.156	0.375	0.8864
11/16”	3/16	0.187	0.312	1.0040
11/16”	7/32	0.219	0.250	1.0970
3/4”	24	0.022	0.706	0.1711
3/4”	22	0.028	0.694	0.2159
3/4”	20	0.035	0.680	0.2673
3/4”	18	0.049	0.652	0.3668
3/4”	17	0.058	0.634	0.4287
3/4”	16	0.065	0.620	0.4755
3/4”	15	0.072	0.606	0.5214
3/4”	14	0.083	0.584	0.5913
3/4”	13	0.095	0.560	0.6646
3/4”	12	0.109	0.532	0.7462
3/4”	11	0.120	0.510	0.8074
3/4”	1/8	0.125	0.500	0.8344
3/4”	10	0.134	0.482	0.8816
3/4”	5/32	0.156	0.437	0.9897
3/4”	11/64	0.172	0.406	1.0620
3/4”	3/16	0.187	0.375	1.1280
3/4”	7/32	0.219	0.312	1.2420
3/4”	1/4	0.250	0.250	1.3350

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
13/16”	22	0.028	0.756	0.2347
13/16”	20	0.035	0.742	0.2908
13/16”	18	0.049	0.714	0.3998
13/16”	17	0.058	0.697	0.4677
13/16”	16	0.065	0.682	0.5193
13/16”	14	0.083	0.646	0.6471
13/16”	13	0.095	0.622	0.7285
13/16”	12	0.109	0.594	0.8195
13/16”	11	0.120	0.572	0.8881
13/16”	1/8	0.125	0.563	0.9185
13/16”	10	0.134	0.544	0.9717
13/16”	5/32	0.156	0.500	1.0950
13/16”	3/16	0.187	0.437	1.2550
13/16”	7/32	0.219	0.375	1.3890
13/16”	1/4	0.250	0.312	1.5030
27/32”	12	0.109	0.625	0.8554
27/32”	5/32	0.156	0.531	1.1460
7/8”	24	0.022	0.831	0.2004
7/8”	22	0.028	0.819	0.2533
7/8”	21	0.032	0.811	0.2881
7/8”	20	0.035	0.805	0.3140
7/8”	18	0.049	0.777	0.4323
7/8”	17	0.058	0.759	0.5061
7/8”	16	0.065	0.745	0.5623
7/8”	15	0.072	0.731	0.6175
7/8”	14	0.083	0.709	0.7021
7/8”	13	0.095	0.685	0.7914
7/8”	12	0.109	0.657	0.8917
7/8”	11	0.120	0.635	0.9676
7/8”	1/8	0.125	0.625	1.0010
7/8”	10	0.134	0.607	1.0600
7/8”	5/32	0.156	0.562	1.1980
7/8”	3/16	0.187	0.500	1.3790
7/8”	7/32	0.219	0.437	1.5340
7/8”	1/4	0.250	0.375	1.6690
7/8”	9/32	0.281	0.313	1.7830
7/8”	5/16	0.313	0.250	1.8790

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
15/16”	20	0.035	0.867	0.3375
15/16”	18	0.049	0.839	0.4652
15/16”	16	0.065	0.807	0.6060
15/16”	14	0.083	0.771	0.7579
15/16”	13	0.095	0.747	0.8553
15/16”	12	0.109	0.719	0.9651
15/16”	11	0.120	0.697	1.0480
15/16”	1/8	0.125	0.688	1.0850
15/16”	10	0.134	0.669	1.1510
15/16”	5/32	0.156	0.625	1.3030
15/16”	3/16	0.187	0.562	1.5060
15/16”	7/32	0.219	0.500	1.6820
15/16”	1/4	0.250	0.437	1.8370
1”	22	0.028	0.944	0.2907
1”	21	0.032	0.936	0.3308
1”	20	0.035	0.930	0.3607
1”	18	0.049	0.902	0.4977
1”	17	0.058	0.884	0.5835
1”	16	0.065	0.870	0.6491
1”	15	0.072	0.856	0.7136
1”	14	0.083	0.834	0.8129
1”	13	0.095	0.810	0.9182
1”	12	0.109	0.782	1.0370
1”	11	0.120	0.760	1.1280
1”	1/8	0.125	0.750	1.1680
1”	10	0.134	0.732	1.2390
1”	5/32	0.156	0.687	1.4060
1”	11/64	0.172	0.656	1.5210
1”	7	0.180	0.640	1.5760
1”	3/16	0.187	0.625	1.6300
1”	7/32	0.219	0.562	1.8270
1”	1/4	0.250	0.500	2.0030
1”	9/32	0.281	0.437	2.1580
1”	5/16	0.313	0.375	2.2970
1”	11/32	0.344	0.312	2.4100
1”	3/8	0.375	0.250	2.5030

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
1-1/16”	22	0.028	1.006	0.3095
1-1/16”	20	0.035	0.992	0.3843
1-1/16”	18	0.049	0.964	0.5306
1-1/16”	16	0.065	0.932	0.6928
1-1/16”	14	0.083	0.896	0.8687
1-1/16”	13	0.095	0.872	0.9821
1-1/16”	12	0.109	0.844	1.1110
1-1/16”	11	0.120	0.822	1.2090
1-1/16”	1/8	0.125	0.813	1.2520
1-1/16”	10	0.134	0.795	1.3300
1-1/16”	5/32	0.156	0.750	1.5110
1-1/16”	3/16	0.187	0.687	1.7570
1-1/16”	8/32	0.219	0.625	1.9740
1-1/16”	1/4	0.250	0.562	2.1710
1-1/16”	9/32	0.281	0.500	2.3470
1-1/16”	5/16	0.313	0.437	2.5070
1-1/16”	3/8	0.375	0.313	2.7550
1-1/8”	24	0.022	1.081	0.2592
1-1/8”	22	0.028	1.069	0.3280
1-1/8”	20	0.035	1.055	0.4074
1-1/8”	18	0.049	1.027	0.5631
1-1/8”	17	0.058	1.009	0.6609
1-1/8”	16	0.065	0.995	0.7359
1-1/8”	14	0.083	0.959	0.9237
1-1/8”	13	0.095	0.935	1.0450
1-1/8”	12	0.109	0.907	1.1830
1-1/8”	11	0.120	0.885	1.2880
1-1/8”	1/8	0.125	0.875	1.3350
1-1/8”	10	0.134	0.857	1.4180
1-1/8”	5/32	0.156	0.812	1.6140
1-1/8”	11/64	0.172	0.781	1.7510
1-1/8”	3/16	0.187	0.750	1.8810
1-1/8”	7/32	0.219	0.687	2.1190
1-1/8”	1/4	0.250	0.625	2.3360
1-1/8”	9/32	0.281	0.563	2.5330
1-1/8”	5/16	0.313	0.500	2.7140
1-1/8”	3/8	0.375	0.375	3.0040

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
1-3/16”	22	0.028	1.131	0.3469
1-3/16”	21	0.032	1.124	0.3951
1-3/16”	20	0.035	1.117	0.4310
1-3/16”	18	0.049	1.089	0.5961
1-3/16”	16	0.065	1.057	0.7796
1-3/16”	14	0.083	1.021	0.9795
1-3/16”	13	0.095	0.997	1.1090
1-3/16”	11	0.120	0.947	1.3690
1-3/16”	1/8	0.125	0.938	1.4190
1-3/16”	5/32	0.156	0.875	1.7190
1-3/16”	3/16	0.187	0.812	2.0080
1-3/16”	7/32	0.219	0.750	2.2660
1-3/16”	1/4	0.250	0.687	2.5040
1-3/16”	5/16	0.313	0.562	2.9250
1-1/4”	22	0.028	1.194	0.3654
1-1/4”	20	0.035	1.180	0.4542
1-1/4”	18	0.049	1.152	0.6285
1-1/4”	17	0.058	1.134	0.7384
1-1/4”	16	0.065	1.120	0.8226
1-1/4”	14	0.083	1.084	1.0340
1-1/4”	13	0.095	1.060	1.1720
1-1/4”	12	0.109	1.032	1.3280
1-1/4”	11	0.120	1.010	1.4480
1-1/4”	1/8	0.125	1.000	1.5020
1-1/4”	10	0.134	0.982	1.5970
1-1/4”	5/32	0.156	0.937	1.8230
1-1/4”	3/16	0.187	0.875	2.1320
1-1/4”	7/32	0.219	0.812	2.4110
1-1/4”	1/4	0.250	0.750	2.6700
1-1/4”	9/32	0.281	0.687	2.9080
1-1/4”	5/16	0.313	0.625	3.1320
1-1/4”	11/32	0.344	0.562	3.3290
1-1/4”	3/8	0.375	0.500	3.5040
1-1/4”	7/16	0.437	0.375	3.7980

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
1-5/16”	20	0.035	1.242	0.4777
1-5/16”	17	0.058	1.197	0.7774
1-5/16”	16	0.065	1.182	0.8664
1-5/16”	14	0.083	1.146	1.0900
1-5/16”	13	0.095	1.122	1.2360
1-5/16”	12	0.109	1.094	1.4020
1-5/16”	11	0.120	1.072	1.5290
1-5/16”	1/8	0.125	1.063	1.5860
1-5/16”	10	0.134	1.044	1.6870
1-5/16”	9	0.148	1.017	1.8410
1-5/16”	5/32	0.156	1.000	1.9280
1-5/16”	3/16	0.187	0.937	2.2590
1-5/16”	7/32	0.219	0.875	2.5590
1-5/16”	1/4	0.250	0.812	2.8380
1-5/16”	9/32	0.281	0.750	3.0970
1-5/16”	5/16	0.313	0.687	3.3430
1-5/16”	3/8	0.375	0.562	3.7570
1-3/8”	22	0.028	1.319	0.4028
1-3/8”	20	0.035	1.305	0.5009
1-3/8”	18	0.049	1.277	0.6939
1-3/8”	17	0.058	1.259	0.8158
1-3/8”	16	0.065	1.245	0.9094
1-3/8”	14	0.083	1.209	1.1450
1-3/8”	13	0.095	1.185	1.2990
1-3/8”	12	0.109	1.157	1.4740
1-3/8”	11	0.120	1.135	1.6080
1-3/8”	1/8	0.125	1.125	1.6690
1-3/8”	10	0.134	1.107	1.7760
1-3/8”	5/32	0.156	1.062	2.0310
1-3/8”	11/64	0.1720	1.031	2.2100
1-3/8”	3/16	0.187	1.000	2.3830
1-3/8”	7/32	0.219	0.937	2.7040
1-3/8”	1/4	0.250	0.875	3.0040
1-3/8”	9/32	0.281	0.813	3.2830
1-3/8”	5/16	0.313	0.750	3.5500
1-3/8”	3/8	0.375	0.625	4.0050
1-3/8”	1/2	0.500	0.375	4.6730

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
1-7/16”	20	0.035	1.367	0.5244
1-7/16”	16	0.065	1.307	0.9531
1-7/16”	14	0.083	1.271	1.2010
1-7/16”	13	0.095	1.247	1.3630
1-7/16”	11	0.120	1.197	1.6890
1-7/16”	10	0.134	1.170	1.8660
1-7/16”	5/32	0.156	1.125	2.1360
1-7/16”	3/16	0.187	1.062	2.5100
1-7/16”	7/32	0.219	1.000	2.8510
1-7/16”	1/4	0.250	0.937	3.1720
1-1/2”	22	0.028	1.444	0.4402
1-1/2”	20	0.035	1.430	0.5476
1-1/2”	18	0.049	1.402	0.7593
1-1/2”	17	0.058	1.384	0.8932
1-1/2”	16	0.065	1.370	0.9962
1-1/2”	14	0.083	1.334	1.2560
1-1/2”	13	0.095	1.310	1.4260
1-1/2”	12	0.109	1.282	1.6190
1-1/2”	11	0.120	1.260	1.7690
1-1/2”	1/8	0.125	1.250	1.8360
1-1/2”	10	0.134	1.232	1.9550
1-1/2”	5/32	0.156	1.187	2.2390
1-1/2”	3/16	0.187	1.125	2.6340
1-1/2”	7/32	0.219	1.062	2.9960
1-1/2”	1/4	0.250	1.000	3.3380
1-1/2”	9/32	0.281	0.938	3.6580
1-1/2”	5/16	0.313	0.875	3.9680
1-1/2”	11/32	0.344	0.812	4.2470
1-1/2”	3/8	0.375	0.750	4.5060
1-1/2”	7/16	0.438	0.625	4.9680
1-1/2”	1/2	0.500	0.500	5.3400

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
1-9/16”	20	0.035	1.493	0.5712
1-9/16”	16	0.065	1.432	1.0400
1-9/16”	13	0.095	1.372	1.4890
1-9/16”	12	0.109	1.345	1.6930
1-9/16”	11	0.120	1.322	1.8490
1-9/16”	1/8	0.125	1.313	1.9200
1-9/16”	10	0.134	1.295	2.0450
1-9/16”	5/32	0.156	1.250	2.3440
1-9/16”	3/16	0.187	1.187	2.7610
1-9/16”	1/4	0.250	1.062	3.5060
1-9/16”	5/16	0.313	0.937	4.1790
1-9/16”	3/8	0.375	0.812	4.7580
1-5/8”	20	0.035	1.555	0.5943
1-5/8”	18	0.049	1.527	0.8248
1-5/8”	17	0.058	1.509	0.9707
1-5/8”	16	0.065	1.495	1.0830
1-5/8”	14	0.083	1.459	1.3670
1-5/8”	13	0.095	1.435	1.5520
1-5/8”	12	0.109	1.407	1.7650
1-5/8”	11	0.120	1.385	1.9290
1-5/8”	1/8	0.125	1.375	2.0030
1-5/8”	10	0.134	1.357	2.1340
1-5/8”	5/32	0.156	1.312	2.4470
1-5/8”	11/64	0.172	1.281	2.6690
1-5/8”	3/16	0.187	1.250	2.8850
1-5/8”	7/32	0.219	1.187	3.2890
1-5/8”	1/4	0.250	1.125	3.6710
1-5/8”	9/32	0.281	1.063	4.0330
1-5/8”	5/16	0.313	1.000	4.3860
1-5/8”	3/8	0.375	0.875	5.0060
1-5/8”	7/16	0.438	0.749	5.5530
1-5/8”	1/2	0.500	0.625	6.0080

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
1-11/16”	16	0.065	1.558	1.1270
1-11/16”	11	0.120	1.447	2.0100
1-11/16”	1/8	0.125	1.438	2.0860
1-11/16”	5/32	0.156	1.376	2.5520
1-11/16”	3/16	0.187	1.312	3.0120
1-11/16”	7/32	0.219	1.250	3.4360
1-11/16”	1/4	0.250	1.188	3.8390
1-3/4”	20	0.035	1.680	0.6411
1-3/4”	19	0.42	1.666	0.7661
1-3/4”	18	0.049	1.652	0.8902
1-3/4”	16	0.065	1.620	1.1700
1-3/4”	14	0.083	1.584	1.4780
1-3/4”	13	0.095	1.560	1.6790
1-3/4”	12	0.109	1.532	1.9100
1-3/4”	11	0.120	1.510	2.0890
1-3/4”	1/8	0.125	1.500	2.1690
1-3/4”	10	0.134	1.482	2.3130
1-3/4”	5/32	0.156	1.437	2.6560
1-3/4”	3/16	0.187	1.375	3.1360
1-3/4”	7/32	0.219	1.312	3.5810
1-3/4”	1/4	0.250	1.250	4.0050
1-3/4”	9/32	0.281	1.188	4.4090
1-3/4”	5/16	0.313	1.125	4.8040
1-3/4”	3/8	0.375	1.000	5.5070
1-3/4”	7/16	0.438	0.875	6.1370
1-3/4”	1/2	0.500	0.750	6.6750
1-3/4”	9/16	0.563	0.624	7.1370
1-3/4”	5/8	0.625	0.500	7.5090
1-13/16”	11	0.120	1.572	2.1700
1-13/16”	5/32	0.156	1.501	2.7610
1-13/16”	3/16	0.187	1.439	3.2630
1-13/16”	1/4	0.250	1.313	4.1730

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
1-7/8”	20	0.035	1.805	0.6878
1-7/8”	18	0.049	1.777	0.9556
1-7/8”	16	0.065	1.745	1.2570
1-7/8”	14	0.083	1.709	1.5890
1-7/8”	13	0.095	1.685	1.8060
1-7/8”	12	0.109	1.657	2.0560
1-7/8”	11	0.120	1.635	2.2490
1-7/8”	1/8	0.125	1.625	2.3360
1-7/8”	10	0.134	1.607	2.4920
1-7/8”	5/32	0.156	1.562	2.8640
1-7/8”	3/16	0.187	1.500	3.3870
1-7/8”	7/32	0.219	1.437	3.8730
1-7/8”	1/4	0.250	1.375	4.3390
1-7/8”	9/32	0.281	1.313	4.7840
1-7/8”	5/16	0.313	1.250	5.2220
1-7/8”	3/8	0.375	1.125	6.0080
1-7/8”	7/16	0.438	1.000	6.7220
1-7/8”	1/2	0.500	0.875	7.3430
1-7/8”	9/16	0.563	0.750	7.8890
1-15/16”	1/8	0.125	1.688	2.4200
1-15/16”	5/32	0.156	1.626	2.9690
1-15/16”	7/32	0.219	1.499	4.0210
1-15/16”	1/4	0.250	1.437	4.5070
1-15/16”	3/8	0.375	1.188	6.2600
2”	20	0.035	1.930	0.7345
2”	18	0.049	1.902	1.0210
2”	16	0.065	1.870	1.3430
2”	14	0.083	1.834	1.6990
2”	13	0.095	1.810	1.9330
2”	12	0.109	1.782	2.2010
2”	11	0.120	1.760	2.4090
2”	1/8	0.125	1.751	2.5030
2”	10	0.134	1.732	2.6700
2”	5/32	0.156	1.687	3.0720
2”	7	0.180	1.640	3.4990
2”	3/16	0.187	1.625	3.6380
2”	7/32	0.219	1.562	4.1660
2”	1/4	0.250	1.500	4.6730

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
2”	9/32	0.281	1.438	5.1590
2”	5/16	0.313	1.375	5.6390
2”	11/32	0.344	1.312	6.0840
2”	3/8	0.375	1.250	6.5080
2”	7/16	0.438	1.125	7.3070
2”	1/2	0.500	1.000	8.0100
2”	9/16	0.563	0.876	8.6400
2”	5/8	0.625	0.750	9.1780
2”	3/4	0.750	0.500	10.0100
2-1/16”	5/32	0.156	1.750	3.1770
2-1/16”	3/16	0.187	1.689	3.7650
2-1/16”	1/4	0.250	1.562	4.8410
2-1/16”	5/16	0.313	1.437	5.8500
2-1/8”	20	0.035	2.055	0.7813
2-1/8”	18	0.049	2.027	1.0860
2-1/8”	16	0.065	1.995	1.4300
2-1/8”	14	0.083	1.959	1.8100
2-1/8”	13	0.095	1.935	2.0600
2-1/8”	11	0.120	1.885	2.5700
2-1/8”	1/8	0.125	1.875	2.6700
2-1/8”	5/32	0.156	1.812	3.2810
2-1/8”	3/16	0.187	1.750	3.8890
2-1/8”	7/32	0.219	1.687	4.4580
2-1/8”	1/4	0.250	1.625	5.0060
2-1/8”	9/32	0.281	1.563	5.5340
2-1/8”	5/16	0.313	1.500	6.0570
2-1/8”	3/8	0.375	1.375	7.0090
2-1/8”	7/16	0.438	1.250	7.8920
2-1/8”	1/2	0.500	1.125	8.6780
2-1/8”	9/16	0.563	1.000	9.3920
2-1/8”	5/8	0.625	0.875	10.0100
2-3/16”	1/8	0.125	1.938	2.7540
2-3/16”	1/4	0.250	1.688	5.1740

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
2-1/4”	20	0.035	2.180	0.8280
2-1/4”	18	0.049	2.152	1.1520
2-1/4”	16	0.065	2.120	1.5170
2-1/4”	14	0.083	2.084	1.9210
2-1/4”	13	0.095	2.060	2.1860
2-1/4”	12	0.109	2.032	2.4920
2-1/4”	11	0.120	2.010	2.7300
2-1/4”	1/8	0.125	2.000	2.8370
2-1/4”	10	0.134	1.982	3.0280
2-1/4”	5/32	0.156	1.937	3.4890
2-1/4”	3/16	0.187	1.875	4.1400
2-1/4”	7/32	0.219	1.812	4.7500
2-1/4”	1/4	0.250	1.750	5.3400
2-1/4”	9/32	0.281	1.688	5.9090
2-1/4”	5/16	0.313	1.625	6.4750
2-1/4”	11/32	0.344	1.562	7.0020
2-1/4”	3/8	0.375	1.500	7.5090
2-1/4”	13/32	0.406	1.438	7.9960
2-1/4”	7/16	0.438	1.375	8.4760
2-1/4”	1/2	0.500	1.250	9.3450
2-1/4”	9/16	0.563	1.124	10.1400
2-1/4”	5/8	0.625	1.000	10.8500
2-1/4”	3/4	0.750	0.750	12.0200
2-5/16”	3/16	0.187	1.939	4.2670
2-5/16”	1/4	0.250	1.813	5.5080
2-3/8”	18	0.049	2.277	1.2170
2-3/8”	16	0.065	2.245	1.6040
2-3/8”	14	0.083	2.209	2.0320
2-3/8”	13	0.095	2.185	2.3130
2-3/8”	11	0.120	2.135	2.8900
2-3/8”	1/8	0.125	2.125	3.0040
2-3/8”	5/32	0.156	2.062	3.6970
2-3/8”	3/16	0.187	2.000	4.3910
2-3/8”	7/32	0.219	1.937	5.0430
2-3/8”	1/4	0.250	1.875	5.6740
2-3/8”	9/32	0.281	1.813	6.2840
2-3/8”	5/16	0.313	1.750	6.8930
2-3/8”	11/32	0.344	1.687	7.4620

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
2-3/8”	3/8	0.375	1.625	8.0100
2-3/8”	7/16	0.438	1.500	9.0610
2-3/8”	1/2	0.500	1.375	10.0100
2-3/8”	9/16	0.563	1.249	10.9000
2-3/8”	5/8	0.625	1.125	11.6800
2-3/8”	3/4	0.750	0.875	13.0200
2-7/16”	1/4	0.250	1.937	5.8420
2-1/2”	18	0.049	2.402	1.2830
2-1/2”	16	0.065	2.370	1.6900
2-1/2”	14	0.083	2.334	2.1430
2-1/2”	13	0.095	2.310	2.4400
2-1/2”	12	0.109	2.282	2.7830
2-1/2”	11	0.120	2.260	3.0500
2-1/2”	1/8	0.125	2.250	3.1710
2-1/2”	10	0.134	2.232	3.3860
2-1/2”	5/32	0.156	2.187	3.9050
2-1/2”	7	0.180	2.140	4.4600
2-1/2”	3/16	0.187	2.125	4.6420
2-1/2”	7/32	0.219	2.062	5.3350
2-1/2”	1/4	0.250	2.000	6.0080
2-1/2”	9/32	0.281	1.937	6.6590
2-1/2”	5/16	0.313	1.875	7.3110
2-1/2”	11/32	0.344	1.812	7.9210
2-1/2”	3/8	0.375	1.750	8.5110
2-1/2”	7/16	0.438	1.625	9.6460
2-1/2”	1/2	0.500	1.500	10.6800
2-1/2”	9/16	0.563	1.375	11.6500
2-1/2”	5/8	0.625	1.250	12.5200
2-1/2”	3/4	0.750	1.000	14.0200
2-9/16”	1/4	0.250	2.062	6.1760

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
2-5/8”	18	0.049	2.528	1.3480
2-5/8”	16	0.065	2.495	1.7770
2-5/8”	14	0.083	2.459	2.2530
2-5/8”	13	0.095	2.435	2.5670
2-5/8”	12	0.109	2.407	2.9290
2-5/8”	11	0.120	2.385	3.2100
2-5/8”	1/8	0.125	2.375	3.3380
2-5/8”	5/32	0.156	2.312	4.1140
2-5/8”	7	0.180	2.265	4.7000
2-5/8”	3/16	0.187	2.250	4.8930
2-5/8”	7/32	0.219	2.187	5.6270
2-5/8”	1/4	0.250	2.125	6.3410
2-5/8”	9/32	0.281	2.063	7.0350
2-5/8”	5/16	0.313	2.000	7.7290
2-5/8”	3/8	0.375	1.875	9.0110
2-5/8”	7/16	0.483	1.751	10.2300
2-5/8”	1/2	0.500	1.625	11.3500
2-5/8”	9/16	0.563	1.501	12.4000
2-5/8”	5/8	0.625	1.375	13.3500
2-3/4”	18	0.049	2.652	1.4130
2-3/4”	16	0.065	2.620	1.8640
2-3/4”	14	0.083	2.584	2.3640
2-3/4”	13	0.095	2.560	2.6940
2-3/4”	11	0.120	2.510	3.3710
2-3/4”	1/8	0.125	2.500	3.5040
2-3/4”	10	0.134	2.482	3.7440
2-3/4”	5/32	0.156	2.437	4.3220
2-3/4”	3/16	0.187	2.375	5.1440
2-3/4”	7/32	0.219	2.312	5.9200
2-3/4”	1/4	0.250	2.250	6.6750
2-3/4”	9/32	0.281	2.188	7.4100
2-3/4”	5/16	0.313	2.125	8.1470
2-3/4”	11/32	0.344	2.062	8.8390
2-3/4”	3/8	0.375	2.000	9.5120
2-3/4”	7/16	0.437	1.875	10.8200

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
2-3/4”	1/2	0.500	1.750	12.0200
2-3/4”	9/16	0.563	1.625	13.1500
2-3/4”	5/8	0.625	1.500	14.1800
2-3/4”	11/16	0.688	1.374	15.1500
2-3/4”	3/4	0.750	1.250	16.0200
2-3/4”	7/8	0.875	1.000	17.5200
2-3/4”	1	1.000	0.750	18.6900
2-7/8”	16	0.065	2.745	1.9510
2-7/8”	14	0.083	2.709	2.4750
2-7/8”	13	0.095	2.685	2.8210
2-7/8”	11	0.120	2.635	3.5310
2-7/8”	1/8	0.125	2.625	3.6710
2-7/8”	5/32	0.156	2.563	4.5300
2-7/8”	7	0.180	2.515	5.1810
2-7/8”	3/16	0.187	2.500	5.3950
2-7/8”	7/32	0.219	2.437	6.2120
2-7/8”	1/4	0.250	2.375	7.0090
2-7/8”	9/32	0.281	2.313	7.7850
2-7/8”	5/16	0.313	2.250	8.5640
2-7/8”	3/8	0.375	2.125	10.0100
2-7/8”	7/16	0.438	2.001	11.4000
2-7/8”	1/2	0.500	1.875	12.6800
2-7/8”	9/16	0.563	1.751	13.9000
2-7/8”	5/8	0.625	1.625	15.0200
2-7/8”	3/4	0.750	1.375	17.0200
3”	18	0.049	2.902	1.5440
3”	16	0.065	2.870	2.0370
3”	14	0.083	2.834	2.5860
3”	13	0.095	2.810	2.9470
3”	12	0.109	2.782	3.3650
3”	11	0.120	2.760	3.6910
3”	1/8	0.125	2.750	3.8380
3”	10	0.134	2.732	4.1020
3”	5/32	0.156	2.687	4.7380
3”	7	0.180	2.640	5.4210
3”	3/16	0.187	2.625	5.6460
3”	7/32	0.219	2.562	6.5050

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
3”	1/4	0.250	2.500	7.3430
3”	9/32	0.281	2.437	8.1600
3”	5/16	0.313	2.375	8.9820
3”	11/32	0.344	2.312	9.7580
3”	3/8	0.375	2.250	10.5100
3”	7/16	0.438	2.125	11.9800
3”	1/2	0.500	2.000	13.3500
3”	9/16	0.563	1.875	14.6500
3”	5/8	0.625	1.750	15.8500
3”	11/16	0.688	1.625	16.9900
3”	3/4	0.750	1.500	18.0200
3”	7/8	0.875	1.250	19.8600
3”	1	1.000	1.000	21.3600
3-1/16”	1/4	0.250	2.562	7.5110
3-1/16”	5/16	0.313	2.437	9.1930
3-1/16”	3/8	0.375	2.313	10.7700
3-1/8”	16	0.065	2.995	2.1240
3-1/8”	13	0.095	2.935	3.0740
3-1/8”	11	0.120	2.885	3.8510
3-1/8”	1/8	0.125	2.875	4.0050
3-1/8”	3/16	0.187	2.750	5.8970
3-1/8”	7/32	0.219	2.687	6.7970
3-1/8”	1/4	0.250	2.625	7.6760
3-1/8”	5/16	0.313	2.500	9.4000
3-1/8”	3/8	0.375	2.375	11.0100
3-1/8”	7/16	0.438	2.250	12.5700
3-1/8”	1/2	0.500	2.125	14.0200
3-1/8”	9/16	0.563	2.000	15.4000
3-1/8”	5/8	0.625	1.875	16.6900
3-1/8”	3/4	0.750	1.625	19.0200
3-1/8”	7/8	0.875	1.375	21.0300

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
3-1/4”	16	0.065	3.120	2.2110
3-1/4”	14	0.083	3.084	2.8070
3-1/4”	13	0.095	3.060	3.2010
3-1/4”	11	0.120	3.010	4.0110
3-1/4”	1/8	0.125	3.000	4.1720
3-1/4”	10	0.134	2.982	4.4590
3-1/4”	5/32	0.156	2.937	5.1550
3-1/4”	3/16	0.187	2.875	6.1480
3-1/4”	7/32	0.219	2.812	7.0890
3-1/4”	1/4	0.250	2.750	8.0100
3-1/4”	9/32	0.281	2.688	8.9100
3-1/4”	5/16	0.313	2.625	9.8180
3-1/4”	11/32	0.344	2.562	10.6800
3-1/4”	3/8	0.375	2.500	11.5100
3-1/4”	13/32	0.406	2.438	12.3300
3-1/4”	7/16	0.438	2.376	13.1500
3-1/4”	1/2	0.500	2.250	14.6900
3-1/4”	9/16	0.563	2.126	16.1600
3-1/4”	5/8	0.625	2.000	17.5200
3-1/4”	3/4	0.750	1.750	20.0300
3-1/4”	7/8	0.875	1.500	22.1900
3-1/4”	1	1.000	1.250	24.0300
3-3/8”	11	0.120	3.135	4.1720
3-3/8”	1/8	0.125	3.125	4.3390
3-3/8”	3/16	0.187	3.000	6.3990
3-3/8”	1/4	0.250	2.875	8.3440
3-3/8”	5/16	0.313	2.750	10.2400
3-3/8”	3/8	0.375	2.625	12.0200
3-3/8”	7/16	0.438	2.501	13.7400
3-3/8”	1/2	0.500	2.375	15.3500
3-3/8”	9/16	0.563	2.249	16.9100
3-3/8”	5/8	0.625	2.125	18.3600
3-3/8”	3/4	0.750	1.875	21.0300

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
3-1/2”	18	0.049	3.402	1.8060
3-1/2”	16	0.065	3.370	2.3850
3-1/2”	14	0.083	3.334	3.0290
3-1/2”	13	0.095	3.310	3.4550
3-1/2”	11	0.120	3.260	4.3320
3-1/2”	1/8	0.125	3.250	4.5060
3-1/2”	10	0.134	3.232	4.8170
3-1/2”	5/32	0.156	3.188	5.5710
3-1/2”	7	0.180	3.140	6.3820
3-1/2”	3/16	0.187	3.125	6.6500
3-1/2”	7/32	0.219	3.062	7.6740
3-1/2”	1/4	0.250	3.000	8.6780
3-1/2”	9/32	0.281	2.938	9.6600
3-1/2”	5/16	0.313	2.875	10.6500
3-1/2”	11/32	0.344	2.812	11.5900
3-1/2”	3/8	0.375	2.750	12.5200
3-1/2”	7/16	0.438	2.626	14.3200
3-1/2”	1/2	0.500	2.500	16.0200
3-1/2”	9/16	0.563	2.374	17.6600
3-1/2”	5/8	0.625	2.250	19.1900
3-1/2”	3/4	0.750	2.000	22.0300
3-1/2”	7/8	0.875	1.750	24.5300
3-1/2”	1	1.000	1.500	26.7000
3-5/8”	16	0.065	3.495	2.4710
3-5/8”	11	0.120	3.385	4.4920
3-5/8”	3/16	0.187	3.250	6.9010
3-5/8”	1/4	0.250	3.125	9.0110
3-5/8”	9/32	0.281	3.063	10.0400
3-5/8”	5/16	0.313	3.000	11.0700
3-5/8”	3/8	0.375	2.875	13.0200
3-5/8”	7/16	0.438	2.750	14.9100
3-5/8”	1/2	0.500	2.625	16.6900
3-5/8”	9/16	0.563	2.499	18.4100
3-5/8”	5/8	0.625	2.375	20.0300
3-5/8”	3/4	0.750	2.125	23.0300

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
3-3/4”	16	0.065	3.620	2.5580
3-3/4”	13	0.095	3.560	3.7080
3-3/4”	11	0.120	3.510	4.6520
3-3/4”	1/8	0.125	3.500	4.8390
3-3/4”	10	0.134	3.482	5.1750
3-3/4”	5/32	0.156	3.437	5.9880
3-3/4”	7	0.180	3.390	6.8630
3-3/4”	3/16	0.187	3.375	7.1520
3-3/4”	7/32	0.219	3.312	8.2590
3-3/4”	1/4	0.250	3.250	9.3450
3-3/4”	9/32	0.281	3.188	10.4100
3-3/4”	5/16	0.313	3.125	11.4900
3-3/4”	11/32	0.344	3.062	12.5100
3-3/4”	3/8	0.375	3.000	13.5200
3-3/4”	7/16	0.438	2.875	15.4900
3-3/4”	1/2	0.500	2.750	17.3600
3-3/4”	9/16	0.563	2.624	19.1600
3-3/4”	5/8	0.625	2.500	20.8600
3-3/4”	11/16	0.688	2.374	22.5000
3-3/4”	3/4	0.750	2.250	24.0300
3-3/4”	7/8	0.875	2.000	26.8700
3-3/4”	1	1.000	1.750	29.3700
3-7/8”	1/8	0.125	3.625	5.0060
3-7/8”	3/16	0.187	3.500	7.4030
3-7/8”	1/4	0.250	3.375	9.6790
3-7/8”	5/16	0.313	3.249	11.9100
3-7/8”	3/8	0.375	3.125	14.0200
3-7/8”	7/16	0.438	3.000	16.0800
3-7/8”	1/2	0.500	2.875	18.0200
3-7/8”	9/16	0.563	2.750	19.9100
3-7/8”	5/8	0.625	2.625	21.6900
3-7/8”	3/4	0.750	2.375	25.0300

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
4”	18	0.049	3.902	2.0680
4”	16	0.065	3.870	2.7320
4”	14	0.083	3.834	3.4750
4”	13	0.095	3.810	3.9620
4”	12	0.109	3.782	4.5300
4”	11	0.120	3.760	3.9730
4”	1/8	0.125	3.750	5.1730
4”	10	0.134	3.732	5.5330
4”	5/32	0.156	3.687	6.4040
4”	7	0.180	3.640	7.3440
4”	3/16	0.187	3.625	7.6540
4”	7/32	0.219	3.562	8.8430
4”	1/4	0.250	3.500	10.0100
4”	9/32	0.281	3.438	11.1600
4”	5/16	0.313	3.375	12.3300
4”	3/8	0.375	3.250	14.5200
4”	7/16	0.438	3.126	16.6600
4”	1/2	0.500	3.000	18.6900
4”	9/16	0.563	2.875	20.6700
4”	5/8	0.625	2.750	22.5300
4”	11/16	0.688	2.624	24.3400
4”	3/4	0.750	2.500	26.0300
4”	7/8	0.875	2.250	29.2000
4”	1	1.000	2.000	32.0400
4”	1-1/8	1.125	1.750	34.5400
4”	1-1/4	1.250	1.500	36.7100
4-1/8”	3/16	0.187	3.751	7.9050
4-1/8”	1/4	0.250	3.625	10.3500
4-1/8”	5/16	0.313	3.500	12.7400
4-1/8”	3/8	0.375	3.375	15.0200
4-1/8”	7/16	0.438	3.249	17.2500
4-1/8”	1/2	0.500	3.125	19.3600
4-1/8”	9/16	0.563	2.999	21.4200
4-1/8”	5/8	0.625	2.875	23.3600

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
4-1/4”	16	0.065	4.120	2.9050
4-1/4”	13	0.095	4.060	4.2160
4-1/4”	11	0.120	4.010	5.2930
4-1/4”	1/8	0.125	4.000	5.5070
4-1/4”	10	0.134	3.982	5.8900
4-1/4”	5/32	0.156	3.937	6.8210
4-1/4”	3/16	0.187	3.875	8.1560
4-1/4”	1/4	0.250	3.750	10.6800
4-1/4”	5/16	0.313	3.625	13.1600
4-1/4”	11/32	0.344	3.562	14.3500
4-1/4”	3/8	0.375	3.500	15.5200
4-1/4”	7/16	0.438	3.375	17.8300
4-1/4”	1/2	0.500	3.250	20.0300
4-1/4”	9/16	0.563	3.125	22.1700
4-1/4”	5/8	0.625	3.000	24.2000
4-1/4”	11/16	0.688	2.874	26.1700
4-1/4”	3/4	0.750	2.750	28.0400
4-1/4”	7/8	0.875	2.500	31.5400
4-1/4”	1	1.000	2.250	34.7100
4-1/4”	1-1/8	1.125	2.000	37.5500
4-1/4”	1-1/4	1.250	1.750	40.0500
4-3/8”	3/16	0.187	4.001	8.4070
4-3/8”	1/4	0.250	3.875	11.0100
4-3/8”	5/16	0.313	3.749	13.5800
4-3/8”	3/8	0.375	3.625	16.0200
4-3/8”	7/16	0.438	3.500	18.4200
4-3/8”	1/2	0.500	3.375	20.6900
4-3/8”	5/8	0.625	3.125	25.0300
4-3/8”	3/4	0.750	2.875	29.0400
4-1/2”	16	0.065	4.370	3.0790
4-1/2”	14	0.083	4.334	3.9150
4-1/2”	13	0.095	4.310	4.4690
4-1/2”	11	0.120	4.260	5.6130
4-1/2”	1/8	0.125	4.250	5.8410
4-1/2”	10	0.134	4.232	6.2480
4-1/2”	5/32	0.156	4.188	7.2370
4-1/2”	7	0.180	4.140	8.3050

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
4-1/2”	3/16	0.187	4.125	8.6580
4-1/2”	7/32	0.219	4.062	10.0100
4-1/2”	1/4	0.250	4.000	11.3500
4-1/2”	9/32	0.281	3.938	12.6600
4-1/2”	5/16	0.313	3.875	14.000
4-1/2”	3/8	0.375	3.750	16.5200
4-1/2”	7/16	0.438	3.624	19.0000
4-1/2”	1/2	0.500	3.500	21.3600
4-1/2”	9/16	0.563	3.375	23.6700
4-1/2”	5/8	0.625	3.250	25.8700
4-1/2”	11/16	0.688	3.125	28.0100
4-1/2”	3/4	0.750	3.000	30.0400
4-1/2”	7/8	0.875	2.750	33.8800
4-1/2”	1	1.000	2.500	37.3800
4-1/2”	1-1/8	1.125	2.250	40.5500
4-1/2”	1-1/4	1.250	2.000	43.3900
4-1/2”	1-1/2	1.500	1.500	48.0600
4-5/8”	3/16	0.187	4.251	8.9090
4-5/8”	1/4	0.250	4.125	11.6800
4-5/8”	5/16	0.313	3.999	14.4100
4-5/8”	3/8	0.375	3.875	17.0200
4-5/8”	7/16	0.438	3.749	19.5900
4-5/8”	1/2	0.500	3.625	22.0300
4-5/8”	5/8	0.625	3.375	26.7000
4-5/8”	3/4	0.750	3.125	31.0400
4-3/4”	16	0.065	4.620	3.2520
4-3/4”	11	0.120	4.510	5.9340
4-3/4”	1/8	0.125	4.500	6.1740
4-3/4”	3/16	0.187	4.376	9.1600
4-3/4”	1/4	0.250	4.250	12.0200
4-3/4”	5/16	0.313	4.125	14.8300
4-3/4”	3/8	0.375	4.000	17.5200
4-3/4”	0.385	0.385	3.980	17.9500
4-3/4”	7/16	0.438	3.874	20.1700

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
4-3/4”	1/2	0.500	3.750	22.7000
4-3/4”	9/16	0.563	3.625	25.1800
4-3/4”	5/8	0.625	3.500	27.5300
4-3/4”	3/4	0.750	3.250	32.0400
4-3/4”	7/8	0.875	3.000	36.2100
4-3/4”	1	1.000	2.750	40.0500
4-3/4”	1-1/4	1.250	2.250	46.7300
4-7/8”	3/16	0.188	4.499	9.4110
4-7/8”	1/4	0.250	4.375	12.3500
4-7/8”	3/8	0.375	4.125	18.0200
4-7/8”	7/16	0.438	3.999	20.7600
4-7/8”	1/2	0.500	3.875	23.3600
4-7/8”	3/4	0.750	3.375	33.0400
5”	16	0.065	4.870	3.4260
5”	14	0.083	4.834	4.3590
5”	11	0.120	4.760	6.2540
5”	1/8	0.125	4.750	6.5080
5”	5/32	0.156	4.687	8.0700
5”	7	0.180	4.640	9.2660
5”	3/16	0.187	4.625	9.6620
5”	1/4	0.250	4.500	12.6800
5”	5/16	0.313	4.375	15.6700
5”	3/8	0.375	4.250	18.5200
5”	7/16	0.438	4.125	21.3400
5”	1/2	0.500	4.000	24.0300
5”	9/16	0.563	3.876	26.6800
5”	5/8	0.625	3.750	29.2000
5”	3/4	0.750	3.500	34.0400
5”	7/8	0.875	3.250	38.5500
5”	1	1.000	3.000	42.7200
5”	1-1/8	1.125	2.750	46.5600
5”	1-1/4	1.250	2.500	50.0600
5”	1-1/2	1.500	2.000	56.0700
5-1/8”	5/16	0.313	4.500	16.0900
5-1/8”	3/8	0.375	4.375	19.0200
5-1/8”	1/2	0.500	4.125	24.7000
5-1/8”	5/8	0.625	3.875	30.0400
5-1/8”	1	1.000	3.125	44.0600

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
5-1/4”	11	0.120	5.010	6.5750
5-1/4”	1/8	0.125	5.000	6.8420
5-1/4”	3/16	0.187	4.875	10.1600
5-1/4”	1/4	0.250	4.750	13.3500
5-1/4”	5/16	0.313	4.625	16.5000
5-1/4”	3/8	0.375	4.500	19.5200
5-1/4”	1/2	0.500	4.250	25.3700
5-1/4”	5/8	0.625	4.000	30.8700
5-1/4”	3/4	0.750	3.750	36.0500
5-1/4”	7/8	0.875	3.500	40.8800
5-1/4”	1	1.000	3.250	45.3900
5-1/4”	1-1/8	1.125	3.000	49.5600
5-1/4”	1-1/4	1.250	2.750	53.4000
5-3/8”	3/16	0.188	5.000	10.4100
5-3/8”	1/4	0.250	4.875	13.6800
5-1/2”	16	0.065	5.370	3.7730
5-1/2”	11	0.120	5.260	6.8950
5-1/2”	1/8	0.125	5.250	7.1760
5-1/2”	3/16	0.187	5.125	10.6700
5-1/2”	1/4	0.250	5.000	14.0200
5-1/2”	5/16	0.313	4.875	17.3400
5-1/2”	3/8	0.375	4.750	20.5300
5-1/2”	7/16	0.438	4.624	23.6800
5-1/2”	1/2	0.500	4.500	26.7000
5-1/2”	5/8	0.625	4.250	32.5400
5-1/2”	3/4	0.750	4.000	38.0500
5-1/2”	7/8	0.875	3.750	43.2200
5-1/2”	1	1.000	3.500	48.0600
5-/12”	1-1/4	1.250	3.000	56.7400
5-1/2”	1-1/2	1.500	2.500	64.0800
5-5/8”	5/16	0.313	5.001	17.7600
5-5/8”	3/8	0.375	4.875	21.0300
5-5/8”	1/2	0.500	4.623	27.3700
5-5/8”	5/8	0.625	4.375	33.3800

Round Mechanical Tube

O.D.	G.A.	Wall Dec.	I.D.	WT / FT
5-3/4”	1/8	0.125	5.500	7.5100
5-3/4”	3/16	0.187	5.375	11.1700
5-3/4”	1/4	0.250	5.250	14.6900
5-3/4”	5/16	0.313	5.125	18.1800
5-3/4”	3/8	0.375	5.000	21.5300
5-3/4”	1/2	0.500	4.750	28.0400
5-3/4”	5/8	0.625	4.500	34.2100
5-3/4”	3/4	0.750	4.250	40.0500
5-3/4”	7/8	0.875	4.000	45.5600
5-3/4”	1	1.000	3.750	50.7300
6”	16	0.065	5.870	4.1200
6”	14	0.083	5.834	5.2450
6”	11	0.120	5.760	7.5360
6”	1/8	0.125	5.750	7.8430
6”	10	0.134	5.732	8.3950
6”	7	0.180	5.640	11.1900
6”	3/16	0.187	5.625	11.6700
6”	1/4	0.250	5.500	15.3500
6”	5/16	0.313	5.374	19.0100
6”	3/8	0.375	5.250	22.5300
6”	7/16	0.438	2.125	26.0200
6”	1/2	0.500	5.000	29.3700
6”	9/16	0.562	4.876	32.6900
6”	5/8	0.625	4.750	35.8800
6”	3/4	0.750	4.500	42.0500
6”	7/8	0.875	4.250	47.8900
6”	1	1.000	4.000	53.4000
6”	1-1/4	1.250	3.500	63.4100
6”	1-1/2	1.500	3.000	72.0900

Expanded Metal Flattened

ASTM 569 / 569 M Carbon Steel

Flattened

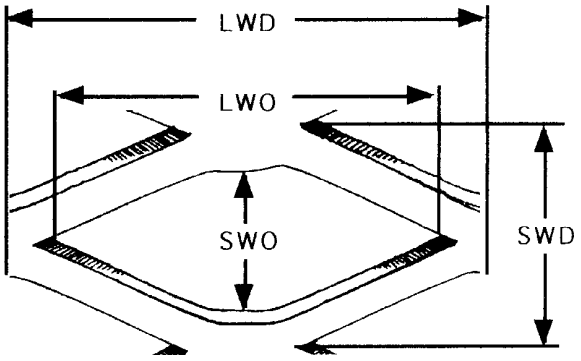
Style	Size	WT / SQ FT	WT / EA	Size of Openings In Inches		Overall Thickness In Inches	Approx. Open Area (%)
				SWO	LWO		
1/4" #20	48 x 96	0.830	26.56	0.084	0.715	0.030	47
1/2" #13	48 x 96	1.400	44.80	0.265	1.00	0.070	57
1/2" #13	48 x 120	1.400	56.00	0.265	1.00	0.070	57
1/2" #16	48 x 96	0.820	26.24	0.312	1.00	0.050	60
1/2" #16	60 x 120	0.820	41.00	0.312	1.00	0.050	60
1/2" #18	48 x 96	0.660	21.12	0.312	1.00	0.039	69
1/2" #18	48 X 120	0.660	26.40	0.312	1.00	0.039	69
3/4" #9	48 x 96	1.710	54.72	0.563	1.688	0.120	63
3/4" #9	48 x 120	1.710	68.40	0.563	1.688	0.120	63
3/4" #9	72 x 96	1.710	82.08	0.563	1.688	0.120	63
3/4" #9	72 x 120	1.710	102.60	0.563	1.688	0.120	63
3/4" #13	48 x 96	0.750	24.00	0.688	1.781	0.070	73
3/4" #13	48 x 120	0.750	30.00	0.688	1.781	0.070	73
3/4" #13	60 X 120	0.750	37.50	0.688	1.781	0.070	73
3/4" #16	48 X 96	0.510	16.32	0.750	1.750	0.048	75
3/4" #16	48 X 120	0.510	20.40	0.750	1.750	0.048	75
1-1/2" #9	48 x 96	1.140	36.48	1.000	2.563	0.110	77
1-1/2" #9	48 X 120	1.140	45.60	1.000	2.563	0.110	77
1-1/2" #13	48 X 96	0.570	18.24	1.063	2.750	0.070	80

Flattened Expanded Metal

First number – nominal width of diamond
Second number – Approximate gauge of sheet before flattening. Materials will measure slightly less than gauge designation due to this fact.

Width – The width of the sheet is measured parallel to the short way of the diamond (SWD).
Length – The length of the sheet is measured parallel to the long way of the diamond (LWD).

SWD = Short Way of Diamond
LWD = Long Way of Diamond
SWO = Short Way of Opening
LWO = Long Way of Opening



Expanded Metal Standard

ASTM 569 / 569 M Carbon Steel

Standard

Style	Size	WT / SQ FT	WT / EA	Size of Openings In Inches SWO	Size of Openings In Inches LWO	Overall Thickness In Inches	Approx. Open Area (%)
1/4" #20	48 x 96	0.860	27.52	0.125	0.718	0.135	45
1/2" #13	48 x 96	1.470	47.04	0.312	0.938	0.204	58
1/2" #13	48 x 120	1.470	58.80	0.312	0.938	0.204	58
1/2" #16	48 x 96	0.860	27.52	0.375	0.938	0.175	71
3/4" #9	48 x 96	1.800	57.60	0.688	1.562	0.312	66
3/4" #9	48 x 120	1.800	72.00	0.688	1.562	0.312	66
3/4" #9	60 x 120	1.800	90.00	0.688	1.562	0.312	66
3/4" #9	72 x 120	1.800	108.00	0.688	1.562	0.312	66
3/4" #13	48 x 96	0.800	25.60	0.750	1.688	0.205	78
3/4" #13	48 x 120	0.800	32.00	0.750	1.688	0.205	78
1-1/2" #6	48 x 96	2.500	80.00	1.110	2.313	0.433	63
1-1/2" #9	48 x 96	1.200	38.40	1.125	2.375	0.312	75
1-1/2" #9	48 x 120	1.200	48.00	1.125	2.375	0.312	75
1-1/2" #13	72 x 120	0.600	36.00	1.188	2.500	0.242	86
1-1/2" #16	48 x 96	0.400	12.80	1.250	2.625	0.230	89

Expanded Metal – Expanded metal is available in two types – Standard (rough or raised surface) and Flattened (flat surface). Aside from its light weight, expanded metal has other advantages such as being open to let heat, air, and liquids through, as well as allowing visibility. Even though expanded metal is most commonly produced from carbon steel it is also available in aluminum, stainless, and hot dipped galvanized.

Standard Expanded Metal

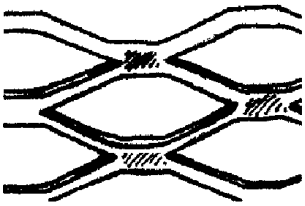
First Number = Nominal width of diamond in inches.

Second Number = Approximate gauge of sheet.

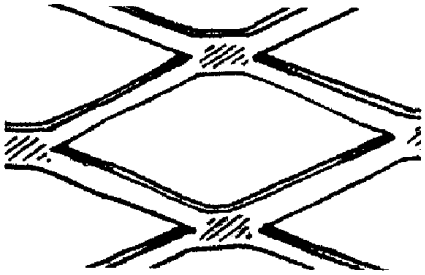
When Ordering Expanded Metal Please Specify:

(1) Number of sheets required
(2) Nominal width of diamond (SWD)
(3) Thickness or gauge of material
(4) Standard or Flattened
(5) Type of Metal: Carbon steel, stainless steel, galvanized, or aluminum
(6) Size of sheet required, listing SWD first and then LWD. EXAMPLE: 4' SWD x 8' LWD

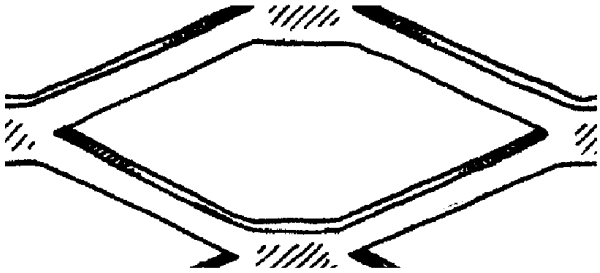
Actual Size Drawings



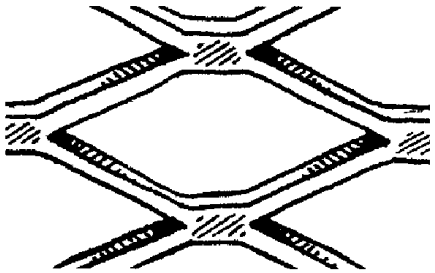
1/2" #18 Flat



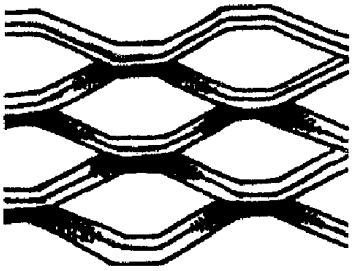
3/4" #16 Flat



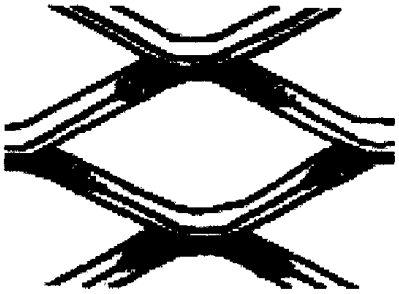
1-1/2" #9 Flat



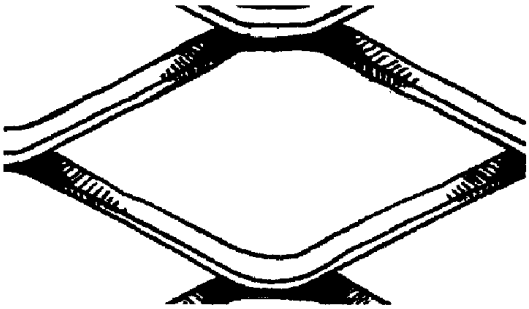
3/4" #13 Flat



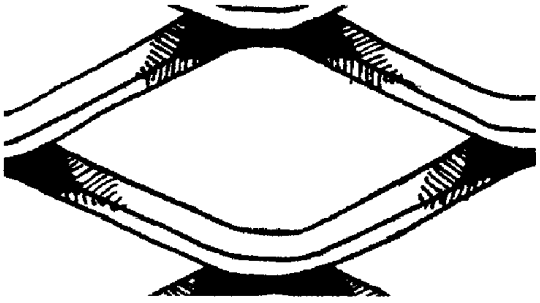
1/2" #13 Std



3/4" #9 Std



1-1/2" #9 Std



1-1/2" #6 Std

Grating

Bar Grating

Non Serrated – Unpainted

Style	Size	WT / SQ FT	WT / EA
3/16 x 1	24 x 240	7.100	284.00
3/16 x 1	36 x 240	7.100	426.00
3/16 x 1-1/2	24 x 240	10.300	412.00
3/16 x 1-1/2	36 x 240	10.300	618.00

Bar Grating

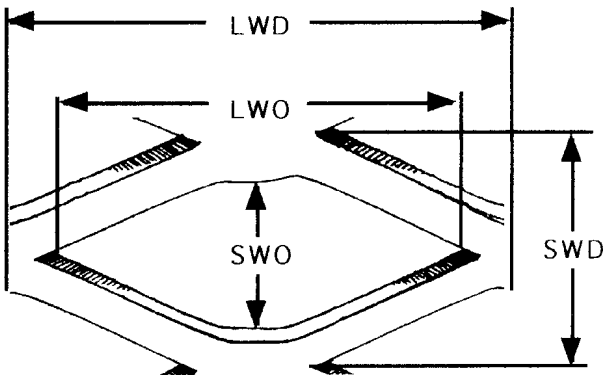
Serrated – Unpainted

Style	Size	WT / SQ FT	WT / EA
3/16 x 1-1/4	36 x 240	8.700	522.00

Catwalk Grating

Style	Size	WT / SQ FT	WT / EA	Size of Openings In Inches SWO	Size of Openings In Inches LWO	Overall Thickness In Inches	Approx. Open Area (%)
3#	48 x 96	3.000	96.00	0.940	3.440	0.540	73
3#	48 x 120	3.000	120.00	0.940	3.440	0.540	73
3#	60 x 120	3.000	150.00	0.940	3.440	0.540	73
3#	72 x 120	3.000	180.00	0.940	3.440	0.540	73
4#	48 x 96	4.000	128.00	0.940	3.440	0.618	65
4#	48 x 120	4.000	160.00	0.940	3.440	0.618	65
4#	60 x 120	4.000	200.00	0.940	3.440	0.618	65
6-1/4	48 x 96	6.250	200.00	0.813	3.380	0.715	55
6-1/4	72 x 96	6.250	300.00	0.813	3.380	0.715	55

SWD = Short Way of Diamond
LWD = Long Way of Diamond
SWO = Short Way of Opening
LWO = Long Way of Opening



Galvanized Grip Strut — Plank (Legs go in)

Catalog Number	Width In Inches	Channel Depth In Inches	Material Gauge	WT. LB. per Lin. Ft.	Length In Feet
21512	4-3/4	1-1/2	12 ga.	3.13	12
22012	4-3/4	2	12 ga.	3.49	12
31514	7	1-1/2	14 ga.	2.84	12
32012	7	2	12 ga.	4.61	12
41514	9-1/2	1-1/2	14 ga.	3.47	12
41512	9-1/2	1-1/2	12 ga.	4.88	12
42014	9-1/2	2	14 ga.	3.72	12
42012	9-1/2	2	12 ga.	5.24	12
51514	11-3/4	1-1/2	14 ga.	4.03	12
51512	11-3/4	1-1/2	12 ga.	5.72	10
51512	11-3/4	1-1/2	12 ga.	5.72	12
52014	11-3/4	2	14 ga.	4.30	12
52012	11-3/4	2	12 ga.	6.20	10
52012	11-3/4	2	12 ga.	6.20	12
81514	18-3/4	1-1/2	14 ga.	5.84	10
82014	18-3/4	2	14 ga.	6.10	12
82012	18-3/4	2	12 ga.	8.60	12
102014	24	2	14 ga.	7.40	10
102012	24	2	12 ga.	10.42	12
82010	36	2	10 ga.	20.23	10

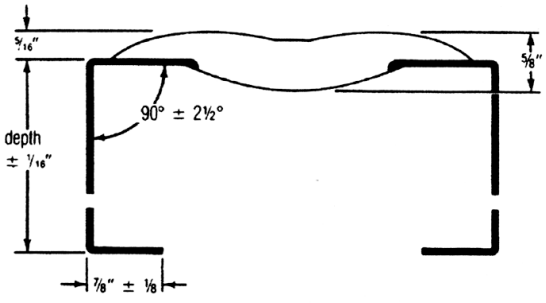
H.R. P&O Grip Strut — Plank (Legs go down and in)

Catalog Number	Width In Inches	Channel Depth In Inches	Material Gauge	WT. LB. per Lin. Ft.	Length In Feet
41514-B	9-1/2	1-1/2	14 ga.	3.58	12
51512-B	11-3/4	1-1/2	12 ga.	5.60	12

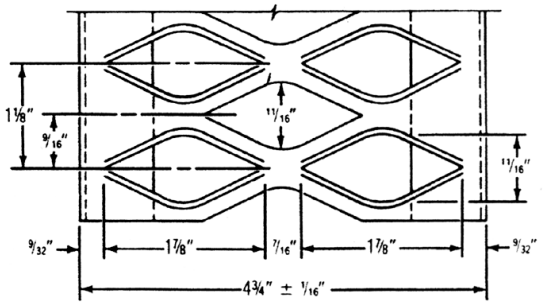
Galvanized Grip Strut — Walkway (Legs go up and out)

Catalog Number	Width In Inches	Channel Depth In Inches	Material Gauge	WT. LB. per Lin. Ft.	Length In Feet
104514-U	24	4-1/2	14 ga.	8.80	10
104512-U	24	4-1/2	12 ga.	12.41	12

Grip Strut Plank
End View



Grip Strut Plank
Top View



Stainless

Stainless Channel

Type 304 Annealed and Pickled

Size	Length	WT / FT	WT / Bar
3 x 1-1/2 x 1/4	20’ rl	4.750	95.00
4 x 1-3/4 x 1/4	20’ rl	6.690	133.80

Stainless Squares

Type 304 Annealed Cold Drawn

Size	Length	WT / FT	WT / Bar
1/4”	12’ rl	0.213	2.56
5/16”	12’ rl	0.332	3.98
3/8”	12’ rl	0.478	5.74
7/16”	12’ rl	0.651	7.81
1/2”	12’ rl	0.850	10.20
3/4”	12’ rl	1.913	22.96
1”	12’ rl	3.400	40.80
1-1/4”	12’ rl	5.313	63.76
1-1/2”	12’ rl	7.650	91.80

Stainless Angles

Type 304 Hot Rolled / Annealed and Pickled

Size	Length	WT / FT	WT / Bar
3/4 x 3/4 x 1/8	20’ rl	0.590	11.80
1 x 1 x 1/8	20’ rl	0.800	16.00
1 x 1 x 3/16	20’ rl	1.160	23.20
1 x 1 x 1/4	20’ rl	1.490	29.80
1-1/4 x 1-1/4 x 1/8	20’ rl	1.010	20.20
1-1/4 x 1-1/4 x 3/16	20’ rl	1.480	29.60
1-1/4 x 1-1/4 x 1/4	20’ rl	1.920	38.40
1-1/2 x 1-1/2 x 1/8	20’ rl	1.230	24.60
1-1/2 x 1-1/2 x 3/16	20’ rl	1.800	36.00
1-1/2 x 1-1/2 x 1/4	20’ rl	2.340	46.80
2 x 2 x 1/8	20’ rl	1.650	33.00
2 x 2 x 3/16	20’ rl	2.440	48.80
2 x 2 x 1/4	20’ rl	3.190	63.80
2 x 2 x 3/8	20’ rl	4.700	94.00
2-1/2 x 2-1/2 x 3/16	20’ rl	3.070	61.40
2-1/2 x 2-1/2 x 1/4	20’ rl	4.100	82.00

Stainless Angles

Type 304 Hot Rolled / Annealed and Pickled

Size	Length	WT / FT	WT / Bar
3 x 3 x 1/4	20’ rl	4.900	98.00
3 x 3 x 3/8	20’ rl	7.200	144.00
4 x 4 x 1/4	20’ rl	6.600	132.00

Stainless Round

Type 304 Annealed

Size	Length	WT / FT	WT / Bar
1/8”	12’ rl	0.042	0.50
3/16”	12’ rl	0.094	1.13
1/4”	12’ rl	0.167	2.00
5/16”	12’ rl	0.261	3.13
3/8”	12’ rl	0.376	4.51
7/16”	12’ rl	0.511	6.13
1/2”	12’ rl	0.668	8.02
5/8”	12’ rl	1.043	12.52
3/4”	12’ rl	1.502	18.02
7/8”	12’ rl	2.045	24.54
1”	12’ rl	2.670	32.04
1-1/8”	12’ rl	3.380	40.56
1-3/16”	12’ rl	3.766	45.19
1-1/4”	12’ rl	4.172	50.06
1-3/8”	12’ rl	5.050	60.60
1-7/16”	12’ rl	5.518	66.22
1-1/2”	12’ rl	6.008	72.10
1-5/8”	12’ rl	7.052	84.62
1-3/4”	12’ rl	8.178	98.14
1-15/16”	12’ rl	10.020	120.24
2”	12’ rl	10.680	128.16
2-3/16”	12’ rl	12.780	153.36
2-1/4”	12’ rl	13.520	162.24
2-7/16”	12’ rl	15.870	190.44
2-1/2”	12’ rl	16.690	200.28
3”	12’ rl	24.030	288.36

Stainless

Stainless Strips

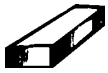
Type 304 Hot Rolled / Annealed and Pickled

Size	Length	WT / FT	WT / Bar
1/8 x 1/2	12’	0.213	2.56
1/8 x 3/4	12’	0.319	3.83
1/8 x 1	10’	0.425	4.25
1/8 x 1-1/4	10’	0.531	5.31
1/8 x 1-1/2	10’	0.638	6.38
1/8 x 2	10’	0.850	8.50
1/8 x 2-1/2	10’	1.063	10.63
1/8 x 3	10’	1.275	12.75
1/8 x 4	10’	1.700	17.00
1/8 x 5	10’	2.125	21.25
1/8 x 6	10’	2.550	25.50
3/16 x 1/2	12’	0.319	3.83
3/16 x 3/4	12’	0.536	6.43
3/16 x 1	10’	0.715	7.15
3/16 x 1-1/4	10’	0.893	8.93
3/16 x 1-1/2	10’	1.072	10.72
3/16 x 1-3/4	10’	1.251	12.51
3/16 x 2	10’	1.430	14.30
3/16 x 3	10’	2.140	21.40
3/16 x 3-1/2	10’	2.502	25.02
3/16 x 4	10’	2.860	28.60
3/16 x 6	10’	4.290	42.90

Stainless Flats

Type 304 Hot Rolled /Annealed and Pickled

Size	Length	WT / FT	WT / Bar
1/4 x 3/4	12’	0.638	7.66
1/4 x 1	10’	0.930	9.30
1/4 x 1-1/4	10’	1.163	11.63
1/4 x 1-1/2	10’	1.395	13.95
1/4 x 2	10’	1.860	18.60
1/4 x 2-1/2	10’	2.325	23.25
1/4 x 3	10’	2.791	27.91
1/4 x 4	10’	3.721	37.21
1/4 x 5	10’	4.651	46.51
1/4 x 6	10’	5.581	55.81



Stainless Flats

Type 304 Hot Rolled / Annealed and Pickled

Size	Length	WT / FT	WT / Bar
3/8 x 3/4	12’	0.956	11.47
3/8 x 1	12’	1.380	16.56
3/8 x 1-1/4	12’	1.594	19.13
3/8 x 1-1/2	12’	2.060	24.72
3/8 x 2	12’	2.750	33.00
3/8 x 2-1/2	12’	3.438	41.26
3/8 x 3	12’	4.125	49.50
3/8 x 4	12’	5.500	66.00
3/8 x 5	12’	6.875	82.50
3/8 x 6	12’	8.250	99.00
1/2 x 3/4	12’	1.275	15.30
1/2 x 1	12’	1.800	21.60
1/2 x 1-1/2	12’	2.708	32.50
1/2 x 2	12’	3.610	43.32
1/2 x 2-1/2	12’	4.512	54.14
1/2 x 3	12’	5.420	65.04
1/2 x 4	12’	7.225	86.70
1/2 x 6	12’	10.830	129.96
3/4 x 2	12’	5.100	61.20
1-1/4 x 3	12’	12.760	153.12

Stainless Pipe

Type 304 Cold Finished / Annealed and Pickled

Sch. 40

Size	Length	O.D. In Inches	I.D. In Inches	Wall Thickness	WT / FT	WT / Bar
1/8”	20’ rl	0.405	0.269	0.068	0.240	4.80
1/4”	20’ rl	0.540	0.364	0.088	0.420	8.40
3/8”	20’ rl	0.675	0.493	0.091	0.568	11.36
1/2”	20’ rl	0.840	0.622	0.109	0.850	17.00
3/4”	20’ rl	1.050	0.824	0.113	1.130	22.60
1”	20’ rl	1.315	1.049	0.133	1.680	33.60
1-1/4”	20 rl	1.660	1.380	0.140	2.270	45.40
1-1/2”	20’ rl	1.900	1.610	0.145	2.720	54.40
2”	20’ rl	2.375	2.067	0.154	3.650	73.00
2-1/2”	20’ rl	2.875	2.469	0.203	5.800	116.00
3”	20’ rl	3.500	3.068	0.216	7.580	151.60
4”	20’ rl	4.500	4.026	0.237	10.790	215.80

Stainless

Stainless Square Tube

Mill Finish

Size	Length	WT / FT	WT / Bar
3/4 x 3/4 x 16 ga.	20' rl	0.606	12.12
1 x 1 x 16 ga.	20' rl	0.827	16.54
1 x 1 x 14 ga.	20' rl	1.035	20.70
1 x 1 x 11 ga.	20' rl	1.436	28.72
1-1/4 x 1-1/4 x 16 ga.	20' rl	1.048	20.96
1-1/4 x 1-1/4 x 14 ga.	20' rl	1.317	26.34
1-1/4 x 1-1/4 x 11 ga.	20' rl	1.844	36.88
1-1/2 x 1-1/2 x 16 ga.	20' rl	1.269	25.38
1-1/2 x 1-1/2 x 14 ga.	20' rl	1.600	32.00
1-1/2 x 1-1/2 x 11 ga.	20' rl	2.255	45.10
1-1/2 x 1-1/2 x 3/16	20' rl	3.630	72.60
2 x 2 x 16 ga.	20' rl	1.710	34.20
2 x 2 x 11 ga.	20' rl	3.068	61.36
2 x 2 x 3/16	20' rl	4.460	89.20
2 x 2 x 1/4	20' rl	6.010	120.20
3 x 3 x 11 ga.	20' rl	4.700	94.00
3 x 3 x 3/16	20' rl	6.900	138.00
3 x 3 x 1/4	20' rl	10.000	200.00
4 x 4 x 11 ga.	20' rl	6.260	125.20
4 x 4 x 3/16	20' rl	9.270	185.40
4 x 4 x 1/4	20' rl	12.680	253.60

Stainless Rectangular Tube

Mill Finish

Size	Length	WT / FT	WT / Bar
1 x 2 x 11 ga.	20' rl	2.252	45.04
2 x 3 x 11 ga.	20' rl	3.884	77.68
2 x 3 x 3/16	20' rl	5.679	113.58
2 x 4 x 11 ga.	20' rl	4.700	94.00
2 x 4 x 3/16	20' rl	6.900	138.00
2 x 4 x 1/4	20' rl	10.000	200.00

Square Tube

Polished Finish

Size	Length	WT / FT	WT / Bar
1 x 1 x 11 ga.	20' rl	1.436	28.72
1-1/2 x 1-1/2 x 11 ga.	20' rl	2.255	45.10

Stainless Expanded Metal

Type 304 – Flattened

Style	Size	WT / FT	WT / Bar
1/2 #13 FL SS	48 x 96	1.780	56.96
3/4 #13 FL SS	48 x 96	0.860	27.52
3/4 #9 FL SS	48 x 96	1.950	62.40
1-1/2 #13 FL SS	48 x 96	0.650	20.80
1-1/2 #9 FL SS	48 x 96	1.310	41.92

Stainless Sheets Type 304

Stainless Sheets

No. 2B Finish

Gauge	Size	WT / FT	WT / Sheet
26 ga.	48 x 120	0.756	30.24
24 ga.	36 x 96	1.008	24.19
24 ga.	48 x 96	1.008	32.26
24 ga.	48 x 120	1.008	40.32
22 ga.	36 x 96	1.260	30.24
22 ga.	48 x 96	1.260	40.32
22 ga.	48 x 120	1.260	50.40
20 ga.	48 x 96	1.512	48.38
20 ga.	48 x 120	1.512	60.48
18 ga.	36 x 96	2.016	48.38
18 ga.	48 x 96	2.016	64.51
18 ga.	48 x 120	2.016	80.64
18 ga.	60 x 120	2.016	100.80
16 ga.	48 x 96	2.520	80.64
16 ga.	48 x 120	2.520	100.80
16 ga.	60 x 120	2.520	126.00
14 ga.	36 x 96	3.150	75.60
14 ga.	36 x 120	3.150	94.50
14 ga.	48 x 96	3.150	100.80
14 ga.	48 x 120	3.150	126.00
14 ga.	60 x 96	3.150	126.00
14 ga.	60 x 120	3.150	157.50
12 ga.	36 x 120	4.410	132.30
12 ga.	48 x 96	4.410	141.12
12 ga.	48 x 120	4.410	176.40
12 ga.	60 x 120	4.410	220.50
12 ga.	60 x 144	4.410	264.60
11 ga.	48 x 120	5.040	201.60

Type 304 – Good formability, weldability and corrosion resistance. Widely used in food processing as well as in chemical corrosive environments.

Stainless Sheets

No. 2B Finish

Gauge	Size	WT / FT	WT / Sheet
10 ga.	48 x 96	5.670	181.44
10 ga.	48 x 120	5.670	226.80
10 ga.	48 x 144	5.670	272.16
10 ga.	60 x 96	5.670	226.80
10 ga.	60 x 120	5.670	283.50
7 ga.	48 x 96	7.854	251.33
7 ga.	48 x 120	7.854	314.16
7 ga.	60 x 120	7.854	392.70

Stainless Sheets

#4 Polish Sheets

Gauge	Size	WT / FT	WT / Sheet
24 ga.	48 x 120	1.008	40.32
22 ga.	48 x 120	1.260	50.40
20 ga.	48 x 120	1.512	60.48
18 ga.	48 x 120	2.016	80.64
16 ga.	48 x 120	2.520	100.80
14 ga.	36 x 120	3.150	94.50
14 ga.	48 x 120	3.150	126.00
12 ga.	48 x 120	4.410	176.40
12 ga.	60 x 120	4.410	220.50

Stainless Sheets

#1 Mill Finish

Gauge	Size	WT / FT	WT / Sheet
11 ga.	48 x 120	5.040	201.60

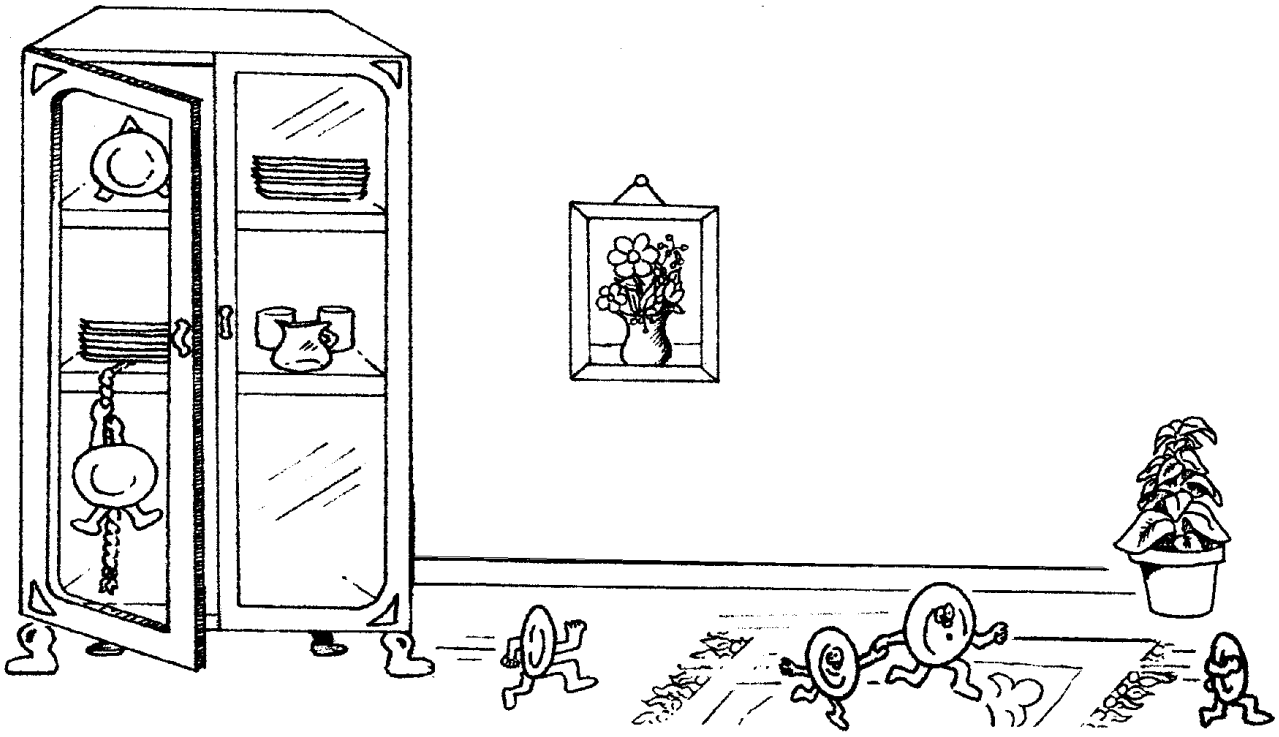
Standard Stainless Finishes

#1 – Hot rolled, annealed and pickled
#2B – Annealed, pickled and bright cold rolled
#4 – Standard polish – PVC coated

Stainless Plates

Hot Rolled, Annealed & Pickled
Type 304 #1 Mill Finish

Thickness	Size	WT / FT	WT / Sheet
3/16" PL	48 x 96	8.579	274.53
3/16" PL	48 x 120	8.579	343.16
3/16" PL	48 x 144	8.579	411.79
3/16" PL	60 x 96	8.579	343.16
3/16" PL	60 x 120	8.579	428.95
3/16" PL	60 x 144	8.579	514.74
1/4" PL	48 x 96	11.162	357.18
1/4" PL	48 x 120	11.162	446.48
1/4" PL	48 x 144	11.162	535.78
1/4" PL	60 x 96	11.162	446.48
1/4" PL	60 x 120	11.162	558.10
1/4" PL	60 x 144	11.162	669.72
3/8" PL	48 x 96	16.500	528.00
3/8" PL	48 x 120	16.500	660.00
3/8" PL	48 x 144	16.500	792.00
3/8" PL	60 x 144	16.500	990.00
1/2" PL	48 x 120	21.660	866.40
1/2" PL	60 x 144	21.660	1299.60
1/2" PL	61-3/4 x 144	21.660	1337.51



Aluminum

Aluminum I Beams 6061-T6 AS

Size	Length	WT / FT	WT / Length
3 x 2.33 x 0.17	25’	1.963	49.08
4 x 2.66 x 0.19	25’	2.644	66.10
6 x 3.33 x 0.23	25’	4.302	107.55

Aluminum Channel 6061-T6 AA

Size	Length	WT / FT	WT / Length
2 x 1 x 0.130	25’	0.577	14.43
2 x 1-1/4 x 0.170	25’	1.071	26.77
6 x 2-1/2 x 0.170	25’	2.834	70.85
10 x 3-1/2 x 0.25	25’	6.136	153.40

Aluminum Channel 6061-T6 AS

Size	Length	WT / FT	WT / Length
3 x 1.410 x 0.170	25’	1.417	35.42
4 x 1.580 x 0.180	25’	1.846	46.15
4 x 1.720 x 0.320	25’	2.504	62.60
5 x 1.750 x 0.190	25’	2.316	57.90
5 x 1.885 x 0.325	25’	3.108	77.70
6 x 1.945 x 0.225	25’	3.002	75.05
8 x 2.290 x 0.250	25’	4.252	106.30

Aluminum Angle 6061-T6

Size	Length	WT / FT	WT / Length
3/4 x 3/4 x 1/8	25’	0.201	5.03
1 x 1 x 1/8	25’	0.275	6.88
1 x 1 x 3/16	25’	0.400	10.00
1 x 1 x 1/4	25’	0.514	12.85
1-1/4 x 1-1/4 x 1/8	25’	0.343	8.57
1-1/4 x 1-1/4 x 3/16	25’	0.510	12.75
1-1/4 x 1-1/4 x 1/4	25’	0.656	16.40
1-1/2 x 1-1/2 x 1/8	25’	0.423	10.57
1-1/2 x 1-1/2 x 3/16	25’	0.619	15.47
1-1/2 x 1-1/2 x 1/4	25’	0.809	20.23

Aluminum Angle 6061-T6

Size	Length	WT / FT	WT / Length
1-3/4 x 1-3/4 x 1/8	25’	0.497	12.43
1-3/4 x 1-3/4 x 3/16	25’	0.731	18.27
1-3/4 x 1-3/4 x 1/4	25’	0.956	23.90
2 x 2 x 1/8	25’	0.577	14.43
2 x 2 x 3/16	25’	0.850	21.25
2 x 2 x 1/4	25’	1.110	27.75
2 x 2 x 3/8	25’	1.606	40.15
2-1/2 x 2-1/2 x 1/4	25’	1.404	35.10
2-1/2 x 2-1/2 x 3/8	25’	2.047	51.17
3 x 2 x 3/16	25’	1.071	26.77
3 x 2 x 1/4	25’	1.403	35.08
3 x 3 x 1/4	25’	1.684	42.10
3 x 3 x 3/8	25’	2.474	61.85
3-1/2 x 3-1/2 x 1/4	25’	1.989	49.73
3-1/2 x 3-1/2 x 3/8	25’	2.926	73.15
4 x 4 x 1/4	25’	2.283	57.08
4 x 4 x 3/8	25’	3.366	84.15

I Beams – The edges of the flanges of I beams are tapered in for added strength. They generally are not used for structural purposes, but instead are used for hoists and cranes.

6061 – Very corrosion resistant – strength, formability and machinability are still good.

Aluminum

Aluminum Rounds 6061-T6

Size	Length	WT / FT	WT / Length
1/8”	12’	0.014	0.17
1/4”	12’	0.058	0.70
5/16”	12’	0.090	1.08
3/8”	12’	0.130	1.56
1/2”	12’	0.231	2.77
5/8”	12’	0.361	4.33
7/8”	12’	0.707	8.48
3/4”	12’	0.520	6.24
1”	12’	0.924	11.09
1-1/4”	12’	1.443	17.32
1-3/8”	12’	1.746	20.95
1-1/2”	12’	2.078	24.94
1-3/4”	12’	2.829	33.95
2”	12’	3.695	44.34
2-1/2”	12’	5.773	69.28
2-3/4”	12’	6.985	83.82
3”	12’	8.313	99.76
3-1/2”	12’	11.315	135.78

Aluminum Square 6061-T6

Size	Length	WT / FT	WT / Length
1/2”	12’	0.294	3.53
3/4”	12’	0.662	7.94
1”	12’	1.176	14.11
1-1/4”	12’	1.838	22.06
1-1/2”	12’	2.646	31.75
2”	12’	4.704	56.45

Aluminum Square Tube 6063-T52

Size	Length	WT / FT	WT / Length
3/4 x 3/4 x 0.062	21’1”	0.199	4.20
3/4 x 3/4 x 0.125	21’1”	0.364	7.67
1 x 1 x 0.062	21’1”	0.271	5.71
1 x 1 x 0.125	21’1”	0.509	10.73
1-1/4 x 1-1/4 x 0.125	21’1”	0.655	13.81
1-1/2 x 1-1/2 x 0.125	21’1”	0.800	16.87
2 x 2 x 0.125	21’1”	1.091	23.00
3 x 3 x 0.125	21’1”	1.673	35.27
4 x 4 x 0.125	21’1”	2.255	47.54

Aluminum Rectangle Tube 6063-T52

Size	Length	WT / FT	WT / Length
1 x 2 x 0.125	21’1”	0.800	16.87
1-1/2 x 2 x 0.125	21’1”	0.946	19.94
2 x 3 x 0.125	21’1”	1.382	29.14
2 x 4 x 0.125	21’1”	1.673	35.27

Aluminum Expanded Metal Flattened

Style		Length	WT / FT	WT / Length
3/4”	0.125	48 x 96	0.656	20.99

Aluminum Expanded Metal Standard

Style		Length	WT / FT	WT / Length
1-1/2”	0.125	48 x 96	0.430	13.76

6063 – Highly corrosion resistant with good weldability and machinability. Excellent finish and is suitable for anodizing. Commonly used for architectural and ornamental applications. Conforms to ASTM B-211 and QQ-A200/9.

Aluminum

Aluminum Flats 6061-T6

Size	Length	WT / FT	WT / Length
1/8 x 3/4	12’	0.109	1.31
1/8 x 1	12’	0.146	1.75
1/8 x 1-1/2	12’	0.221	2.65
1/8 x 2	12’	0.294	3.53
3/16 x 1	12’	0.221	2.65
3/16 x 1-1/4	12’	0.276	3.31
3/16 x 1-1/2	12’	0.331	3.97
3/16 x 2	12’	0.441	5.29
3/16 x 3	12’	0.662	7.94
3/16 x 4	12’	0.882	10.58
1/4 x 1/2	12’	0.147	1.76
1/4 x 3/4	12’	0.221	2.65
1/4 x 1	12’	0.294	3.53
1/4 x 1-1/4	12’	0.368	4.42
1/4 x 1-1/2	12’	0.441	5.29
1-1/4 x 2	12’	0.588	7.06
1/4 x 2-1/2	12’	0.735	8.82
1/4 x 3	12’	0.882	10.58
1/4 x 4	12’	1.176	14.11
1/4 x 5	12’	1.470	17.64
1/4 x 6	12’	1.764	21.17
5/16 x 1-1/2	12’	0.551	6.61
3/8 x 1	12’	0.441	5.29
3/8 x 1-1/4	12’	0.551	6.61
3/8 x 1-1/2	12’	0.662	7.94
3/8 x 2	12’	0.882	10.58
3/8 x 2-1/2	12’	1.103	13.24
3/8 x 3	12’	1.323	15.88
3/8 x 4	12’	1.764	21.17
3/8 x 6	12’	2.646	31.75

Aluminum Flats 6061-T6

Size	Length	WT / FT	WT / Length
1/2 x 3/4	12’	0.441	5.29
1/2 x 1	12’	0.588	7.06
1/2 x 1-1/2	12’	0.882	10.58
1/2 x 2	12’	1.176	14.11
1/2 x 2-1/2	12’	1.470	17.64
1/2 x 3	12’	1.764	21.17
1/2 x 3-1/2	12’	2.056	24.67
1/2 x 4	12’	2.352	28.22
1/2 x 4-1/2	12’	2.640	31.68
1/2 x 5	12’	2.940	35.28
1/2 x 6	12’	3.528	42.34
5/8 x 1	12’	0.735	8.82
3/4 x 1	12’	0.882	10.58
3/4 x 1-1/2	12’	1.323	15.88
3/4 x 2	12’	1.764	21.17
3/4 x 2-1/2	12’	2.205	26.46
3/4 x 3	12’	2.646	31.75
3/4 x 4	12’	3.528	42.34
3/4 x 5	12’	4.406	52.87
1 x 1-1/4	12’	1.470	17.64
1 x 1-1/2	12’	1.764	21.17
1 x 2	12’	2.352	28.22
1 x 3	12’	3.528	42.34
1 x 4	12’	4.704	56.45
1 x 6	12’	7.056	84.67
1-1/2 x 2	12’	3.528	42.34

Aluminum Pipe

Sch. 40 6061-T6

Size	Length	O.D. In Inches	I.D. In Inches	Wall Thickness	WT / FT	WT / Bar
3/8”	12’	0.675	0.493	0.091	0.196	2.35
1/2”	20’	0.840	0.622	0.109	0.294	5.88
3/4”	20’	1.050	0.824	0.113	0.391	7.82
1”	20’	1.315	1.049	0.133	0.581	11.62
1-1/4”	20’	1.660	1.380	0.140	0.786	15.72
1-1/2”	20’	1.900	1.610	0.145	0.940	18.80
2”	20’	2.375	2.067	0.154	1.264	25.28

Sch. 10 6063-T6

Size	Length	O.D. In Inches	I.D. In Inches	Wall Thickness	WT / FT	WT / Bar
3”	20’	3.500	3.260	0.120	1.483	29.66
4”	20’	4.500	4.260	0.120	1.922	38.44

Aluminum Alloy Descriptions
Sheet and Plate Typical Temper Designations

F = As Fabricated O = Annealed H = Strained Hardened

The letter H is always followed by two digits. The first digit indicates the particular method used to obtain the temper. Examples are as follows:

H1 = Strained hardened only.
H2 = Strained hardened, then partially annealed.
H3 = Strained hardened, then stabilized.

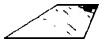
The temper is indicated by the second digit. Examples include:

H x 2 = 1/4 Hard
H x 4 = 1/2 Hard
H x 6 = 3/4 Hard
H x 8 = Full hard
H x 9 = Extra Hard

T = Heat treated.
T5 = Artificially aged only.
T6 = Solultion heat treated, then artificially aged.
T651 = Solultion heat treated, stretcher stress relieved, artificially aged.

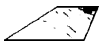
Aluminum Mechanical Properties		Tensile (psi)	Yield (psi)
3003		16,000	6,000
3003	H14	22,000	21,000
5052	H32	33,000	28,000
6061	T6	45,000	40,000
6061	T651	45,000	40,000
6063	T5	27,000	21,000

Aluminum



Aluminum Plates 5052-H32

Decimal	Size	WT / FT	WT / Sheet
0.250	48 x 96	3.492	111.74
0.250	48 x 120	3.492	139.68
0.250	48 x 144	3.492	167.62
0.250	60 x 120	3.492	174.60
0.250	60 x 144	3.492	209.52
0.375	48 X 144	5.238	251.42



Aluminum Plates 6061-T651

Decimal	Size	WT / FT	WT / Sheet
0.250	48-1/2 x 144-1/2	3.528	171.70
0.250	60 x 144	3.528	211.68
0.375	48-1/2 x 144-1/2	5.292	257.55
0.500	48-1/2 x 144-1/2	7.056	343.40

Aluminum Sheets 5052-H32

Decimal	Size	WT / SQ FT	WT / Sheet
0.0320	48 x 120	0.447	14.30
0.0625	48 x 96	0.880	28.16
0.090	48 x 120	1.257	50.28
0.100	48 x 120	1.397	55.88
0.125	48 x 96	1.746	55.87
0.125	48 x 120	1.746	69.84
0.125	48 x 144	1.746	83.81
0.125	60 x 120	1.746	87.30
0.125	60 x 144	1.746	104.76
0.190	36 x 120	2.654	79.62
0.190	48 x 120	2.654	106.16
0.190	60 x 120	2.654	132.70

Aluminum Sheets 3003-H14

Decimal	Size	WT / SQ FT	WT / Sheet
0.025	48 x 120	0.356	14.24
0.032	48 x 96	0.456	14.59
0.032	48 x 120	0.456	18.24
0.040	48 x 120	0.570	22.80
0.050	48 x 96	0.713	22.82
0.050	48 x 120	0.713	28.52
0.0625	48 x 96	0.898	28.74
0.0625	48 x 120	0.898	35.92
0.0625	60 x 96	0.898	35.92
0.0625	60 x 120	0.898	44.90
0.080	48 x 96	1.141	36.51
0.080	48 x 120	1.141	45.64
0.080	60 x 120	1.141	57.05
0.090	48 x 96	1.283	41.06
0.090	48 x 120	1.283	51.32
0.100	48 x 96	1.426	45.63
0.100	48 x 120	1.426	57.04
0.125	48 x 120	1.782	71.28
0.125	60 x 120	1.782	89.10
0.125	60 x 144	1.782	106.92
0.190	48 x 120	2.709	108.36
0.190	60 x 120	2.709	135.45

Non-Heat Treatable Alloys – Grade 3003 – This alloy is the most commonly used of all. It is commercially pure aluminum with 1.2% manganese added which provides a tensile strength range of 17,000 psi to 30,000 psi. The workability and corrosion resistance of this non-heat-treatable alloy are excellent. It may be welded, brazed, deep drawn, or spun. Some of its common uses are for kitchen equipment and utensils, siding, awnings, chemical equipment and storage tanks. Conforms to ASTM-B209.

Grade 5052 – This grade is the highest strength alloy of the more ordinary non-heat-treatable grades. It has a higher fatigue strength than most aluminum alloys. It can withstand marine atmospheres and salt water corrosion especially well. Its workability is excellent and can be drawn or formed into elaborate shapes. Tensile strength range of 31,000 psi to 44,000 psi is higher than grade 3003 and is alloyed with 2.5% magnesium. Some common uses are aircraft modules, home appliances, and high-strength kitchen utensils. Conforms to ASTM-B209.

Aluminum Plates 3003-H14

Decimal	Size	WT / SQ FT	WT / Sheet
0.250	48 x 96	3.564	114.05
0.250	48 x 120	3.564	142.56

Aluminum Sheet Color/Painted

White on White GPSH14

Decimal	Size	WT / SQ FT	WT / Sheet
0.040	48 x 96	0.585	18.72
0.040	48 x 120	0.585	23.40
0.040	49 x 144	0.585	28.66

White / Black Coat GPSH14BL

Decimal	Size	WT / SQ FT	WT / Sheet
0.040	48 x 96	0.585	18.72
0.040	48 X 144	0.585	28.08

Bronze GPSH14B

Decimal	Size	WT / SQ FT	WT / Sheet
0.040	48 X 96	0.585	18.72
0.040	48 X 120	0.585	23.40

Aluminum Diamond Tread Plate

3003 H22 Bright Finish

Decimal	Size	WT / SQ FT	WT / Sheet
0.0625	48 X 96	1.009	32.29
0.1000	48 X 192	1.570	100.48
0.125	48 X 96	1.925	61.60
0.125	48 X 120	1.925	77.00
0.125	48 X 192	1.925	123.20
0.125	60 X 96	1.925	77.00
0.125	60 X 192	1.925	154.00
0.1875	48 X 96	2.823	90.34
0.1875	48 X 120	2.823	112.92
0.1875	48 X 192	2.823	180.67
0.1875	60 X 144	2.823	169.38
0.1875	60 X 192	2.823	225.84

Aluminum Diamond Tread Plate 6061 T6 Mill Finish

Decimal	Size	WT / SQ FT	WT / Sheet
0.250	48 x 96	3.669	117.41
0.250	48 x 192	3.669	234.82
0.250	60 x 96	3.669	146.76
0.250	60 x 192	3.669	293.52
0.375	48 x 96	5.443	174.18
0.375	48 x 192	5.443	348.35

Heat-Treatable Alloys

Grade 6061 – This is the most adaptable of the heat-treatable aluminum alloys. 6061 is mostly used for structural applications. It has the majority of the good properties of aluminum and it extends a wide span of mechanical characteristics and corrosion resistance. It is weldable by all methods. Some common uses are truck frames, boat trailers and machine parts. Conforms to ASTM-B209.

Decimal Conversion Table

Fraction of Inch	Decimal of Inch	Millimeters
1/64	0.0156	0.397
1/32	0.0313	0.794
3/64	0.0469	1.191
1/16	0.0625	1.588
5/64	0.0781	1.984
3/32	0.0938	2.381
7/64	0.1094	2.778
1/8	0.1250	3.175
9/64	0.1406	3.572
5/32	0.1562	3.969
11/64	0.1719	4.366
3/16	0.1875	4.763
13/64	0.2031	5.159
7/32	0.2188	5.556
15/64	0.2344	5.953
1/4	0.2500	6.350
17/64	0.2656	6.747
9/32	0.2813	7.144
19/64	0.2969	7.541
5/16	0.3125	7.938
21/64	0.3281	8.334
11/32	0.3438	8.731
23/64	0.3594	9.128
3/8	0.3750	9.525
25/64	0.3906	9.922
13/32	0.4063	10.319
27/64	0.4219	10.716
7/16	0.4375	11.113
29/64	0.4531	11.509
15/32	0.4688	11.906
31/64	0.4844	12.303
1/2	0.5000	12.700

Fraction of Inch	Decimal of Inch	Millimeters
33/64	0.5156	13.097
17/32	0.5313	13.494
35/64	0.5469	13.891
9/16	0.5625	14.288
37/64	0.5781	14.684
19/32	0.5938	15.081
39/64	0.6094	15.478
5/8	0.6250	15.875
41/64	0.6406	16.272
21/32	0.6563	16.669
43/64	0.6719	17.066
11/16	0.6875	17.463
45/64	0.7031	17.859
23/32	0.7188	18.256
47/64	0.7344	18.653
3/4	0.7500	19.050
49/64	0.7656	19.447
25/32	0.7813	19.844
51/64	0.7969	20.241
13/16	0.8125	20.638
53/64	0.8281	21.034
27/32	0.8438	21.431
55/64	0.8594	21.828
7/8	0.8750	22.225
57/64	0.8906	22.622
29/32	0.9063	23.019
59/64	0.9219	23.416
15/16	0.9375	23.813
61/64	0.9531	24.209
31/32	0.9688	24.606
63/64	0.9844	25.003
1”	1.0000	25.400

Glossary of Terms

Annealing – Heating steel to an increased temperature of 1300-1550F, and then slowly cooling it to approximately 1100F, putting the metal in it's softest state, and improving machinability and cold-working properties.

A.S.T.M. – Abbreviation for American Society for Testing Material. An organization for issuing standard specifications on materials, including metals and alloys.

Brinell Hardness – Steel's resistance to penetration is measured by pressing a 10mm steel ball into the surface of a sample under a load of 3,000kg. By measuring the diameter of the depression and evaluating the ratio of load to spherical area of the depression, the level of resistance can be obtained.

Critical Temperature – Temperature at which steel transforms from a solid state into a liquid.

Ductility – Property that allows cold metals to be mechanically deformed without breaking.

Elongation – An increase in length, usually expressed as a percentage of the original gauge length, which occurs before a metal is exposed to stress and cracked. This measures the ductility of the metal.

Free Machining – A type of steel that has been altered to increase machinability.

Galvanizing – Hot dipping a sheet of steel into molten zinc for a short time to prevent corrosion

Hardness – The level of metal's resistance to penetration.

Heat – The amount of steel produced by one melting in a furnace.

Heat Treatment – Heating and cooling solid steel to obtain specialized physical properties and increase strength.

High Strength, Low Alloy Steels – These steels with strengths greater than that of structural carbon steels do not require a heat treatment.

Kerf – The piece of steel cut out and lost through processing. Depending on the kind of material and process used, the amount of product lost will vary.

Glossary of Terms

(continued)

Level – To flatten coiled metal sheet or strip.

Pickling – The process of removing iron oxide from steel by bathing it in a time and temperature controlled solution of sulfuric acid. This removal of the iron oxide occurs when a gas formation under the scale causes it to flake off.

Quenching – Cooling steel quickly from a high temperature through the actions of liquids, gasses, or solids

Rockwell Hardness (Test) – A standard method for measuring the hardness of metals. The hardness is expressed as a number related to the depth of residual penetration of a steel ball or diamond cone (“braille”) after a minor load of 10 kilograms has been applied to hold the penetrator in position. This residual penetration is automatically registered on a dial when the major load is removed from the penetrator. Various dial readings combined with different major loads, give “scales” designated by letters varying from “A” to “H”, the “B” and “C” scales are most commonly used.

Stress Relieving – The process of heating steel to a temperature of between 300-1300F, and then cooling by air to reduce stress.

Tempering – Heat treatment obtained by reheating solid steel to a temperature beneath that of the critical range in order to gain stress relief and better ductility.

Tensile Strength (also called ultimate strength) – Breaking strength of a material when subjected to a tensile (stretching) force. Usually measured by placing a standard test piece in the jaws of a tensile machine, gradually separating the jaws, and measuring the stretching force necessary to break the test piece. Tensile strength is commonly expressed as pounds (or tons) per square inch of original cross section.

Tolerance – The upper and lower limits of range of deviation from the desired value that is accepted.

Yield Strength – Point at which material will not return to its original length or shape if stress is removed.

Cutting

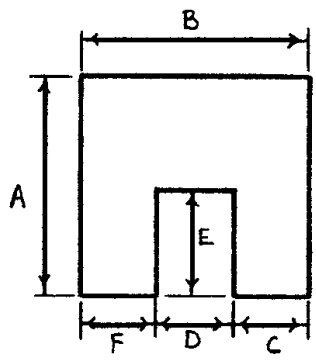
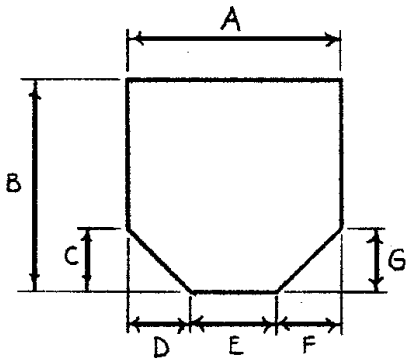


Figure 1



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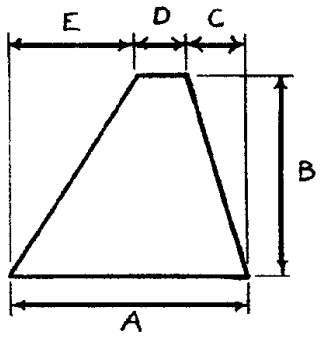

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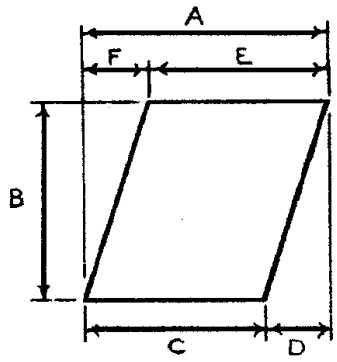

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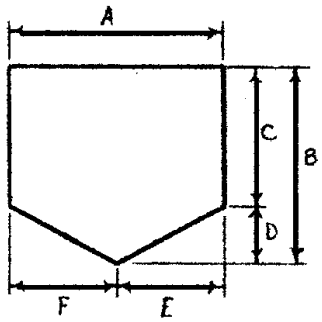

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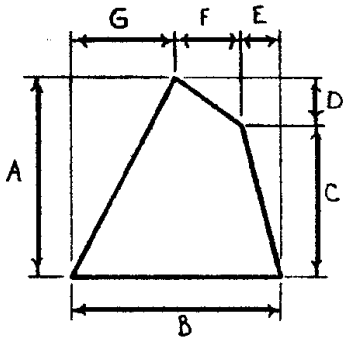

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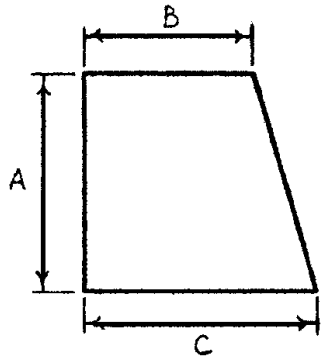

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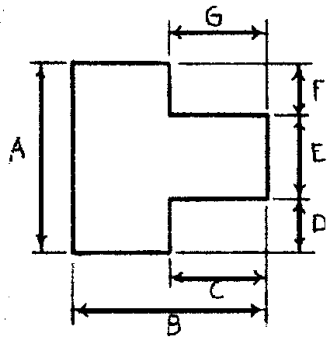

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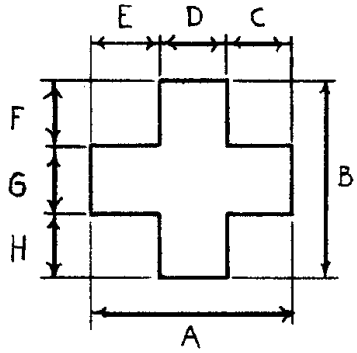

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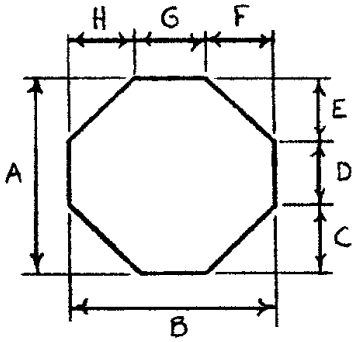
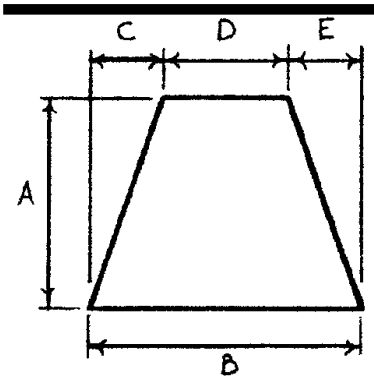


Figure 10

Cutting



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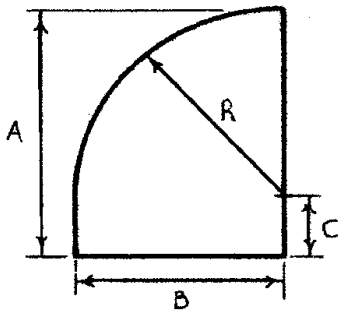

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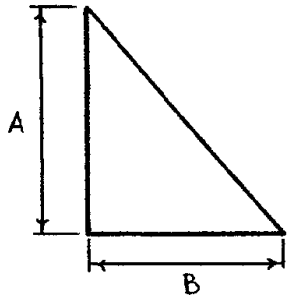

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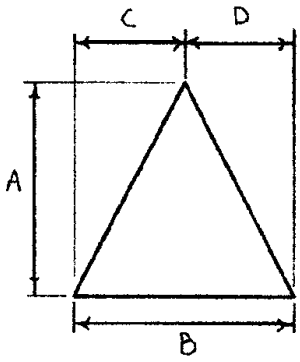

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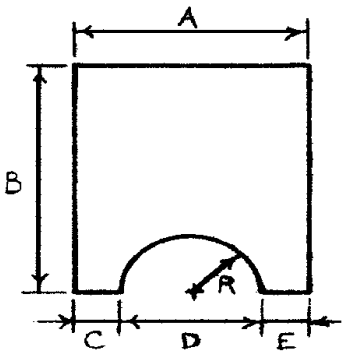

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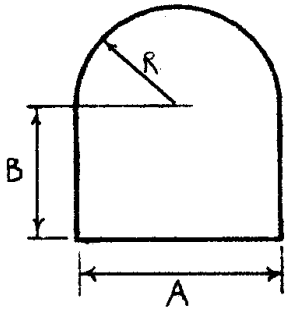

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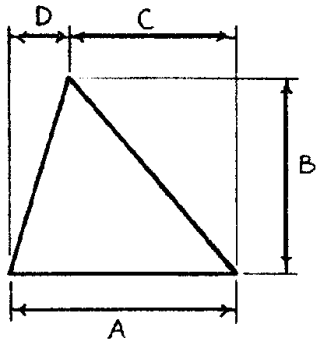

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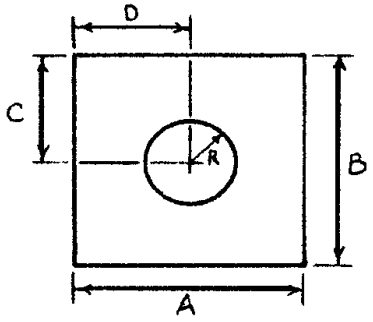

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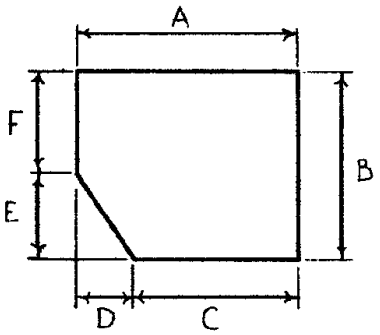

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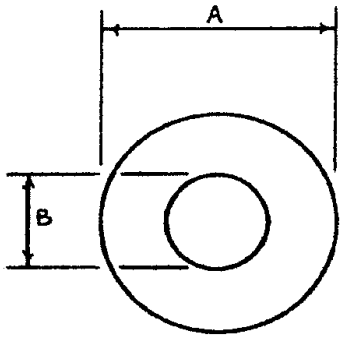


Figure 20

Forming

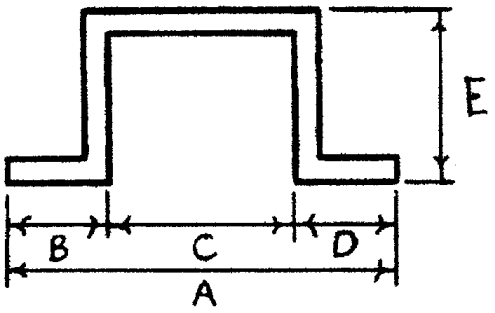
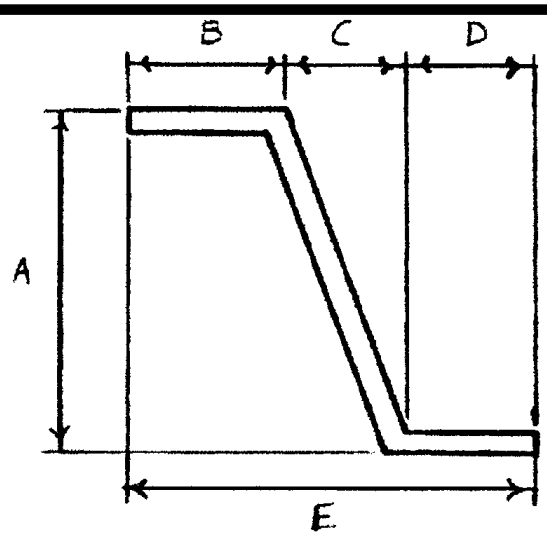


Figure F-1



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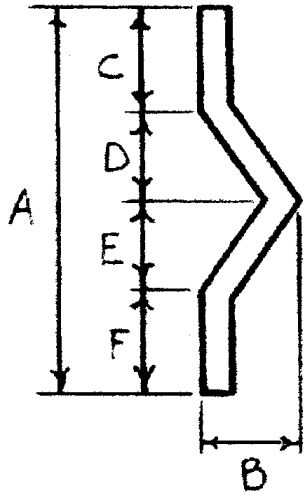

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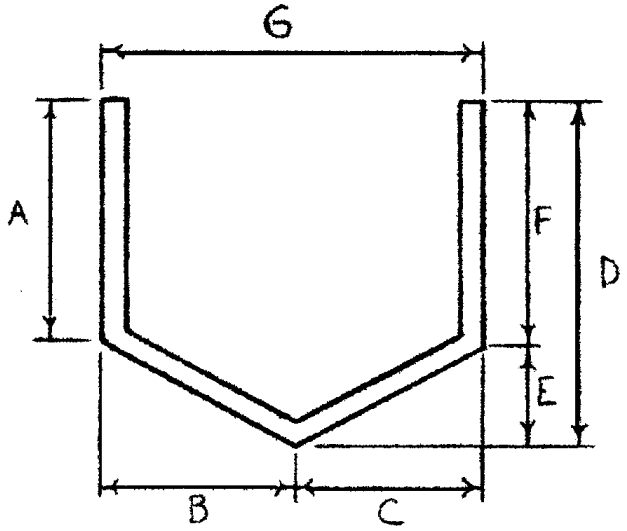

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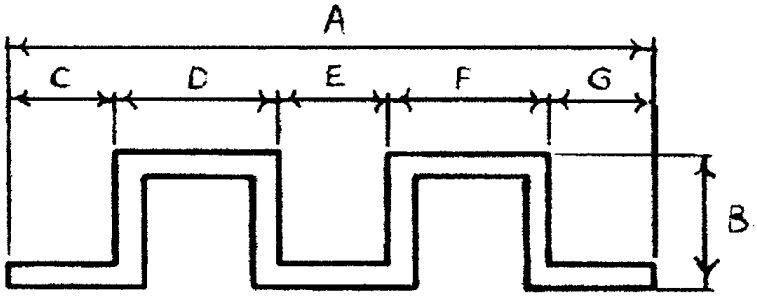
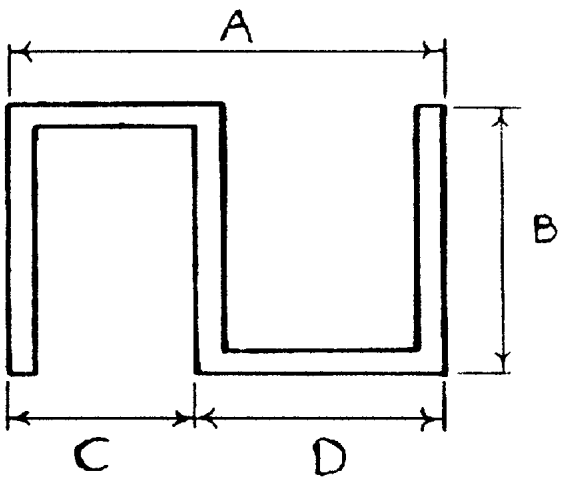


Figure F-5

Forming



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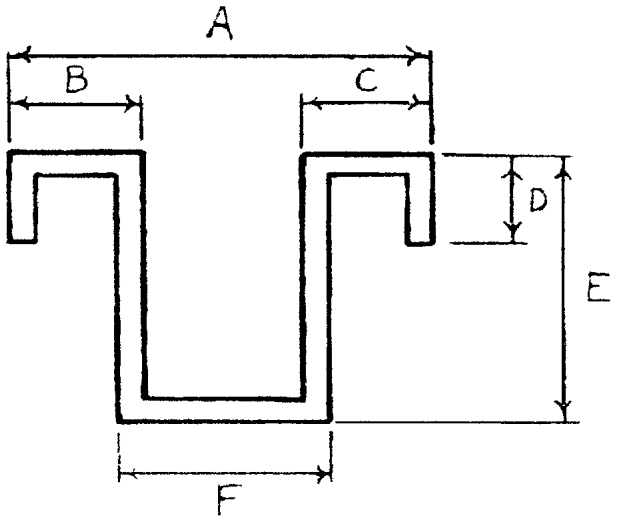

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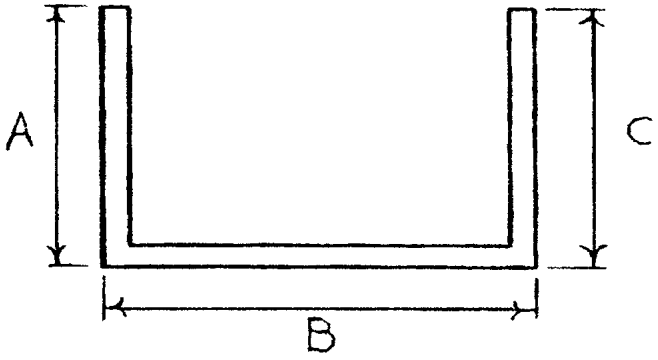

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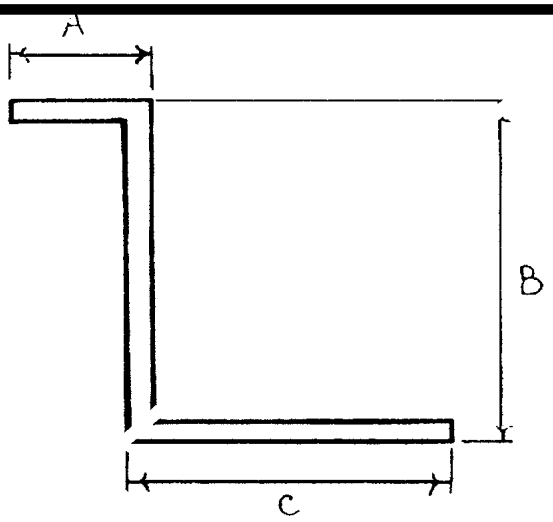

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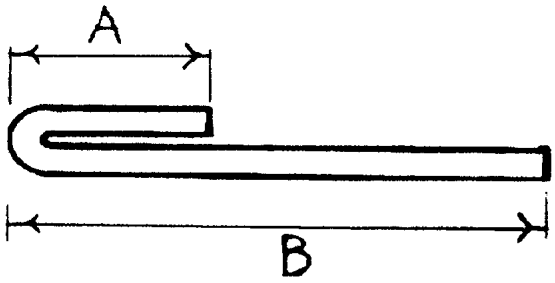

Figure F-10

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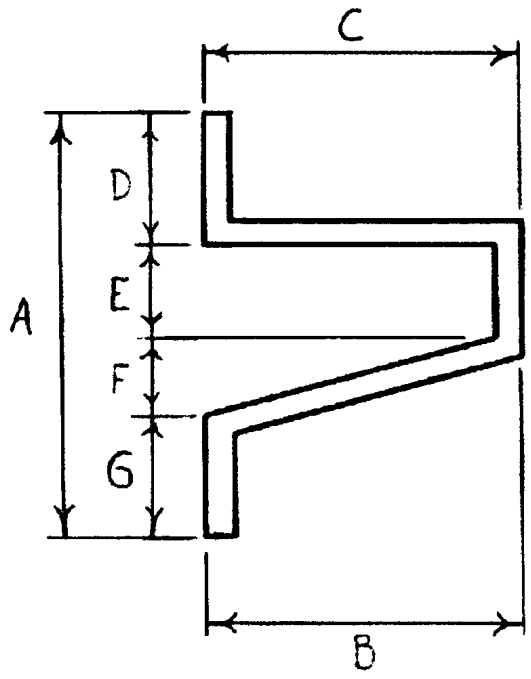

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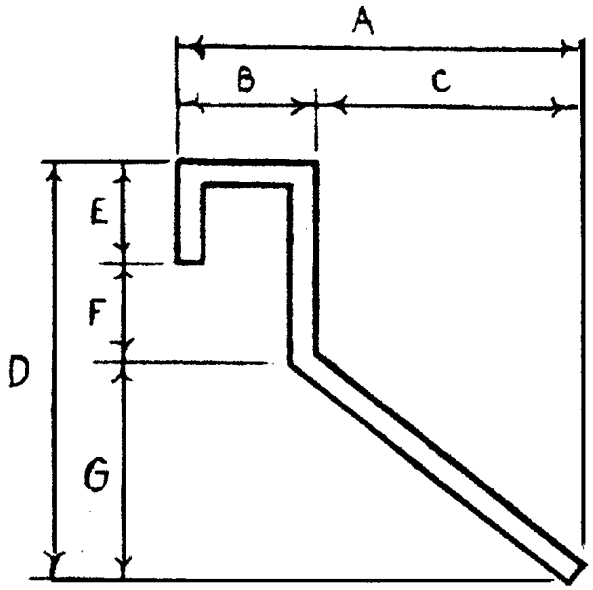

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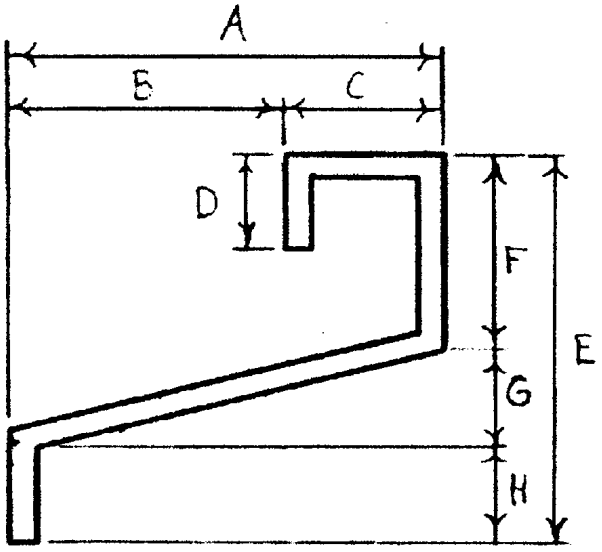

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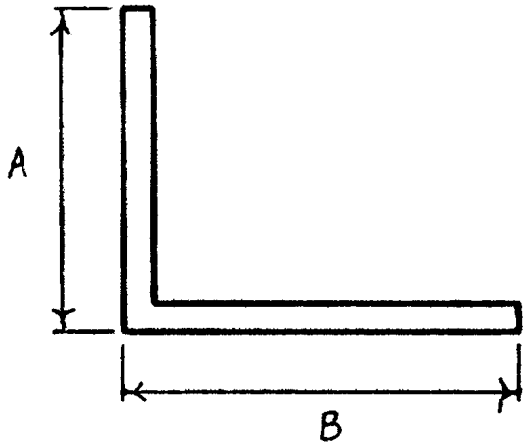

Figure F-14