RECLA METALS L.L.L.P.

Steel Handbook

Locally Owned and Operated Since 1974

Montrose
136 So Maple Ave
Montrose, CO 81401
970-249-7922

Clifton
151 S 2nd St
Clifton, CO 81501
970-523-3569

Durango
33399 E Hwy 160
Durango, CO 81301
970-375-6330

www.reclametals.com

PIPE SPECIFICATIONS REQUIREMENTS

Specification and Size Rance when Indicated	Scope	Type	Grades
A-120 1/8" - 16"	Blk & Galv Welded & SMLS pipe for ordinary use - not intended for close coiling, bending, or high temperature service	CW ERW SMLS	NONE Specidfied
A-53 1/8" - 26"	Blk & Galv Welded & SMLS pipe suitable for welding and forming operations CW not intended for flanging. Grade B not intended for close coiling or severe cold forming. Pipe required for close coiling should be specified on order.	CW- Type F ERW - Type E SMLS - Type S	CW - Type F ERW & SMLS GRADE

STRUCTURAL TUBING SPECIFICATIONS
SQUARE AND RECTANGULAR STEEL TUBING
ASTM-A-500B
Mechanical Properties

	ASTM A-500
Tensile strength, psi	58,000
Yield strength, min. psi	46,000
Elongation in 2", min.	23%

Chemical Composition

	Ladle Analysis	Check Analysis
Carbon, max., per cent	0.26	0.30
Phosphorus, max., per cent	0.04	0.05
Sulfur, max., per cent	0.05	0.063

Tolerances - Outside Dimensions

Largest Nominal Outside Dimensions, inches	Outside Tolerance at all Sides at Coners, Inc.
Up to 2½"	±.020
Over 2½" to 3½" inc.	±.025
Over 3½" to 5½" inc.	±.030
Over 5½"	±1%

DECIMAL EQUIVALENTS

1/64 = .0156	17/64 = .2656	33/64 = .5156	49/64 = .7656
1/32 = .0312	9/32 = .2812	17/32 = .5312	25/32 = .7812
3/64 = .0469	19/64 = .2969	35/64 = .5469	51/64 = .7969
1/16 = .0625	5/16 = .3125	9/16 = .5625	13/16 = .8125
5/64 = .0781	21/64 = .3281	37/64 = .5781	53/64 = .8281
3/32 = .0938	11/32 = .3438	19/32 = .5938	27/32 = .8438
7/64 = .1094	23/64 = .3594	39/64 = .6094	55/64 = .8594
1/8 = .1250	3/8 = .3750	5/8 = .6250	7/8 = .8750
9/64 = .1406	25/64 = .3906	41/64 = .6406	57/64 = .8906
5/32 = .1562	12/32 = .4062	21/32 = .6562	29/32 = .9062
11/64 = .1719	27/64 = .4219	43/64 = .6719	59/64 = .9219
3/16 = .1875	7/16 = .4375	11/16 = .6875	15/16 = .9375
13/64 = .2031	29/64 = .4531	45/64 = .7031	61/64 = .9531
7/32 = .2188	15/32 = .4688	23/32 = .7188	31/32 = .9688
15/64 = .2344	31/64 = .4844	47/64 = .7344	63/64 = .9844
1/4 = .2500	1/2 = .5000	3/4 = .7500	1 = 1

GAUGE TO DECIMAL

7 = .1943	11 = .1196	16 = .0598	21 = .0329	26 = .0179
8 = .1644	12 = .1046	17 = .0538	22 = .0299	27 = .0164
9 = .1495	13 = .0897	18 = .0478	23 = .0269	28 = .0149
10 = 1345	14 = .0718	19 = .0474	24 = .0239	29 = .0135
	15 = .0673	20 = .0359	25 = .0209	30 = .0120

USEFUL FORMULAS

(ALL MEASUREMENTS IN INCHES)

GALLONS IN A SQUARE TANK

$$\frac{\text{Length x Width x Depth}}{231}$$

GALLONS IN A ROUND TANK

$$\frac{3.1415 \times r \times \text{length of tank}}{231}$$

FEET IN A COIL

(EXAMPLE A CONVEYOR BELT ROLL)

OD +ID = T ; T x # of coils = Y ; Y x 0.131 = Feet of Coil

WEIGHT CONVERSIONS

Metric Ton x 2.20462 = Pounds Gross Ton x .8928 = Net Ton Net Ton x 1.12 = Gross Ton

136 S. Maple • Montrose, Colorado 81401
970-249-7922 • Fax 970-240-6988

We at RECLA METALS, L.L.L.P. value our customers and hope this book will further enhance our ability to serve your steel center needs.

We also offer our services as a state of the art scrap yard. These services include container rotations, two truck scales, electro magnet, loaders, forklifts, and a company policy to take care of your needs.

Locally Owned and Operated Since 1974

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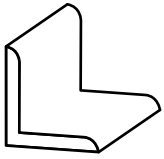
Bar Size Angle

SIZE IN INCHES	THICKNESS	WT./FT.
1/2 x 1/2	x 1/8	0.380
3/4 x 3/4	x 1/8	0.590
1 x 1	x 1/8	0.800
	x 3/16	1.160
	x 1/4	1.490
1 1/4 x 1 1/4	x 1/8	1.010
	x 3/16	1.480
	x 1/4	1.920
1 1/2 x 1 1/2	x 1/8	1.230
	x 3/16	1.800
	x 1/4	2.340
1 3/4 x 1 3/4	x 1/8	1.440
	x 3/16	2.120
	x 1/4	2.770
2 x 1 1/4	x 3/16	1.960
	x 1/4	2.550
2 x 1 1/2	x 1/8	1.440
	x 3/16	2.120
2 x 1 1/2	x 1/4	2.770
2 x 2	x 1/8	1.650
	x 3/16	2.440



SIZE IN INCHES	THICKNESS	WT./FT.
	x 1/4	3.190
	x 5/16	3.920
	x 3/8	4.700
2 1/2 x 1 1/2	x 3/16	2.440
	x 1/4	3.190
2 1/2 x 2	x 3/16	2.750
	x 1/4	3.620
	x 5/16	4.500
	x 3/8	5.300
2 1/2 x 2 1/2	x 3/16	3.070
	x 1/4	4.100
	x 5/16	5.000
	x 3/8	5.900
	x 1/2	7.700

Structural Angle

SIZE IN INCHES	THICKNESS	WT./FT.
3 x 2	x 3/16	3.070
	x 1/4	4.100
	x 5/16	5.000
	x 3/8	5.900
	x 1/2	7.700
3 x 2 1/2	x 3/16	3.390
	x 1/4	4.500
	x 5/16	5.600
	x 3/8	6.600
	x 1/2	8.500
3 x 3	x 3/16	3.710
	x 1/4	4.900
	x 5/16	6.100
	x 3/8	7.200
	x 1/2	9.400
3 1/2 x 2 1/2	x 1/4	4.900
	x 5/16	6.100
	x 3/8	7.200
	x 1/2	9.400
3 1/2 x 3	x 1/4	5.400
	x 5/16	6.600
	x 3/8	7.000
	x 1/2	10.200
3 1/2 x 3 1/2	x 1/4	5.800
	x 5/16	7.200
	x 3/8	8.500
	x 1/2	11.100
4 x 3	x 1/4	5.800
	x 5/16	7.200

SIZE IN INCHES	THICKNESS	WT./FT.
4 x 3	x 3/8	8.500
	x 1/2	11.100
	x 5/8	13.600
4 x 3 1/2	x 1/4	6.200
	x 5/16	7.700
	x 3/8	9.100
	x 1/2	11.900
4 x 4	x 1/4	6.600
	x 5/16	8.200
	x 3/8	9.800
	x 1/2	12.800
	x 5/8	15.700
	x 3/4	18.500
5 x 3	x 1/4	6.600
	x 5/16	8.200
	x 3/8	9.800
	x 1/2	12.800
5 x 3 1/2	x 1/4	7.000
	x 5/16	8.700
	x 3/8	10.400
	x 1/2	13.600
5 x 5	x 5/16	10.300
	x 3/8	12.300
	x 1/2	16.200
	x 5/8	20.000
	x 3/4	23.600
6 x 3 1/2	x 1/4	7.900
	x 5/16	9.800
	x 3/8	11.700

Structural Angle *(continued)*

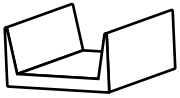
SIZE IN INCHES	THICKNESS	WT./FT.	SIZE IN INCHES	THICKNESS	WT./FT.
6 x 3 1/2	x 1/2	15.300	8 x 4	x 7/16	17.200
6 x 4	x 5/16	10.300		x 1/2	19.600
	x 3/8	12.300		x 5/8	24.200
	x 1/2	16.200		x 3/4	28.700
	x 5/8	20.000	8 x 6	x 7/16	20.200
	x 3/4	23.600		x 1/2	23.000
6 x 6	x 5/16	12.400		x 5/8	28.500
	x 3/8	14.900		x 3/4	33.800
	x 1/2	19.600		x 1	44.200
	x 5/8	24.200	8 x 8	x 1/2	26.400
	x 3/4	28.700		x 9/16	29.600
	x 1	37.400		x 5/8	32.700
7 x 4	x 3/8	13.600		x 3/4	38.900
	x 7/16	15.800		x 1	51.000
	x 1/2	17.900	9 x 4	x 1/2	22.900
	x 1/2	22.100		x 5/8	25.950
	x 3/4	26.200			

Bar Size Channel

SIZE IN INCHES	WT./FT.	SIZE IN INCHES	WT./FT.
1 x 1/2 x 1/8	0.820	2 x 1/2 x 1/8	1.430
1 1/4 x 1/2 x 1/8	1.010	2 x 1 x 1/8	1.780
1 1/2 x 1/2 x 1/8	1.120	2 x 1 x 3/16	2.320

Structural Channel

SIZE IN INCHES	WEB THICKNESS (IN)	WT./FT.
3 x 1 1/2	0.170	4.100
	0.260	5.000
	0.360	6.000
4 x 1 5/8	0.180	5.400
	0.320	7.250
5 x 1 3/4	0.190	6.700
	0.330	9.000
6 x 2	0.200	8.200
	0.310	10.500
	0.440	13.000
7 x 2 1/8	0.210	9.800
	0.310	12.250
	0.420	14.750
8 x 2 1/4	0.220	11.500
	0.300	13.750
8 x 2 1/4	0.490	18.750
9 x 2 1/2	0.230	13.400



SIZE IN INCHES	WEB THICKNESS (IN)	WT./FT.
9 x 2 1/2	0.290	15.000
	0.450	20.000
10 x 2 5/8	0.240	15.300
	0.380	20.000
	0.530	25.000
	0.670	30.000
12 x 3	0.280	20.700
	0.390	25.000
	0.510	30.000
15 x 3 3/8	0.400	25.900
	0.520	40.000
	0.720	50.000

Jr Channel

SIZE IN INCHES	WIDTH OF FLANGE	WT./FT.
8	1.875	8.500
10	1.127	6.500

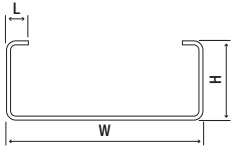
SIZE IN INCHES	WIDTH OF FLANGE	WT./FT.
10	1.500	8.400
12	1.500	10.600

MC Channel (Ship & Car)

SIZE IN INCHES	WIDTH OF FLANGE	WT./FT.	SIZE IN INCHES	WIDTH OF FLANGE	WT./FT.
3	1.938	7.100	10	3.950	28.500
4	2.500	13.800		4.100	33.600
6	2.497	12.000		4.321	41.100
	2.941	15.100	12	3.670	31.000
	3.500	15.300		3.762	35.000
	3.000	16.300		3.890	40.000
	3.504	18.000		4.010	45.000
7	3.452	19.100		4.135	50.000
	3.603	22.700	13	4.000	31.800
8	2.978	18.700		4.072	35.000
	3.025	20.000		4.185	40.000
	3.450	21.400		4.412	50.000
	3.502	22.800	18	3.950	42.700
9	3.450	23.900		4.000	45.800
	3.500	25.400		4.100	51.900
10	3.450	22.000		4.200	58.000
	3.402	25.000			

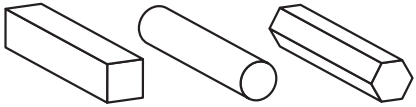
C Purlin

SIZE (W)	GAUGE	LBS/FT
4”	14	2.050
6”	14	2.850
8”	14	3.580
10”	14	4.440



Square, Round, and Hex Bars

Hot Roll and Cold Roll Finish | Lbs./Ft.



SIZE IN INCHES	ROUNDS	SQUARES	HEXAGONS
1/32	0.003	0.003	0.003
1/16	0.010	0.013	0.012
3/32	0.024	0.030	0.026
1/8	0.042	0.053	0.046
5/32	0.065	0.083	0.072
3/16	0.094	0.120	0.104
7/32	0.128	0.163	0.141
1/4	0.167	0.213	0.184
9/32	0.211	0.269	0.233
5/16	0.261	0.332	0.288
11/32	0.316	0.402	0.348
3/8	0.376	0.478	0.414
13/32	0.441	0.561	0.486
7/16	0.511	0.651	0.564
15/32	0.587	0.747	0.647
1/2	0.668	0.850	0.736
17/32	0.754	0.960	0.831
9/16	0.845	1.080	0.932
19/32	0.941	1.200	1.040
5/8	1.043	1.330	1.150
21/32	1.150	1.460	1.270
11/16	1.260	1.610	1.400
23/32	1.380	1.760	1.520
3/4	1.500	1.910	1.660
25/32	1.630	2.080	1.800
13/16	1.760	2.250	1.940

Square, Round, and Hex Bars *(continued)*

Hot Roll and Cold Roll Finish | Lbs./Ft.

SIZE IN INCHES	ROUNDS	SQUARES	HEXAGONS
27/32	1.900	2.420	2.100
7/8	2.050	2.610	2.250
29/32	2.200	2.800	2.420
15/16	2.350	2.990	2.590
31/32	2.510	3.190	2.760
1	2.670	3.400	2.950
1 1/16	3.020	3.840	3.320
1 1/8	3.380	4.300	3.730
1 13/16	3.770	4.800	4.150
1 1/4	4.170	5.320	4.600
1 5/16	4.600	5.860	5.070
1 3/8	5.050	6.430	5.570
1 7/16	5.520	7.030	6.090
1 1/2	6.010	7.660	6.630
1 9/16	6.520	8.300	7.190
1 5/8	7.050	8.980	7.780
1 11/16	7.600	9.680	8.390
1 3/4	8.180	10.410	9.020
1 13/16	8.770	11.170	9.670
1 7/8	9.390	11.950	10.350
1 15/16	10.020	12.760	11.050
2	10.680	13.600	11.780
2 1/16	11.360	14.460	12.530
2 1/8	12.060	15.350	13.300
2 3/16	12.780	16.270	14.090
2 1/4	13.520	17.210	14.910
2 5/16	14.280	18.180	15.750
2 3/8	15.060	19.180	16.610
2 7/16	15.870	20.200	17.490

Square, Round, and Hex Bars *(continued)*

Hot Roll and Cold Roll Finish | Lbs./Ft.

SIZE IN INCHES	ROUNDS	SQUARES	HEXAGONS
2 1/2	16.690	21.250	18.400
2 5/8	18.400	23.430	20.290
2 3/4	20.190	25.710	22.270
2 7/8	22.070	28.100	24.340
3	24.030	30.600	26.500
3 1/8	26.080	33.200	28.760
3 1/4	28.210	35.910	31.100
3 3/8	30.420	38.730	33.540
3 1/2	32.710	41.650	36.070
3 5/8	35.090	44.680	38.690
3 3/4	37.550	47.810	41.410
3 7/8	40.100	51.050	44.210
4	42.730	54.400	47.110
4 1/8	45.440	57.850	50.100
4 1/4	48.230	61.410	53.180
4 3/8	51.110	65.080	56.360
4 1/2	54.080	68.850	59.630
4 5/8	57.120	72.730	62.980
4 3/4	60.250	76.710	66.440
4 7/8	63.460	80.800	69.980
5	66.760	85.000	73.610
5 1/8	70.140	89.300	77.340
5 1/4	73.600	93.710	81.160
5 3/8	77.150	98.230	85.070
5 1/2	80.780	102.850	89.070
5 5/8	84.490	107.580	93.160
5 3/4	88.290	112.410	97.350
5 7/8	92.170	117.350	101.630
6	96.130	122.400	106.000

Hot Rolled and Cold Rolled Flats

THICKNESS	SIZE IN INCHES	WT./FT.
1/8 x	1/2	0.213
	3/4	0.319
	1	0.425
	1 1/4	0.531
	1 1/2	0.638
	2	0.850
	2 1/4	0.856
	2 1/2	1.060
	3	1.280
	3 1/2	1.490
	4	1.700
	4 1/2	1.910
	5	2.130
	5 1/2	2.340
	6	2.550
	7	2.980
	8	3.400
	9	3.830
	10	4.250
	12	5.100
3/16 x	1/2	0.319
	3/4	0.478
	1	0.638
	1 1/4	0.797
	1 1/2	0.956
	2	1.280
	2 1/4	1.430
	2 1/2	1.590
	3	1.910
3/16 x	3 1/2	2.230
	4	2.550
	4 1/2	2.870
	5	3.190
	5 1/2	3.510
	6	3.830
	7	4.460
	8	5.100
	9	5.740
	10	6.380
	11	7.020
	12	7.650
1/4 x	1/2	0.425
	5/8	0.531
	3/4	0.638
	7/8	0.744
	1	0.850
	1 1/8	0.956
	1 1/4	1.060
	1 3/8	1.170
	1 1/2	1.280
	1 5/8	1.380
	1 3/4	1.490
	1 7/8	1.590
	2	1.700
	2 1/8	1.810
	2 1/4	1.910
	2 3/8	2.020
	2 1/2	20.130

Hot Rolled and Cold Rolled Flats *(continued)*

THICKNESS	SIZE IN INCHES	WT./FT.
1/4 x	2 5/8	2.230
	2 3/4	2.340
	2 7/8	2.440
	3	2.550
	3 1/8	2.660
	3 1/4	2.760
	3 3/8	2.870
	3 1/2	2.980
	3 5/8	3.080
	3 3/4	3.190
	3 7/8	3.290
	4	3.400
	4 1/4	3.610
	4 1/2	3.830
	4 3/4	4.040
	5	4.250
	5 1/4	4.460
	5 1/2	4.680
	5 3/4	4.890
	6	5.100
	7	5.950
	7 1/2	6.380
	8	6.800
	9	7.650
	10	8.500
	11	9.350
	12	10.200
5/16 x	1/2	0.531
	3/4	0.797

THICKNESS	SIZE IN INCHES	WT./FT.
5/16 x	7/8	0.930
	1	1.060
	1 1/8	1.200
	1 1/4	1.330
	1 3/8	1.460
	1 1/2	1.590
	1 5/8	1.730
	1 3/4	1.860
	1 7/8	1.990
	2	2.130
	2 1/8	2.260
	2 1/4	2.390
	2 3/8	2.520
	2 1/2	2.660
	2 5/8	2.790
	2 3/4	2.920
	2 7/8	3.060
	3	3.190
	3 1/8	3.320
	3 1/4	3.450
	3 3/8	3.590
	3 1/2	3.720
	3 5/8	3.850
	3 3/4	3.980
	3 7/8	4.120
	4	4.250
	4 1/4	4.520
	4 1/2	4.780
	4 3/4	5.050

Hot Rolled and Cold Rolled Flats *(continued)*

THICKNESS	SIZE IN INCHES	WT./FT.
5/16 x	5	5.310
	5 1/4	5.580
	5 1/2	5.830
	5 3/4	6.110
	6	6.380
	7	7.440
	8	8.500
	9	9.560
	10	40.630
	12	12.750
3/8 x	1/2	0.638
	3/4	0.956
	7/8	1.120
	1	1.280
	1 1/8	1.430
	1 1/4	1.590
	1 3/8	1.750
	1 1/2	1.910
	1 5/8	2.070
	1 3/4	2.230
	1 7/8	2.390
	2	2.550
	2 1/8	2.710
	2 1/4	2.870
	2 3/8	3.030
	2 1/2	3.190
	2 5/8	3.350
	2 3/4	3.510
	2 7/8	3.670
3/8 x	3	3.830
	3 1/8	3.980
	3 1/4	4.140
	3 3/8	4.300
	3 1/2	4.460
	3 5/8	4.620
	3 3/4	4.780
	3 7/8	4.940
	4	5.100
	4 1/4	5.420
	4 1/2	5.740
	4 3/4	6.060
	5	6.380
	5 1/4	6.700
	5 1/2	7.010
	5 3/4	7.330
	6	7.650
	7	8.930
	8	10.200
	9	11.480
	10	12.750
	11	14.030
	12	15.300
1/2 x	3/4	1.280
	1	1.700
	1 1/4	2.130
	1 1/2	2.550
	1 3/4	2.980
	2	3.400

Hot Rolled and Cold Rolled Flats *(continued)*

THICKNESS	SIZE IN INCHES	WT./FT.
1/2 x	2 1/4	3.830
	2 1/2	4.250
	2 3/4	4.680
	3	5.100
	3 1/4	5.530
	3 1/2	5.950
	3 3/4	6.380
	4	6.800
	4 1/4	7.230
	4 1/2	7.650
	4 3/4	8.080
	5	8.500
	5 1/4	8.930
	5 1/2	9.350
	5 3/4	9.780
	6	10.200
	7	11.900
	8	13.600
	9	15.300
	10	17.000
	11	18.700
	12	20.400
5/8 x	1	2.130
	1 1/4	2.660
	1 1/2	3.190
	1 3/4	3.720
	2	4.250
	2 1/4	4.780
	2 1/2	5.310

THICKNESS	SIZE IN INCHES	WT./FT.
5/8 x	2 3/4	5.840
	3	6.380
	3 1/4	6.910
	3 1/2	7.440
	3 3/4	7.970
	4	8.500
	4 1/4	9.030
	4 1/2	9.560
	4 3/4	10.090
	5	10.630
	5 1/4	11.160
	5 1/2	11.690
	5 3/4	12.220
	6	12.750
	7	14.880
	8	17.000
	9	19.130
	10	21.250
	11	23.400
	12	25.500
3/4 x	1	2.550
	1 1/4	3.190
	1 1/2	3.830
	1 3/4	4.460
	2	5.100
	2 1/4	5.740
	2 1/2	6.380
	2 3/4	7.010
	3	7.650

Hot Rolled and Cold Rolled Flats *(continued)*

THICKNESS	SIZE IN INCHES	WT./FT.
3/4 x	3 1/4	8.290
	3 1/2	8.930
	3 3/4	9.560
	4	10.200
	4 1/4	10.840
	4 1/2	11.480
	4 3/4	12.110
	5	12.750
	5 1/4	13.390
	5 1/2	14.030
	5 3/4	14.660
	6	15.300
	7	17.850
	8	20.400
	9	22.950
	10	25.500
	12	30.600
7/8 x	1	2.980
	1 1/4	3.720
	1 1/2	4.460
	1 3/4	5.210
	2	5.950
	2 1/4	6.690
	2 1/2	7.440
	2 3/4	8.180
	3	8.930
	3 1/4	9.670
	3 1/2	10.410
	3 3/4	11.160

THICKNESS	SIZE IN INCHES	WT./FT.
7/8 x	4	11.900
	4 1/4	12.640
	4 1/2	13.390
	4 3/4	14.130
	5	14.880
	5 1/4	15.620
	5 1/2	16.360
	5 3/4	17.110
	6	17.850
	7	20.830
	8	23.800
	10	29.750
	12	35.700
1 x	1 1/4	4.250
	1 1/2	5.100
	1 3/4	5.950
	2	6.800
	2 1/4	7.650
	2 1/2	8.500
	2 3/4	9.350
	3	10.200
	3 1/4	11.050
	3 1/2	11.900
	3 3/4	12.750
	4	13.600
	4 1/4	14.450
	4 1/2	15.300
	4 3/4	16.150
	5	17.000

Hot Rolled and Cold Rolled Flats *(continued)*

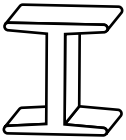
THICKNESS	SIZE IN INCHES	WT./FT.
1 x	5 1/4	17.850
	5 1/2	18.700
	5 3/4	19.550
	6	20.400
	7	23.800
	8	27.200
	9	30.600
	10	34.000
	12	40.800
1 1/8 x	2	7.650
	2 1/2	9.560
	3	11.480
	4	15.300
	5	19.130
	5 1/2	21.040
	6	22.950
1 1/4 x	1 1/2	6.380
	1 3/4	7.440
	2	8.500
	2 1/4	9.560
	2 1/2	10.630
	2 3/4	11.690
	3	12.750
	3 1/4	13.810
	3 1/2	14.880
	4	17.000
	4 1/2	19.130
	5	21.250
	5 1/2	23.380

THICKNESS	SIZE IN INCHES	WT./FT.
1 1/4 x	6	25.500
	7	29.750
	8	34.000
	9	38.250
	10	42.500
	12	51.000
1 3/8 x	1 3/4	8.930
	2	10.200
	2 1/4	11.480
	2 1/2	12.750
1 1/2 x	2 3/4	14.030
	3	15.300
	3 1/2	17.850
	4	20.400
	4 1/2	22.950
	5	25.500
	5 1/2	28.050
	6	30.600
	7	35.700
	8	40.800
	10	51.000
	12	61.200
1 3/4 x	2	11.900
	2 1/2	14.880
	2 3/4	16.360
	3	17.850
	3 1/2	20.830
	4	23.800
	4 1/2	26.780

Hot Rolled and Cold Rolled Flats *(continued)*

THICKNESS	SIZE IN INCHES	WT./FT.
1 3/4 x	5	29.750
	6	35.700
	8	47.600
2 x	2 1/4	15.300
	2 1/2	17.000
	3	20.400
	3 1/2	23.800
	4	27.200
	4 1/2	30.600
	5	34.000
	6	40.800
	7	47.600
	8	54.400
	9	61.200
2 x	10	68.000
	12	81.600
2 1/4 x	3	22.950
	4	30.600
2 1/2 x	3	25.500
	3 1/2	29.750
	4	34.000
	4 1/2	38.250
	5	42.500
	6	51.000
3 x	4	40.800
	4 1/2	45.900
	5	51.000
	6	61.200

Wide Flange Beams



SIZE IN.	WT./FT.	DEPTH OF SECTION	FLANGE WIDTH	FLANGE THICKNESS	WEB THICKNESS
4 x 4	13	4.160	4.060	0.345	0.280
5 x 5	16	5.010	5.000	0.360	0.240
	19	5.150	5.030	0.430	0.270
6 x 4	9	5.900	3.940	0.215	0.170
	12	6.030	4.000	0.280	0.230
	16	6.280	4.030	0.405	0.260
6 x 6	15	5.990	5.990	0.260	0.230
	20	6.200	6.020	0.365	0.260
	25	6.380	6.080	0.455	0.320
8 x 4	10	7.890	3.940	0.205	0.170
	13	7.990	4.000	0.255	0.230
	15	8.110	4.015	0.315	0.245
8 x 5 1/4	18	8.140	5.250	0.330	0.230
	21	8.280	5.270	0.400	0.250
8 x 6 1/2	24	7.930	6.495	0.400	0.245
	28	8.060	6.535	0.465	0.285
8 x 8	31	8.000	7.995	0.435	0.285
	35	8.120	8.020	0.495	0.310
	40	8.250	8.070	0.560	0.360
	48	8.500	8.110	0.685	0.400
	58	8.750	8.220	0.810	0.510
	67	9.000	8.280	0.935	0.570
10 x 4	12	9.870	3.960	0.210	0.190

Wide Flange Beams *(continued)*

SIZE IN.	WT./FT.	DEPTH OF SECTION	FLANGE WIDTH	FLANGE THICKNESS	WEB THICKNESS
10 x 4	15	9.990	4.000	0.270	0.230
	17	10.110	4.010	0.330	0.240
	19	10.240	4.020	0.395	0.250
10 x 5 3/4	22	10.170	5.750	0.360	0.240
	26	10.330	5.770	0.440	0.260
	30	10.470	5.810	0.510	0.300
10 x 8	33	9.730	7.960	0.435	0.290
	39	9.920	7.985	0.530	0.315
	45	10.100	8.020	0.620	0.350
10 x 10	49	9.980	10.000	0.560	0.340
	54	10.090	10.030	0.615	0.370
	60	10.220	10.080	0.680	0.420
	68	10.400	10.130	0.770	0.470
	77	10.600	10.190	0.870	0.530
	88	10.840	10.265	0.990	0.605
	100	11.100	10.340	1.120	0.680
	112	11.360	10.415	1.250	0.755
12 x 4	14	11.910	3.970	0.225	0.200
	16	11.990	3.990	0.265	0.220
	19	12.160	4.005	0.350	0.235
	22	12.310	4.030	0.425	0.260
12 x 6 1/2	26	12.220	6.490	0.380	0.230
	30	12.340	6.520	0.440	0.260
	35	12.500	6.560	0.520	0.300
12 x 8	40	11.940	8.005	0.515	0.295
	45	12.060	8.045	0.575	0.335
	50	12.190	8.080	0.640	0.370
12 x 10	53	12.060	9.995	0.575	0.345
	58	12.190	10.010	0.640	0.360

Wide Flange Beams *(continued)*

SIZE IN.	WT./FT.	DEPTH OF SECTION	FLANGE WIDTH	FLANGE THICKNESS	WEB THICKNESS
12 x 12	65	12.120	12.000	0.605	0.390
	72	12.250	12.040	0.670	0.430
	79	12.380	12.080	0.735	0.470
	87	12.530	12.125	0.810	0.515
	96	12.710	12.160	0.900	0.550
	106	12.890	12.220	0.990	0.610
	120	13.120	12.320	1.105	0.710
	136	13.410	12.400	1.250	0.790
	152	13.710	12.480	1.400	0.870
	170	14.030	12.570	1.560	0.960
	190	14.380	12.670	1.735	1.060
	210	14.710	12.790	1.900	1.180
	230	15.050	12.895	2.070	1.285
	252	15.410	13.005	2.250	1.395
	279	15.850	13.140	2.470	1.530
	305	16.320	13.235	2.705	1.625
	336	16.820	13.385	2.955	1.775
14 x 5	22	13.740	5.000	0.335	0.230
	26	13.910	5.025	0.420	0.225
14 x 6 3/4	30	13.840	6.730	0.385	0.270
	34	13.980	6.745	0.455	0.285
	38	14.100	6.770	0.515	0.310
14 x 8	43	13.660	7.995	0.530	0.305
	48	13.790	8.030	0.595	0.340
	53	13.920	8.060	0.660	0.370
14 x 10	61	13.890	9.995	0.645	0.375
	68	14.040	10.035	0.720	0.415
	74	14.170	10.070	0.785	0.450
	82	14.310	10.130	0.855	0.510

Wide Flange Beams *(continued)*

SIZE IN.	WT./FT.	DEPTH OF SECTION	FLANGE WIDTH	FLANGE THICKNESS	WEB THICKNESS
14 x 14 1/2	90	14.020	14.520	0.710	0.440
	99	14.160	14.565	0.780	0.485
	109	14.320	14.605	0.860	0.525
	120	14.480	14.670	0.940	0.590
	132	14.660	14.725	1.030	0.645
14 x 16	145	14.780	15.500	1.090	0.680
	159	14.980	15.565	1.190	0.745
	176	15.220	15.650	1.310	0.830
	193	15.480	15.710	1.440	0.890
	211	15.720	15.800	1.560	0.980
	233	16.040	15.890	1.720	1.070
	257	16.380	15.995	1.890	1.175
	283	16.740	16.110	2.070	1.290
	311	17.120	16.230	2.260	1.410
	342	17.540	16.360	2.470	1.540
	370	17.920	16.475	2.660	1.655
	398	18.290	16.590	2.845	1.770
	426	18.670	16.695	3.035	1.875
	455	19.020	16.835	3.210	2.015
	500	19.600	17.101	3.500	2.190
	550	20.240	17.200	3.820	2.380
	605	20.920	17.415	4.160	2.595
	665	21.640	17.650	4.520	2.830
	730	22.420	17.890	4.910	3.070
16 x 5 1/2	26	15.590	5.500	0.345	0.250
	31	15.880	5.525	0.440	0.275
16 x 7	36	15.860	6.985	0.430	0.295
	40	16.010	6.995	0.505	0.305
	45	16.130	7.035	0.565	0.345

Wide Flange Beams *(continued)*

SIZE IN.	WT./FT.	DEPTH OF SECTION	FLANGE WIDTH	FLANGE THICKNESS	WEB THICKNESS
16 x 7	50	16.260	7.070	0.630	0.380
	57	16.430	7.120	0.715	0.430
16 x 10 1/4	67	16.330	10.235	0.665	0.395
	77	16.520	10.295	0.760	0.455
	89	16.750	10.365	0.875	0.525
	100	16.970	10.425	0.985	0.585
18 x 6	35	17.700	6.000	0.425	0.300
	40	17.900	6.015	0.525	0.315
	46	18.060	6.060	0.605	0.360
18 x 7 1/2	50	17.990	7.495	0.570	0.355
	55	18.110	7.530	0.630	0.390
	60	18.240	7.555	0.695	0.415
	65	18.350	7.590	0.750	0.450
	71	18.470	7.635	0.810	0.495
18 x 11	76	18.210	11.035	0.680	0.425
	86	18.390	11.090	0.770	0.480
	97	18.590	11.145	0.870	0.535
	106	18.730	11.200	0.940	0.590
	119	18.870	11.265	1.060	0.655
	130	19.250	11.160	1.200	0.670
	143	19.490	11.220	1.320	0.730
	158	19.720	11.300	1.440	0.810
	175	20.040	11.375	1.590	0.890
	192	20.350	11.455	1.750	0.960
	211	20.670	11.555	1.910	1.060
	234	21.060	11.650	2.110	1.160
	258	21.460	11.770	2.300	1.280
	283	21.850	11.890	2.500	1.400
	311	22.320	12.005	2.740	1.520

Wide Flange Beams *(continued)*

SIZE IN.	WT./FT.	DEPTH OF SECTION	FLANGE WIDTH	FLANGE THICKNESS	WEB THICKNESS
21 x 6 1/2	44	20.660	6.500	0.450	0.350
	50	20.830	6.530	0.535	0.380
	57	21.060	6.555	0.650	0.405
21 x 8 1/4	62	20.990	8.420	0.615	0.400
	68	21.130	8.270	0.685	0.430
	73	21.240	8.295	0.740	0.455
	83	21.430	8.355	0.835	0.515
	93	21.620	8.420	0.930	0.580
21 x 12 1/4	101	21.360	12.290	0.800	0.500
	111	21.510	12.340	0.875	0.550
	122	21.680	12.390	0.960	0.600
	132	21.830	12.440	1.035	0.650
	147	22.060	12.510	1.150	0.720
	166	22.480	12.420	1.360	0.750
24 x 7	55	23.570	7.005	0.505	0.395
	62	23.740	7.040	0.590	0.430
24 x 9	68	23.730	8.965	0.585	0.415
	76	23.920	8.990	0.680	0.440
	84	24.100	9.020	0.770	0.470
	94	24.310	9.065	0.875	0.515
	103	24.530	9.000	0.980	0.550
24 x 12 3/4	104	24.060	12.750	0.750	0.500
	117	24.260	12.800	0.850	0.550
	131	24.480	12.855	0.960	0.695
	146	24.740	12.900	1.090	0.650
	162	25.000	12.955	1.220	0.705
	176	25.240	12.890	1.340	0.750
	192	25.470	12.950	1.460	0.810
	207	25.710	13.010	1.570	0.870

Wide Flange Beams *(continued)*

SIZE IN.	WT./FT.	DEPTH OF SECTION	FLANGE WIDTH	FLANGE THICKNESS	WEB THICKNESS
24 x 12 3/4	229	26.020	13.110	1.730	0.960
	250	26.340	13.185	1.890	1.040
	279	26.730	13.305	2.090	1.160
27 x 10	84	26.710	9.960	0.640	0.460
	94	26.920	9.990	0.745	0.490
	102	27.090	10.015	0.830	0.505
	114	27.290	10.070	0.930	0.570
	129	27.630	10.010	1.100	0.610
27 x 14	146	27.380	13.965	0.975	0.605
	161	27.590	14.020	1.080	0.660
	178	27.810	14.085	1.190	0.725
	194	28.110	14.035	1.340	0.750
	235	28.660	14.190	1.610	0.910
	258	28.980	14.270	1.770	0.980
	307	29.610	14.445	2.090	1.160
	368	30.390	14.665	2.480	1.380
30 x 10 1/2	90	29.530	10.400	0.610	0.470
	99	29.650	10.450	0.670	0.520
	108	29.830	10.475	0.760	0.545
	116	30.010	10.495	0.850	0.565
	124	30.170	10.515	0.930	0.585
	132	30.310	10.545	1.000	0.615
	148	30.670	10.480	1.180	0.650
30 x 15	173	30.440	14.985	1.065	0.655
	191	30.680	15.040	1.185	0.710
	211	30.940	15.105	1.135	0.775
	235	31.300	15.055	1.500	0.830
	261	31.610	15.155	1.650	0.930
	292	32.010	15.255	1.850	1.020

Wide Flange Beams *(continued)*

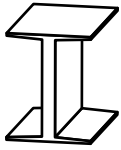
SIZE IN.	WT./FT.	DEPTH OF SECTION	FLANGE WIDTH	FLANGE THICKNESS	WEB THICKNESS
30 x 15	326	32.400	15.370	2.050	1.140
	357	32.800	15.470	2.240	1.240
	391	33.190	15.590	2.440	1.360
33 x 11 1/2	118	32.860	11.480	0.740	0.550
	130	33.090	11.510	0.855	0.580
	141	33.300	11.535	0.960	0.605
	152	33.490	11.565	1.055	0.635
33 x 15 1/4	169	33.820	11.500	1.220	0.670
	201	33.680	15.745	1.150	0.715
	221	33.930	15.805	1.275	0.775
	241	34.180	15.860	1.400	0.830
	263	34.530	15.805	1.570	0.870
	291	34.840	15.905	1.730	0.960
	318	35.160	15.985	1.890	1.040
	354	35.550	16.100	2.090	1.160
36 x 12	135	35.550	11.950	0.790	0.600
	150	35.850	11.975	0.940	0.625
	160	36.010	12.000	1.020	0.650
	170	36.170	12.030	1.100	0.680
	182	36.330	12.075	1.180	0.725
	194	36.490	12.115	1.260	0.765
	210	36.690	12.180	1.360	0.830
	232	37.120	12.120	1.570	0.870
	256	37.430	12.215	1.730	0.960
36 x 16 1/2	230	35.600	16.470	1.260	0.760
	245	36.080	16.510	1.350	0.800
	260	36.260	16.550	1.440	0.840
	280	36.520	16.595	1.570	0.885
	300	36.740	16.655	1.680	0.945

Wide Flange Beams *(continued)*

SIZE IN.	WT./FT.	DEPTH OF SECTION	FLANGE WIDTH	FLANGE THICKNESS	WEB THICKNESS
36 x 16 1/2	328	37.090	16.630	1.850	1.020
	359	37.400	16.730	2.010	1.120
	393	37.800	16.830	2.200	1.220
	439	38.260	16.965	2.440	1.360
	527	39.210	17.220	2.910	1.610
	650	40.470	17.575	3.540	1.970
	798	41.970	17.990	4.290	2.380
	848	42.450	18.130	4.530	2.520
40 x 12	149	38.200	11.810	0.830	0.630
	167	38.590	11.810	1.025	0.650
	183	38.980	11.810	1.220	0.650
	211	39.370	11.810	1.415	0.750
	235	39.690	11.890	1.575	0.830
	264	40.000	11.930	1.730	0.960
	278	40.160	11.969	1.811	1.024
	331	40.790	12.165	2.126	1.220
	392	41.570	12.362	2.520	1.417
	466	42.440	12.638	2.953	1.673
40 x 16	174	38.200	15.748	0.827	0.650
	199	38.670	15.750	1.065	0.650
	215	38.980	15.750	1.220	0.650
	249	39.380	15.750	1.420	0.750
	277	39.690	15.830	1.575	0.830
	297	39.840	15.825	1.650	0.930
	372	40.630	16.063	2.047	1.161
44 x 16	230	42.910	15.748	1.220	0.709
	262	43.310	15.748	1.417	0.878
	290	43.620	15.827	1.575	0.866
	335	44.020	15.945	1.772	1.024

Standard I Beams

SIZE IN INCHES	WIDTH OF FLANGE	WT./FT.
3	2.330	6
	2.509	8
4	2.663	8
	2.796	10
5	3.004	10
6	3.332	13
	3.565	17
7	3.362	15
8	4.001	18
	4.101	23
10	4.661	25
	4.944	35
12	5.000	32
	5.078	35
	5.252	41
	5.477	50
15	5.501	43
	5.640	50



SIZE IN INCHES	WIDTH OF FLANGE	WT./FT.
18	6.001	55
	6.251	70
20	6.255	66
	6.385	75
	7.060	86
	7.200	96
24	7.000	80
	7.125	90
	7.245	100
	7.870	106
	8.050	121

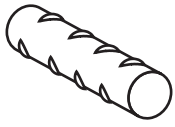
Jr Beams

SIZE IN INCHES	WT./FT.
6	4.4
8	6.5
10	9
12	11.8

Concrete Reinforcing Bar

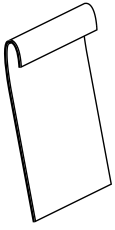
GR40 and GR60

SIZE IN INCHES	NUMBER	WT./FT.
1/4	#2	0.167
3/8	#3	0.376
1/2	#4	0.668
5/8	#5	1.043
3/4	#6	1.502
7/8	#7	2.044
1	#8	2.670
1 1/8	#9	3.400
1 1/4	#10	4.303



SIZE IN INCHES	NUMBER	WT./FT.
1 3/8	#11	5.313
1 3/4	#14	7.650
2 1/4	#18	13.600

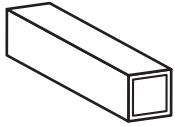
Landscape Edging



Sheared Edge	16g 4" x 120"
Round Edge	16g 4" x 120" rolled top safety edge
Galvanized Edge	16g galvanized rolled to safety edge
Landscape Stakes	1/8 x 1 hr flat with a top hook

Square Tubing

SIZE IN INCHES	GAUGE	WALL THICKNESS	WT./FT.
1/2"	18	0.049	0.301
	16	0.063	0.384
3/4"	16	0.063	0.605
	11	0.120	1.030
1"	18	0.049	0.634
	16	0.063	0.827
	15	0.072	0.906
	14	0.083	1.040
	13	0.095	1.170
	12	0.109	1.320
	11	0.120	1.440
1 1/4"	16	0.063	1.050
	14	0.083	1.320
	11	0.120	1.840
1 1/2"	16	0.063	1.270
	14	0.083	1.600
	11	0.120	2.250
	3/16	0.188	3.040
2"	16	0.063	1.710
	14	0.083	2.100
	11	0.120	3.050
	3/16	0.188	4.320
	1/4	0.250	5.410
2 1/2"	14	0.083	2.670
	11	0.120	3.900
	3/16	0.188	5.590
	1/4	0.250	7.110
3"	14	0.083	3.230
	11	0.120	4.750



SIZE IN INCHES	GAUGE	WALL THICKNESS	WT./FT.
3"	3/16	0.188	6.870
	1/4	0.250	8.810
	5/16	0.313	10.580
	3/8	0.375	12.160
3 1/2"	11	0.120	5.600
	3/16	0.188	8.150
	1/4	0.250	10.510
	5/16	0.313	12.700
	3/8	0.375	14.720
4"	11	0.120	6.450
	3/16	0.188	9.420
	1/4	0.250	12.210
	5/16	0.313	14.830
	3/8	0.375	17.270
	1/2	0.500	21.630
4 1/2"	3/16	0.188	10.700
	1/4	0.250	13.910
5"	3/16	0.188	11.970
	1/4	0.250	15.620
	5/16	0.313	19.080
	3/8	0.375	22.370
	1/2	0.500	28.430
6"	3/16	0.188	14.530
	1/4	0.250	19.020

Square Tubing *(continued)*

SIZE IN INCHES	GAUGE	WALL THICKNESS	WT./FT.
6”	5/16	0.313	23.340
	3/8	0.375	27.480
	1/2	0.500	35.240
	5/8	0.625	42.270
7”	3/16	0.188	17.080
	1/4	0.250	22.420
	5/16	0.313	27.590
	3/8	0.375	32.580
	1/2	0.500	42.050
	5/8	0.625	50.770
8”	3/16	0.188	19.630
	1/4	0.250	25.820
	5/16	0.313	31.840
	3/8	0.375	37.690
	1/2	0.500	48.850
	5/8	0.625	59.320
9”	5/16	0.313	36.100
	3/8	0.375	42.790
	1/2	0.500	55.660
	5/8	0.625	67.820
10”	3/16	0.188	24.730
	1/4	0.250	32.630
	5/16	0.313	40.350
	3/8	0.375	47.900
	1/2	0.500	62.460
	5/8	0.625	76.330
12”	1/4	0.250	39.430
	5/16	0.313	48.860
	3/8	0.375	58.100
	1/2	0.500	76.070
	5/8	0.625	93.250
14”	5/16	0.313	57.360
	3/8	0.375	68.310
	1/2	0.500	89.680
	5/8	0.625	110.360
16”	5/16	0.313	65.870
	3/8	0.375	78.520
	1/2	0.500	103.300
	5/8	0.625	127.370

Rectangular Tubing

SIZE IN INCHES	GAUGE	WALL THICKNESS	WT./FT.
1½ x 1	14	0.083	1.320
	11	0.120	1.840
2 x 1	16	0.063	1.270
	14	0.083	1.600
	11	0.120	2.250
2 x 1½	11	0.120	2.660
3 x 1	16	0.063	1.710
	14	0.083	2.100
	11	0.120	3.050
3 x 1½	16	0.063	1.900
	14	0.083	2.380
	11	0.120	3.480
3 x 2	14	0.083	2.670
	11	0.120	3.900
	3/16	0.188	5.590
	1/4	0.250	7.110
3½ x 2½	3/16	0.188	6.870
	1/4	0.250	8.810
4 x 2	14	0.083	3.230
	11	0.120	4.750
	3/16	0.188	6.870
	1/4	0.250	8.800
	5/16	0.313	10.580
	3/8	0.375	12.160
4 x 3	11	0.120	5.600
	3/16	0.188	8.150
	1/4	0.250	10.510
	5/16	0.313	12.700
5 x 2	11	0.120	5.600
5 x 2	3/16	0.188	8.150
	1/4	0.250	10.510
	5/16	0.313	12.700
5 x 2½	3/16	0.188	8.760
	1/4	0.250	11.350
5 x 3	11	0.120	6.450
	3/16	0.188	9.420
	1/4	0.250	12.210
	5/16	0.313	14.830
	3/8	0.375	17.270
	1/2	0.500	21.630
5 x 4	3/16	0.188	10.710
	1/4	0.250	13.910
	5/16	0.313	16.960
	3/8	0.375	19.820
6 x 2	11	0.120	6.450
	3/16	0.188	9.420
	1/4	0.250	12.210
	5/16	0.313	14.830
	3/8	0.375	17.270
6 x 3	3/16	0.188	10.700
	1/4	0.250	13.910
	5/16	0.313	16.960
	3/8	0.375	19.820
	1/2	0.500	25.030
6 x 4	3/16	0.188	11.970
	1/4	0.550	15.620
	5/16	0.313	19.080
	3/8	0.375	22.370

Rectangular Tubing *(continued)*

SIZE IN INCHES	GAUGE	WALL THICKNESS	WT./FT.
6 x 4	1/2	0.500	28.430
7 x 3	3/16	0.188	11.970
	1/4	0.250	15.620
	5/16	0.313	19.080
	3/8	0.375	22.370
7 x 4	/16	0.188	13.250
	1/4	0.250	17.320
	5/16	0.313	21.210
	3/8	0.375	24.930
	1/2	0.500	31.840
7 x 5	3/16	0.188	14.530
	1/4	0.250	19.020
	5/16	0.313	23.340
	3/8	0.375	27.480
	1/2	0.500	35.240
8 x 2	3/16	0.188	11.970
	1/4	0.250	15.620
	5/16	0.313	19.080
	3/8	0.375	22.370
8 x 3	3/16	0.188	13.250
	1/4	0.250	17.320
	5/16	0.313	21.210
	3/8	0.375	24.930
	1/2	0.500	31.840
8 x 4	3/16	0.188	14.530
	1/4	0.250	19.020
	5/16	0.313	23.340
	3/8	0.375	27.480
	1/2	0.500	35.240
8 x 4	5/8	0.625	42.270
8 x 6	3/16	0.188	17.080
	1/4	0.250	22.420
	5/16	0.313	27.590
	3/8	0.375	32.580
	1/2	0.500	42.050
	5/8	0.625	50.770
10 x 2	3/16	0.188	14.530
	1/4	0.250	19.020
	5/16	0.313	23.340
10 x 3	3/16	0.188	15.800
	1/4	0.250	20.720
10 x 4	3/16	0.188	17.080
	1/4	0.250	22.420
	5/16	0.313	27.590
	3/8	0.375	32.580
	1/2	0.500	42.050
10 x 5	1/4	0.250	24.120
	5/16	0.313	29.720
	3/8	0.375	35.140
	1/2	0.500	45.120
10 x 6	3/16	0.188	19.630
	1/4	0.250	25.820
	5/16	0.313	31.840
	3/8	0.375	37.690
	1/2	0.500	48.850
	5/8	0.625	59.320
10 x 8	1/4	0.250	29.230
	5/16	0.313	36.100

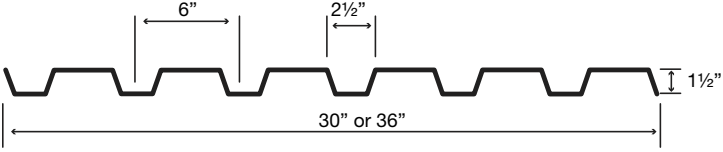
Rectangular Tubing *(continued)*

SIZE IN INCHES	GAUGE	WALL THICKNESS	WT./FT.
10 x 8	3/8	3.750	42.790
	1/2	0.500	55.660
12 x 2	3/16	0.188	17.180
	1/4	0.250	22.420
12 x 3	3/16	0.188	18.350
	1/4	0.250	24.120
12 x 4	3/16	0.188	19.630
	1/4	0.250	25.820
	5/16	0.313	31.840
	3/8	0.375	37.690
	1/2	0.500	48.850
	5/8	0.625	59.320
12 x 6	3/16	0.188	22.180
	1/4	0.250	29.230
	5/16	0.313	36.100
	3/8	0.375	42.790
	1/2	0.500	55.660
	5/8	0.625	67.820
12 x 8	1/4	0.250	32.630
	5/16	0.313	40.350
	3/8	0.375	47.900
	1/2	0.500	62.460
	5/8	0.625	76.330
14 x 4	1/4	0.250	29.230
	5/16	0.313	36.100
	3/8	0.375	42.790
	1/2	0.500	55.660
14 x 6	1/4	0.250	32.630
	5/16	0.313	40.350
	3/8	0.375	47.900
	1/2	0.500	62.460
14 x 10	5/16	0.313	48.860
	3/8	0.375	58.100
	1/2	0.500	76.070
	5/8	0.625	93.250
16 x 4	5/16	0.313	40.350
	3/8	0.375	47.900
	1/2	0.500	62.460
16 x 8	5/16	0.313	48.860
	3/8	0.375	58.100
	1/2	0.500	76.070
16 x 12	5/16	0.313	57.360
	3/8	0.375	68.310
	1/2	0.500	89.680
18 x 6	5/16	0.313	48.860
	3/8	0.375	58.100
	1/2	0.500	76.070
20 x 4	5/16	0.313	48.860
	3/8	0.375	58.100
	1/2	0.500	76.070
20 x 8	5/16	0.313	57.360
	3/8	0.375	68.310
	1/2	0.500	89.680
20 x 12	5/16	0.313	65.870
	3/8	0.375	78.520
	1/2	0.500	103.200
	5/8	0.625	127.370

Culvert

PIPE DIA INCHES	WATER WAY AREA SF FT	LBS. PER LINEAR FOOT 2 2/3" X 1/2" HELICAL OR ANNULAR					EQUIVALENT ARCHED SIZE
		16G	14G	12G	10G	8G	
6		4.900					
8		6.400					
10		7.900					
12	0.800	9.500	11.900	16.700			
15	1.200	11.700	14.800	20.000			17 x 13
18	1.800	14.100	17.600	24.400			21 x 15
21	2.400	16.300	20.400	28.300			24 x 18
24	3.100	18.600	23.300	32.200			28 x 20
30	4.900	23.100	28.900	40.100	51.600	61.300	35 x 24
36	7.100	27.700	34.600	47.900	60.300	73.300	42 x 29
42	9.600	32.300	40.300	55.900	70.100	85.400	49 x 33
48	12.600	36.700	45.900	63.700	80.000	97.300	57 x 38
54	15.900	41.000	51.200	72.800	89.900	109.400	60 x 46
60	19.600		56.800	80.800	99.700	121.400	66 x 51
66	23.800		62.400	88.800	109.600	133.400	
72	28.300			95.000	119.500	145.400	
78	33.700				129.400	157.400	
84	38.500				139.200	169.400	
90	44.200				149.200	181.600	
96	50.300				160.000	193.400	

1.5 BW Deck

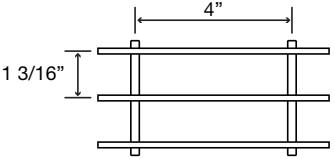


DECK TYPE	DESIGN THICKNESS	LBS/SQFT
BW 20g	0.036	2.14

Bar Grating *(Floor Grating)*

Type 19-W-4

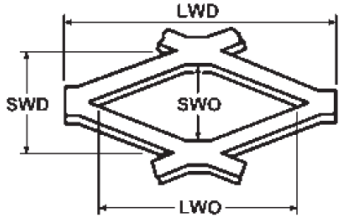
BEARING BARS		CROSS BARS	LBS/SQFT
3/4	1/8	1/4	3.990
	3/16	1/4	5.670
1	1/8	1/4	5.150
	3/16	1/4	7.350
1 1/4	1/8	1/4	6.200
	3/16	1/4	9.030
1 1/2	1/8	1/4	7.350
	3/16	5/16	10.940
1 3/4	3/16	5/16	12.620
2	3/16	5/16	14.300
2 1/4	3/16	5/16	15.870
2 1/2	3/16	5/16	17.550

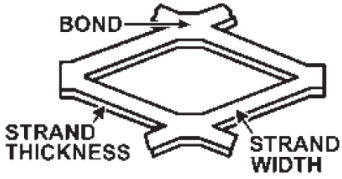


19-W-4

Design Size

Actual dimensions SWD and LWD. Measured from a point to a corresponding point on the design shown.





SWD: Nominal dimensions Short Way of Design
SWO: Short Way of Opening
LWD: Nominal dimensions Long Way of Design
LWO: Long Way of Opening
STRANDS: The sides of the expanded metal design.
STRAND THICKNESS: Gauge thickness of metal expanded.
STRAND WIDTH: Amount of metal fed under dies to produce one strand.
BOND: The solid intersection of two strands.

Flattened Expanded Metal

STYLE	LB/SQFT	DESIGN SIZE		OPENING SIZE		THICKNESS	% OPEN AREA
		SWD	LWD	SWO	LWO		
1/4" #20	0.820	0.250	1.050	0.084	0.715	0.030	35
1/4" #18	1.080	0.250	1.050	0.075	0.715	0.040	35
1/2" #20	0.400	0.500	1.250	0.375	1.000	0.029	65
1/2" #40	0.380	0.500	1.250	0.380	1.000	0.040	77
1/2" #18	0.660	0.500	1.250	0.312	1.000	0.039	60
1/2" #16	0.820	0.500	1.250	0.312	1.000	0.050	63
1/2" #13	1.400	0.500	1.250	0.265	1.000	0.070	52
3/4" #16	0.510	0.923	2.100	0.750	1.750	0.048	74
3/4" #14	0.630	0.923	2.100	0.688	1.813	0.061	74
3/4" #13	0.750	0.923	2.100	0.688	1.781	0.070	74
3/4" #10	1.140	0.923	2.100	0.637	1.755	0.070	68
3/4" #9	1.710	0.923	2.100	0.563	1.688	0.120	63
1" #16	0.410	1.000	2.500	0.813	2.250	0.050	78
1 1/2" #16 Lt	0.290	1.330	3.200	1.175	2.620	0.050	83
1 1/2" #16	0.380	1.330	3.200	1.062	2.750	0.048	83
1 1/2" #14	0.460	1.330	3.200	1.062	2.750	0.060	80
1 1/2" #13	0.570	1.330	3.200	1.062	2.750	0.070	80
1 1/2" #9	1.140	1.330	3.200	1.000	2.563	0.110	75

Raised Expanded Metal

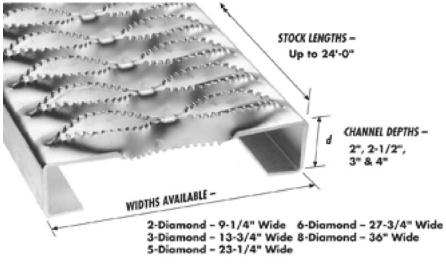
STYLE	LB/SQFT	DESIGN SIZE		OPENING SIZE		THICKNESS	% OPEN AREA
		SWD	LWD	SWO	LWO		
1/4" #20	0.860	0.250	1.000	0.125	0.718	0.135	45
1/4" #18	1.140	0.250	1.000	0.110	0.718	0.147	43
1/2" #20	0.430	0.500	1.000	0.435	0.938	0.140	80
1/2" #40	0.400	0.500	1.200	0.440	0.938	0.110	82
1/2" #18	0.700	0.500	1.200	0.438	0.938	0.172	72
1/2" #16	0.860	0.500	1.000	0.375	0.938	0.175	65
1/2" #13	1.470	0.500	1.200	0.312	0.938	0.204	57
3/4" #16	0.540	0.923	2.000	0.813	1.750	0.210	78
3/4" #13	0.800	0.923	2.000	0.750	1.688	0.205	76
3/4" #10	1.200	0.923	2.000	0.750	1.625	0.290	72
3/4" #9	1.800	0.923	2.000	0.688	1.562	0.312	68
1" #16	0.440	1.000	2.400	0.938	2.062	0.192	82
1 1/2" #18	0.200	1.330	3.000	1.313	2.625	0.140	90
1 1/2" #16	0.400	1.330	3.000	1.250	2.625	0.230	85
1 1/2" #13	0.600	1.330	3.000	1.188	2.500	0.242	85
1 1/2" #10	0.790	1.330	3.000	1.188	2.500	0.284	80
1 1/2" #9	1.200	1.330	3.000	1.125	2.375	0.312	76
1 1/2" #6	2.500	1.330	3.000	1.110	2.313	0.433	69
2" #10	0.680	1.850	4.000	1.625	3.438	0.327	82
2" #9	0.900	1.850	4.000	1.563	3.375	0.312	84

Expanded Metal Grating

STYLE	LB/SQFT	DESIGN SIZE		OPENING SIZE		THICKNESS	% OPEN AREA
		SWD	LWD	SWO	LWO		
3 #	3.000	1.330	5.330	0.940	3.440	0.540	60
3.14 #	3.140	2.000	6.000	1.625	4.880	0.656	69
4 #	4.000	1.330	5.330	0.940	3.440	0.618	55
4.27 #	4.270	1.410	4.000	1.000	2.880	0.625	58
5 #	5.000	1.330	5.330	0.813	3.380	0.655	50
6.25 #	6.250	1.410	5.330	0.813	3.380	0.715	50
7 #	7.000	1.410	5.330	0.813	3.380	0.740	45

Grip Strut

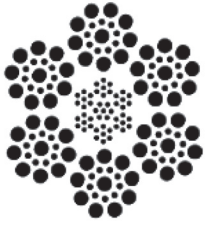
SIDE CHANNEL AVAILABLE	TYPE AVAILABLE	GAUGE	PRODUCT WIDTHS
1 1/2"	Galvanized	14ga	4 3/4"
2"		12ga	7"
2 1/2"	HR P&O	14ga	9 1/2"
3"		12ga	11 3/4"
	5052-H32 AL	.080"	18 3/4"
		.100"	24"



Wire Rope

IWRC (Independent Wire Rope and Core)

SIZE	LBS/FT	BREAKING STRENGTH IN TONS
1/4”	0.116	3.400
5/16”	0.180	5.270
3/8”	0.260	7.550
7/16”	0.350	10.200
1/2”	0.460	13.300
9/16”	0.590	16.800
5/6”	0.720	20.600
3/4”	1.040	29.400
7/8”	1.420	39.800
1”	1.850	51.700
1 1/8”	2.340	65.000
1 1/4”	2.890	79.900
1 3/8”	3.500	96.000
1 1/2”	4.160	114.000
1 5/8”	4.880	132.000

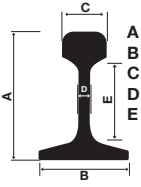


6x19 Seale with IWRC

SIZE	LBS/FT	BREAKING STRENGTH IN TONS
1 3/4”	5.670	153.000
1 7/8”	6.500	174.000
2”	7.390	198.000

American Society of Civil Engineers

DEPTH IN INCHES	WIDTH IN INCHES		WEIGHT PER YARD
HEIGHT	BASE	HEAD	POUNDS
1 9/16	1 9/16	25/32	8
2	2	1	12
2 3/8	2 3/8	1 11/64	16
2 5/8	2 5/8	1 11/32	20
2 3/4	2 3/4	1 1/2	25
3 1/8	3 1/8	1 11/16	30
3 5/16	3 5/16	1 3/4	35
3 1/2	3 1/2	1 7/8	40
3 11/16	3 11/16	2	45
3 7/8	3 7/8	2 1/8	50
4 1/16	4 1/16	2 1/4	55
4 1/4	4 1/4	2 3/8	60
4 7/16	4 7/16	2 13/32	65
4 5/8	4 5/8	2 7/16	70
4 13/16	4 13/16	2 15/32	75
5	5	2 1/2	80
5 3/16	5 3/16	2 9/16	85
5 3/8	5 3/8	2 5/8	90
5 9/16	5 9/16	2 11/16	95
5 5/8	5 1/8	2 9/16	90



A - Height
B - Width of Base
C - Width of Head
D - Web
E - Fishing

DEPTH IN INCHES	WIDTH IN INCHES		WEIGHT PER YARD
HEIGHT	BASE	HEAD	POUNDS
5 3/4	5 3/4	2 3/4	100
6 1/8	6 1/8	2 7/8	110
6 3/4	5 1/2	2 23/32	112
6 13/16	5 1/2	2 11/16	113
6 5/8	5 1/2	2 23/32	115
6 13/16	5 1/2	2 21/32	119
6 3/4	6	2 15/16	130
7 1/8	6	3	131
7 1/8	6	3	132
7 5/16	6	3	133
7 5/16	6	2 15/16	136
7 5/16	6	3	140
7 7/16	6	3 1/16	141

Steel Pipe

SIZE INCHES	OUTSIDE DIA. INCHES	SCHEDULE	WALL INCHES	INSIDE DIA. INCHES	WT./FT. POUND
1/8	0.405	40	0.068	0.269	0.240
		80	0.095	0.215	0.310
1/4	0.54	40	0.088	0.364	0.420
		80	0.119	0.302	0.540
3/8	0.675	40	0.091	0.493	0.570
		80	0.126	0.423	0.740
1/2	0.84	40	0.109	0.622	0.850
		80	0.147	0.546	1.090
		160	0.187	0.466	1.300
		XXH	0.294	0.252	1.710
3/4	1.05	40	0.113	0.824	1.130
		80	0.154	0.742	1.470
		160	0.218	0.614	1.940
		XXH	0.308	0.434	2.440
1	1.315	40	0.133	1.048	1.680
		80	0.179	0.957	2.170
		160	0.250	0.815	2.840
		XXH	0.358	0.599	3.660
1 1/4	1.66	10	0.109	1.442	1.810
		40	0.140	1.380	2.270
		80	0.191	1.278	3.000
		160	0.250	1.160	3.770
		XXH	0.382	0.896	5.210
1 1/2	1.9	10	0.109	1.682	2.090
		40	0.145	1.610	2.720
		80	0.200	1.500	3.630
		160	0.281	1.338	4.860
		XXH	0.400	1.100	6.410
2	2.375	10	0.109	2.157	2.640

Steel Pipe *(continued)*

SIZE INCHES	OUTSIDE DIA. INCHES	SCHEDULE	WALL INCHES	INSIDE DIA. INCHES	WT./FT. POUND
2		40	0.154	2.067	3.650
		80	0.218	1.939	5.020
		160	0.343	1.689	7.460
		XXH	0.436	1.503	9.030
2 1/2	2.875	10	0.120	2.635	3.530
		40	0.203	2.469	5.790
		80	0.276	2.323	7.660
		160	0.375	2.125	10.010
		XXH	0.552	1.771	13.660
3	3.5	10	0.120	3.125	4.340
		40	0.216	3.068	7.580
		80	0.300	2.900	10.250
		160	0.438	2.624	14.320
		XXH	0.600	2.300	18.580
3 1/2	4	40	0.226	3.548	9.110
		80	0.318	3.364	12.500
4	4.5	10	0.188	4.125	5.620
		40	0.237	4.026	10.790
		80	0.337	3.826	14.980
		120	0.438	3.624	19.000
		160	0.531	3.438	22.510
		XXH	0.674	3.152	27.540
5	5.563	40	0.258	5.047	14.620
		80	0.375	4.813	20.780
		120	0.500	4.563	27.040
		160	0.625	4.313	32.960
		XXH	0.750	4.063	38.550
6	6.625	10	0.134	6.357	9.289
	STD	40	0.280	6.056	18.970

Steel Pipe *(continued)*

SIZE INCHES	OUTSIDE DIA. INCHES	SCHEDULE	WALL INCHES	INSIDE DIA. INCHES	WT./FT. POUND
6		80	0.432	5.761	28.570
		120	0.562	5.491	36.390
		160	0.718	5.189	45.300
		XXH	0.864	4.897	53.160
8	8.625	20	0.250	8.125	22.360
		30	0.277	8.071	24.700
	STD	40	0.322	7.981	28.550
		60	0.406	7.813	35.640
		80	0.500	7.625	43.390
		100	0.594	7.439	50.950
		120	0.719	7.189	60.710
		140	0.812	7.001	67.760
		XXH	0.875	6.875	72.420
		160	0.096	6.813	74.690
10	10.75	20	0.250	10.250	28.040
		30	0.307	10.136	34.240
	STD	40	0.365	10.020	40.480
		60	0.500	9.750	54.740
		80	0.594	9.564	64.430
		100	0.719	9.224	77.030
		120	0.844	9.064	89.290
		140	1.000	8.750	104.130
		160	1.125	8.500	115.640
12	12.75	20	0.250	12.250	33.380
		30	0.330	12.090	43.770
	STD		0.375	12.000	49.560
		40	0.406	11.938	53.520
			0.500	11.750	65.420
		60	0.562	11.626	73.150

Steel Pipe *(continued)*

SIZE INCHES	OUTSIDE DIA. INCHES	SCHEDULE	WALL INCHES	INSIDE DIA. INCHES	WT./FT. POUND
12		80	0.688	11.376	88.630
		100	0.844	11.064	107.320
		120	1.000	10.750	125.490
		140	1.125	10.500	139.670
		160	1.312	10.126	160.270
14	14	10	0.250	13.500	36.710
		20	0.312	13.376	45.610
	STD	30	0.375	13.250	54.570
		40	0.438	13.124	63.440
			0.500	13.000	72.090
		60	0.594	12.814	85.050
		80	0.750	12.500	106.130
		100	0.938	12.126	130.850
		120	1.094	11.814	150.790
		140	1.250	11.500	170.210
		160	1.406	11.188	189.110
16	16	10	0.250	15.500	42.050
		20	0.312	15.376	52.270
	STD	30	0.375	15.250	62.580
		40	0.500	15.000	82.770
		60	0.656	14.688	107.500
		80	0.844	14.314	136.610
		100	1.031	13.938	164.820
		120	1.219	13.564	192.430
		140	1.438	13.124	223.640
		160	1.594	12.814	245.250
18	18	10	0.250	17.500	47.390
		20	0.312	17.376	58.940
	STD		0.375	17.250	70.590

Steel Pipe *(continued)*

SIZE INCHES	OUTSIDE DIA. INCHES	SCHEDULE	WALL INCHES	INSIDE DIA. INCHES	WT./FT. POUND
18		30	0.438	17.124	82.150
			0.500	17.000	93.450
		40	0.562	16.876	104.670
		60	0.750	16.500	138.170
		80	0.938	16.126	170.920
		100	1.156	15.688	207.960
		120	1.375	15.250	244.100
		140	1.562	14.876	274.220
		160	1.781	14.438	308.500
20	20	10	0.250	19.500	52.730
	STD	20	0.375	19.250	78.600
		30	0.500	19.000	104.130
		40	0.594	18.814	123.110
		60	0.812	18.376	166.400
		80	1.031	17.938	208.870
		100	1.281	17.438	256.100
		120	1.500	17.000	296.400
		140	1.750	16.500	341.100
		160	1.968	16.064	379.000
24	24	10	0.250	23.500	63.410
	STD	20	0.375	23.250	94.620
			0.500	23.000	125.490
		30	0.562	22.876	140.680
		40	0.688	22.626	171.290
		60	0.969	22.064	238.350
		80	1.219	21.564	296.580
		100	1.531	20.938	367.400
		120	1.812	20.376	429.400
		140	2.062	19.876	483.100

Steel Pipe *(continued)*

SIZE INCHES	OUTSIDE DIA. INCHES	SCHEDULE	WALL INCHES	INSIDE DIA. INCHES	WT./FT. POUND
24		160	2.343	19.314	541.900
30	30	10	0.312	29.376	98.930
	STD		0.375	29.250	118.650
		20	0.500	29.000	157.530
		30	0.625	28.750	196.080
36	36	STD	0.375	35.250	142.680
			0.500	35.000	189.570
38	38		0.312	37.375	125.580
	STD		0.375	37.250	150.690
			0.500	37.000	200.250
40	40		0.312	39.376	132.250
	STD		0.375	39.250	158.700
			0.500	39.000	210.930
42	42		0.312	41.376	138.910
	STD		0.375	41.250	166.710
			0.500	41.000	221.610

Sheet Steel

	GAUGE	US STANDARD GAUGE (INCHES)	SHEET STEEL GAUGE DECIMAL (IN)	SHEET STEEL WEIGHT (LB/FT2)
COLD ROLL ONLY	30	0.013	0.012	0.500
	29	0.014	0.014	0.563
	28	0.016	0.015	0.625
	27	0.017	0.016	0.688
	26	0.019	0.018	0.750
	25	0.022	0.021	0.875
	24	0.025	0.024	1.000
	23	0.028	0.027	1.125
	22	0.031	0.030	1.250
	21	0.034	0.033	1.375
	20	0.038	0.036	1.500
	19	0.044	0.042	1.750
	18	0.050	0.048	2.000
	17	0.056	0.054	2.250
	16	0.063	0.060	2.500
	15	0.070	0.067	2.813
	14	0.078	0.075	3.125
	13	0.094	0.090	3.750
	12	0.109	0.105	4.375
	11	0.125	0.120	5.000
	10	0.141	0.135	5.625
	9	0.156	0.150	6.250
	8	0.172	0.164	6.875
	7	0.188	0.179	7.500
	6	0.203	0.194	8.125
	5	0.219	0.209	8.750
	4	0.234	0.224	9.375
	3	0.250	0.239	10.000
	2	0.266		
	1	0.281		

Plate Steel

A-36/High Strength/AR • Stock Widths 4' & 8'

SIZE IN INCHES	DEC. EQUIV	WEIGHT/SQFT	SIZE IN INCHES	DEC. EQUIV	WEIGHT/SQFT
3/16	0.188	7.670	2	2.000	81.680
1/4	0.250	10.210	2 1/16	2.063	84.250
5/16	0.313	12.780	2 1/8	2.125	86.790
3/8	0.375	15.320	2 3/16	2.188	89.360
7/16	0.438	17.890	2 1/4	2.250	91.890
1/2	0.500	20.420	2 5/16	2.313	94.460
9/16	0.563	22.990	2 3/8	2.375	97.000
5/8	0.625	25.530	2 7/16	2.438	99.570
11/16	0.688	28.100	2 1/2	2.500	102.100
3/4	0.750	30.630	2 9/16	2.563	104.670
13/16	0.813	33.200	2 5/8	2.625	107.210
7/8	0.875	35.740	2 11/16	2.688	109.770
15/16	0.938	38.310	2 3/4	2.750	112.310
1	1.000	40.840	2 13/16	2.813	114.880
1 1/16	1.063	43.410	2 7/8	2.875	117.420
1 1/8	1.125	45.950	2 15/16	2.938	119.990
1 3/16	1.188	48.520	3	3.000	122.520
1 1/4	1.250	51.050	3 1/4	3.250	132.730
1 5/16	1.313	53.630	3 1/2	3.350	142.940
1 3/8	1.375	56.160	3 3/4	3.750	153.150
1 7/16	1.438	58.730	4	4.000	163.360
1 1/2	1.500	61.260	4 1/4	4.250	173.570
1 9/16	1.563	63.830	4 1/2	4.500	183.780
1 5/8	1.625	63.370	4 3/4	4.750	193.990
1 11/16	1.688	68.940	5	5.000	204.200
1 3/4	1.750	71.470	5 1/2	5.500	224.620
1 13/16	1.813	74.040	6	6.000	245.040
1 7/8	1.875	76.580	6 1/2	6.500	265.460
1 15/16	1.938	79.150			

Sheet Steel | Galvanized Steel

GAUGE	US STANDARD GAUGE (INCHES)	SHEET STEEL		GALVANIZED STEEL	
		GAUGE DECIMAL (IN)	WEIGHT (LB/FT2)	GAUGE DECIMAL (IN)	WEIGHT (LB/FT2)
44	0.005				
43	0.005				
42	0.005				
41	0.005				
40	0.006				
39	0.006				
38	0.006	0.006			
37	0.007	0.006			
36	0.007	0.007			
35	0.008	0.008			
34	0.009	0.008			
33	0.009	0.009			
32	0.010	0.010			
31	0.011	0.011			
30	0.013	0.012	0.500	0.016	0.656
29	0.014	0.014	0.563	0.017	0.719
28	0.016	0.015	0.625	0.019	0.781
27	0.017	0.016	0.688	0.020	0.844
26	0.019	0.018	0.750	0.022	0.906
25	0.022	0.021	0.875	0.025	1.031
24	0.025	0.024	1.000	0.028	1.156
23	0.028	0.027	1.125	0.031	1.281
22	0.031	0.030	1.250	0.034	1.406
21	0.034	0.033	1.375	0.037	1.531
20	0.038	0.036	1.500	0.040	1.656
19	0.044	0.042	1.750	0.046	1.906
18	0.050	0.048	2.000	0.052	2.156

Sheet Steel | Galvanized Steel *(continued)*

GAUGE	US STANDARD GAUGE (INCHES)	SHEET STEEL		GALVANIZED STEEL	
		GAUGE DECIMAL (IN)	WEIGHT (LB/FT2)	GAUGE DECIMAL (IN)	WEIGHT (LB/FT2)
17	0.056	0.054	2.250	0.058	2.406
16	0.063	0.060	2.500	0.064	2.656
15	0.070	0.067	2.813	0.071	2.969
14	0.078	0.075	3.125	0.079	3.281
13	0.094	0.090	3.750	0.093	3.906
12	0.109	0.105	4.375	0.108	4.531
11	0.125	0.120	5.000	0.123	5.156
10	0.141	0.135	5.625	0.138	5.781
9	0.156	0.150	6.250	0.153	6.406
8	0.172	0.164	6.875	0.168	7.031
7	0.188	0.179	7.500		
6	0.203	0.194	8.125		
5	0.219	0.209	8.750		
4	0.234	0.224	9.375		
3	0.250	0.239	10.000		
2	0.266				
1	0.281				

GAUGE	US STANDARD GAUGE (INCHES)	STAINLESS STEEL		ALUMINUM	
		GAUGE DECIMAL (IN)	WEIGHT (LB/FT2)	GAUGE DECIMAL (IN)	WEIGHT (LB/FT2)
38	0.006	0.006		0.004	
37	0.007	0.007		0.005	
36	0.007	0.007		0.005	
35	0.008	0.008		0.006	
34	0.009	0.009		0.006	
33	0.009	0.009		0.007	
32	0.010	0.010		0.008	
31	0.011	0.011		0.009	
30	0.013	0.013		0.010	0.141
29	0.014	0.014		0.011	0.160
28	0.016	0.016		0.013	0.178
27	0.017	0.017		0.014	0.200
26	0.019	0.019	0.756	0.016	0.224
25	0.022	0.022		0.018	0.253
24	0.025	0.025	1.008	0.020	0.284
23	0.028	0.028		0.023	0.319
22	0.031	0.031	1.260	0.025	0.357
21	0.034	0.034		0.029	0.402
20	0.038	0.038	1.512	0.032	0.452
19	0.044	0.044		0.036	0.507
18	0.050	0.050	2.016	0.040	0.569
17	0.056	0.056		0.045	0.639
16	0.063	0.063	2.520	0.051	0.717
15	0.070	0.070		0.057	0.806
14	0.078	0.078	3.150	0.064	0.905
13	0.094	0.094		0.072	1.016
12	0.109	0.109	4.410	0.081	1.140

Stainless Steel | Aluminum *(continued)*

GAUGE	US STANDARD GAUGE (INCHES)	STAINLESS STEEL		ALUMINUM	
		GAUGE DECIMAL (IN)	WEIGHT (LB/FT2)	GAUGE DECIMAL (IN)	WEIGHT (LB/FT2)
11	0.125	0.125	5.040	0.091	1.280
10	0.141	0.141	5.670	0.102	1.438
9	0.156	0.156		0.114	1.614
8	0.172	0.172	6.930	0.129	1.813
7	0.188	0.188	7.871	0.144	2.036
6	0.203	0.203		0.162	2.286
5	0.219	0.219		0.182	
4	0.234	0.234		0.204	
3	0.250	0.250		0.229	
2	0.266	0.266		0.258	
1	0.281	0.281		0.289	

Floor Plate

SIZE GA./IN.	STOCK WIDTHS	WEIGHT/ SQFT
16ga.	48”	3.000
14ga.	48”	3.750
	60”	3.750
12ga.	48”	5.250
	60”	5.250
1/8	48”	6.160
	60”	6.160
	72”	6.160
3/16	48”	8.710
	60”	8.710
	72”	8.710
1/4	48”	11.260
	60”	11.260
	72”	11.260
	96”	11.260
5/16	48”	13.810
	60”	13.810
	72”	13.810
	96”	13.810
3/8	48”	16.370
	60”	16.370
	72”	16.370
	96”	16.370
1/2	48”	21.470
	60”	21.470
	72”	21.470
	96”	21.470

DOM* Round Mechanical Tubing

*Drawn Over Mandrel

Drawn Over Mandrel (DOM) Round Mechanical Tubing is a cold drawn 1020 / 1026 electric resistance welded tube with all the flash removed prior to cold drawing. In comparison to other tubing, DOM round tubing is produced to more exact OD and ID tolerances, and has the highest weld strength possible.

Made from 1020 / 1026 Steel

Meets ASTM A513 Type 5

Stocked Size Range: 3/16" – 14" OD; .028" - .625" wall thickness

Stocked in: 20' random lengths
Cut to length sizes
Suitable to hone sizes
Imperial and metric sizes
Custom sizes available upon request

Benefits of Drawn Over Mandrel (DOM) Round Mechanical Tubing:

- Uniform wall thickness with close OD and ID tolerances
- Uniform grain structure and controlled hardness
- High Tensile and Yield Strength
- Smooth and Clean OD and ID surfaces
- Excellent machining characteristics

Applications: Hydraulic Cylinders, Axles, High Speed Shafts, Barrels, Bearings, Spacers, and many other machined tubular parts.

DOM CHARACTERISTICS	ERW CHARACTERISTICS
Cold Drawn 1020/1026	Mild Carbon Steel 1006/1010
Very exact OD/ID	Has Electric Weld Seam
Highest Weld Strength	No Thermal Treatment
Uniform Grain Structure	Not Able to Dissipate Mechanical Energy
Controlled Hardness	ie - doesn't handle repeated bending
High Tensile Strength	twisting or flexing very well
High Yield Strength	Tensile and Yield Strength is
Smooth Clean Surfaces	about 50% of DOM
Excellent Machining Characteristics	

DOM* Round Mechanical Tubing *(continued)*

DIAMETER (IN.)		WALL THICKNESS(IN)	WEIGHT PER FOOT (LBS)
OUTSIDE	INSIDE		
1	0.760	0.120	1.128
1	0.500	0.250	2.003
1.25	0.625	0.313	3.129
1.5	1.250	0.125	1.836
1.5	1.000	0.250	3.338
1.5	0.750	0.375	4.506
1.75	1.510	0.120	2.089
1.75	1.000	0.375	5.507
2	1.760	0.120	2.409
2	1.625	0.188	3.630
2	1.250	0.375	6.508
2	1.000	0.500	8.010
2.25	1.500	0.375	7.509
2.25	1.250	0.500	9.345
2.5	1.750	0.375	8.511
2.5	1.500	0.500	10.680
2.75	2.375	0.188	5.131
2.75	2.000	0.375	9.512
3	2.250	0.375	10.513
3.25	2.250	0.500	14.685
3.5	2.500	0.500	16.020
3.5	2.250	0.625	19.191
3.5	2.000	0.750	22.028
4	3.500	0.250	10.013
4	3.000	0.500	18.690
4.5	3.000	0.750	30.038
4.5	2.500	1.000	37.380
5	4.000	0.500	24.030
5.75	4.500	0.625	34.209
6	4.000	1.000	53.400

Electric Weld Tubing

OUTSIDE DIAMETER	WALL THICKNESS	WEIGHT/ FT	OUTSIDE DIAMETER	WALL THICKNESS	WEIGHT/ FT
3/4	0.083	0.591	3 1/2	0.120	4.330
1	0.095	0.918	4	0.120	4.973
1 1/4	0.084	1.034	5	0.109	5.694
1 1/2	0.120	1.769	6	0.109	6.858
1 3/4	0.120	2.089	8	0.109	9.186
2	0.120	2.409	10	0.109	11.514
3	0.065	2.037	12	0.109	13.843

Aluminum Angle

LEG	LEG	THICKNESS	WT/FT	LEG	LEG	THICKNESS	WT/FT
1/2"	1/2"	1 /16"	0.068	1 1/2"	2"	3/16"	0.731
3/4"	3/4"	1/16"	0.106	2"	2"	3/16"	0.851
3/4"	3/4"	1/8"	0.200	2"	2"	1/4"	1.110
1/2"	1"	1/8"	0.200	2 1/2"	2 1/2"	3/16"	1.070
1"	1"	1/8"	0.272	2 1/2"	2 1/2"	1/4"	1.404
1"	1"	3/16"	0.396	3"	2"	3/16"	1.071
1 1/4"	1 1/4"	1/8"	0.344	3"	2"	1/4"	1.403
1 1/2"	1"	1/8"	0.345	3"	3"	3/16"	1.275
1 1/2"	1 1/2"	1/8"	0.418	3"	3"	1/4"	1.684
1 1/2"	1 1/2"	3/16"	0.613	4"	4"	1/4"	2.282
1"	2"	1/8"	0.418				

Aluminum Piano Hinge

WIDTH	PIN SIZE	THICKNESS	WIDTH	PIN SIZE	THICKNESS
2"	1/8"	0.062	2"	1/4"	0.090

Aluminum Channel

BASE (THROAT)	LEG	THICKNESS	WT/FT
1/2"	1/2"	3/32"	0.144
3/4"	3/4"	1/8"	0.181
1"	1"	1/16"	0.207
1"	1'"	1/8"	0.401
1 1/2"	1/2"	1/8"	0.327

BASE (THROAT)	LEG	THICKNESS	WT/FT
1 3/4"	1"	1/8"	0.510
2"	1"	1/8"	0.546
3"	0.13	varies	1.135
4"	0.15	varies	1.738

Aluminum Plate 5052

THICKNESS	FRACTIONAL EQUIV	WT/ SQFT
0.063	1/16"	0.880
0.09	3/32"	1.257
0.125	1/8"	1.746

THICKNESS	FRACTIONAL EQUIV	WT/ SQFT
0.19	3/16"	2.654
0.25	1/4"	3.492
0.375	3/8"	5.250

Aluminum Plate 6061

THICKNESS	FRACTIONAL EQUIV	WT/ SQFT
0.125	1/8"	1.764
0.25	1/4"	3.528

THICKNESS	FRACTIONAL EQUIV	WT/ SQFT
0.375	3/8"	6.174
0.5	1/5"	7.056

Aluminum Floor Plate 3003 Tread Bright

THICKNESS	TYPE	WT/SQFT
0.058	5052	0.996
1/8"	5052	1.920

THICKNESS	TYPE	WT/SQFT
3/16"	6061	2.820

Aluminum T

SIZE	SIZE
1"	1"

THICKNESS	WT/FT
1/8"	0.272

Aluminum Square and Rectangle Tubing

SIZE	SIZE	THICKNESS	WT/FT	SIZE	SIZE	THICKNESS	WT/FT
3/4”	3/4”	16g	0.199	2”	2”	1/8”	1.091
3/4”	3/4”	1/8”	0.364	2”	4”	1/8”	1.673
1”	1”	1/8”	0.509	3”	3”	1/4”	3.201
1”	2”	1/8”	0.800	4”	4”	1/8”	2.255
1 1/2”	1 1/2”	1/8”	0.800				

Aluminum Pipe

SIZE (IN)	WALL (IN)	SCHEDULE	INSIDE DIA. (IN)	WT./FT.
1/4	0.25	OD Tube	0.180	0.028
1/4	0.54	40	0.364	0.088
1/2	0.84	40	0.622	0.109
3/4	1.05	40	0.824	0.113
1	1.315	40	1.048	0.133
1 1/4	1.66	40	1.380	0.140
1 1/2	1.9	40	1.610	0.145
2	2.375	40	2.067	0.154
2 1/2	2.875	40	2.469	0.203
3	3.5	40	3.068	0.216
4	4.5	40	4.026	0.237

Aluminum Rounds

DIAMETER	WT./FT	DIAMETER	WT./FT
1/4	0.058	1 1/2	2.078
3/8	0.130	2	3.694
1/2	0.231	2 1/4	4.676
5/8	0.361	2 1/2	5.773
3/4	0.520	3	8.312
7/8	0.707	4	14.780
1	0.924		

Aluminum Flats

THICKNESS	SIZE (IN)	WT./FT.
1/8 x	1/2	0.074
	3/4	0.110
	1	0.147
	1 1/2	0.221
	2	0.294
	3	0.437
3/16 x	1/2	0.110
	3/4	0.165
	1	0.221
	1 1/2	0.331
	2	0.441
1/4 x	1/2	0.147
	3/4	0.221
	1	0.294
	1 1/2	0.441
	2	0.588
	3	0.882
	4	1.176
3/8 x	1/2	0.221
	3/4	0.331
	1	0.441
	1 1/2	0.662
	2	0.882
	3	1.323
	4	1.764
	6	2.646
1/2 x	1/2	0.294
	3/4	0.441
	1	0.588
	1 1/4	0.735
	1 1/2	0.882
	2	1.176
	3	1.764
	4	2.352
	6	3.528
3/4 x	1 1/4	1.103
	2	1.764
	2 1/2	2.205
	3	2.646
	4	3.528
1 x	1	1.176
	2	2.352
	3	3.528
	4	4.704
	6	7.056

Piano Hinge (Steel)

OPEN WIDTH	PIN SIZE	THICKNESS	OPEN WIDTH	PIN SIZE	THICKNESS
2	1/8	0.060	3	1/8	0.060
2	3/8	0.120	3	1/4	0.900
3	1/8	0.060	3	3/8	0.120
3	3/16	0.060	3	1/2	0.180

All Thread (Steel)

DIAMETER	WT	DIAMETER	WT
1/4	0.122	3/4	1.235
5/16	0.199	7/8	1.705
3/8	0.293	1	2.231
1/2	0.533	1 1/4	3.530
5/8	0.843	1 1/2	5.122

Ornamental Woven Wire (Steel)

MESH	WIRE SIZE	WT/SQ/FT	MESH	WIRE SIZE	WT/SQ/FT
2 Mesh	0.120	1.920	8 Mesh	0.028	0.410
4 Mesh	0.047	0.580			

Rabbit Wire (Steel)

1/2" grid 0.059 galvy

Clevices	Turnbuckles	Banding
1/2	1/2	103#
5/8	5/8	100#
3/4	3/4	
1	1	

Welded Wire

WIRE THICKNESS	OPENING OC	WT/SQ/FT	WIRE THICKNESS	OPENING OC	WT/SQ/FT
1/4	2”	1.800	1/4	4”	0.940
1/4	3”	1.230	1/8	2”	0.440

Hammered Flat

SIZE	SIZE	LENGTH	SIZE	SIZE	LENGTH
5/16	1 3/16	10’	5/16	2	10’

Hammered Solid Square

SIZE	LENGTH	SIZE	LENGTH
1/2	20’	3/4	20’
5/8	20’	1	20’

Hammered Solid Round

SIZE	LENGTH	SIZE	LENGTH
1/2	20’	7/8	20’

Hammered Tubing

SIZE	SIZE	LENGTH	SIZE	SIZE	LENGTH
1/2	1/2	20’	1 1/2	1 1/2	20’
3/4	3/4	20’	2	2	20’
1	1	20’	2	1	20’
1 3/16	1 3/16	20’	3	1 1/2	20’

Square Twist

SIZE	LENGTH	SIZE	LENGTH
1/2	10’	1	10’
3/4	20’		

Tree Bark Round

SIZE	LENGTH	SIZE	LENGTH
1/2	10’	7/8	10’
3/4	10’		

Handrail Cap

OUTER SIZE	SOCKET SIZE	LENGTH	OUTER SIZE	SOCKET SIZE	LENGTH
1 3/4	1”	20’	1 1/2	Tube Rail	20’
2 1/4	1 1/2”	19’	1 9/16	1” Angle	20’

Handrail Brackets

Cast	Universal

Twisted

ROD SIZE	# OF RODS	LENGTH	ROD SIZE	# OF RODS	LENGTH
1/8	4	9’	5/16	4	9’
3/16	4	9’	3/8	3	9’
1/4	4	9’	3/4	3	9’

Angle Twist

SIZE	# OF PIECES	LENGTH	SIZE	# OF PIECES	LENGTH
3/4	4	9’	1/2	4 w/ 1/4 rods	9’

Miscellaneous

SIZE	INFO	LENGTH
1/4	Square Twist	9’
3/8	Pipe Twist with Angle	9’
3/8	Pipe Twist No Angle	9’
1 9/16	2 Cross Bars	10’
3/4	4 Rods Twist	10’
3/4	4 Rods Straight	10’
1 1/2	Half Round	20’

ASTM-A 36 Specifications

CHEMICAL REQUIREMENTS

Product	Shapes*	Plates					Bars			
Thickness	All	To 3/8 in. incl.	Over 3/8 to 1½ in. incl.	Over 1½ to 2½ in. incl.	Over 2½ to 4 in. incl.	Over 4 in.	To 3/8 in. incl.	Over 3/8 to 1½ in. incl.	Over 1½ to 4 in. incl.	Over 4 in.
Carbon, max. per cent.	0.26	0.25	0.25	0.26	0.27	0.29	0.26	0.27	0.28	0.2
Manganese, per cent.			0.80 to 1.20	0.80 to 1.20	0.85 to 1.20	0.85 to 1.20		0.60 to 0.90	0.60 to 0.90	0.60 to 0.90
Phosphorus, max. per cent.	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Sulphur, max., per cent.	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Silicon, per cent				0.15 to 0.30	0.15 to 0.30	0.15 to 0.30				
Copper, min. per cent. when copper steel is specified	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20

*Manganese content of 0.85 to 1.35 per cent and silicon content of 0.15 to 0.30 per cent is required for shapes over 426 lb.-ft.

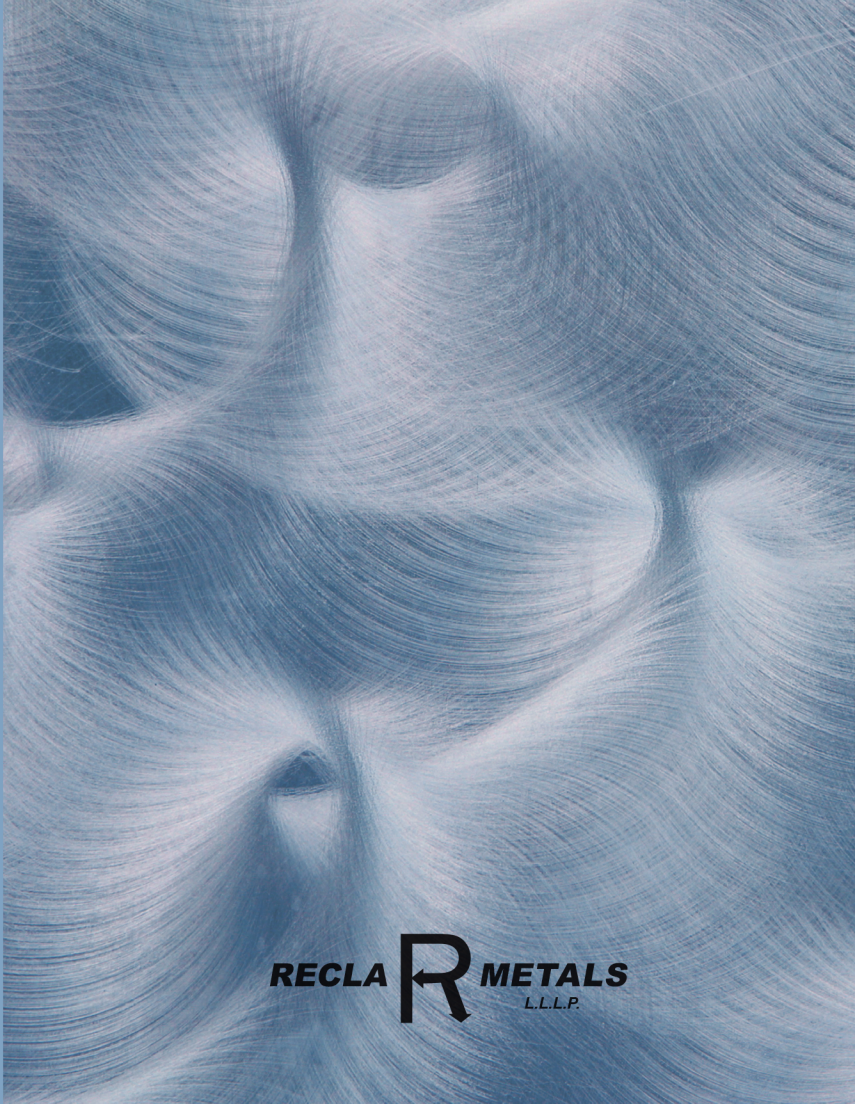
TENSILE REQUIREMENTS

Plates, Shapes[a] and Bars:	
Tensile strength, psi	58,000 to 80,000
Yield point, min. psi	36,000[b]
Plates and Bars:	
Elongation in 8 in. min. per cent	20[c]
Elongation in 2 in. min. per cent	23
Shapes:	
Elongation in 8 in. min. per cent	20[c]
Elongation in 2 in. min. per cent	21[a]

[a]For wide flange shapes over 426 lb./ft/ tensile strength minimum of 58,000 only and elongation in 2 in. of 19 per cent minimum applies.
[b]Yeild point 32,000 psi for plates over 8 in. in thickness
[c]See Section 7(c) ASTM manual.

TENSILE REQUIREMENTS

Length (ft.) x Width (ft.) x Wt. Sq.Ft. =
Wt./Plate or .2836 x Length (in.) x Width (in.) x Thickness =
Wt. of 1 plate.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