

# Blue SteelCo., Inc.

A NATIVE AMERICAN ENTERPRISE - SDB/MBE

## METAL REFERENCE BOOK



800-377-2109

[sales@bluesteelco.net](mailto:sales@bluesteelco.net)

[www.bluesteelco.net](http://www.bluesteelco.net)

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The weights in this book are approximate.

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# CARBON STEEL PLATE

SIZE INCHES	WT. SQ. FT.	WT. EACH	SIZE INCHES	WT. SQ. FT.	WT. EACH				
3/16" x 48" x 96" x 120" x 144" x 240" 60" x 96" x 120" x 144" x 240"	7.66 LBS	245 LBS	5/8" 48" x 96" x 120" x 144" x 240" 60" x 240" 72" x 240" 84" x 240" 96" x 240"	25.52 LBS	817 LBS				
		306			1021				
		368			1225				
		613			2042				
		306			2552				
		383			3052				
		460			3573				
		766			4083				
		1/4" 48" x 96" x 120" x 144" x 240" 60" x 96" x 120" x 144" x 240" 72" x 96" x 120" x 240" 84" x 120" x 240" 96" x 120" x 240"			10.21 LBS	327 LBS	3/4" 48" x 96" x 120" x 240" 60" x 240" 72" x 240" 84" x 240" 96" x 240"	30.63 LBS	980 LBS
						408			1225
490	2450								
817	3063								
408	3678								
511	4288								
613	4901								
1021	1307 LBS								
490	1634								
613	3267								
1225	4084								
715	4901								
1429	5718								
817	6534								
1034	6534								
5/16" 48" x 96" x 120"	12.76 LBS	408 LBS	1 1/4" 48" x 120" 72" x 120"	51.05 LBS	2042 LBS				
		510			3063 LBS				
3/8" 48" x 96" x 120" x 144" x 240" 60" x 120" x 240" 72" x 120" x 240" 84" x 240" 96" x 240"	15.31 LBS	490 LBS	1 1/2" 48" x 120" 72" x 120"	61.26 LBS	2450 LBS				
		612			3676				
		735							
		1225							
		766							
		1531							
		919							
		1837							
		2143							
		2450							
1/2" 48" x 96" x 120" x 240" 60" x 240" 72" x 240" 94" x 240" 96" x 240"	20.42 LBS	653 LBS							
		817							
		1634							
		2042							
		2450							
		2869							
3267									
<b>BASE PLATES</b>									
			<b>THICKNESS</b>	<b>SIZE</b>	<b>WEIGHT PER PIECE</b>				
			1/4"	8" X 8"	4.54				
				10" X 10"	7.09				
				12" X 12"	10.21				
			5/16"	8" X 8"	5.67				
				10" X 10"	8.60				
				12" X 12"	12.76				
			3/8"	8" X 8"	6.80				
				10" X 10"	10.63				
				12" X 12"	15.31				
			1/2"	8" X 8"	9.07				
				10" X 10"	14.17				
				12" X 12"	20.42				
			5/8"	8" X 8"	11.34				
				10" X 10"	17.72				
				12" X 12"	25.52				
			3/4"	8" X 8"	13.61				
				10" X 10"	21.27				
				12" X 12"	30.63				
			1"	8" X 8"	18.14				
				10" X 10"	26.36				
				12" X 12"	40.84				
<b>We can cut to any width and length you need.</b>									

## HOT ROLLED PICKLED & OILED

GAUGE--SIZE		WEIGHT PER SHEET	GAUGE--SIZE		WEIGHT PER SHEET
16 GA (2.5 LB) SQ. FT.	36" x 96"	60.00 LBS	11 GA (5.0 LB) SQ. FT.	36" x 96"	120.00 LBS
	x 120"	75.00		x 120"	150.00
	x 144"	90.00		x 144"	180.00
	48" x 96"	80.00		48" x 96"	160.00
	x 120"	100.00		x 120"	200.00
	x 144"	120.00		x 144"	240.00
	60" x 96"	100.00		60" x 96"	200.00
x 120"	125.00	x 120"	250.00		
x 144"	150.00	x 144"	300.00		
14 GA (3.125 LB) SQ. FT.	36" x 96"	75.00	10 GA (5.625 LB) SQ. FT.	36" x 96"	135.00
	x 120"	93.75		x 120"	158.75
	x 144"	112.50		x 144"	202.50
	48" x 96"	100.00		48" x 96"	180.00
	x 120"	125.00		x 120"	225.00
	x 144"	150.50		x 144"	270.00
	60" x 96"	125.00		60" x 96"	225.00
x 120"	156.75	x 120"	281.25		
x 144"	187.50	x 144"	337.50		
12 GA (4.375 LB) SQ. FT.	36" x 96"	105.00	7 GA (7.5 LB) SQ. FT.	36" x 96"	180.00
	x 120"	131.25		x 120"	225.00
	x 144"	157.50		x 144"	270.00
	48" x 96"	140.00		48" x 96"	240.00
	x 120"	175.00		x 120"	300.00
	x 144"	210.00		x 144"	360.00
	60" x 96"	175.00			
x 120"	218.75				
x 144"	262.00				

## GALVANIZED CORRUGATED SHEETS

GAUGE DECIMAL	SHEET SIZE	LBS LIN FT.	DEPTH	FINISH
UTILITY	26 1/2" w x 8'	1.5	1/2"	GALV
28 GA	x 10'	1.8	1/2"	OR
26 GA	x 12'	2.1	1/2"	GALV
24 GA		2.7	1/2"	PAINTED

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## COLD ROLLED SHEETS

GAUGE--SIZE		WEIGHT PER SHEET	GAUGE--SIZE		WEIGHT PER SHEET
26 GA (0.75 LB) SQ. FT.	36" x 96"	18.00 LBS	14 GA (3.125 LB) SQ. FT.	36" x 96"	75.00 LBS
	x 120"	22.50		x 120"	93.75
	48" x 96"	24.00		x 144"	112.5
	x 120"	30.00		48" x 96"	100.00
24 GA (1.0 LB) SQ. FT.	36" x 96"	24.00		x 120"	125.00
	x 120"	30.00		x 144"	150.00
	48" x 96"	32.00		60" x 96"	175.00
	x 120"	40.00		x 120"	156.75
22 GA (1.25 LB) SQ. FT.	36" x 96"	30.00		x 144"	187.50
	x 120"	37.50		72" x 120"	187.50
	48" x 96"	40.00		x 144"	225.00
	x 120"	50.00	13 GA (3.75 LB)	48" x 96"	120.00
20 GA (1.5 LB) SQ. FT.	36" x 96"	36.00		x 120"	150.00
	x 120"	45.00	12 GA (4.375 LB)	48" x 96"	140.00
	x 144"	54.00		x 120"	150.00
	48" x 96"	48.00	11 GA (5.0 LB)	48" x 96"	160.00
	x 120"	60.00		x 120"	200.00
	x 144"	72.00	10 GA (5.625 LB)	48" x 96"	180.00
18 GA (2.0 LB) SQ. FT.	36" x 96"	40.00		x 120"	225.00
	x 120"	60.00	<p>Sheet can be sheared, formed, punched to your requirements 800-377-2109 Fax 866-377-2109 sales@bluesteelco.net</p>		
	x 144"	72.00			
	48" x 96"	64.00			
	x 120"	80.00			
	x 144"	96.00			
60" x 120"	100.00				
16 GA (2.5 LB) SQ. FT.	36" x 96"	60.00			
	x 120"	75.00			
	x 144"	90.00			
	48" x 96"	80.00			
	x 120"	100.00			
	x 144"	120.00			
	60" x 96"	100.00			
	x 120"	125.00			
	x 144"	150.00			

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# GALVANIZED SHEETS

GAUGE – SIZE	WEIGHT PER SHEET	GAUGE – SIZE	WEIGHT PER SHEET
26 GA	24" x 96"	18 GA	30" x 96"
(0.906 LB)	30" x 96"	(2.156 LB)	x 120"
SQ. FT.	36" x 120"	SQ. FT.	x 144"
	x 144"		36" x 96"
	36" x 96"		x 120"
	x 120"		x 144"
	x 144"		48" x 96"
	48" x 96"		x 120"
	x 120"		x 144"
	x 144"		60" x 120"
			x 144"
24 GA	24" x 96"		
(1.156 LB)	30" x 96"	16 GA	30" x 96"
SQ. FT.	x 120"	(2.656 LB)	x 120"
	36" x 96"	SQ. FT.	x 144"
	x 120"		36" x 96"
	48" x 96"		x 120"
	x 120"		x 144"
	x 144"		48" x 96"
			x 120"
22 GA	30" x 96"		x 144"
(1.406 LB)	x 120"		60" x 120"
SQ. FT.	36" x 96"		x 144"
	x 120"		
	x 144"	14 GA	36" x 96"
	48" x 96"	(3.281 LB)	x 120"
	x 120"	SQ. FT.	x 144"
	x 144"		48" x 96"
			x 120"
20 GA	30" x 96"		x 144"
(1.656 LB)	x 120"		60" x 120"
SQ. FT.	x 144"		x 144"
	36" x 96"		
	x 120"		12 GA
	x 144"		(4.531 LB)
	48" x 96"		SQ. FT.
	x 120"		48" x 96"
	x 144"		x 120"
	60" x 120"		x 144"
			60" x 120"
			11 GA
			(5.156 LB)
			SQ. FT.
			10 GA
			(5.781 LB)
			SQ. FT.
			48" x 96"
			x 120"
			x 144"
			60" x 144"

## I BEAMS

SIZE WT. FT	FLANGE	WEB	WEIGHT 20'/40'
S3" x 5.7 LBS	2.330	.170	114/228 LBS
S3" x 7.5	2.509	.349	150/300
S4" x 7.7	2.663	.190	154/308
S4" x 9.5	2.798	.326	190/380
S5" x 10.0	3.000	.210	200/400
S6" x 12.5	3.330	.230	250/500
S8" x 18.4	4.000	.270	368/736
S8" x 23.0	4.171	.441	460/920
S10" x 25.4	4.660	.310	508/1016
S10" x 35.0	4.944	.594	700/1400
S12" x 31.8	5.0	.350	636/1272
S12" x 35.0	5.078	.428	700/1400

## WIDE FLANGE BEAMS

SIZE WT. FT	FLANGE	WEB	WEIGHT 20'/40'
W4" x 13 LBS	4.16	.280	260/520 LBS
W5" x 16	5.01	.240	320/640
W5" x 19	5.03	.270	380/760
W6" x 9	3.94	.170	180/360
W6" x 12	4.00	.230	240/480
W6" x 15	5.99	.230	300/600
W6" x 16	4.03	.260	320/640
W6" x 20	6.02	.260	400/800
W6" x 25	6.08	.320	500/1000
W8" x 10	3.94	.170	200/400
W8" x 13	4.00	.230	260/520
W8" x 15	4.02	.245	300/600
W8" x 18	5.25	.230	360/720
W8" x 21	5.27	.250	420/840
W8" x 31	8.00	.285	620/1240
W8" x 35	8.02	.310	700/1400
W8" x 40	8.07	.360	800/1600
W8" x 48	8.11	.400	960/1920
W10" x 12	3.96	.190	240/480
W10" x 15	4.00	.230	300/600
W10" x 17	4.01	.240	340/680
W10" x 19	4.02	.250	390/760
W10" x 22	5.75	.240	440/880
W10" x 26	5.77	.260	520/1040
W10" x 33	7.96	.290	660/1320
W10" x 39	7.99	.315	780/1560
W12" x 14	3.97	.200	280/560
W12" x 16	3.99	.210	320/640
W12" x 19	4.00	.235	380/760
W12" x 22	4.03	.260	440/880
W12" x 26	6.49	.230	520/1040
W12" x 30	6.52	.260	600/1200



## WIDE FLANGE BEAMS

SIZE WT. FT	FLANGE	WEB	WEIGHT 20'/40' BAR
W12" x 35 LBS	6.56	.300	700/1400 LBS
W12" x 40	8.00	.295	800/1600
W12" x 45	8.05	.335	900/1800
W12" x 53	9.995	.354	1060/2120
W12" x 58	10.010	.360	1160/2320
W14" x 22	5.00	.230	440/880
W14" x 26	5.03	.255	520/1040
W14" x 30	6.73	.270	600/1200
W14" x 34	6.75	.285	680/1360
W14" x 43	8.00	.305	860/1720
W14" x 48	8.03	.340	960/1920
W14" x 53	8.06	.370	1060/2120
W14" x 68	10.035	.415	1360/2720
W14" x 90	14.520	.440	1800/3600
W14" x 99	14.565	.485	1980/3960
W14" x 109	14.605	.525	2180/4360
W16" x 26	5.50	.250	520/1040
W16" x 31	5.53	.275	620/1240
W18" x 35	6.00	.300	700/1400
W18" x 40	6.02	.315	800/1600
W18" x 46	6.06	.360	920/1840
W18" x 55	7.53	.390	1100/2200
W18" x 60	7.56	.415	1200/2400
W18" x 65	7.59	.450	1300/2600
W18" x 71	7.64	.495	1420/2840
W18" x 76	11.04	.425	1520/3040
W18" x 86	11.09	.480	1720/3440
W18" x 97	11.15	.535	1940/3880
W18" x 106	11.20	.590	2120/4240
W21" x 44	6.50	.350	880/1760
W21" x 50	6.53	.380	1000/2000
W21" x 57	6.56	.405	1140/2280
W21" x 62	8.24	.400	1240/2480
W21" x 68	8.27	.430	1360/2720
W21" x 73	8.30	.455	1460/2920
W21" x 83	8.36	.515	1660/3320
W21" x 93	8.40	.580	1860/3720
W21" x 101	12.29	.500	2020/4040
W24" x 55	7.01	.395	1100/2200
W24" x 62	7.00	.430	1240/2480
W24" x 68	8.97	.415	1360/2720
W24" x 76	8.99	.440	1520/3040
W24" x 84	9.02	.470	1680/3360
W24" x 94	9.07	.515	1880/3760
W24" x 104	12.750	.500	2080/4160
W27" x 84	9.960	.460	1680/3360
W27" x 94	9.990	.490	1880/3760
W27" x 102	10.015	.515	2040/4080
W27" x 114	10.070	.570	2280/4560

## HOT ROLLED STRIP

SIZE	WT. FT.	WT. BAR	SIZE	WT. FT.	WT. BAR
1/8" x 1/2" x 20'	.2127	4.254	3/16"x 1/2" x 20'	.3191	6.381
1/8" x 5/8"	.260	5.200	3/16"x 5/8"	.399	7.976
1/8" x 3/4"	.3191	6.381	3/16"x 3/4"	.4785	9.572
1/8" x 1"	.425	8.508	3/16"x 1"	.638	12.78
1/8" x 1 1/4"	.5318	10.64	3/16"x 1 1/4"	.7976	15.95
1/8" x 1 1/2"	.6381	12.76	3/16"x 1 1/2"	.9572	19.14
1/8" x 1 3/4"	.7445	14.89	3/16"x 1 3/4"	1.117	22.33
1/8" x 2"	.8508	17.02	3/16"x 2"	1.276	25.52
1/8" x 2 1/4"	.956	19.14	3/16"x 2 1/4"	1.436	28.71
1/8" x 2 1/2"	1.064	21.27	3/16"x 2 1/2"	1.595	31.41
1/8" x 2 3/4"	1.170	23.40	3/16"x 2 3/4"	1.755	35.10
1/8" x 3"	1.276	25.52	3/16"x 3"	1.914	38.29
1/8" x 3 1/2"	1.489	29.78	3/16"x 3 1/2"	2.233	44.67
1/8" x 4"	1.702	34.03	3/16"x 4"	2.552	51.05
1/8" x 4 1/2"	1.914	38.29	3/16"x 4 1/2"	2.871	57.43
1/8" x 5"	2.127	42.54	3/16"x 5"	3.191	63.81
1/8" x 6"	2.552	51.05	3/16"x 6"	3.829	76.57
1/8" x 8"	3.403	68.05	3/16"x 8"	5.105	102.1

## HOT ROLLED FLAT

SIZE	WT. FT.	WT. BAR	SIZE	WT. FT.	WT. BAR
1/4" x 1/2" x 20'	.4254	8.51	5/16"x 1"x 20'	1.064	21.27
1/4" x 3/4"	.6381	12.76	5/16"x 1 1/4"	1.329	26.59
1/4" x 1"	.8508	17.02	5/16"x 1 1/2"	1.595	31.91
1/4" x 1 1/4"	1.064	21.27	5/16"x 1 3/4"	1.861	37.22
1/4" x 1 1/2"	1.276	25.52	5/16"x 2"	2.127	42.54
1/4" x 1 3/4"	1.489	29.78	5/16"x 2 1/4"	2.393	47.86
1/4" x 2"	1.702	34.03	5/16"x 2 1/2"	2.656	53.18
1/4" x 2 1/4"	1.914	38.29	5/16"x 3"	3.191	63.81
1/4" x 2 1/2"	2.127	42.54	5/16"x 3 1/2"	3.722	74.45
1/4" x 3"	2.552	51.05	5/16"x 4"	4.254	85.08
1/4" x 3 1/2"	2.975	59.66	5/16"x 5"	5.318	106.40
1/4" x 4"	3.403	68.06	5/16"x 6"	6.381	127.62
1/4" x 4 1/2"	3.829	76.57	5/16"x 7"	7.445	148.90
1/4" x 5"	4.254	85.08	5/16"x 8"	8.550	171.00
1/4" x 5 1/2"	4.679	93.59			
1/4" x 6"	5.105	102.18			
1/4" x 7"	5.980	119.60			
1/4" x 8"	6.806	136.12			



## ROUNDS HOT ROLLED

## SQUARES HOT ROLLED

SIZE INCHES	WEIGHT PER FOOT POUNDS	WEIGHT 20' BAR	SIZE INCHES	WEIGHT PER FOOT POUNDS	WEIGHT 20' BAR
3/16"	.094	1.88	1/4"	.2127	4.254
1/4"	.167	3.34	3/8"	.4786	9.572
5/16"	.261	5.22	7/16"	.6514	13.030
3/8"	.376	7.52	1/2"	.8508	17.020
7/16"	.511	10.22	5/8"	1.329	26.590
1/2"	.668	13.36	3/4"	1.914	38.290
5/8"	1.044	20.88	7/8"	2.606	52.110
3/4"	1.504	30.07	1	3.403	68.060
7/8"	2.064	40.93	1 1/4"	5.318	106.400
1"	2.673	53.46	1 1/2"	7.657	153.100
1 1/8"	3.383	67.66	1 3/4"	10.420	208.400
1 1/4"	4.176	83.53	2"	13.610	272.300
1 3/8"	5.053	101.10	2 1/2"	21.27	425.40
1 1/2"	6.014	120.30			
1 5/8"	7.058	141.20			
1 3/4"	8.166	163.70			
2"	10.690	213.80			

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## COLD FINISHED BAR C1018

SIZE IN INCHES	WT. FT.	WT. BAR	SIZE IN INCHES	WT. FT.	WT. BAR
1/8"	.0418	12' - .5012 20' 8353	1"	2.673	53.46
3/16"	.0944	12' - 1128 20' - 1879	1-1/8"	3.383	67.66
1/4"	.1671	3.34	1-3/16"	3.789	75.38
5/16"	.2610	5.22	1-1/4"	4.176	83.53
3/8"	.3759	7.52	1-3/8"	5.053	101.10
7/16"	.5116	10.23	1-7/16"	5.523	110.50
1/2"	.6682	13.36	1-1/2"	6.014	120.30
9/16"	.8449	16.19	1-5/8"	7.056	141.20
5/8"	1.043	20.88	1-3/4"	8.186	163.70
11/16"	1.260	25.26	1-7/8"	9.397	187.90
3/4"	1.504	30.07	1-15/16"	10.03	200.70
13/16"	1.763	35.27	2"	10.69	213.80
7/8"	2.046	40.93	2-1/2"	16.71	334.10
15/16"	2.349	46.98	3"	24.05	481.10

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## ALL THREADED ROD

SIZE INCHES	THREADS PER INCH	WEIGHT 12' BAR	SIZE INCHES	THREADS PER INCH	WEIGHT 12' BAR
1/4"	20	1.416 LBS	5/8"	11	9.90 LBS
5/16"	18	2.364	3/4"	10	14.58
3/8"	16	3.408	7/8"	9	20.10
1/2"	13	6.180	1"	8/14	26.28

## ANGLES — BAR SIZE

SIZE - INCHES	WT. FT.	WT. 20' BAR	SIZE - INCHES	WT. FT.	WT. 20' BAR
1/2" x 1/2" x 1/8"	0.38	7.60	2" x 1 1/2" x 1/8"	1.44	28.80
5/8" x 5/8" x 1/8"	0.48	9.60	2" x 1 1/2" x 3/16"	2.12	42.40
3/4" x 3/4" x 1/8"	0.59	11.80	2" x 1 1/2" x 1/4"	2.77	55.40
1" x 1" x 1/8"	0.80	16.00	2" x 2" x 1/8"	1.65	33.00
1" x 1" x 3/16"	1.16	23.20	2" x 2" x 3/16"	2.44	48.80
1" x 1" x 1/4"	1.49	29.80	2" x 2" x 1/4"	3.19	63.80
1 1/4" x 1 1/4" x 1/8"	1.01	20.20	2" x 2" x 5/16"	3.92	78.40
1 1/4" x 1 1/4" x 3/16"	1.48	29.60	2" x 2" x 3/8"	4.70	94.00
1 1/4" x 1 1/4" x 1/4"	1.92	38.40	2 1/2" x 1 1/2" x 3/16"	2.44	48.80
1 1/2" x 1 1/2" x 1/8"	1.23	24.60	2 1/2" x 1 1/2" x 1/4"	3.19	63.80
1 1/2" x 1 1/2" x 3/16"	1.80	36.00	2 1/2" x 2" x 3/16"	2.75	55.00
1 1/2" x 1 1/2" x 1/4"	2.34	46.80	2 1/2" x 2" x 1/4"	3.62	72.40
1 1/2" x 1 1/2" x 3/8"	3.35	67.00	2 1/2" x 2" x 3/8"	5.30	106.00
1 3/4" x 1 1/4" x 1/8"	1.23	24.60	2 1/2" x 2 1/2" x 3/16"	3.07	61.40
1 3/4" x 1 1/4" x 3/16"	1.80	36.00	2 1/2" x 2 1/2" x 1/4"	4.10	82.00
1 3/4" x 1 1/4" x 1/4"	2.34	46.80	2 1/2" x 2 1/2" x 5/16"	5.00	100.00
1 3/4" x 1 3/4" x 1/8"	1.44	28.80	2 1/2" x 2 1/2" x 3/8"	5.90	118.00
1 3/4" x 1 3/4" x 3/16"	2.12	42.40	2 1/2" x 2 1/2" x 1/2"	7.70	154.00
1 3/4" x 1 3/4" x 1/4"	2.77	55.40			

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## ANGLES — STRUCTURAL

SIZE - INCHES	WT. FT.	WT. 20' BAR	SIZE - INCHES	WT. FT.	WT. BAR
3" x 2" x 3/16"	3.10	62.0	5" x 3" x 1/2"	12.80	250.0
3" x 2" x 1/4"	4.10	82.0	5" x 3 1/2" x 1/4"	7.00	140.0
3" x 2" x 5/16"	5.00	100.0	5" x 3 1/2" x 5/16"	8.70	174.0
3" x 2" x 3/8"	5.90	118.0	5" x 3 1/2" x 3/8"	10.40	208.0
3" x 2 1/2" x 3/16"	3.40	68.0	5" x 5" x 3/8"	12.30	246.0
3" x 2 1/2" x 1/4"	4.50		5" x 5" x 1/2"	16.20	324.0
3" x 2 1/2" x 3/8"	6.60	132.0	6" x 3 1/2" x 1/4"	7.90	158.0
3" x 3" x 3/16"	3.71	74.2	6" x 3 1/2" x 5/16"	9.80	196.0
3" x 3" x 1/4"	4.90	90.0	6" x 3 1/2" x 3/8"	11.70	234.0
3" x 3" x 5/16"	6.10	122.0	6" x 3 1/2" x 1/2"	15.30	306.0
3" x 3" x 3/8"	7.20	144.0	6" x 4" x 5/16"	10.30	206.0
3" x 3" x 1/2"	9.40	188.0	6" x 4" x 3/8"	12.30	246.0
3 1/2" x 2 1/2" x 1/4"	4.90	98.0	6" x 4" x 1/2"	16.20	324.0
3 1/2" x 2 1/2" x 3/8"	7.20	144.0	6" x 6" x 3/8"	14.90	298.0
3 1/2" x 2 1/2" x 1/2"	9.40	188.0	6" x 6" x 1/2"	19.60	392.0
3 1/2" x 3" x 1/4"	5.40	108.0	6" x 6" x 5/8"	24.20	484.0
3 1/2" x 3" x 3/8"	7.90	158.0	6" x 6" x 3/4"	28.70	574.0
3 1/2" x 3 1/2" x 1/4"	5.80	116.0	6" x 6" x 1"	37.40	748.0
3 1/2" x 3 1/2" x 5/16"	7.20	122.0	7" x 4" x 3/8"	13.60	272.0
3 1/2" x 3 1/2" x 3/8"	8.50	170.0	7" x 4" x 1/2"	17.90	358.0
3 1/2" x 3 1/2" x 1/2"	11.10	222.0	7" x 4" x 3/4"	26.20	524.0
4" x 3" x 1/4"	5.80	116.0	8" x 4" x 1/2"	19.60	392.0
4" x 3" x 5/16"	7.20	144.0	8" x 4" x 3/4"	28.70	574.0
4" x 3" x 3/8"	8.50	170.0	8" x 4" x 1"	37.40	748.0
4" x 3" x 1/2"	11.10	222.0	8" x 6" x 1/2"	23.00	460.0
4" x 3 1/2" x 5/16"	7.70	154.0	8" x 6" x 3/4"	33.80	676.0
4" x 3 1/2" x 3/8"	9.10	182.0	8" x 6" x 1"	44.20	884.0
4" x 4" x 1/4"	6.60	132.0	8" x 8" x 1/2"	26.40	528.0
4" x 4" x 5/16"	8.20	164.0	8" x 8" x 5/8"	32.70	654.0
4" x 4" x 3/8"	9.80	196.0	8" x 8" x 3/4"	38.90	778.0
4" x 4" x 1/2"	12.80	256.0	8" x 8" x 1"	51.00	1020.0
4" x 4" x 3/4"	18.50	370.0	8" x 8" x 1 1/8"	56.90	1138.0
5" x 3" x 1/4"	6.60	132.0			
5" x 3" x 5/16"	8.20	164.0			
5" x 3" x 3/8"	9.80	196.0			

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## DIMENSIONS AND WEIGHTS OF STEEL PIPE-- PLAIN ENDS BY IRON PIPE SIZE WEIGHT CLASS

PIPE SIZE	O.D. IN INCHES	5	10	20	30	40	STD
1/8	.405	.035 .1383	.049 .1863			.068 .2447	.068 .2447
1/4	.540	.049 .2570	.065 .3297			.088 .4248	.088 .4248
3/8	.675	.049 .3276	.065 .4235			.091 .5676	.091 .5676
1/2	.840	.065 .5383	.083 .6710			.109 .8510	.109 .8510
3/4	1.050	.065 .6838	.083 .8572			.113 1.131	.113 1.131
1	1.315	.065 .8678	.109 1.404			.133 1.679	.133 1.679
1 1/4	1.660	.065 1.107	.109 1.806			.140 2.273	.140 2.273
1 1/2	1.900	.065 1.274	.109 2.085			.145 2.718	.145 2.718
2	2.375	.065 1.604	.109 2.638			.154 3.653	.154 3.653
2 1/2	2.875	.083 2.475	.120 3.531			.203 5.793	.203 5.793
3	3.500	.083 3.029	.120 4.332			.216 7.576	.216 7.576
3 1/2	4.0	.083 3.472	.120 4.973			.226 9.109	.226 9.109
4	4.50	.083 3.915	.120 5.613			.237 10.79	.237 10.79
4 1/2	5.0						.247 12.53
5	5.563	.109 6.349	.134 7.770			.258 14.62	.258 14.62
6	6.625	.109 7.585	.134 9.289			.280 18.97	.280 18.97
7	7.625						.301 23.57
8	8.625	.109 9.914	.148 13.40	.250 22.36	.277 24.70	.322 28.55	.322 28.55
9	9.625						.342 33.90
10	10.75	.134 15.19	.165 18.70	.250 28.04	.307 34.24	.365 40.48	.365 40.48
11	11.75						.375 45.55
12	12.75	.165 22.18	.180 24.20	.250 33.38	.330 43.77	.406 53.53	.375 49.56
14	14.0		.250 36.71	.312 45.68	.375 54.57	.437 63.37	.375 54.57
16	16.0		.250 42.05	.312 52.36	.375 62.58	.500 82.77	.375 62.58
18	18.0		.250 47.39	.312 59.03	.437 82.06	.562 104.8	.375 70.59
20	20.0		.250 52.73	.375 78.60	.500 104.1	.593 122.9	.375 78.60
22	22.0		.250 58.07	.375 86.61	.500 114.8		.375 86.61
24	24.0		.250 63.41	.375 94.62	.562 140.8	.688 171.2	.375 94.62



## DIMENSIONS AND WEIGHTS OF STEEL PIPE-- PLAIN ENDS BY IRON PIPE SIZE WEIGHT CLASS

PIPE SIZE	O.D. IN INCHES	60	80	XH	100	120	140	160	XXH
1/8	.405		.095 .3145	.095 .3145					
1/4	.540		.119 .5351	.119 .5351					
3/8	.675		.126 .7388	.126 .7388					
1/2	.840		.147 1.088	.147 1.088			.187 1.304	.294 1.714	
3/4	1.050		.154 1.474	.154 1.474			.218 1.937	.308 2.441	
1	1.315		.179 2.172	.179 2.172			.250 2.844	.358 3.659	
1 1/4	1.660		.191 2.997	.191 2.997			.250 3.765	.382 5.214	
1 1/2	1.900		.200 3.631	.200 3.631			.281 4.859	.400 6.408	
2	2.375		.218 5.022	.218 5.022			.343 7.444	.436 9.029	
2 1/2	2.875		.276 7.661	.276 7.661			.375 10.01	.552 13.70	
3	3.500		.300 10.25	.300 10.25			.437 14.32	.600 18.58	
3 1/2	4.0		.318 12.51	.318 12.51				.636 22.85	
4	4.50	.281 12.66	.337 14.98	.337 14.98		.437 19.01		.531 22.51	.674 27.54
4 1/2	5.0			.355 17.61					.710 32.53
5	5.563		.375 20.78	.375 20.78		.500 27.04		.625 32.96	.750 38.55
6	6.625		.432 28.57	.432 28.57		.562 36.39		.718 45.30	.864 53.16
7	7.625			.500 38.05					.875 63.08
8	8.625	.406 35.64	.500 43.39	.500 43.39	.593 50.87	.718 60.63	.812 67.76	.906 74.69	.875 72.42
9	9.625			.500 48.72					
10	10.75	.500 54.74	.593 64.33	.500 54.74	.718 76.93	.843 89.20	1.000 104.1	1.125 115.7	
11	11.75			.500 60.07					
12	12.75	.562 73.16	.688 88.51	.500 65.42	.843 107.2	1.00 125.5	1.125 139.7	1.312 160.3	
14	14.0	.593 84.91	.750 106.1	.500 72.09	.937 130.7	1.093 150.7	1.250 170.2	1.406 189.1	
16	16.0	.656 107.5	.843 136.5	.500 82.77	1.031 164.8	1.218 192.3	1.437 223.5	1.593 245.1	
18	18.0	.750 138.2	.937 170.8	.500 93.45	1.156 208.0	1.375 244.1	1.562 274.2	1.781 308.5	
20	20.0	.812 166.4	1.031 208.9	.500 104.1	1.280 256.1	1.500 296.4	1.750 341.1	1.968 379.0	
22	22.0	.875 197.4	1.125 250.8	.500 114.8	1.375 302.9	1.625 353.6	1.875 403.0	2.125 451.1	
24	24.0	.968 238.1	1.218 296.4	.500 125.5	1.531 367.4	1.812 429.4	2.062 483.1	2.343 541.9	

## CHANNELS — BAR SIZE

SIZE	WT. FT.	WT. 20' BAR	SIZE	WT. FT.	WT. 20' BAR
3/4" x 3/8" x 1/8"	.56	11.2	2" x 1/2" x 1/8"	1.43	28.60
1" x 1/2" x 1/8"	.84	16.8	2" x 9/16" x 3/16"	1.86	37.20
1 1/4" x 1/2" x 1/8"	1.01	20.20	2" x 5/8" x 1/4"	2.28	45.6
1 1/2" x 1/2" x 1/8"	1.12	22.4	2" x 1" x 1/8"	1.59	31.80
1 1/2" x 9/16" x 3/16"	1.44	28.8	2" x 1" x 3/16"	2.32	46.40
1 1/2" x 3/4" x 1/8"	1.17	23.4			

## CHANNELS — STRUCTURAL

SIZE WT FT.	FLANGE	WEB	WEIGHT 20' BAR/ 40' BAR	SIZE WT FT.	FLANGE	WEB	WEIGHT 20' BAR/ 40' BAR
3" x 4.1 LB	1.410	.170	82/164	8" x 13.75 LB	2.343	.303	275/550
3" x 5.0	1.498	.258	100/200	8" x 18.75	2.527	.487	375/750
3" x 6.0	1.596	.356	120/240	9" x 13.4	2.433	.233	268/536
4" x 5.4	1.584	.184	108/216	9" x 15.0	2.485	.285	300/600
4" x 6.25	1.647	.247	125/250	9" x 20.0	2.648	.448	400/800
4" x 7.25	1.721	.321	145/290	10" x 15.3	2.600	.240	306/612
5" x 6.7	1.750	.190	134/268	10" x 20.0	2.739	.379	400/800
5" x 9.0	1.885	.325	180/360	10" x 25.0	2.886	.526	500/1000
6" x 8.2	1.920	.200	164/328	10" x 30.0	3.033	.673	600/1200
6" x 10.5	2.034	.314	210/420	12" x 20.7	2.942	.282	414/828
6" x 13.0	2.157	.437	260/520	12" x 25.0	3.047	.387	500/1000
7" x 9.8	2.090	.210	196/392	12" x 30.0	3.170	.510	600/1200
7" x 12.25	2.194	.314	245/490	15" x 33.9	3.400	.400	678/1356
7" x 14.75	2.290	.419	295/590	15" x 40.0	3.520	.520	800/1600
8" x 11.5	2.260	.220	230/460	15" x 50.0	3.716	.716	1000/2000

## CHANNELS — MISC

SIZE WT FT.	FLANGE	WEB	WEIGHT 20' BAR/40' BAR
3" x 7.1 LBS	1.938	.312	142/284 LBS
4" x 13.8	2.500	.500	276/552
6" x 12.0	2.497	.310	240/480
6" x 15.3	3.500	.340	306/612
6" x 16.3	3.00	.375	326/652
8" x 18.7	2.987	.353	374/748
8" x 20.0	3.025	.400	400/800
8" x 21.4	3.450	.375	428/856
8" x 22.8	3.502	.427	456/912
10" x 8.4	1.500	.170	168/336
10" x 22.0	3.315	.290	440/880
12" x 10.6	1.500	.190	212/424

## ROUND TUBING

SIZE O.D.	WT. FT. .047	WT. FT. .060	WT. FT. .080	WT. FT. .090	WT. FT. .120
1/2"	.230	.300			
5/8"	.30	.39			
3/4"	.37	.48			.81
7/8"	.42	.56	.70		.97
1"	.50	.65	.81	.92	1.13
1 1/4"	.63	.82	1.03	1.17	1.45
1 1/2"	.76	1.00	1.26	1.43	1.77
1 3/4"	.89	1.17	1.48	1.68	2.09
2"	1.02	1.34	1.70	1.93	2.41
2 1/4"	1.15	1.52	1.92	2.19	2.73
2 1/2"	1.28	1.69	2.14	2.44	3.05
2 3/4"	1.41	1.86	2.36	2.69	3.37

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## WELDED STEEL TUBING      SQUARE

SIZE - 20'	.047	.060	.072	.080	.090	.120	.188	.250	.313	.375	.500	.625
1/2"	.301	.35										
5/8"	.394	.46										
3/4"	.467	.63		.75	.84							
7/8"		.72										
1"	.634	.77	.87	.98	1.09	1.31						
1-1/4"		1.01	1.11	1.26	1.42	1.72						
1-1/2"	.97	1.23	1.35	1.54	1.74	2.13	3.22					
1-3/4"		1.49			2.11	2.66						
2"		1.67	1.85	2.11	2.38	2.95	4.31	5.40				
2-1/2"						3.76	5.59	7.10				
3"						4.58	6.86	8.80				
3-1/2"						5.40	8.14	10.40				
4"						6.22	9.31	12.00		16.84	20.88	
5"						8.20	11.90	15.40		21.94	27.68	
6"							14.40	18.80	23.02	27.04	34.48	
7"							17.08	22.42	27.59	32.58	47.05	
8"							19.63	25.82	31.84	37.69	48.85	59.32
10"							24.73	32.63		47.90	62.46	
12"							29.84	39.43		58.10	76.07	

## RECTANGULAR

SIZE	.049	.065	.072	.083	.095	.120	.188	.250	.375	.500
1/2" x 1"		.61								
3/4" x 1-1/2"		.94		1.18						
1" x 1-1/2"		1.05		1.327	1.49	1.84				
1" x 2"	.970	1.27		1.60	1.82	2.25				
1" x 3"		1.67		2.16		3.07				
1-1/2" x 2"		1.49				2.66				
1-1/2" x 2-1/2"		1.67		2.164		3.07				
1-1/2" x 3"		1.93				3.48				
2" x 3"					3.11	3.88	5.59	7.11		
2" x 4"					3.75	4.7	6.87	8.81		
2" x 5"						5.52	8.14	10.51		
2" x 6"							9.42	12.21		
2" x 8"							11.97	15.62	22.37	
3" x 4"							8.14	10.51		
3" x 5"							9.42	12.21	17.27	
3" x 6"							10.70	13.91	19.82	
3" x 8"							13.25	17.32	24.93	
4" x 6"							11.97	15.62	22.37	28.43
4" x 7"							13.25	17.32	24.93	
4" x 8"							14.53	19.02	27.48	35.24
4" x 10"							17.08	22.42	32.58	42.05
6" x 8"							17.08	22.42	32.58	42.05
6" x 10"							19.63	25.82	37.69	48.85
8" x 12"							24.73	37.63	47.90	62.46

# CARBON STEEL EXPANDED METAL FLATTENED

STYLE	WEIGHT- 100 SQ FT	STANDARD SHEET SIZE (FT)		OPENING SIZE (INCHES)		STRAND SIZE (INCHES)		OVERALL THICK- NESS (INCHES)
		WIDTH	LENGTH	SWO	WO	WIDTH	THICK NESS	
1/4"-#20	82	4'	x 8'&10'	.110	.715	.079	.030	.030
1/4"-#18	108	4'	x 8'&10'	.118	.715	.080	.040	.040
1/2"-#20	40	4'	x 8'&10'	.375	1.00	.079	.029	.029
1/2"-#18	66	4'	x 8'&10'	.312	1.00	.097	.039	.039
1/2"-#16	82	4'	x 8'&10'	.312	1.00	.096	.050	.050
1/2"-#13	140	4'	x 8'&10'	.265	1.00	.107	.070	.070
3/4"-#16	51	4'	x 8'&10'	.750	1.750	.111	.048	.048
3/4"-#13	75	4'	x 8'&10'	.688	1.781	.106	.070	.070
3/4"-#9	171	4'	x 8'&10'	.563	1.688	.165	.120	.120
1"-#16	41	4'	x 8'&10'	.813	2.250	.098	.050	.050
1 1/2"-#16	38	4'	x 8'&10'	1.062	2.750	.119	.048	.048
1 1/2"-#13	57	4'	x 8'&10'	1.062	2.750	.116	.070	.070
1 1/2"-#9	114	4'	x 8'&10'	1.0	2.563	.158	.110	.110

## STANDARD

STYLE	LBS PER 100 SQ FT	STANDARD SHEET SIZE (FT)		OPENING SIZE (INCHES)		STRAND SIZE (INCHES)		OVERALL THICK- NESS (INCHES)
		WIDTH	LENGTH	SWO	WO	WIDTH	THICK NESS	
1/2"-#16	86	4'	x 8'&10'	.375	.938	.087	.060	.175
1/2"-#13	147	4'	x 8'&10'	.312	.938	.096	.092	.204
3/4"-#13	80	4'	x 8'&10'	.750	1.688	.096	.092	.205
3/4"-#9	180	4'	x 8'&10'	.688	1.562	.150	.134	.312
1 1/2"-#9	120	4'	x 8'&10'	1.125	2.375	.144	.134	.312

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## CARBON STEEL EXPANDED GRATING

STYLE	LBS PER 100 SQ FT	STANDARD SHEET SIZE (FT)		OPENING SIZE (INCHES)		STRAND SIZE (INCHES)		OVERALL THICK- NESS (INCHES)
		WIDTH	LENGTH	SWO	WO	WIDTH	THICK NESS	
3.0 lb.	3.0	4'	x 8'&10'	.940	3.44	.264	.183	.540
3.14 lb.	3.14	4'	x 8'&10'	1.625	4.88	.312	.250	.656
4.0 lb.	4.0	4'	x 8'&10'	.940	3.44	.300	.215	.618
4.27 lb	4.27	4'	x 8'&10'	1.00	2.88	.300	.250	.625
5.0 lb	5.0	4'	x 8'&10'	.813	3.38	.331	.250	.655
6.25 lb	6.25	4'	x 8'&10'	.813	3.38	.350	.312	.715
7.0 lb	7.0	4'	x 8'&10'	.813	3.38	.391	.312	.740

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## REINFORCING BAR

SIZE INCHES	REF. NO.	WT. FT.	WT. 20' BAR
3/8"	3	.376 LBS	7.52 LBS
1/2"	4	.688	13.36
5/8"	5	1.043	20.88
3/4"	6	1.502	30.07

## DIAMOND PLATE

SIZE	WT. SQ. FT.	WT. EA. PRT.	SIZE	WT. SQ. FT.	WT. EA. PRT.
16 Gauge 48" x 120"	3.00 LBS	120 LBS	1/4"	48" x 96"	300 LBS
14 Gauge 48" x 96"	3.75	113			x 120"
x 120"		130		60" x 120"	563
12 Gauge 48" x 96"	5.25	168		72" x 96"	540
x 120"		210	3/8"	48" x 96"	524
1/8" 48" x 96"	6.15	197			x 120"
x 120"		246		60" x 120"	819
x 144"		295	1/2"	48" x 120"	859
60" x 120"		307			
72" x 96"		295			
x 120"		369			
3/16" 48" x 96"	8.71	279			
x 120"		348			
60" x 120"		436			
72" x 96"		418			

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## METRIC EQUIVALENTS (Decimal)

MM	DEC. INCH	MM	DEC. INCH	MM	DEC. INCH	MM	DEC. INCH
1	= .0394	26	= 1.024	51	= 2.008	76	= 2.992
2	= .079	27	= 1.063	52	= 2.047	77	= 3.032
3	= .118	28	= 1.102	53	= 2.087	78	= 3.071
4	= .157	29	= 1.142	54	= 2.126	79	= 3.110
5	= .197	30	= 1.181	55	= 2.165	80	= 3.150
6	= .236	31	= 1.220	56	= 2.205	81	= 3.189
7	= .276	32	= 1.260	57	= 2.244	82	= 3.228
8	= .315	33	= 1.299	58	= 2.283	83	= 3.268
9	= .354	34	= 1.339	59	= 2.323	84	= 3.307
10	= .394	35	= 1.378	60	= 2.362	85	= 3.346
11	= .433	36	= 1.417	61	= 2.402	86	= 3.386
12	= .472	37	= 1.457	62	= 2.441	87	= 3.425
13	= .512	38	= 1.498	63	= 2.480	88	= 3.465
14	= .551	39	= 1.535	64	= 2.520	89	= 3.504
15	= .591	40	= 1.575	65	= 2.559	90	= 3.543
16	= .630	41	= 1.614	66	= 2.598	91	= 3.583
17	= .669	42	= 1.654	67	= 2.638	92	= 3.622
18	= .709	43	= 1.693	68	= 2.677	93	= 3.661
19	= .748	44	= 1.732	69	= 2.717	94	= 3.701
20	= .787	45	= 1.772	70	= 2.756	95	= 3.740
21	= .827	46	= 1.811	71	= 2.795	96	= 3.780
22	= .866	47	= 1.850	72	= 2.835	97	= 3.819
23	= .906	48	= 1.890	73	= 2.874	98	= 3.858
24	= .945	49	= 1.929	74	= 2.913	99	= 3.898
25	= .984	50	= 1.969	75	= 2.953	100 M=	3.937

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**Carbon Steel Sheets/Hot Rolled • H.R.P. & O. • Cold Rolled**

Gage No.	Thickness, Inches			lbs. per sq. ft.	Gage No.	Thickness, Inches		lbs. per sq. ft.
	Dec. Equiv	Tot. Range				Dec. Equiv	Tot. C.R.	
		H.R. & P. & O.	C.R.	Wt. Equiv.				Wt. Equiv.
<b>4</b>	.2242	.2332 .2152		9.375	<b>19</b>	.0418	.0458 .0378	1.75
<b>5</b>	.2092	.2182 .2002		8.75	<b>20</b>	.0359	.0389 .0329	1.5
<b>6</b>	.1943	.2033 .1853		8.125	<b>21</b>	.0329	.0359 .0299	1.375
<b>7</b>	.1793	.1873 .1713	.1883 .1703	7.5	<b>22</b>	.0299	.0329 .0269	1.25
<b>8</b>	.1644	.1724 .1564	.1734 .1554	6.875	<b>23</b>	.0269	.0299 .0239	1.125
<b>9</b>	.1495	.1575 .1415	.1585 .1405	6.25	<b>24</b>	.0239	.0269 .0209	1.0
<b>10</b>	.1345	.1425 .1265	.1405 .1285	5.625	<b>25</b>	.0209	.0239 .0179	.875
<b>11</b>	.1196	.1276 .1116	.1256 .1136	5.0	<b>26</b>	.0179	.0199 .0159	.75
<b>12</b>	.1046	.1126 .0966	.1106 .0986	4.375	<b>27</b>	.0164	.0184 .0144	.688
<b>13</b>	.0897	.0967 .0827	.0947 .0847	3.75	<b>28</b>	.0149	.0169 .0129	.625
<b>14</b>	.0747	.0817 .0677	.0797 .0697	3.125	<b>29</b>	.0135	.0155 .0115	.562
<b>15</b>	.0673	.0733 .0613	.0723 .0623	2.812	<b>30</b>	.0120	.0130 .0110	.50
<b>16</b>	.0598	.0658 .0538	.0648 .0548	2.5				
<b>17</b>	.0538	.0598 .0478	.0548 .0498	2.25				
<b>18</b>	.0478	.0528 .0428	.0518 .0438	2.00				

Weight equivalents based on density of .2904 lb per cubic inch  
 Cold inch gages 4 through 10 - tolerances shown are for widths over 48" to 72" inclusive. Hot rolled and P. & O. gages 4 through 18 - tolerances shown are for widths over 40" to 48" inclusive. All other gages over 15" to 72" inclusive.

# WEIGHT FORMULAS

Steel weights are based on .2836 lbs per cubic inch, aluminum on .0979 lbs per cubic inch (1100 alloy). Use conversion factors to convert steel weights to other metals.

## LBS PER LINEAL FOOT

## LBS PER LINEAL FOOT

### ROUNDS



Steel:  
 $2.6729 \times D^2$   
 Aluminum:  
 $.924 \times D^2$   
 D= Size, Inches

### SQUARES



Steel:  
 $3.4032 \times D^2$   
 Aluminum:  
 $1.18 \times D^2$   
 D= Size, Inches

### HEXAGONS



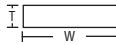
Steel:  
 $2.9473 \times D^2$   
 Aluminum:  
 $1.02 \times D^2$   
 D= Size, Inches

### OCTAGONS



Steel:  
 $2.8193 \times D^2$   
 Aluminum:  
 $.974 \times D^2$   
 D= Size, Inches

### FLATS



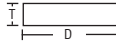
Steel:  
 $3.4032 \times T \times W$   
 Aluminum:  
 $1.18 \times T \times W$   
 T= Thickness, In.  
 W=Width, Inches

### TUBING



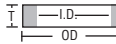
Steel:  
 $10.68 \times (OD-W) \times W$   
 Aluminum:  
 $3.70 \times (OD-W) \times W$   
 OD= OD, Inches  
 W=Wall, Inches

### CIRCLES



Steel:  
 $.22274 \times T \times D^2$   
 Aluminum:  
 $.077 \times T \times D^2$   
 D= Diameter, In  
 T=Thickness, In.

### RINGS



Steel:  
 $.22274 \times T \times (OD^2-ID^2)$   
 Aluminum:  
 $.077 \times T \times (OD^2-ID^2)$   
 OD= OD, Inches  
 I.D.=I.D. Inches  
 T=Thickness, In.

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## **-USEFUL INFORMATION**

To find circumference of a circle, multiply diameter by 3.1416

To find diameter of a circle, multiply circumference by .31831.

To find area of a circle, multiply square of diameter by .7854

Area of a rectangle = length multiplied by breadth. Doubling the diameter of a circle increases its area four times.

To find area of a triangle, multiply base by 1/2 perpendicular height.

Area of ellipse = product of both diameter x .7854

Area of a parallelogram- base x altitude.

To find side of an inscribed square, multiply diameter by 0.7071 or multiply circumference by 0.2251 or divide circumference by 4.4428.

Side of inscribed cube= radius of sphere x 1.1547

To find side of an equal square, multiply diameter by .8862.

Square. A side multiplied by 1.4142 equals diameter, of its circumscribing circle.

A side multiplied by 4.443 equals circumference of its circumscribing circle.

A side multiplied by 1.128 equals diameter of an equal circle.

A side multiplied by 3.547 equals circumference of an equal circle.

To find cubic inches in a ball, multiply cube of diameter by .5236

To find cubic contents of a cone, multiply area of base by 1/3 the altitude.

Surface of frustum of cone or pyramid = sum of circumference of both ends x 1/2 slant height plus area of both ends.

Contents of frustum of cone or pyramid = multiply area of the ends and get square root. Add the 2 areas and x 1/3 altitude.

Doubling the diameter of a pipe increased its capacity four times

A gallon of water (U.S. standard) weighs 8 1/2 lbs. and contains 231 cubic inches.

A cubic foot of water contains 7 1/2 gallons, 1728 cubic inches, and weighs 62 1/2 lbs.

To find the pressure in pounds per square inch of a column of water, multiply the height of the column in feet by .434

Steam rising from water at its boiling point (212° F.) has a pressure equal to the atmosphere (14.7 lbs to the square inch.)

A standard horse power: the evaporation of 30 lbs. of water per hour from a feed water temperature of 100° F. into steam at 70 lbs gauge pressure

To find capacity at tanks any size, given dimensions of a cylinder in inches, to find its capacity in U.S. gallons: square the diameter, multiply by the length and by .0034.

To ascertain heating surface in tubular boiler, multiply 2/3 the circumference of boiler by length of boiler in inches and add to it the area of all the tubes.

