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COMPANY**

# **REFERENCE BOOK**

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# S

**SECTION S**

## **WEIGHT TABLES**

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### **Weights for Other Products**

Weights for Sheets, Plates, Shapes, Tubing, etc., will be found in connection with the listings of sizes in the preceding sections of this book.

### **WEIGHTS ARE FOR ESTIMATING PURPOSES ONLY**

All weights in this book are theoretical; that is, they are computed on the basis of the specific gravities of the metals involved.

The weights shown would be accurate if steel and aluminum could always be produced to exact size, but this is seldom possible in commercial practice. Accuracy of dimensions, particularly of hot rolled steel products, is influenced by many factors, such as mill design, heating practice, reduction between passes, roll wear, roll pressure, composition of steel, and standard tolerances.

Therefore, all weight tables should be used for estimating purposes only.

STEEL WEIGHT TABLES





ROUNDS

Size in Inches	Weight in Pounds				Size in Inches	Weight in Pounds			
	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar		Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar
1/8	.0035	.042	.50	.84	2	.8910	10.69	128.3	213.8
5/32	.0054	.065	.78	1.31	1/16	.9475	11.37	136.4	227.4
3/16	.0078	.094	1.13	1.88	1/8	1.006	12.07	144.8	241.4
7/32	.0107	.128	1.54	2.56	3/16	1.066	12.79	153.5	255.8
1/4	.0139	.167	2.01	3.34	1/4	1.128	13.53	162.4	270.6
9/32	.0176	.211	2.54	4.23	5/16	1.191	14.29	171.5	285.9
5/16	.0218	.261	3.13	5.22	3/8	1.256	15.08	180.9	301.5
11/32	.0263	.316	3.79	6.32	7/16	1.323	15.88	190.6	317.6
3/8	.0313	.376	4.51	7.52	1/2	1.392	16.71	200.5	334.1
13/32	.0368	.441	5.29	8.82	9/16	1.463	17.55	210.6	351.0
7/16	.0426	.512	6.14	10.23	5/8	1.535	18.42	221.0	368.4
15/32	.0489	.587	7.05	11.75	11/16	1.609	19.31	231.7	386.1
31/64	.0523	.627	7.53	12.54	3/4	1.684	20.21	242.6	404.3
1/2	.0557	.668	8.02	13.36	13/16	1.762	21.14	253.7	422.9
17/32	.0629	.754	9.05	15.09	7/8	1.841	22.09	265.1	441.9
9/16	.0705	.846	10.15	16.91	15/16	1.922	23.06	276.8	461.3
19/32	.0785	.942	11.31	18.85	3	2.005	24.06	288.7	481.1
39/64	.0827	.993	11.91	19.85	1/16	2.089	25.07	300.8	501.4
5/8	.0870	1.044	12.53	20.88	1/8	2.175	26.10	313.2	522.0
41/64	.0914	1.097	13.16	21.94	3/16	2.263	27.16	325.9	543.1
21/32	.0959	1.151	13.81	23.02	1/4	2.353	28.23	338.8	564.6
11/16	.1053	1.263	15.16	25.27	5/16	2.444	29.33	351.9	586.6
23/32	.1151	1.381	16.57	27.62	3/8	2.537	30.45	365.3	608.9
47/64	.1201	1.442	17.30	28.83	7/16	2.632	31.58	379.0	631.7
3/4	.1253	1.504	18.04	30.07	1/2	2.729	32.74	392.9	654.8
49/64	.1306	1.567	18.80	31.34	9/16	2.827	33.92	407.1	678.4
25/32	.1359	1.631	19.58	32.63	5/8	2.927	35.12	421.5	702.5
13/16	.1470	1.765	21.17	35.29	11/16	3.029	36.35	436.1	726.9
27/32	.1586	1.903	22.83	38.06	3/4	3.132	37.59	451.0	751.7
55/64	.1645	1.974	23.69	39.48	13/16	3.238	38.85	466.2	777.0
7/8	.1705	2.046	24.56	40.93	7/8	3.345	40.14	481.6	802.7
29/32	.1829	2.195	26.34	43.90	15/16	3.453	41.44	497.3	828.8
15/16	.1958	2.349	28.19	46.98	4	3.564	42.77	513.2	855.3
31/32	.2090	2.508	30.10	50.17	1/8	3.790	45.48	545.8	909.6
63/64	.2158	2.590	31.08	51.80	3/16	3.906	46.87	562.4	937.4
I	.2227	2.673	32.07	53.46	1/4	4.023	48.28	579.3	965.6
1/64	.2294	2.752	33.03	55.05	5/16	4.142	49.71	596.5	994.2
1/32	.2369	2.843	34.11	56.85	3/8	4.263	51.16	613.9	1023
1/16	.2515	3.017	36.21	60.35	7/16	4.386	52.63	631.6	1053
1/8	.2819	3.383	40.59	67.66	1/2	4.510	54.13	649.5	1083
3/16	.3141	3.769	45.23	75.38	9/16	4.637	55.64	667.7	1113
1/4	.3480	4.176	50.12	83.53	5/8	4.765	57.18	686.1	1143
5/16	.3837	4.604	55.25	92.09	11/16	4.894	58.73	704.8	1175
3/8	.4211	5.053	60.64	101.1	3/4	5.026	60.31	723.7	1206
7/16	.4603	5.523	66.28	110.5	7/8	5.294	63.52	762.3	1270
1/2	.5012	6.014	72.17	120.3	15/16	5.430	65.16	781.9	1303
9/16	.5438	6.526	78.31	130.5	5	5.569	66.82	801.9	1336
5/8	.5882	7.058	84.70	141.2	1/8	5.850	70.21	842.4	1404
11/16	.6343	7.612	91.34	152.2	1/4	6.139	73.67	884.0	1473
3/4	.6821	8.186	98.23	163.7	3/8	6.435	77.22	926.6	1544
13/16	.7317	8.781	105.4	175.6	7/16	6.586	79.03	948.3	1581
7/8	.7831	9.397	112.8	187.9	1/2	6.738	80.86	970.2	1617
15/16	.8361	10.03	120.4	200.7	5/8	7.048	84.57	1015	1691
					3/4	7.364	88.37	1060	1767
					15/16	7.852	94.23	1131	1885

(Continued next page)

**STEEL WEIGHT TABLES**

 <b>ROUNDS</b>					 <b>SQUARES</b>				
Weight in Pounds					Weight in Pounds				
Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar	Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar
<b>6</b>	8.019	96.22	1155	1924	$\frac{1}{8}$	.0044	.053	.64	1.06
$\frac{1}{4}$	8.701	104.4	1253	2088	$\frac{3}{16}$	.0100	.120	1.44	2.40
$\frac{1}{2}$	9.411	112.9	1355	2259	$\frac{1}{4}$	.0177	.213	2.55	4.25
$\frac{3}{4}$	10.15	121.8	1461	2436	$\frac{5}{16}$	.0277	.332	3.98	6.64
<b>7</b>	10.91	131.0	1572	2619	$\frac{3}{8}$	.0399	.479	5.74	9.57
$\frac{1}{4}$	11.71	140.5	1686	2810	$\frac{7}{16}$	.0543	.651	7.82	13.03
$\frac{1}{2}$	12.53	150.4	1804	3007	$\frac{1}{2}$	.0709	.851	10.21	17.02
$\frac{3}{4}$	13.38	160.5	1926	3211	$\frac{9}{16}$	.0897	1.077	12.92	21.54
<b>8</b>	14.26	171.1	2053	3421	$\frac{5}{8}$	.1108	1.329	15.95	26.59
$\frac{1}{4}$	15.16	181.9	2183	3638	$\frac{11}{16}$	.1340	1.609	19.30	32.17
$\frac{1}{2}$	16.09	193.1	2317	3862	$\frac{3}{4}$	.1595	1.914	22.97	38.29
$\frac{3}{4}$	17.05	204.6	2456	4093	$\frac{13}{16}$	.1872	2.247	26.96	44.93
<b>9</b>	18.04	216.5	2598	4330	$\frac{7}{8}$	.2171	2.606	31.27	52.11
$\frac{1}{4}$	19.06	228.7	2744	4574	$\frac{15}{16}$	.2493	2.991	35.89	59.82
$\frac{1}{2}$	20.10	241.2	2895	4824	<b>1</b>	.2836	3.403	40.84	68.06
$\frac{3}{4}$	21.17	254.1	3049	5082	$\frac{1}{16}$	.3202	3.842	46.10	76.84
<b>10</b>	22.27	267.3	3207	5346	$\frac{1}{8}$	.3589	4.307	51.69	86.14
$\frac{1}{4}$	23.40	280.8	3370	5616	$\frac{3}{16}$	.3999	4.799	57.59	95.98
$\frac{1}{2}$	24.56	294.7	3536	5894	$\frac{1}{4}$	.4431	5.381	63.81	106.4
$\frac{3}{4}$	25.74	308.9	3707	6178	$\frac{5}{16}$	.4885	5.863	70.36	117.3
<b>11</b>	26.95	323.4	3881	6468	$\frac{3}{8}$	.5362	6.434	77.21	128.7
$\frac{1}{2}$	29.46	353.5	4242	7070	$\frac{1}{2}$	.6381	7.657	91.89	153.1
<b>12</b>	32.07	384.9	4619	7698	$\frac{9}{16}$	.6924	8.309	99.71	166.2
$\frac{1}{2}$	34.80	417.6	5012	8353	$\frac{5}{8}$	.7489	8.987	107.8	179.7
<b>13</b>	37.64	451.7	5421	9034	$\frac{3}{4}$	.8685	10.42	125.1	208.4
$\frac{1}{2}$	40.59	487.1	5845	9743	$\frac{7}{8}$	.9970	11.96	143.6	239.3
<b>14</b>	43.66	523.9	6287	10478	<b>2</b>	1.134	13.61	163.4	272.3
<b>15</b>	50.12	601.4	7217	12028	$\frac{1}{8}$	1.281	15.37	184.4	307.4
<b>16</b>	57.02	684.3	8211	13685	$\frac{1}{4}$	1.436	17.23	206.7	344.6
$\frac{1}{2}$	60.64	727.7	8732	14554	$\frac{3}{8}$	1.600	19.20	230.4	383.9
<b>17</b>	64.37	772.5	9269	15449	$\frac{1}{2}$	1.773	21.27	255.2	425.4
$\frac{1}{2}$	68.21	818.6	9823	16371	$\frac{5}{8}$	1.954	23.45	281.4	469.0
<b>18</b>	72.17	866.0	10392	17320	$\frac{3}{4}$	2.145	25.74	308.8	514.7
<b>19</b>	80.41	964.9	11579	19298	$\frac{7}{8}$	2.344	28.13	337.6	562.6
<b>20</b>	89.10	1069	12830	21383	<b>3</b>	2.552	30.63	367.5	612.6
<b>21</b>	98.23	1179	14145	23575	$\frac{1}{4}$	2.996	35.95	431.4	718.9
<b>22</b>	107.8	1294	15524	25873	$\frac{1}{2}$	3.474	41.69	500.3	833.8
<b>23</b>	117.8	1414	16968	28280	$\frac{3}{4}$	3.988	47.86	574.3	957.2
<b>24</b>	128.3	1540	18475	30791	<b>4</b>	4.538	54.45	653.4	1089
<b>25</b>	139.3	1671	20052	33420	$\frac{1}{4}$	5.123	61.47	737.6	1229
<b>26</b>	150.6	1807	21682	36137	$\frac{1}{2}$	5.743	68.91	827.0	1378
<b>27</b>	162.4	1949	23388	38980	$\frac{3}{4}$	6.399	76.78	921.4	1536
<b>28</b>	174.6	2096	25152	41920	<b>5</b>	7.090	85.08	1021	1702
<b>29</b>	187.3	2248	26976	44960	$\frac{1}{2}$	8.579	102.9	1235	2059
<b>30</b>	200.5	2406	28872	48120	<b>6</b>	10.21	122.5	1470	2450
<b>31</b>	214.1	2569	30828	51380	<b>7</b>	13.90	166.8	2001	3335
<b>32</b>	228.1	2737	32844	54740	<b>8</b>	18.15	217.8	2614	4356
<b>33</b>	242.6	2911	34932	58220	<b>9</b>	22.97	275.6	3308	5512
<b>34</b>	257.5	3090	37080	61800	<b>10</b>	28.36	340.3	4084	6808
<b>35</b>	272.8	3274	39288	65480	<b>12</b>	40.84	490.0	5880	9800
<b>36</b>	288.7	3464	41568	69280	<b>14</b>	55.60	667.2	8004	13340
<b>37</b>	304.9	3659	43908	73180	<b>16</b>	72.60	871.2	10456	17424
<b>38</b>	321.7	3860	46320	77200	<b>18</b>	91.88	1102	13232	22048
<b>39</b>	338.8	4065	48780	81300					
<b>40</b>	356.4	4277	51324	85540					

Over 40" — Not usually supplied as bars.  
See weights of steel circles on Pages 9 and 10 of this section.

**STEEL WEIGHT TABLES**



**HEXAGONS**



**OCTAGONS**

Weight in Pounds					Weight in Pounds				
Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar	Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar
3/16	.0086	.104	1.24	2.07	3/16	.0083	.099	1.19	1.98
1/4	.0154	.184	2.21	3.68	1/4	.0147	.176	2.11	3.52
5/16	.0240	.288	3.45	5.76	5/16	.0229	.275	3.30	5.51
3/8	.0345	.415	4.97	8.29	3/8	.0330	.397	4.76	7.93
7/16	.0470	.564	6.77	11.28	7/16	.0450	.540	6.48	10.79
1/2	.0614	.737	8.84	14.74	1/2	.0587	.705	8.46	14.10
9/16	.0777	.933	11.19	18.65	9/16	.0743	.892	10.70	17.84
5/8	.0959	1.151	13.82	23.03	5/8	.0918	1.101	13.21	22.02
11/16	.1161	1.393	16.72	27.86	11/16	.1110	1.333	16.00	26.66
3/4	.1382	1.658	19.89	33.16	3/4	.1322	1.586	19.03	31.72
13/16	.1621	1.946	23.35	38.91	13/16	.1551	1.861	22.33	37.22
7/8	.1880	2.257	27.08	45.13	7/8	.1799	2.159	25.91	43.18
15/16	.2159	2.590	31.08	51.81	15/16	.2065	2.478	29.74	49.56
<b>1</b>	.2456	2.947	35.37	58.95	<b>1</b>	.2349	2.819	33.83	56.38
1/16	.2773	3.327	39.93	66.54	1/16	.2652	3.183	38.20	63.66
1/8	.3108	3.730	44.76	74.60	1/8	.2973	3.568	42.82	71.36
3/16	.3463	4.156	49.87	83.12	3/16	.3313	3.976	47.71	79.52
1/4	.3838	4.605	55.26	92.10	1/4	.3671	4.405	52.86	88.10
5/16	.4231	5.077	60.93	101.5	5/16	.4047	4.857	58.28	97.14
3/8	.4643	5.572	66.87	111.4	3/8	.4442	5.330	63.96	106.6
7/16	.5075	6.090	73.08	121.8	7/16	.4855	5.826	69.91	116.5
1/2	.5526	6.631	79.56	132.6	1/2	.5286	6.343	76.12	126.9
9/16	.5996	7.196	86.35	143.9	9/16	.5736	6.883	82.60	137.7
5/8	.6485	7.783	93.39	155.7	5/8	.6204	7.445	89.34	148.9
11/16	.6994	8.393	100.7	167.9	11/16	.6690	8.028	96.34	160.6
3/4	.7522	9.026	108.3	180.5	3/4	.7195	8.634	103.6	172.7
13/16	.8068	9.682	116.2	193.6	13/16	.7718	9.262	111.1	185.4
7/8	.8634	10.36	124.3	207.2	7/8	.8260	9.912	118.9	198.2
15/16	.9220	11.06	132.8	221.3	15/16	.8819	10.58	127.0	211.6
<b>2</b>	.9824	11.79	141.5	235.8	<b>2</b>	.9398	11.28	135.4	225.6
1/8	1.109	13.31	159.7	266.2	1/8	1.061	12.73	152.8	254.6
3/16	1.175	14.10	169.2	282.1	3/16	1.124	13.49	161.9	269.8
1/4	1.243	14.92	179.0	298.4	1/4	1.189	14.27	171.2	285.4
3/8	1.385	16.62	199.5	332.5	3/8	1.325	15.90	190.8	318.0
7/16	1.459	17.51	210.1	350.2	7/16	1.396	16.75	201.0	335.0
1/2	1.535	18.42	221.0	368.4	1/2	1.468	17.62	211.4	352.4
5/8	1.692	20.31	243.7	406.2	5/8	1.619	19.43	233.2	388.6
3/4	1.857	22.29	267.5	445.8	3/4	1.777	21.32	255.8	426.4
7/8	2.030	24.36	292.3	487.2	7/8	1.942	23.30	279.6	466.0
<b>3</b>	2.210	26.53	318.3	530.5	<b>3</b>	2.114	25.37	304.4	507.4
1/8	2.398	28.78	345.4	575.6	1/8	2.294	27.53	330.4	550.6
1/4	2.594	31.13	373.6	622.6	1/2	2.878	34.54	414.5	690.8
1/2	3.009	36.10	433.2	722.1					
3/4	3.454	41.45	497.3	828.9					
<b>4</b>	3.930	47.16	565.9	943.1					

STEEL WEIGHT TABLES



FLATS

		Weight in Pounds						Weight in Pounds			
Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar	Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar		
1/16 x	1/4	.0044	.053	.64	1.06	3/16 x	1/4	.0133	.160	1.91	3.19
	3/8	.0066	.080	.96	1.60		5/16	.0166	.199	2.39	3.99
	1/2	.0089	.106	1.28	2.13		3/8	.0199	.239	2.87	4.79
	5/8	.0111	.133	1.60	2.66		7/16	.0233	.279	3.35	5.58
	3/4	.0133	.160	1.91	3.19		1/2	.0266	.319	3.83	6.38
	7/8	.0155	.186	2.23	3.72		5/8	.0332	.399	4.79	7.98
	1	.0177	.213	2.55	4.25		3/4	.0399	.479	5.74	9.57
	1 1/8	.0199	.239	2.87	4.79		7/8	.0465	.558	6.70	11.17
	1 1/4	.0222	.266	3.19	5.32		1	.0532	.638	7.66	12.76
	1 1/2	.0266	.319	3.83	6.38		1 1/8	.0598	.718	8.61	14.36
	1 3/4	.0310	.372	4.47	7.45		1 1/4	.0665	.798	9.57	15.95
	2	.0355	.425	5.11	8.51		1 3/8	.0731	.877	10.53	17.55
2 1/2	.0443	.532	6.38	10.64	1 1/2	.0798	.957	11.49	19.14		
3	.0532	.638	7.66	12.76	1 3/4	.0931	1.117	13.40	22.33		
3/32 x	3/8	.0100	.120	1.44	2.39	2	.1064	1.276	15.31	25.52	
	1/2	.0133	.160	1.91	3.19	2 1/4	.1196	1.436	17.23	28.71	
	5/8	.0166	.199	2.39	3.99	2 1/2	.1329	1.595	19.14	31.91	
	3/4	.0199	.239	2.87	4.79	2 3/4	.1462	1.755	21.06	35.10	
	7/8	.0233	.279	3.35	5.58	3	.1595	1.914	22.97	38.29	
	1	.0266	.319	3.83	6.38	3 1/2	.1861	2.233	26.80	44.67	
	1 1/8	.0299	.359	4.31	7.18	4	.2127	2.552	30.63	51.05	
	1 1/4	.0332	.399	4.79	7.98	4 1/2	.2393	2.871	34.46	57.43	
	1 1/2	.0399	.479	5.74	9.57	5	.2659	3.191	38.29	63.81	
	1 3/4	.0465	.558	6.70	11.17	6	.3191	3.829	45.94	76.57	
	2	.0532	.638	7.66	12.76	8	.4254	5.105	61.26	102.1	
	2 1/2	.0665	.798	9.57	15.95	10	.5318	6.381	76.57	127.6	
3	.0798	.957	11.49	19.14	12	.6381	7.657	91.89	153.1		
1/8 x	3/16	.0066	.080	.96	1.60	1/4 x	5/16	.0222	.266	3.19	5.32
	1/4	.0089	.106	1.28	2.13		3/8	.0266	.319	3.83	6.38
	5/16	.0111	.133	1.60	2.66		7/16	.0310	.372	4.47	7.44
	3/8	.0133	.160	1.91	3.19		1/2	.0355	.425	5.11	8.51
	1/2	.0177	.213	2.55	4.25		9/16	.0399	.479	5.74	9.57
	5/8	.0222	.266	3.19	5.32		5/8	.0443	.532	6.38	10.64
	3/4	.0266	.319	3.83	6.38		3/4	.0532	.638	7.66	12.76
	7/8	.0310	.372	4.47	7.45		7/8	.0620	.745	8.93	14.89
	1	.0355	.425	5.11	8.51		1	.0709	.851	10.21	17.02
	1 1/8	.0399	.479	5.74	9.57		1 1/8	.0798	.957	11.49	19.14
	1 1/4	.0443	.532	6.38	10.64		1 1/4	.0886	1.064	12.76	21.27
	1 1/2	.0532	.638	7.66	12.76		1 3/8	.0975	1.170	14.04	23.40
1 3/4	.0620	.745	8.93	14.89	1 1/2	.1064	1.276	15.31	25.52		
2	.0709	.851	10.21	17.02	1 5/8	.1152	1.383	16.59	27.65		
2 1/4	.0798	.957	11.49	19.14	1 3/4	.1241	1.489	17.87	29.78		
2 1/2	.0886	1.064	12.76	21.27	2	.1418	1.702	20.42	34.03		
2 3/4	.0975	1.170	14.04	23.40	2 1/4	.1595	1.914	22.97	38.29		
3	.1064	1.276	15.31	25.52	2 1/2	.1773	2.127	25.52	42.54		
3 1/2	.1241	1.489	17.87	29.78	2 3/4	.1950	2.340	28.08	46.79		
4	.1418	1.702	20.42	34.03	3	.2127	2.552	30.63	51.05		
4 1/2	.1595	1.914	22.97	38.29	3 1/4	.2304	2.765	33.18	55.30		
5	.1773	2.127	25.52	42.54	3 1/2	.2482	2.978	35.73	59.56		
6	.2127	2.552	30.63	51.05	3 3/4	.2659	3.191	38.29	63.81		
8	.2836	3.403	40.84	68.06	4	.2836	3.403	40.84	68.06		
10	.3545	4.254	51.05	85.08	4 1/2	.3191	3.829	45.94	76.57		
12	.4254	5.105	61.26	102.1	4 3/4	.3368	4.041	48.49	80.82		

(Continued next page)

STEEL WEIGHT TABLES



FLATS  
(Continued)

Weight in Pounds					Weight in Pounds				
Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar	Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar
$\frac{1}{4}$					$\frac{3}{8}$				
x 5	.3545	4.254	51.05	85.08	x 3	.3191	3.829	45.94	76.57
5 $\frac{1}{2}$	.3900	4.679	56.15	93.59	3 $\frac{1}{4}$	.3436	4.148	49.77	82.95
6	.4254	5.105	61.26	102.1	3 $\frac{3}{8}$	.3589	4.307	51.69	86.14
6 $\frac{1}{2}$	.4609	5.530	66.36	110.6	3 $\frac{1}{2}$	.3722	4.467	53.60	89.33
7	.4963	5.956	71.47	119.1	3 $\frac{3}{4}$	.3988	4.786	57.43	95.72
8	.5672	6.806	81.68	136.1	4	.4254	5.105	61.26	102.1
9	.6381	7.657	91.88	153.1	4 $\frac{1}{4}$	.4520	5.424	65.09	108.5
10	.7090	8.508	102.1	170.2	4 $\frac{1}{2}$	.4786	5.743	68.91	114.9
12	.8508	10.21	122.5	204.2	5	.5318	6.381	76.57	127.6
$\frac{5}{16}$					5 $\frac{1}{2}$	.5849	7.019	84.23	140.4
x $\frac{3}{8}$	.0332	.399	4.79	7.98	6	.6381	7.657	91.89	153.1
$\frac{1}{2}$	.0443	.532	6.38	10.64	6 $\frac{1}{2}$	.6913	8.295	99.54	165.9
$\frac{5}{8}$	.0554	.665	7.98	13.29	7	.7445	8.933	107.2	178.7
$\frac{3}{4}$	.0665	.798	9.57	15.95	8	.8508	10.21	122.5	204.2
$\frac{7}{8}$	.0775	.931	11.17	18.61	9	.9572	11.49	137.9	229.8
1	.0886	1.064	12.76	21.27	10	1.064	12.76	153.1	255.2
1 $\frac{1}{8}$	.0997	1.196	14.36	23.93	12	1.276	15.31	183.8	306.3
1 $\frac{1}{4}$	.1108	1.329	15.95	26.59	$\frac{7}{16}$				
1 $\frac{3}{8}$	.1219	1.462	17.55	29.25	x $\frac{1}{2}$	.0620	.745	8.93	14.89
1 $\frac{1}{2}$	.1329	1.595	19.14	31.91	$\frac{5}{8}$	.0775	.931	11.17	18.61
1 $\frac{5}{8}$	.1440	1.729	20.74	34.56	$\frac{3}{4}$	.0931	1.117	13.40	22.33
1 $\frac{3}{4}$	.1551	1.861	22.33	37.22	$\frac{7}{8}$	.1086	1.303	15.63	26.06
2	.1773	2.127	25.52	42.54	1	.1241	1.489	17.87	29.78
2 $\frac{1}{4}$	.1994	2.393	28.71	47.86	1 $\frac{1}{4}$	.1551	1.861	22.33	37.22
2 $\frac{1}{2}$	.2216	2.659	31.91	53.18	1 $\frac{1}{2}$	.1861	2.333	26.80	44.67
2 $\frac{3}{4}$	.2437	2.925	35.10	58.50	1 $\frac{3}{4}$	.2171	2.606	31.27	52.11
3	.2659	3.191	38.29	63.81	2	.2482	2.978	35.73	59.56
3 $\frac{1}{2}$	.3102	3.722	44.68	74.45	2 $\frac{1}{4}$	.2792	3.350	40.20	67.00
4	.3545	4.254	51.05	85.08	2 $\frac{1}{2}$	.3102	3.722	44.67	74.45
4 $\frac{1}{2}$	.3988	4.786	57.43	95.72	3	.3722	4.467	53.60	89.33
5	.4431	5.318	63.81	106.4	3 $\frac{1}{2}$	.4343	5.211	62.53	104.2
5 $\frac{1}{2}$	.4874	5.849	70.19	117.0	4	.4963	5.956	71.47	119.1
6	.5318	6.381	76.57	127.6	5	.6204	7.445	89.33	148.9
7	.6204	7.445	89.33	148.9	6	.7445	8.933	107.2	178.7
8	.7090	8.508	102.1	170.2	$\frac{1}{2}$				
10	.8863	10.64	127.6	212.7	x $\frac{5}{8}$	.0886	1.064	12.76	21.27
12	1.064	12.76	153.1	255.2	$\frac{3}{4}$	.1064	1.276	15.31	25.52
$\frac{3}{8}$					$\frac{7}{8}$	.1241	1.489	17.87	29.78
x $\frac{7}{16}$	.0465	.558	6.70	11.17	1	.1418	1.702	20.42	34.03
$\frac{1}{2}$	.0532	.638	7.66	12.76	1 $\frac{1}{8}$	.1595	1.914	22.97	38.29
$\frac{5}{8}$	.0665	.798	9.57	15.95	1 $\frac{1}{4}$	.1773	2.127	25.52	42.54
$\frac{3}{4}$	.0798	.957	11.49	19.14	1 $\frac{3}{8}$	.1950	2.340	28.08	46.79
$\frac{7}{8}$	.0931	1.117	13.40	22.33	1 $\frac{1}{2}$	.2127	2.552	30.63	51.05
1	.1064	1.276	15.31	25.52	1 $\frac{5}{8}$	.2304	2.765	33.18	55.30
1 $\frac{1}{8}$	.1196	1.436	17.23	28.71	1 $\frac{3}{4}$	.2482	2.978	35.73	59.56
1 $\frac{1}{4}$	.1329	1.595	19.14	31.91	2	.2836	3.403	40.84	68.06
1 $\frac{3}{8}$	.1462	1.755	21.06	35.10	2 $\frac{1}{4}$	.3191	3.829	45.94	76.57
1 $\frac{1}{2}$	.1595	1.914	22.97	38.29	2 $\frac{1}{2}$	.3545	4.254	51.05	85.08
1 $\frac{5}{8}$	.1728	2.074	24.89	41.48	2 $\frac{3}{4}$	.3900	4.679	56.15	93.59
1 $\frac{3}{4}$	.1861	2.233	26.80	44.67	3	.4254	5.105	61.26	102.1
2	.2127	2.552	30.63	51.05	3 $\frac{1}{4}$	.4609	5.530	66.36	110.6
2 $\frac{1}{4}$	.2393	2.871	34.46	57.43	3 $\frac{1}{2}$	.4963	5.956	71.47	119.1
2 $\frac{1}{2}$	.2659	3.191	38.29	63.81	3 $\frac{3}{4}$	.5813	6.381	76.57	127.6
2 $\frac{3}{4}$	.2925	3.510	42.11	70.19	4	.5672	6.806	81.68	136.1
					4 $\frac{1}{4}$	.6027	7.232	86.78	144.6

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**STEEL WEIGHT TABLES**



**FLATS**  
(Continued)

Weight in Pounds					Weight in Pounds				
Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar	Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar
<b>1/2</b>					<b>3/4</b>				
x 4 1/2	.6381	7.657	91.89	153.1	x 4	.8508	10.21	122.5	204.2
4 3/4	.6736	8.083	97.00	161.7	4 1/2	.9572	11.49	137.8	229.7
5	.7090	8.508	102.1	170.2	5	1.064	12.76	153.1	255.2
5 1/2	.7799	9.359	112.3	187.2	5 1/2	1.170	14.04	168.5	280.8
6	.8508	10.21	122.5	204.2	6	1.276	15.31	183.8	306.3
6 1/2	.9217	11.06	132.7	221.2	7	1.489	17.87	214.4	357.3
7	.9926	11.91	142.9	238.2	8	1.702	20.42	245.0	408.4
8	1.134	13.61	163.4	272.3	9	1.914	22.97	275.7	459.4
9	1.276	15.31	183.8	306.3	10	2.127	25.52	306.3	510.5
10	1.418	17.02	204.2	340.3	12	2.552	30.63	367.5	612.6
12	1.702	20.42	245.0	408.4	<b>7/8</b>				
<b>5/8</b>					x 1	.2482	2.978	35.73	59.56
x 3/4	.1329	1.595	19.14	31.91	1 1/8	.2792	3.350	40.20	67.00
7/8	.1551	1.861	22.33	37.22	1 1/4	.3102	3.722	44.67	74.45
1	.1773	2.127	25.52	42.54	1 3/8	.3412	4.094	49.13	81.89
1 1/8	.1994	2.393	28.71	47.86	1 1/2	.3722	4.467	53.60	89.33
1 1/4	.2216	2.659	31.91	53.18	1 3/4	.4343	5.211	62.53	104.2
1 3/8	.2437	2.925	35.10	58.49	2	.4963	5.956	71.47	119.1
1 1/2	.2659	3.191	38.29	63.81	2 1/4	.5583	6.700	80.40	134.0
1 5/8	.2880	3.456	41.47	69.12	2 1/2	.6204	7.445	89.33	148.9
1 3/4	.3102	3.722	44.67	74.45	2 3/4	.6824	8.189	98.27	163.8
2	.3545	4.254	51.05	85.08	3	.7445	8.933	107.2	178.7
2 1/4	.3988	4.786	57.43	95.72	3 1/2	.8685	10.42	125.1	208.4
2 1/2	.4431	5.318	63.81	106.4	4	.9926	11.91	142.9	238.2
2 3/4	.4874	5.849	70.19	117.0	4 1/2	1.117	13.40	160.8	268.0
3	.5318	6.381	76.57	127.6	5	1.241	14.89	178.7	297.8
3 1/4	.5761	6.913	82.95	138.3	6	1.489	17.87	214.4	357.3
3 1/2	.6204	7.445	89.33	148.9	7	1.737	20.84	250.1	416.9
4	.7090	8.508	102.1	170.2	8	1.985	23.82	285.9	476.4
4 1/2	.7976	9.572	114.9	191.4	10	2.482	29.78	357.4	595.6
5	.8863	10.64	127.6	212.7	12	2.975	35.73	428.4	714.7
5 1/2	.9749	11.70	140.4	234.0	<b>I</b>				
6	1.064	12.76	153.1	255.2	x 1 1/8	.3191	3.829	45.94	76.57
7	1.241	14.89	178.7	297.8	1 1/4	.3545	4.254	51.05	85.08
8	1.418	17.02	204.2	340.3	1 3/8	.3900	4.679	56.15	93.59
10	1.773	21.27	255.2	425.4	1 1/2	.4254	5.105	61.26	102.1
12	2.127	25.52	306.3	510.5	1 5/8	.4609	5.530	66.36	110.6
<b>3/4</b>					1 3/4	.4963	5.956	71.47	119.1
x 7/8	.1861	2.233	26.80	44.67	2	.5672	6.806	81.68	136.1
1	.2127	2.552	30.63	51.05	2 1/4	.6381	7.657	91.89	153.1
1 1/8	.2393	2.871	34.46	57.43	2 1/2	.7090	8.508	102.1	170.2
1 1/4	.2659	3.191	38.29	63.81	2 3/4	.7799	9.359	112.3	187.2
1 3/8	.2925	3.510	42.11	70.19	3	.8508	10.21	122.5	204.2
1 1/2	.3191	3.829	45.94	76.57	3 1/4	.9217	11.06	132.7	221.2
1 5/8	.3456	4.148	49.77	82.95	3 1/2	.9926	11.91	142.9	238.2
1 3/4	.3722	4.467	53.60	89.33	4	1.134	13.61	163.4	272.3
2	.4254	5.105	61.26	102.1	4 1/2	1.276	15.31	183.8	306.3
2 1/4	.4786	5.743	68.91	114.9	5	1.418	17.02	204.2	340.3
2 1/2	.5318	6.381	76.57	127.6	5 1/2	1.560	18.72	224.6	374.4
2 3/4	.5849	7.019	84.23	140.4	6	1.702	20.42	245.0	408.4
3	.6381	7.657	91.89	153.1	6 1/2	1.843	22.12	265.4	442.4
3 1/4	.6913	8.295	99.54	165.9	7	1.985	23.82	285.9	476.4
3 1/2	.7445	8.933	107.2	178.7	8	2.269	27.23	326.7	544.4
3 3/4	.7976	9.572	114.9	191.4	9	2.552	30.63	367.5	612.6
					10	2.836	34.03	408.4	680.6
					11	3.120	37.44	449.3	748.8
					12	3.403	40.84	490.1	816.8

(Continued next page)



**STEEL WEIGHT TABLES**



**FLATS**  
(Continued)

Weight in Pounds					Weight in Pounds				
Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar	Size in Inches	Per Inch	Per Foot	12-Ft. Bar	20-Ft. Bar
<b>1<sup>1</sup>/<sub>8</sub></b>					<b>1<sup>3</sup>/<sub>4</sub></b>				
x 1 1/4	.3988	4.786	57.43	95.72	x 2	.9926	11.91	142.9	238.2
1 1/2	.4786	5.743	68.92	114.9	2 1/4	1.117	13.40	160.8	268.0
1 3/4	.5583	6.700	80.40	134.0	2 1/2	1.241	14.89	178.7	297.8
2	.6381	7.657	91.89	153.1	2 3/4	1.365	16.38	196.5	327.6
2 1/4	.7179	8.614	103.4	172.3	3	1.489	17.87	214.4	357.3
2 1/2	.7976	9.572	114.9	191.4	3 1/2	1.737	20.84	250.1	416.9
3	.9572	11.49	137.8	229.7	4	1.985	23.82	285.9	476.4
4	1.276	15.31	183.8	306.3	4 1/2	2.233	26.80	321.6	536.0
5	1.595	19.14	229.7	382.9	5	2.482	29.78	357.3	595.6
6	1.914	22.97	275.7	459.4	6	2.978	35.73	428.8	714.7
					8	3.970	47.64	571.7	952.8
<b>1<sup>1</sup>/<sub>4</sub></b>					9	4.467	53.60	643.2	1072
x 1 3/8	.4874	5.849	70.19	117.0	10	4.963	59.56	714.7	1191
1 1/2	.5318	6.381	76.57	127.6	<b>2</b>				
1 5/8	.5761	6.913	82.96	138.3	x 2 1/4	1.276	15.31	183.8	306.3
1 3/4	.6204	7.445	89.33	148.9	2 1/2	1.418	17.02	204.2	340.3
2	.7090	8.508	102.1	170.2	2 3/4	1.560	18.72	224.6	374.4
2 1/4	.7976	9.572	114.9	191.4	3	1.702	20.42	245.0	408.4
2 1/2	.8863	10.64	127.6	221.7	3 1/4	1.843	22.12	265.4	442.4
2 3/4	.9749	11.70	140.4	234.0	3 1/2	1.985	23.82	285.9	476.4
3	1.064	12.76	153.1	255.2	3 3/4	2.127	25.52	306.2	510.4
3 1/4	1.152	13.82	165.8	276.4	4	2.269	27.23	326.7	544.5
3 1/2	1.241	14.89	178.7	297.8	4 1/2	2.552	30.63	367.5	612.6
3 3/4	1.329	15.95	191.4	319.0	5	2.836	34.03	408.4	680.6
4	1.418	17.02	204.2	340.3	5 1/2	3.120	37.44	449.3	748.8
4 1/2	1.595	19.14	229.7	382.9	6	3.403	40.84	490.1	816.8
5	1.773	21.27	255.2	425.4	7	3.970	47.64	571.7	952.9
5 1/2	1.950	23.40	280.8	467.9	8	4.538	54.45	653.4	1089
6	2.127	25.52	306.3	510.5	10	5.672	68.06	816.8	1361
7	2.482	29.78	357.3	595.6	12	6.806	81.68	980.1	1634
8	2.836	34.03	408.4	680.6	<b>2<sup>1</sup>/<sub>2</sub></b>				
9	3.191	38.29	459.5	765.8	x 2 3/4	1.949	23.40	280.8	468.0
10	3.545	42.54	510.5	850.8	3	2.127	25.52	306.3	510.5
12	4.254	51.05	612.6	1021	3 1/2	2.482	29.78	357.3	595.6
					4	2.836	34.03	408.4	680.6
<b>1<sup>1</sup>/<sub>2</sub></b>					4 1/2	3.191	38.29	459.4	765.7
x 1 5/8	.6913	8.295	99.54	165.9	5	3.545	42.54	510.5	850.8
1 3/4	.7445	8.933	107.2	178.7	5 1/2	3.900	46.79	561.5	935.8
2	.8508	10.21	122.5	204.2	6	4.254	51.05	612.6	1021
2 1/4	.9572	11.49	137.8	229.7	7	4.963	59.56	714.7	1191
2 1/2	1.064	12.76	153.1	255.2	8	5.672	68.06	816.8	1361
2 3/4	1.170	14.04	168.5	280.8	9	6.381	76.57	918.9	1531
3	1.276	15.31	183.8	306.3	10	7.090	85.08	1021	1702
3 1/4	1.383	16.59	199.1	331.8	11	7.799	93.59	1123	1872
3 1/2	1.489	17.87	214.4	357.3	12	8.508	102.1	1225	2042
4	1.702	20.42	245.0	408.4	<b>3</b>				
4 1/2	1.914	22.97	275.7	459.4	x 3 1/2	2.978	35.73	428.8	714.7
5	2.127	25.52	306.3	510.5	4	3.403	40.84	490.1	816.8
5 1/2	2.340	28.08	336.9	561.5	4 1/2	3.829	45.94	551.3	918.9
6	2.552	30.63	367.5	612.6	5	4.254	51.05	612.6	1021
7	2.978	35.73	428.8	714.7	6	5.105	61.26	735.1	1225
8	3.403	40.84	490.1	816.8	7	5.957	71.47	857.6	1429
9	3.829	45.94	551.3	918.8	8	6.806	81.68	980.1	1634
10	4.254	51.05	612.6	1021	10	8.508	102.1	1225	2042
12	5.105	61.26	735.1	1225	12	10.21	122.5	1470	2450

**WEIGHTS OF STEEL CIRCLES**

For Circumferences and Areas of Circles, see Section Q

Diameter In Inches	3/16" Thick	1/4" Thick	5/16" Thick	3/8" Thick	1/2" Thick	5/8" Thick	3/4" Thick	7/8" Thick	1" Thick
<b>2</b>	.17	.22	.28	.33	.45	.56	.67	.78	.89
1/4	.21	.28	.35	.42	.56	.70	.85	.99	1.13
1/2	.26	.35	.44	.52	.70	.87	1.04	1.22	1.39
3/4	.32	.42	.53	.63	.84	1.05	1.26	1.47	1.68
<b>3</b>	.38	.50	.63	.75	1.00	1.25	1.50	1.75	2.00
1/4	.44	.59	.74	.88	1.18	1.47	1.76	2.06	2.35
1/2	.51	.68	.85	1.02	1.36	1.71	2.05	2.39	2.73
3/4	.59	.78	.98	1.17	1.57	1.96	2.35	2.74	3.12
<b>4</b>	.67	.89	1.11	1.34	1.78	2.23	2.67	3.12	3.56
1/4	.75	1.01	1.26	1.51	2.01	2.51	3.02	3.52	4.02
1/2	.85	1.13	1.41	1.69	2.26	2.82	3.38	3.95	4.51
3/4	.94	1.26	1.57	1.88	2.51	3.14	3.77	4.40	5.03
<b>5</b>	1.04	1.39	1.74	2.09	2.78	3.48	4.18	4.87	5.57
1/4	1.15	1.53	1.92	2.30	3.07	3.84	4.60	5.37	6.14
1/2	1.26	1.68	2.11	2.53	3.37	4.21	5.05	5.90	6.74
3/4	1.38	1.84	2.30	2.76	3.68	4.60	5.52	6.44	7.36
<b>6</b>	1.50	2.00	2.51	3.01	4.01	5.01	6.01	7.02	8.02
1/4	1.63	2.18	2.72	3.26	4.35	5.44	6.53	7.61	8.70
1/2	1.76	2.35	2.94	3.53	4.71	5.88	7.06	8.23	9.41
3/4	1.90	2.54	3.17	3.81	5.07	6.34	7.61	8.88	10.15
<b>7</b>	2.05	2.73	3.41	4.09	5.46	6.82	8.19	9.55	10.91
1/4	2.20	2.93	3.66	4.39	5.85	7.32	8.78	10.24	11.71
1/2	2.35	3.13	3.92	4.70	6.26	7.83	9.40	10.96	12.53
3/4	2.51	3.34	4.18	5.02	6.69	8.36	10.03	11.71	13.38
<b>8</b>	2.67	3.56	4.46	5.35	7.13	8.91	10.69	12.47	14.26
1/4	2.84	3.79	4.74	5.69	7.58	9.47	11.37	13.27	15.16
1/2	3.18	4.02	5.03	6.04	8.05	10.06	12.07	14.08	16.09
3/4	3.20	4.26	5.33	6.40	8.53	10.66	12.79	14.92	17.05
<b>9</b>	3.38	4.51	5.64	6.77	9.02	11.28	13.53	15.79	18.04
1/4	3.57	4.76	5.96	7.15	9.53	11.91	14.29	16.68	19.06
1/2	3.77	5.03	6.28	7.54	10.05	12.56	15.08	17.59	20.10
3/4	3.97	5.29	6.62	7.94	10.59	13.23	15.88	18.53	21.17
<b>10</b>	4.18	5.57	6.96	8.35	11.14	13.92	16.71	19.49	22.27
1/4	4.39	5.85	7.31	8.78	11.70	14.63	17.55	20.48	23.40
1/2	4.60	6.14	7.67	9.21	12.28	15.35	18.42	21.49	24.56
3/4	4.83	6.44	8.04	9.65	12.87	16.09	19.31	22.52	25.74
<b>11</b>	5.05	6.74	8.42	10.11	13.48	16.84	20.21	23.58	26.95
1/4	5.29	7.05	8.81	10.57	14.10	17.62	21.14	24.67	28.19
1/2	5.52	7.37	9.21	11.05	14.73	18.41	22.09	25.78	29.46
3/4	5.77	7.69	9.61	11.53	15.38	19.22	23.06	26.91	30.75
<b>12</b>	6.01	8.02	10.02	12.03	16.04	20.05	24.06	28.07	32.07
1/4	6.27	8.36	10.45	12.53	16.71	20.89	25.07	29.25	33.42
1/2	6.53	8.70	10.88	13.05	17.40	21.75	26.10	30.45	34.80
3/4	6.79	9.05	11.32	13.58	18.10	22.63	27.16	31.68	36.21
<b>13</b>	7.06	9.41	11.76	14.12	18.82	23.53	28.23	32.94	37.64
1/4	7.33	9.78	12.22	14.66	19.55	24.44	29.33	34.22	39.10
1/2	7.61	10.15	12.69	15.22	20.30	25.37	30.45	35.52	40.59
3/4	7.90	10.53	13.16	15.79	21.06	26.32	31.58	36.85	42.11
<b>14</b>	8.18	10.92	13.64	16.37	21.83	27.29	32.74	38.20	43.66
1/4	8.48	11.31	14.14	16.96	22.62	28.27	33.92	39.58	45.23
1/2	8.78	11.71	14.64	17.56	23.42	29.27	35.12	40.98	46.83
3/4	9.09	12.12	15.14	18.17	24.23	30.29	36.35	42.40	48.46
<b>15</b>	9.40	12.53	15.66	18.79	25.06	31.32	37.59	43.85	50.12
1/4	9.71	12.95	16.19	19.43	25.90	32.38	38.85	45.33	51.80
1/2	10.03	13.38	16.72	20.07	26.76	33.45	40.14	46.82	53.51
3/4	10.36	13.81	17.27	20.72	27.36	34.53	41.44	48.35	55.25
<b>16</b>	10.69	14.26	17.82	21.38	28.51	35.64	42.77	49.84	57.02
1/4	11.03	14.71	18.38	22.06	29.41	36.76	44.11	51.47	58.82
1/2	11.37	15.16	18.95	22.74	30.38	37.90	45.48	53.06	60.64
3/4	11.72	15.62	19.53	23.44	31.25	39.06	46.87	54.68	62.49

(Continued next page)

**WEIGHTS OF STEEL CIRCLES (Continued)**

For Circumferences and Areas of Circles, see Section Q




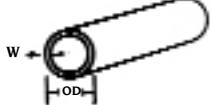

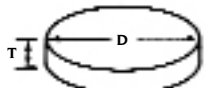

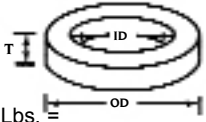
<b>Diameter In Inches</b>	<b>3/16" Thick</b>	<b>1/4" Thick</b>	<b>5/16" Thick</b>	<b>3/8" Thick</b>	<b>1/2" Thick</b>	<b>5/8" Thick</b>	<b>3/4" Thick</b>	<b>7/8" Thick</b>	<b>1" Thick</b>
17	12.07	16.09	20.12	24.14	32.19	40.23	48.28	56.33	64.37
18	13.53	18.04	22.55	27.06	36.08	45.10	54.13	63.15	72.17
19	15.08	20.10	25.13	30.15	40.20	50.25	60.31	70.36	80.41
20	16.70	22.28	27.84	33.41	44.55	55.68	67.82	77.96	89.10
21	18.42	24.56	30.70	36.84	49.11	61.39	73.67	85.95	98.23
22	20.21	26.95	33.69	40.43	53.90	67.38	80.86	94.33	108
23	22.09	29.46	36.82	44.19	58.91	73.64	88.37	103	118
24	24.05	32.08	40.10	48.11	64.15	80.18	96.23	112	128
25	26.10	34.81	43.51	52.21	69.61	87.01	104	122	139
26	28.23	37.65	47.06	56.47	75.29	94.11	113	132	151
27	30.44	40.60	50.75	60.89	81.19	101	122	142	162
28	32.74	43.66	54.57	65.49	87.31	109	131	153	175
29	35.12	46.84	58.54	70.25	93.66	117	140	164	187
30	37.58	50.12	62.65	75.18	100	125	150	175	200
31	40.13	53.52	66.90	80.27	108	134	161	187	214
32	42.76	57.03	71.28	85.53	114	143	171	200	228
33	45.48	60.65	75.81	90.96	121	152	182	212	243
34	48.28	64.38	80.47	96.56	129	161	193	225	257
35	51.16	68.22	86.27	102	136	171	205	239	273
36	54.12	72.17	90.21	108	144	180	217	253	289
37	57.17	76.24	95.30	114	152	191	229	267	303
38	60.30	80.42	101	121	161	201	241	281	322
39	63.52	84.70	106	127	169	212	254	296	339
40	66.82	89.10	11	134	178	223	267	312	356
41	70.20	93.61	117	140	187	234	281	328	374
42	73.67	98.24	123	147	196	246	295	344	393
43	77.21	103	129	154	206	257	309	360	412
44	80.84	108	135	162	216	270	323	377	431
45	84.56	113	141	169	226	282	338	395	451
46	88.36	118	147	177	236	295	353	412	471
47	92.25	123	154	185	246	308	369	431	492
48	96.22	128	160	192	257	321	385	449	513
49	100	134	167	201	267	334	401	468	535
50	104	139	174	209	278	348	418	487	557
51	109	145	181	217	290	362	434	507	579
52	113	151	188	226	301	376	452	527	602
53	117	156	196	235	313	391	469	547	626
54	122	162	203	244	325	406	487	568	650
55	126	168	211	253	337	421	505	590	674
56	131	175	218	262	349	437	524	611	699
57	136	181	226	271	362	452	543	633	724
58	140	187	234	281	375	468	562	656	749
59	145	194	242	291	388	485	582	678	775
60	150	200	251	301	401	501	601	702	802
61	155	207	259	311	414	518	622	725	829
62	161	214	268	321	428	535	642	749	856
63	166	221	276	332	442	553	663	774	884
64	171	228	285	342	456	570	684	798	912
65	176	235	294	353	471	588	706	823	941
66	182	243	303	364	485	606	728	849	970
67	187	250	312	375	500	625	750	875	1000
68	193	258	322	386	515	644	772	901	1030

**LARGER DIAMETERS**

<b>Procedure</b>	<b>Example — 120" Circle, 1" thick</b>
Find weight of a circle one-half the diameter of the circle desired and multiply by 4.	Weight of 60" Circle . . . . . 802 Lbs. <div style="text-align: right; padding-right: 10px;">x4</div> Weight of 120" Circle . . . . 3208 Lbs.

## WEIGHT FORMULAS

Steel bar weights are based on .2836 lb. per cubic inch. Aluminum weights are based on .098 lb. per cubic inch, which applies to 1100 alloy. (See next page for conversion factors for other alloys.)

<p><b>ROUNDS</b> </p> <p><b>Steel:</b>            Lbs. per lineal foot = <math>2.6729 \times D^2</math>            Lbs. per lineal inch = <math>.22274 \times D^2</math></p> <p><b>Aluminum:</b>            Lbs. per lineal foot = <math>.924 \times D^2</math>            D = Size in inches</p>	<p><b>FLATS</b> </p> <p><b>Steel:</b>            Lbs. per lineal foot = <math>3.4032 \times T \times W</math>            Lbs. per lineal inch = <math>.2836 \times T \times W</math></p> <p><b>Aluminum:</b>            Lbs. per lineal foot = <math>1.18 \times T \times W</math>            T = Thickness in inches            W = Width in inches</p>
<p><b>SQUARES</b> </p> <p><b>Steel:</b>            Lbs. per lineal foot = <math>3.4032 \times D^2</math>            Lbs. per lineal inch = <math>.2836 \times D^2</math></p> <p><b>Aluminum:</b>            Lbs. per lineal foot = <math>1.18 \times D^2</math>            D = Size in inches</p>	<p><b>TUBING</b> </p> <p><b>Steel:</b>            Lbs. per lineal foot = <math>10.68 \times (OD - W) \times W</math>            Lbs. per lineal inch = <math>.89 \times (OD - W) \times W</math></p> <p><b>Aluminum:</b>            Lbs. per lineal foot = <math>3.70 \times (OD - W) \times W</math>            OD = Outside Diameter to 3 decimal places            W = Wall Thickness to 3 decimal places</p>
<p><b>HEXAGONS</b> </p> <p><b>Steel:</b>            Lbs. per lineal foot = <math>2.9473 \times D^2</math>            Lbs. per lineal inch = <math>.2456 \times D^2</math></p> <p><b>Aluminum:</b>            Lbs. per lineal foot = <math>1.02 \times D^2</math>            D = Size in inches</p>	<p><b>CIRCLES</b> </p> <p><b>Steel:</b>            Wt. of Circle in Lbs. = <math>.22274 \times T \times D^2</math></p> <p><b>Aluminum:</b>            Wt. of Circle in Lbs. = <math>.077 \times T \times D^2</math>            D = Diameter in inches            T = Thickness in inches</p>
<p><b>OCTAGONS</b> </p> <p><b>Steel:</b>            Lbs. per lineal foot = <math>2.8193 \times D^2</math>            Lbs. per lineal inch = <math>.23494 \times D^2</math></p> <p><b>Aluminum:</b>            Lbs. per lineal foot = <math>.974 \times D^2</math>            D = Size in inches</p>	<p><b>RINGS</b> </p> <p><b>Steel:</b>            Wt. of Ring in Lbs. = <math>.22274 \times T \times (OD^2 - ID^2)</math></p> <p><b>Aluminum:</b>            Wt. of Ring in Lbs. = <math>.077 \times T \times (OD^2 - ID^2)</math>            OD = Outside Diameter in inches            ID = Inside Diameter in inches            T = Thickness in inches</p>

## WEIGHT CONVERSION FACTORS

To Obtain Weight of	Density (Weight Lbs. per Cubic Inch)	Multiply Weight of Steel by	To Obtain Weight of	Density (Weight Lbs. per Cubic Inch)	Multiply Weight of Steel by
Aluminum . . . . .	0.098	.3462	Gold . . . . .	0.698	2.466
			Tungsten . . . . .	0.697	2.462
1100 Aluminum . . . . .	0.098	.3462	Tantalum . . . . .	0.600	2.120
2011 Aluminum . . . . .	0.102	.3604	Lead . . . . .	0.410	1.448
2014 Aluminum . . . . .	0.101	.3568	Silver . . . . .	0.379	1.339
2017 Aluminum . . . . .	0.101	.3568	Molybdenum . . . . .	0.369	1.303
2024 Aluminum . . . . .	0.101	.3568	Copper . . . . .	0.324	1.144
3003 Aluminum . . . . .	0.099	.3498	Nickel . . . . .	0.322	1.137
			Columbium . . . . .	0.310	1.095
5005 Aluminum . . . . .	0.098	.3462	Brass . . . . .	0.307	1.084
5052 Aluminum . . . . .	0.097	.3427	Monel . . . . .	0.307	1.084
5056 Aluminum . . . . .	0.095	.3356	Stainless Steels		
5083 Aluminum . . . . .	0.096	.3392	300 Series . . . . .	0.286	1.010
5086 Aluminum . . . . .	0.096	.3392	400 Series . . . . .	0.283	1.000
6061 Aluminum . . . . .	0.098	.3462	Carbon and Alloy		
6063 Aluminum . . . . .	0.097	.3427	Steels . . . . .	0.283	1.000
7075 Aluminum . . . . .	0.101	.3568	Tin . . . . .	0.264	0.932
7178 Aluminum . . . . .	0.102	.3604	Cast Iron . . . . .	0.258	0.911
			Zirconium . . . . .	0.230	0.812
			Titanium Com'l Pure . . . . .	0.163	0.575
			Titanium 3AL 2½ V . . . . .	0.162	0.572
			Beryllium . . . . .	0.067	0.236
			Magnesium . . . . .	0.065	0.229
			Gray Iron . . . . .	0.260	0.919
			Ductile Iron . . . . .	0.255	0.901

## MILLIMETERS CONVERTED TO DECIMAL AND FRACTIONAL INCHES

Milli- meters	Decimal Inches	Fractional Inches (to nearest 64th)	Milli- meters	Decimal Inches	Fractional Inches (to nearest 64th)	Milli- meters	Decimal Inches	Fractional Inches (to nearest 64th)
<b>1</b>	.0394	3/64	<b>34</b>	1.339	111/32	<b>67</b>	2.638	241/64
<b>2</b>	.0787	5/64	<b>35</b>	1.378	13/8	<b>68</b>	2.677	243/64
<b>3</b>	.1181	1/8	<b>36</b>	1.417	127/64	<b>69</b>	2.717	223/32
<b>4</b>	.1575	5/32	<b>37</b>	1.457	129/64	<b>70</b>	2.756	23/4
<b>5</b>	.1969	13/64	<b>38</b>	1.496	11/2	<b>71</b>	2.795	251/64
<b>6</b>	.2362	15/64	<b>39</b>	1.535	117/32	<b>72</b>	2.835	253/64
<b>7</b>	.2756	9/32	<b>40</b>	1.575	137/64	<b>73</b>	2.874	27/8
<b>8</b>	.3150	5/16	<b>41</b>	1.614	139/64	<b>74</b>	2.913	229/32
<b>9</b>	.3543	23/64	<b>42</b>	1.654	121/32	<b>75</b>	2.953	261/64
<b>10</b>	.3937	25/64	<b>43</b>	1.693	111/16	<b>76</b>	2.992	263/64
<b>11</b>	.4331	7/16	<b>44</b>	1.732	147/64	<b>77</b>	3.031	31/32
<b>12</b>	.4724	15/32	<b>45</b>	1.772	149/64	<b>78</b>	3.071	35/64
<b>13</b>	.5118	33/64	<b>46</b>	1.811	113/16	<b>79</b>	3.110	37/64
<b>14</b>	.5512	35/64	<b>47</b>	1.850	127/32	<b>80</b>	3.150	35/32
<b>15</b>	.5906	19/32	<b>48</b>	1.890	157/64	<b>81</b>	3.189	33/16
<b>16</b>	.6299	5/8	<b>49</b>	1.929	159/64	<b>82</b>	3.228	315/64
<b>17</b>	.6693	43/64	<b>50</b>	1.969	131/32	<b>83</b>	3.268	317/64
<b>18</b>	.7087	45/64	<b>51</b>	2.008	21/64	<b>84</b>	3.307	35/16
<b>19</b>	.7480	3/4	<b>52</b>	2.047	23/64	<b>85</b>	3.346	311/32
<b>20</b>	.7874	25/32	<b>53</b>	2.087	23/32	<b>86</b>	3.386	325/64
<b>21</b>	.8268	53/64	<b>54</b>	2.126	21/8	<b>87</b>	3.425	327/64
<b>22</b>	.8661	55/64	<b>55</b>	2.165	211/64	<b>88</b>	3.465	315/32
<b>23</b>	.9055	29/32	<b>56</b>	2.205	213/64	<b>89</b>	3.504	31/2
<b>24</b>	.9449	15/16	<b>57</b>	2.244	21/4	<b>90</b>	3.543	335/64
<b>25</b>	.9843	63/64	<b>58</b>	2.283	29/32	<b>91</b>	3.583	337/64
<b>26</b>	1.024	11/32	<b>59</b>	2.323	221/64	<b>92</b>	3.622	35/8
<b>27</b>	1.063	11/16	<b>60</b>	2.362	223/64	<b>93</b>	3.661	321/32
<b>28</b>	1.102	17/64	<b>61</b>	2.402	213/32	<b>94</b>	3.701	345/64
<b>29</b>	1.142	19/64	<b>62</b>	2.441	27/16	<b>95</b>	3.740	347/64
<b>30</b>	1.181	13/16	<b>63</b>	2.480	231/64	<b>96</b>	3.780	325/32
<b>31</b>	1.220	17/32	<b>64</b>	2.520	233/64	<b>97</b>	3.819	313/16
<b>32</b>	1.260	117/64	<b>65</b>	2.559	29/16	<b>98</b>	3.858	355/64
<b>33</b>	1.299	119/64	<b>66</b>	2.598	219/32	<b>99</b>	3.898	357/64
						<b>100</b>	3.937	315/16



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