

Weights and Measures Chart

To Change From	To	Multiply By
Carats	Grains	3.08647
Carats	Pennyweights (dwts)	.12860
Carats	Grams	.2
Centimeters	Inches	.3937
Cubic Centimeters	Cubic Inches	.061023
Cubic Centimeters	Ounces, Fluid	.0338
Cubic Inches	Cubic Centimeters	16.3872
Cubic Feet	Cubic Centimeters	28.317
Decimeter	Inches	4
Douziem	Ligne	1/12
Douziem	Inches	.0074
Feet	Centimeters	30.4801
Feet	Meters	.30480
Gallons	Cubic Cm	3,785.4
Grains, Troy	Grams	0.0648
Grains, Troy	Kilograms	.000065
Grains, Troy	Milligrams	64.8
Grains, Troy	Ounces, Avoir	.00229
Grains, Troy	Ounces, Troy	.0021
Grains, Troy	Pennyweights (dwts)	.0417
Grains, Troy	Pounds, Avoir	.00014
Grains, Troy	Pounds, Troy	.00017
Grams	Carats	5
Grams	Grains	15.4324
Grams	Pennyweights (dwts)	.64301
Grams	Kilograms	.001
Grams	Milligrams	1,000
Grams	Ounces, Avoir	.03527
Grams	Ounces, Troy	.03215
Grams	Pounds, Avoir	.0022
Grams	Pounds, Troy	.00268
Hectoliter	Bushels	2.625
Hectare	Acres	2.5
Inches	Cm	2.54001
Inches	Millimeters	25.40
Kilograms	Grains	1532.3
Kilograms	Grams	1,000
Kilograms	Milligrams	1000000.0
Kilograms	Ounces, Avoir	35.2740
Kilograms	Ounces, Troy	32.1507
Kilograms	Pennyweights (dwts)	643.014
Kilograms	Pounds, Avoir	2.2046
Kilograms	Pounds, Troy	2.6792
Kilometers	Miles	0.6214
Ligne	Douziem	12
Ligne	Inches	.0888
Liters	Gallons	.26418
Liters	Ounces	33.8148
Liters	Quarts (Liquid)	1.06
Liters	Quarts (Dry)	0.9
Meters	Feet	3.2808
Meters	Inches	39.37
Meters	Yards	1.0936
Metric Tons	Pounds	2,200
Miles	Kilometers	1.6093
Milligrams	Grains	.0154
Milligrams	Grams	.001
Milligrams	Kilograms	.000001
Milligrams	Pennyweights (dwts)	.00064

To Change From	To	Multiply By
Milligrams	Ounces, Avoir	.000035
Milligrams	Ounces, Troy	.000032
Milligrams	Pounds, Avoir	.0000022
Milligrams	Pounds, Troy	.0000027
Millimeters	Inches	.03937
Nautical Mile	Kilometers	1.853
Ounces, Avoir	Grams	28.3495
Ounces, Avoir	Grains	437.5
Ounces, Avoir	Kilograms	.02835
Ounces, Avoir	Milligrams	28349.5
Ounces, Avoir	Ounces, Troy	.91146
Ounces, Avoir	Pennyweights (dwts)	18.2291
Ounces, Avoir	Pounds, Avoir	.0625
Ounces, Avoir	Pounds, Troy	.076
Ounces, Troy	Grains	480
Ounces, Troy	Pennyweights (dwts)	20
Ounces, Troy	Kilograms	.031103
Ounces, Troy	Milligrams	31103.5
Ounces, Troy	Ounces, Avoir	1.0971
Ounces, Troy	Pounds, Avoir	.0686
Ounces, Troy	Pounds, Troy	.08333
Ounces, Troy	Grams	31.1035
Ounces, Fluid	Cubic Centimeters	29.5737
Pennyweights (dwts)	Carats	7.778
Pennyweights (dwts)	Grains	24
Pennyweights (dwts)	Grams	1.5552
Pennyweights (dwts)	Kilograms	.001555
Pennyweights (dwts)	Milligrams	1555.2
Pennyweights (dwts)	Ounces, Avoir	.05486
Pennyweights (dwts)	Ounces, Troy	.05
Pennyweights (dwts)	Pounds, Avoir	.00343
Pennyweights (dwts)	Pounds, Troy	.00417
Pounds, Avoir	Grams	453.59
Pounds, Avoir	Kilograms	.45359
Pounds, Avoir	Milligrams	453592.6
Pounds, Avoir	Ounces, Avoir	16
Pounds, Avoir	Ounces, Troy	14.5833
Pounds, Avoir	Pennyweights (dwts)	291.660
Pounds, Avoir	Pounds, Troy	1.215
Pounds, Avoir	Grains	7,000
Pounds, Avoir	Grams	453.592
Pounds, Troy	Grains	5,760.0
Pounds, Troy	Grams	373.242
Pounds, Troy	Kilograms	.37324
Pounds, Troy	Ounces, Avoir	13.1657
Pounds, Troy	Milligrams	373241.9
Pounds, Troy	Ounces, Troy	12
Pounds, Troy	Pennyweights (dwts)	240
Pounds, Troy	Pound, Avoir	.8229
Quarts	Cubic Centimeters	946.359
Quarts	Liters	.94633
Square Centimeters	Square Inches	.15500
Square Feet	Square Inches	144
Square Inches	Square Centimeters	6.45163
Square Inches	Square Millimeters	625
Square Millimeters	Square Inches	.0516
Square Miles	Acres	640
Square Yards	Square Feet	9
Yard	Meters	0.9144

Millimeter, Decimal and Fraction Conversion Chart

MM	Dec	Frac	B&S	MM	Dec	Frac	B&S	MM	Dec	Frac	B&S	MM	Dec	Frac	B&S	MM	Dec	Frac	B&S
0.10	.0039		38	1.83	.0720			4.76	.1874	3/16		9.13	.3594	23/64		18.00	.7087		
0.20	.0079		32	1.85	.0728			4.80	.1890			9.25	.3642			18.25	.7185		
0.25	.0098		30	1.93	.0760			4.85	.1909			9.35	.3681			18.26	.7189	23/32	
0.28	.0110		29	1.98	.0780	5/64		4.91	.1933			9.50	.3740			18.50	.7283		
0.30	.0118		28	1.99	.0783			4.98	.1961			9.53	.3752	3/8		18.65	.7343	47/64	
0.34	.0134			2.00	.0787			5.00	.1969			9.56	.3764			18.75	.7382		
0.36	.0142		27	2.06	.0811		12	5.05	.1988			9.75	.3839			19.00	.7480		
0.37	.0146			2.08	.0819			5.11	.2012			9.80	.3858			19.05	.7500	3/4	
0.40	.0157	1/64	26	2.18	.0858			5.16	.2031	13/64		9.92	.3906	25/64		19.25	.7579		
0.41	.0161			2.25	.0886			5.18	.2039		4	10.00	.3937			19.45	.7657	49/64	
0.46	.0181		25	2.30	.0906		11	5.22	.2055			10.08	.3969			19.50	.7677		
0.50	.0197		24	2.37	.0933			5.25	.2067			10.25	.4035			19.75	.7776		
0.51	.0201			2.38	.0937	3/32		5.31	.2091			10.26	.4039			19.84	.7811	25/32	
0.53	.0209			2.44	.0961			5.41	.2130			10.32	.4063	13/32		20.00	.7874		
0.56	.0220		23	2.50	.0984			5.50	.2165			10.49	.4130			20.24	.7968	51/64	
0.57	.0224			2.53	.0996			5.56	.2189	7/32		10.50	.4134			20.64	.8126	13/16	
0.60	.0236			2.58	.1016			5.61	.2209			10.72	.4220	27/64		21.00	.8268		
0.61	.0240			2.60	.1024		10	5.75	.2264		3	10.75	.4232			21.03	.8280	53/64	
0.64	.0252		22	2.64	.1039			5.79	.2280			11.00	.4331			21.43	.8437	27/32	
0.66	.0260			2.71	.1067			5.94	.2339			11.11	.4374	7/16		21.84	.8598	55/64	
0.70	.0276		21	2.75	.1083			5.95	.2343	15/64		11.25	.4429			22.00	.8661		
0.71	.0280			2.78	.1094	7/64		6.00	.2362			11.51	.4531	29/64		22.23	.8752	7/8	
0.74	.0291			2.79	.1098			6.05	.2382			11.75	.4626			22.62	.8905	57/64	
0.75	.0295			2.82	.1110			6.15	.2421			11.91	.4689	15/32		23.00	.9055		
0.79	.0311			2.87	.1130			6.25	.2461			12.00	.4724			23.02	.9063	29/32	
0.80	.0315	1/32		2.90	.1142		9	6.35	.2500	1/4	2	12.25	.4823			23.42	.9220	59/64	
0.81	.0319			2.95	.1161			6.50	.2559			12.30	.4843	31/64		23.81	.9374	15/16	
0.82	.0323		20	3.00	.1181			6.53	.2571			12.50	.4921			24.00	.9449		
0.84	.0331			3.05	.1201			6.63	.2610			12.70	.5000	1/2		24.61	.9689	31/32	
0.89	.0350			3.18	.1252	1/8		6.75	.2657	17/64		12.75	.5020			25.00	.9843	63/64	
0.90	.0354			3.25	.1280		8	6.76	.2661			13.00	.5118			25.40	1.0000		
0.91	.0358		19	3.45	.1358			6.91	.2720			13.10	.5157	33/64		26.00	1.0236		
0.94	.0370			3.50	.1378			7.00	.2756			13.25	.5217			27.00	1.0630		
0.97	.0382			3.57	.1406	9/64		7.04	.2772			13.49	.5311			28.00	1.1024		
0.99	.0390			3.66	.1441		7	7.14	.2811	9/32		13.50	.5315	17/32		29.00	1.1417		
1.00	.0394		18	3.73	.1469			7.25	.2854		1	13.75	.5413			30.00	1.1811		
1.02	.0402			3.75	.1476			7.37	.2902			13.89	.5468	35/64		31.00	1.2205		
1.04	.0409			3.80	.1496			7.49	.2949			14.00	.5512			32.00	1.2598		
1.07	.0421			3.86	.1520			7.50	.2953			14.29	.5626	9/16		33.00	1.2992		
1.09	.0429			3.91	.1539			7.54	.2969	19/64		14.68	.5780	37/64		34.00	1.3386		
1.14	.0449		17	3.97	.1563	5/32		7.67	.3020			15.00	.5906			35.00	1.3780		
1.18	.0465			3.99	.1571			7.75	.3051			15.08	.5937	19/32		36.00	1.4173		
1.19	.0469	3/64		4.00	.1575			7.94	.3126	5/16		15.48	.6094	39/64		37.00	1.4567		
1.25	.0492			4.04	.1591			8.00	.3150			15.88	.6252	5/8		38.00	1.4961		
1.30	.0512		16	4.09	.1610			8.03	.3161			16.00	.6299			39.00	1.5354		
1.32	.0520			4.12	.1622		6	8.20	.3228			16.25	.6398			40.00	1.5748		
1.40	.0551			4.22	.1661			8.25	.3248			16.27	.6406	41/64		41.00	1.6142		
1.45	.0571		15	4.25	.1673			8.33	.3280	21/64		16.67	.6563	21/32		42.00	1.6535		
1.50	.0591			4.31	.1697			8.43	.3319			16.75	.6594			43.00	1.6929		
1.51	.0594			4.37	.1720	11/64		8.50	.3346			17.00	.6693			44.00	1.7323		
1.59	.0626	1/16		4.39	.1728			8.61	.3390			17.07	.6720	43/64		45.00	1.7717		
1.60	.0630		14	4.50	.1772			8.73	.3437	11/32		17.25	.6791			46.00	1.8110		
1.61	.0634			4.57	.1799			8.75	.3445			17.46	.6874	11/16		47.00	1.8504		
1.70	.0669			4.62	.1819		5	8.84	.3480			17.50	.6890			48.00	1.8898		
1.75	.0689			4.70	.1850			9.00	.3543			17.75	.6988			49.00	1.9291		
1.78	.0701			4.75	.1870			9.09	.3579			17.86	.7031	45/64		50.00	1.9685		

Determining Ring Blank Lengths

Circumference			Metal Thickness, B&S Gauge and Millimeter							
Size	MM	Diameter	10/.26mm	12/.2mm	14/1.6mm	16/1.3mm	18/1mm	20/.8mm	22/.6mm	24/.5mm
1	39.0	12.4mm	47.2mm	45.5mm	44.2mm	43.0mm	42.1mm	41.5mm	40.9mm	40.5mm
1 1/4	39.6	12.6	47.8	46.2	44.6	43.6	42.7	42.1	41.5	41.1
1 1/2	40.2	12.8	48.4	46.9	45.2	44.3	43.3	42.7	42.1	41.8
1 3/4	40.8	13.0	49.0	47.7	45.8	44.9	44.0	43.3	42.7	42.4
2	41.5	13.2	49.7	48.0	46.5	45.5	44.6	44.0	43.3	43.0
2 1/4	42.1	13.4	50.3	48.7	47.1	46.2	45.2	44.6	44.0	43.6
2 1/2	42.7	13.6	50.9	49.3	47.7	46.8	45.8	45.2	44.6	44.3
2 3/4	43.4	13.8	51.6	49.9	48.4	47.4	46.5	45.8	45.2	44.9
3	44.0	14.0	52.2	50.6	49.0	48.0	47.1	46.5	45.0	45.6
3 1/4	44.6	14.2	52.8	51.2	49.6	48.7	47.7	47.1	46.5	46.2
3 1/2	45.2	14.4	53.4	51.8	50.2	49.3	48.4	47.7	47.1	46.8
3 3/4	45.9	14.6	54.1	52.4	50.9	49.9	49.0	48.4	47.7	47.4
4	46.5	14.8	54.7	53.1	51.5	50.6	49.6	49.0	48.3	48.0
4 1/4	47.1	15.0	55.3	53.7	52.1	51.2	50.2	49.6	49.0	48.7
4 1/2	47.8	15.2	56.0	54.3	52.8	51.8	50.9	50.2	49.6	49.3
4 3/4	48.4	15.4	56.6	55.0	53.4	52.4	51.5	50.9	50.2	49.9
5	49.0	15.6	57.2	55.6	54.0	53.1	52.1	51.5	50.9	50.6
5 1/4	49.6	15.8	57.8	56.2	54.6	53.7	52.8	52.1	51.5	51.2
5 1/2	50.3	16.0	58.5	56.8	55.3	54.3	53.4	52.7	52.1	51.8
5 3/4	50.9	16.2	59.1	57.5	55.9	55.0	54.0	53.4	52.8	52.4
6	51.5	16.4	59.7	58.1	56.5	55.6	54.6	54.0	53.4	53.1
6 1/4	52.2	16.6	60.4	58.7	57.1	56.2	55.3	54.6	54.0	53.7
6 1/2	52.8	16.8	61.0	59.3	57.8	56.8	55.9	55.3	54.6	54.3
6 3/4	53.4	17.0	61.6	60.0	58.4	57.5	56.5	55.9	55.3	55.0
7	54.0	17.2	62.2	60.6	59.0	58.1	57.1	56.5	55.9	55.6
7 1/4	54.7	17.4	62.9	61.2	59.7	58.7	57.8	57.1	56.5	56.2
7 1/2	55.3	17.6	63.5	61.9	60.3	59.3	58.4	57.8	57.1	56.8
7 3/4	55.9	17.8	64.1	62.5	60.9	60.0	59.0	58.4	57.8	57.5
8	56.6	18.0	64.8	63.1	61.5	60.6	59.7	59.0	58.4	58.1
8 1/4	57.2	18.2	65.4	63.7	62.2	61.2	60.3	59.7	59.0	58.7
8 1/2	57.8	18.4	66.0	64.4	62.8	61.9	60.9	60.3	59.7	59.3
8 3/4	58.4	18.6	66.6	65.0	63.4	62.5	61.5	60.9	60.3	60.0
9	59.1	18.8	67.3	65.6	64.1	63.1	62.2	61.5	60.9	60.6
9 1/4	59.7	19.0	67.9	66.3	64.7	63.7	62.8	62.2	61.5	61.2
9 1/2	60.3	19.2	68.5	66.9	65.3	64.4	63.4	62.8	62.2	61.9
9 3/4	60.9	19.4	69.1	67.5	65.9	65.0	64.1	63.4	62.8	62.5
10	61.6	19.6	69.8	68.1	66.6	65.6	64.7	64.1	63.4	63.1
10 1/4	62.2	19.8	70.4	68.8	67.2	66.3	65.3	64.7	64.1	63.7
10 1/2	62.8	20.0	71.0	69.4	67.8	66.9	65.9	65.3	64.7	64.4
10 3/4	63.5	20.2	71.7	70.0	68.5	67.5	66.6	65.9	65.3	65.0
11	64.1	20.4	72.3	70.7	69.1	68.1	67.2	66.6	65.9	65.6
11 1/4	64.7	20.6	72.9	71.3	69.7	68.8	67.8	67.2	66.6	66.3
11 1/2	65.3	20.8	73.5	71.9	70.3	69.4	68.5	67.8	67.2	66.9
11 3/4	66.0	21.0	74.2	72.5	71.0	70.0	69.1	68.5	67.8	67.5
12	66.6	21.2	74.8	73.2	71.6	70.7	69.7	69.1	68.5	68.1
12 1/4	67.2	21.4	75.4	73.8	72.2	71.3	70.3	69.7	69.1	68.8
12 1/2	67.9	21.6	76.1	74.4	72.8	71.9	71.0	70.3	69.7	69.4
12 3/4	68.5	21.8	76.7	75.0	73.5	72.5	71.6	71.0	70.3	70.0
13	69.1	22.0	77.3	75.7	74.1	73.2	72.2	71.6	71.0	70.7
13 1/4	70.7	22.5	78.9	77.0	75.7	74.8	73.8	73.2	71.6	71.4
13 1/2	71.3	22.7	79.5	77.6	76.3	75.4	74.4	73.8	72.2	72.1
13 3/4	72.0	22.9	80.2	78.3	77.0	76.1	75.1	74.5	72.8	72.8
14	72.6	23.1	80.8	78.9	77.6	76.7	75.7	75.1	73.5	73.6

Measuring a Ring Blank

Have you ever noticed that sometimes a “perfectly” sized ring blank can make a ring that is too tight for your customer’s finger? This can happen if you cut a ring blank the exact length of the inside circumference for the size you need. To get a properly fitted ring, you need to compensate for the thickness of the ring blank when you measure. If you don’t, forcing the outside ends of the ring blank together for soldering will compress the inside circumference. Adding approximately 3.14 times the thickness of the blank to the length of the ring size will correct this problem. Add an additional 0.5mm (.020”) if the ring blank is wider than 4mm (.157”).

Determining the Weight of a Ring

Size where weight is desired	Ring Size where weight is known										
	Inches Diameter	Finger Size 3	Finger Size 4	Finger Size 5	Finger Size 6	Finger Size 7	Finger Size 8	Finger Size 9	Finger Size 10	Finger Size 11	Finger Size 12
3	.556	1.000	.950	.904	.863	.826	.791	.759	.730	.703	.678
3 1/2	.572	1.026	.975	.928	.886	.847	.812	.779	.749	.722	.696
4	.588	1.053	1.000	.952	.909	.869	.833	.799	.769	.740	.714
4 1/2	.604	1.079	1.025	.976	.932	.891	.854	.820	.788	.759	.732
5	.620	1.106	1.050	1.000	.954	.913	.875	.840	.807	.777	.749
5 1/2	.636	1.132	1.075	1.024	.977	.935	.896	.860	.827	.796	.767
6	.652	1.158	1.100	1.048	1.000	.956	.916	.880	.846	.814	.785
6 1/2	.668	1.158	1.125	1.072	1.023	.978	.937	.900	.865	.833	.803
7	.684	1.211	1.150	1.096	1.046	1.000	.958	.920	.884	.852	.821
7 1/2	.700	1.238	1.176	1.119	1.068	1.022	.979	.940	.904	.870	.839
8	.716	1.264	1.201	1.143	1.091	1.044	1.000	.960	.923	.889	.857
8 1/2	.732	1.290	1.226	1.167	1.114	1.065	1.021	.980	.942	.907	.875
9	.748	1.317	1.251	1.191	1.137	1.087	1.042	1.000	.961	.926	.893
9 1/2	.764	1.343	1.276	1.215	1.160	1.109	1.063	1.020	.981	.944	.911
10	.780	1.370	1.301	1.239	1.182	1.131	1.084	1.040	1.000	.963	.928
10 1/2	.796	1.396	1.326	1.263	1.205	1.153	1.104	1.060	1.019	.981	.946
11	.812	1.422	1.351	1.287	1.228	1.174	1.125	1.080	1.039	1.000	.964
11 1/2	.828	1.449	1.376	1.310	1.251	1.196	1.146	1.100	1.058	1.019	.982
12	.844	1.475	1.401	1.334	1.274	1.218	1.167	1.120	1.077	1.037	1.000
12 1/2	.860	1.502	1.426	1.358	1.296	1.240	1.188	1.140	1.096	1.056	1.018
13	.876	1.528	1.451	1.382	1.319	1.262	1.209	1.160	1.116	1.074	1.036
13 1/2	.892	1.554	1.476	1.406	1.342	1.283	1.230	1.180	1.135	1.093	1.054
14	.908	1.581	1.502	1.430	1.365	1.305	1.251	1.201	1.154	1.111	1.072
14 1/2	.924	1.607	1.527	1.454	1.387	1.327	1.272	1.221	1.173	1.130	1.089
15	.940	1.634	1.552	1.478	1.410	1.349	1.292	1.241	1.193	1.148	1.107
15 1/2	.956	1.660	1.577	1.501	1.433	1.371	1.313	1.261	1.212	1.167	1.125

How to Determine the Weight of a Ring

Many of our customers have found the table above of help in determining the weight of various sizes of rings. Suppose for example, the jeweler wants to know the weight of a finger size 11 ring of a certain style, but he doesn't have one in stock. However he does have a finger size 6, which weighs 3.75 dwt in that style. In the tabulation above run your finger down the finger size 6 column until you come to the horizontal line beginning at the left with finger size 11. There you will find 1.228. Multiply 1.228 by 3.75. This will give you the weight of a finger size 11 ring.

Courtesy of John C. Nordt Company, Inc.

International Ring Size Conversion Chart

Inside Diameter (inches)	Inside Diameter (mm)	Inside Circumference (inches)	Inside Circumference (mm)	United States/Canada Standard	British/Irish/Australian Equivalent	Japanese Equivalent	Swiss Equivalent
0.458	11.6	1.438	36.5	0			
0.466	11.8	1.463	37.2	1/4			
0.474	12	1.488	37.8	1/2	A		
0.482	12.2	1.513	38.4	3/4	A 1/2		
0.49	12.4	1.539	39.1	1	B	1	
0.498	12.6	1.564	39.7	1 1/4	B 1/2		
0.506	12.9	1.589	40.4	1 1/2	C		
0.514	13.1	1.614	41	1 3/4	C 1/2		
0.522	13.3	1.639	41.6	2	D	2	1.5
0.53	13.5	1.664	42.3	2 1/4	D 1/2		
0.538	13.7	1.689	42.9	2 1/2	E	3	2.75
0.546	13.9	1.714	43.5	2 3/4	E 1/2		
0.554	14.1	1.74	44.2	3	F	4	4
0.562	14.3	1.765	44.8	3 1/4	F 1/2	5	5.25
0.57	14.5	1.79	45.5	3 1/2	G		
0.578	14.7	1.815	46.1	3 3/4	G 1/2	6	6.5
0.586	14.9	1.84	46.7	4	H	7	
0.594	15.1	1.865	47.4	4 1/4	H 1/2		7.75
0.602	15.3	1.89	48	4 1/2	I	8	
0.61	15.5	1.915	48.7	4 3/4	J		9
0.618	15.7	1.941	49.3	5	J 1/2	9	
0.626	15.9	1.966	49.9	5 1/4	K		10
0.634	16.1	1.991	50.6	5 1/2	K 1/2	10	
0.642	16.3	2.016	51.2	5 3/4	L		11.75
0.65	16.5	2.041	51.8	6	L 1/2	11	12.75
0.658	16.7	2.066	52.5	6 1/4	M	12	
0.666	16.9	2.091	53.1	6 1/2	M 1/2	13	14
0.674	17.1	2.116	53.8	6 3/4	N		
0.682	17.3	2.141	54.4	7	N 1/2	14	15.25
0.69	17.5	2.167	55	7 1/4	O		
0.698	17.7	2.192	55.7	7 1/2	O 1/2	15	16.5
0.706	17.9	2.217	56.3	7 3/4	P		
0.714	18.1	2.242	56.9	8	P 1/2	16	17.75
0.722	18.3	2.267	57.6	8 1/4	Q		
0.73	18.5	2.292	58.2	8 1/2	Q 1/2	17	
0.738	18.7	2.317	58.9	8 3/4	R		19
0.746	18.9	2.342	59.5	9	R 1/2	18	
0.754	19.2	2.368	60.1	9 1/4	S		20.25
0.762	19.4	2.393	60.8	9 1/2	S 1/2	19	
0.77	19.6	2.418	61.4	9 3/4	T		21.5
0.778	19.8	2.443	62.1	10	T 1/2	20	
0.786	20	2.468	62.7	10 1/4	U	21	
0.794	20.2	2.493	63.3	10 1/2	U 1/2	22	22.75
0.802	20.4	2.518	64	10 3/4	V		
0.81	20.6	2.543	64.6	11	V 1/2	23	
0.818	20.8	2.569	65.2	11 1/4	W		25
0.826	21	2.594	65.9	11 1/2	W 1/2	24	
0.834	21.2	2.619	66.5	11 3/4	X		
0.842	21.4	2.644	67.2	12	X 1/2	25	27.5
0.85	21.6	2.669	67.8	12 1/4	Y		
0.858	21.8	2.694	68.4	12 1/2	Z	26	28.75
0.866	22	2.719	69.1	12 3/4	Z 1/2		
0.874	22.2	2.744	69.7	13		27	