

CONVERSION BASICS

Linear

1 inch	25.4 mm
1 foot	0.3048 m
1 mm	0.0394 inches
1 m	3.28 feet

Area

1 sq inch	645 sq mm
1 sq foot	0.0929 sq m
1 sq mm	0.00155 sq in
1 sq m	10.84 sq ft

Volume

1 cubic inch	16387 cu mm
1 cu mm	0.000061 cu in

Force

1 lb per sq ft	4.45 Newtons
1 Newton	0.225 lbs per ft

Stress

1 lb per sq in	0.00689 MPa
1 MPa	145 lbs per sq in

inches	mm	inches	mm	inches	mm	inches	mm
1/64	0.3969	1 1/32	26.1938	3 1/32	76.9938	5 1/32	127.794
1/32	0.7938	1 1/16	26.9875	3 1/16	77.7875	5 1/16	128.588
3/64	1.1906	1 3/32	27.7813	3 3/32	78.5813	5 3/32	129.381
1/16	1.5875	1 1/8	28.5750	3 1/8	79.3750	5 1/8	130.175
5/64	1.9844	1 5/32	29.3688	3 5/32	80.1688	5 5/32	130.969
3/32	2.3813	1 3/16	30.1625	3 3/16	80.9625	5 3/16	131.762
7/64	2.7781	1 7/32	30.9563	3 7/32	81.7563	5 7/32	132.556
1/8	3.1750	1 1/4	31.7500	3 1/4	82.5500	5 1/4	133.350
9/64	3.5719	1 9/32	32.5438	3 9/32	83.3438	5 9/32	134.144
5/32	3.9688	1 5/16	33.3375	3 5/16	84.1375	5 5/16	134.938
11/64	4.3656	1 11/32	34.1313	3 11/32	84.9313	5 11/32	135.731
3/16	4.7625	1 3/8	34.9250	3 3/8	85.7250	5 3/8	136.525
13/64	5.1594	1 13/32	35.7188	3 13/32	86.5188	5 13/32	137.319
7/32	5.5563	1 7/16	36.5125	3 7/16	87.3125	5 7/16	138.112
15/64	5.9531	1 15/32	37.3063	3 15/32	88.1063	5 15/32	138.906
1/4	6.3500	1 1/2	38.1000	3 1/2	88.9000	5 1/2	139.700
17/64	6.7469	1 17/32	38.8938	3 17/32	89.6938	5 17/32	140.494
9/32	7.1438	1 9/16	39.6875	3 9/16	90.4875	5 9/16	141.288
19/64	7.5406	1 19/32	40.4813	3 19/32	91.2813	5 19/32	142.081
5/16	7.9375	1 5/8	41.2750	3 5/8	92.0750	5 5/8	142.875
21/64	8.3344	1 21/32	42.0688	3 21/32	92.8688	5 21/32	143.669
11/32	8.7313	1 11/16	42.8625	3 11/16	93.6625	5 11/16	144.462
23/64	9.1281	1 23/32	43.6563	3 23/32	94.4563	5 23/32	145.256
3/8	9.5250	1 3/4	44.4500	3 3/4	95.2500	5 3/4	146.050
25/64	9.9219	1 25/32	45.2438	3 25/32	96.0438	5 25/32	146.844
13/32	10.3188	1 13/16	46.0375	3 13/16	96.8375	5 13/16	147.638
27/64	10.7156	1 27/32	46.8313	3 27/32	97.6313	5 27/32	148.431
7/16	11.1125	1 7/8	47.6250	3 7/8	98.4250	5 7/8	149.225
29/64	11.5094	1 29/32	48.4188	3 29/32	99.2188	5 29/32	150.019
15/32	11.9063	1 15/16	49.2125	3 15/16	100.0120	5 15/16	150.812
31/64	12.3031	1 31/32	50.0063	3 31/32	100.8060	5 31/32	151.606
1/2	12.7000	2 inches	50.8000	4 inches	101.6000	6 inches	152.400
33/64	13.0969	2 1/32	51.5938	4 1/32	102.3940	6 1/16	153.988
17/32	13.4938	2 1/16	52.3875	4 1/16	103.1880	6 1/8	155.575
35/64	13.8906	2 3/32	53.1813	4 3/32	103.9810	6 3/16	157.162
9/16	14.2875	2 1/8	53.9750	4 1/8	104.7750	6 1/4	158.750
37/64	14.6844	2 5/32	54.7688	4 5/32	105.5690	6 5/16	160.338
19/32	15.0813	2 3/16	55.5625	4 3/16	106.3620	6 3/8	161.925
39/64	15.4781	2 7/32	56.3563	4 7/32	107.1560	6 7/16	163.512
5/8	15.8750	2 1/4	57.1500	4 1/4	107.9500	6 1/2	165.100
41/64	16.2719	2 9/32	57.9438	4 9/32	108.7440	6 9/16	166.688
21/32	16.6688	2 5/16	58.7375	4 5/16	109.5380	6 5/8	168.275
43/64	17.0656	2 11/32	59.5313	4 11/32	110.3310	6 11/16	169.862
11/16	17.4625	2 3/8	60.3250	4 3/8	111.1250	6 3/4	171.450
45/64	17.8594	2 13/32	61.1188	4 13/32	111.9190	6 13/16	173.038
23/32	18.2563	2 7/16	61.9125	4 7/16	112.7120	6 7/8	174.625
47/64	18.6531	2 15/32	62.7063	4 15/32	113.5060	6 15/16	176.212
3/4	19.0500	2 1/2	63.5000	4 1/2	114.3000	7 inches	177.800
49/64	19.4469	2 17/32	64.2938	4 17/32	115.0940	7 1/16	179.388
25/32	19.8438	2 9/16	65.0875	4 9/16	115.8880	7 1/8	180.975
51/64	20.2406	2 19/32	65.8813	4 19/32	116.6810	7 3/16	182.562
13/16	20.6375	2 5/8	66.6750	4 5/8	117.4750	7 1/4	184.150
53/64	21.0344	2 21/32	67.4688	4 21/32	118.2690	7 5/16	185.738
27/32	21.4313	2 11/16	68.2625	4 11/16	119.0620	7 3/8	187.325
55/64	21.8281	2 23/32	69.0563	4 23/32	119.8560	7 7/16	188.912
7/8	22.2250	2 3/4	69.8500	4 3/4	120.6500	7 1/2	190.500
57/64	22.6219	2 25/32	70.6438	4 25/32	121.4440	7 9/16	192.088
29/32	23.0188	2 13/16	71.4375	4 13/16	122.2380	7 5/8	193.675
59/64	23.4156	2 27/32	72.2313	4 27/32	123.0310	7 11/16	195.262
15/16	23.8125	2 7/8	73.0250	4 7/8	123.8250	7 3/4	196.850
61/64	24.2094	2 29/32	73.8188	4 29/32	124.6190	7 13/16	198.438
31/32	24.6063	2 15/16	74.6125	4 15/16	125.4120	7 7/8	200.025
63/64	25.0031	2 31/32	75.4063	4 31/32	126.2060	7 15/16	201.612
1 inch	25.4000	3 inches	76.2000	5 inches	127.0000	8 inches	203.200



DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFICATION DRAWINGS.
OAD = OVERALL DIMENSIONS
P = EXT PERIPHERY
 © ULLRICH ALUMINIUM CO LTD

inches	mm	ft ins	mm	ft ins	mm	feet	mm
8 1/16	204.788	1 1	330.200	6 5	1955.80	31	9448.80
8 1/8	206.375	1 2	355.600	6 6	1981.20	32	9753.60
8 3/16	207.962	1 3	381.000	6 7	2006.60	33	10,058.4
8 1/4	209.550	1 4	406.400	6 8	2032.00	34	10,363.2
8 5/16	211.138	1 5	431.800	6 9	2057.40	35	10,668.0
8 3/8	212.725	1 6	457.200	6 10	2082.80	36	10,972.8
8 7/16	214.312	1 7	482.600	6 11	2108.20	37	11,277.6
8 1/2	215.900	1 8	508.000	7 0	2133.60	38	11,582.4
8 9/16	217.488	1 9	533.400	7 1	2159.00	39	11,887.2
8 5/8	219.075	1 10	558.800	7 2	2184.40	40	12,192.0
8 11/16	220.662	1 11	584.200	7 3	2209.80	41	12,496.8
8 3/4	222.250	2 0	609.600	7 4	2235.20	42	12,801.6
8 13/16	223.838	2 1	635.000	7 5	2260.60	43	13,106.4
8 7/8	225.425	2 2	660.400	7 6	2286.00	44	13,411.2
8 15/16	227.012	2 3	685.800	7 7	2311.40	45	13,716.0
9 inches	228.600	2 4	711.200	7 8	2336.80	46	14,020.8
9 1/16	230.188	2 5	736.600	7 9	2362.20	47	14,325.6
9 1/8	231.775	2 6	762.000	7 10	2387.60	48	14,630.4
9 3/16	233.362	2 7	787.400	7 11	2413.00	49	14,935.2
9 1/4	234.950	2 8	812.800	8 0	2438.40	50	15,420.0
9 5/16	236.538	2 9	838.200	8 1	2463.80	51	15,544.8
9 3/8	238.125	2 10	863.600	8 2	2489.20	52	15,849.6
9 7/16	239.712	2 11	889.000	8 3	2514.60	53	16,154.4
9 1/2	241.300	3 0	914.400	8 4	2540.00	54	16,459.2
9 9/16	242.888	3 1	939.800	8 5	2565.40	55	16,764.0
9 5/8	244.475	3 2	965.200	8 6	2590.80	56	17,068.8
9 11/16	246.062	3 3	990.600	8 7	2616.20	57	17,373.6
9 3/4	247.650	3 4	1016.00	8 8	2641.60	58	17,678.4
9 13/16	249.238	3 5	1041.40	8 9	2667.00	59	17,983.2
9 7/8	250.825	3 6	1066.80	8 10	2692.40	60	18,288.0
9 15/16	252.412	3 7	1092.20	8 11	2717.80	61	18,592.8
10 inches	254.000	3 8	1117.60	9 0	2743.20	62	18,897.6
10 1/16	255.588	3 9	1143.00	9 1	2768.60	63	19,202.4
10 1/8	257.175	3 10	1168.40	9 2	2794.00	64	19,507.2
10 3/16	258.762	3 11	1193.80	9 3	2819.40	65	19,812.0
10 1/4	260.350	4 0	1219.20	9 4	2844.80	66	20,116.8
10 5/16	261.938	4 1	1244.60	9 5	2870.20	67	20,421.6
10 3/8	263.525	4 2	1270.00	9 6	2895.60	68	20,726.4
10 7/16	265.112	4 3	1295.40	9 7	2921.00	69	21,031.2
10 1/2	266.700	4 4	1320.80	9 8	2946.40	70	21,336.0
10 9/16	268.288	4 5	1346.20	9 9	2971.80	71	21,640.8
10 5/8	269.875	4 6	1371.60	9 10	2997.20	72	21,945.6
10 11/16	271.462	4 7	1397.00	9 11	3022.60	73	22,250.4
10 3/4	273.050	4 8	1422.40	10 0	3048.00	74	22,555.2
10 13/16	274.638	4 9	1447.80	11 0	3352.80	75	22,860.0
10 7/8	276.225	4 10	1473.20	12 0	3657.60	76	23,164.8
10 15/16	277.812	4 11	1498.60	13 0	3962.40	77	23,469.6
11 inches	279.400	5 0	1524.00	14 0	4267.20	78	23,774.4
11 1/16	280.988	5 1	1549.40	15 0	4572.00	79	24,079.2
11 1/8	282.575	5 2	1574.80	16 0	4876.80	80	24,384.0
11 3/16	284.162	5 3	1600.20	17 0	5181.60	81	24,688.8
11 1/4	285.750	5 4	1625.60	18 0	5486.40	82	24,993.6
11 5/16	287.338	5 5	1651.00	19 0	5791.20	83	25,298.4
11 3/8	288.925	5 6	1676.40	20 0	6096.00	84	25,603.2
11 7/16	290.512	5 7	1701.80	21 0	6400.80	85	25,908.0
11 1/2	292.100	5 8	1727.20	22 0	6705.60	86	26,212.8
11 9/16	293.688	5 9	1752.60	23 0	7010.40	87	26,517.6
11 5/8	295.275	5 10	1778.00	24 0	7315.20	88	26,822.4
11 11/16	296.862	5 11	1803.40	25 0	7620.00	89	27,127.2
11 3/4	298.450	6 0	1828.80	26 0	7924.80	90	27,432.0
11 13/16	300.038	6 1	1854.20	27 0	8229.60	91	27,736.8
11 7/8	301.625	6 2	1879.60	28 0	8534.40	92	28,041.6
11 15/16	303.212	6 3	1905.00	29 0	8839.20	93	28,346.4
12 inches	304.800	6 4	1930.40	30 0	9144.00	94	28,651.2

USEFUL FORMULAE

Nominal mass (kg/m²) of aluminium sheet and plate:

Thickness mm	Nominal mass kg/m ²
0.5	1.335
0.6	1.626
0.7	1.897
0.8	2.168
0.9	2.439
1.0	2.710
1.2	3.252
1.6	4.336
2.0	5.420
2.5	6.775
3.0	8.130
4.0	10.840
5.0	13.550
6.0	16.260
8.0	21.680
10.0	27.100
12.0	32.520
16.0	43.360
20.0	54.200
25.0	67.750

Nominal mass (kg/m²) of extruded aluminium:

Calculate cross-section area (mm²) and multiply by 0.00271

Factor
(Difficulty of Extrusion Factor)

Calculate the perimeter of the section (for hollow sections, both outside and inside perimeters) and divide the result by the nominal mass (kg/m) of the section.

DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFICATION DRAWINGS.

OAD = OVERALL DIMENSIONS
P = EXT PERIPHERY



© ULLRICH ALUMINIUM CO LTD