

CONVERSION DATA

Fraction to Decimal to Metric Conversion

FRACTION	DECIMAL	MILLIMETER	FRACTION	DECIMAL	MILLIMETER	FRACTION	DECIMAL	MILLIMETER
$\frac{1}{64}$	0.015625	- 0.397	$\frac{3}{8}$	.359375	- 9.128	$\frac{11}{16}$	.6875	- 17.463
$\frac{1}{32}$	.03125	- 0.794	$\frac{25}{64}$	.3750	- 9.525	$\frac{45}{64}$	.703125	- 17.859
$\frac{3}{64}$	.046875	- 1.191	$\frac{13}{32}$	.40625	- 10.319	$\frac{23}{32}$	.71875	- 18.256
$\frac{1}{16}$	.0625	- 1.588	$\frac{27}{32}$	.421875	- 10.716	$\frac{47}{64}$	.734375	- 18.653
$\frac{5}{64}$	.078125	- 1.984	$\frac{7}{16}$	.4375	- 11.113	$\frac{3}{4}$	.7500	- 19.050
$\frac{3}{32}$	.09375	- 2.381	$\frac{29}{64}$	.453125	- 11.509	$\frac{49}{64}$	.765625	- 19.447
$\frac{1}{8}$	.109375	- 2.778	$\frac{15}{32}$	.46875	- 11.906	$\frac{25}{32}$	.78125	- 19.844
$\frac{9}{64}$	.140625	- 3.572	$\frac{31}{32}$	.484375	- 12.303	$\frac{51}{64}$	.796875	- 20.241
$\frac{5}{32}$	.15625	- 3.969	$\frac{1}{2}$	.5000	- 12.700	$\frac{13}{16}$	.8125	- 20.638
$\frac{11}{32}$	.171875	- 4.366	$\frac{33}{64}$	0.515625	- 13.097	$\frac{53}{64}$	.828125	- 21.034
$\frac{3}{16}$	.1875	- 4.763	$\frac{17}{32}$	.53125	- 13.494	$\frac{27}{32}$	.84375	- 21.431
$\frac{13}{64}$	.203125	- 5.159	$\frac{35}{64}$	.546875	- 13.891	$\frac{55}{64}$	.859375	- 21.828
$\frac{7}{32}$	.21875	- 5.556	$\frac{9}{16}$	.5625	- 14.288	$\frac{7}{8}$	.8750	- 22.225
$\frac{15}{64}$	.234375	- 5.953	$\frac{37}{64}$	.578125	- 14.684	$\frac{57}{64}$	.890625	- 22.622
$\frac{1}{4}$	.2500	- 6.350	$\frac{19}{32}$	.59375	- 15.081	$\frac{29}{32}$	.90625	- 23.019
$\frac{17}{64}$	.265625	- 6.747	$\frac{39}{64}$	.609375	- 15.478	$\frac{59}{64}$	.921875	- 23.416
$\frac{9}{32}$	.28125	- 7.144	$\frac{5}{8}$	.6250	- 15.875	$\frac{15}{16}$	.9375	- 23.813
$\frac{19}{32}$	.296875	- 7.541	$\frac{41}{64}$	.640625	- 16.272	$\frac{61}{64}$	.953125	- 24.209
$\frac{5}{16}$	.3125	- 7.938	$\frac{21}{32}$	.65625	- 16.669	$\frac{31}{32}$	.96875	- 24.606
$\frac{21}{64}$	.328125	- 8.334	$\frac{43}{64}$	.671875	- 17.066	$\frac{63}{64}$	.984375	- 25.003
$\frac{11}{32}$	.34375	- 8.731				$\frac{1}{1}$	1.000	- 25.400
				1 mm = .03937"			.001" = .0254 mm	

Millimeter to Inch Conversion

MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES
.1-	.0039	14-	.5512	36-	1.4173	58-	2.2835	80-	3.1496
.2-	.0079	15-	.5906	37-	1.4567	59-	2.3228	81-	3.1890
.3-	.0018	16-	.6299	38-	1.4961	60-	2.3622	82-	3.2283
.4-	.0157	17-	.6693	39-	1.5354	61-	2.4016	83-	3.2677
.5-	.0197	18-	.7087	40-	1.5748	62-	2.4409	84-	3.3071
.6-	.0236	19-	.7480	41-	1.6142	63-	2.4803	85-	3.3465
.7-	.0276	20-	.7874	42-	1.6535	64-	2.5197	86-	3.3858
.8-	.0315	21-	.8268	43-	1.6929	65-	2.5591	87-	3.4252
.9-	.0354	22-	.8661	44-	1.7323	66-	2.5984	88-	3.4646
1-	.0394	23-	.9055	45-	1.7717	67-	2.6378	89-	3.5039
2-	.0787	24-	.9449	46-	1.8110	68-	2.6772	90-	3.5433
3-	.1181	25-	.9843	47-	1.8504	69-	2.7165	91-	3.5827
4-	.1575	26-	1.0236	48-	1.8898	70-	2.7559	92-	3.6220
5-	.1969	27-	1.0630	49-	1.9291	71-	2.7953	93-	3.6614
6-	.2362	28-	1.1024	50-	1.9685	72-	2.8346	94-	3.7008
7-	.2756	29-	1.1417	51-	2.0079	73-	2.8740	95-	3.7402
8-	.3150	30-	1.1811	52-	2.0472	74-	2.9134	96-	3.7795
9-	.3543	31-	1.2205	53-	2.0866	75-	2.9528	97-	3.8189
10-	.3937	32-	1.2598	54-	2.1260	76-	2.9921	98-	3.8583
11-	.4331	33-	1.2992	55-	2.1654	77-	3.0315	99-	3.8976
12-	.4724	34-	1.3386	56-	2.2047	78-	3.0709	100-	3.9370
13-	.5118	35-	1.3780	57-	2.2441	79-	3.1102		

Conversion Factors

TO OBTAIN:	MULTIPLY KNOWN VALUE:	BY:
Atmospheres	In. HG @ 32°F	0.033421
Btu	Watt-hours	3.412
Btu	kwh	3412.
Centimeters	Inches	2.540
cm of Hg @ 0° C	Atmospheres	76.0
cm of Hg @ 0° C	Grams/sq. cm	0.07356
cm of Hg @ 0° C	Lb./sq. in.	5.1715
cm of Hg @ 0° C	Lb./sq. ft.	0.035913
cm/(sec.)(sec.)	Gravity	980.621
Centipoises	Centistokes	Density
Centistokes	Centipoises	1/density
Cu. cm	Cu. ft.	28,317
Cu. cm	Cu. in.	16,387
Cu. cm	Gal. (USA, liq.)	3785.41
Cu. cm	Liters	1000.03
Cu. cm	Quarts (USA, liq.)	946.353
Cu. cm/sec.	Cu. ft./min.	472.0
Cu. ft.	Cu. meters	35.314
Cu. ft.	Gal. (USA, liq.)	0.13368
Cu. ft.	Liters	0.03532
Cu. ft./min.	Cu. meters/sec.	2118.9
Cu. ft./min.	Gal. (USA, liq.)/sec.	8.0192
Cu. ft./sec.	Gal. (USA, liq.)/mir.	0.0022280
Cu. ft./sec.	Liters/min.	0.0005886
Cu. in.	Cu. centimeters	0.061023
Cu. in.	Gal. (USA, liq.)	231.0
Cu. in.	Liters	61.03
Cu. meters	Gal. (USA, liq.)	0.0037854
Cu. meters	Liters	0.001000028
Cu. meters/hr.	Gal./min.	0.22712
Cu. meters/kg	Cu. ft./lb.	0.062428
Cu. meters/min.	Cu. ft./min.	0.02832
Cu. meters/sec.	Gal./min.	0.000063088
Feet	Meters	3.821
Ft./min.	Cm/sec.	1.9685
Ft./sec.	Meters/sec.	3.2808
Ft./sec.)(sec.)	Gravity (sea level)	32.174
Ft./sec.)(sec.)	Meters/(sec.)(sec.)	3.2808
Gal. (Imperial, liq.)	Gal. (USA, liq.)	0.83268
Gal. (USA, liq.)	Barrels (Petroleum, USA)	42
Gal. (USA, liq.)	Cu. ft.	7.4805
Gal. (USA, liq.)	Cu. meters	284.173
Gal. (USA, liq.)	Cu. yards	201.97
Gal. (USA, liq.)	Gal. (Imperial, liq.)	1.2010
Gal. (USA, liq.)	Liters	0.2642
Gal. (USA, liq.)/min.	Cu. ft./sec.	448.83
Gal. (USA, liq.)/min.	Cu. meters/hr.	4.4029
Gal. (USA, liq.)/sec.	Liters/min.	0.0044028
Grams	Pounds (avoir.)	453.5924
Grams/(cm)(sec.)	Centipoises	0.01

TO OBTAIN:	MULTIPLY KNOWN VALUE:	BY:
Grams/cu. cm	Lb./cu. ft.	0.016018
Grams/cu. cm	Lb./cu. in.	27.680
Grams/cu. cm	Lb./gal.	0.119826
Inches	Centimeters	0.3937
Inches of Hg @ 32° F	Atmospheres	29.921
Inches of Hg @ 32° F	Lb./sq. in.	2.0360
Inches of Hg @ 32° F	In. of H ₂ O @ 4 C	0.07355
Inches°F	Cm/deg C	0.21872
Kg	Pounds (avoir.)	0.45359
Kg-cal./sq. meter	Btu/sq. ft.	2.712
Kg/cu. meter	Lb./cu. ft.	16.018
Kg/(hr.)(meter)	Centipoises	3.60
Kg/liter	Lb./gal. (USA, liq.)	0.11983
Kg/meter	Lb./ft.	1.488
Kg/sq. cm	Lb./sq. in.	0.0703
Kg/sq. meter	Lb./sq. ft.	4.8824
Kwh	Btu	.0002930
Kwh	Watt-hours	1000.
Liters	Cu. ft.	28.316
Liters	Cu. in.	0.01639
Liters	Cu. meters	999.973
Liters	Gal. (Imperial, liq.)	4.546
Liters	Gal. (USA, liq.)	3.78533
Liters/kg	Cu. ft./lb.	62.42621
Liters/min.	Cu. ft./sec.	1699.3
Liters/min.	Gal. (USA, liq.)/min.	3.785
Liters/sec.	Cu. ft./min.	0.47193
Liters/sec.	Gal./min.	0.063088
Meters	Feet	0.3048
Meters/sec.	Ft./sec.	0.3048
Meters/(sec.)(sec.)	Ft./sec.)(sec.)	0.3048
Ounces	Grams	0.035274
Pounds (avoir.)	Kg	2.2046
Pounds/cu. ft.	Grams/cu. cm	62.428
Pounds/cu. ft.	Pounds/gal.	7.48
Pounds/cu. in.	Grams/cu. cm	0.036127
Pounds/(hr.)(ft.)	Centipoises	2.42
Pounds/inch	Grams/cm	0.0056
Pounds/(sec.)(ft.)	Centipoises	0.00672
Pounds/gal. (USA, liq.)	Kg/liter	8.3452
Pounds/gal. (USA, liq.)	Pounds/cu. ft.	0.1337
Pounds/gal. (USA, liq.)	Pounds/cu. in.	231
Sq. centimeters	Sq. ft.	929.0
Sq. centimeters	Sq. in.	6.4516
Sq. ft.	Sq. meters	10.764
Sq. in.	Sq. centimeters	0.155
Sq. meters	Sq. ft.	0.0929
W-hr.	Btu	.2930
W-hr.	Kwh	.001

Commonly Used Conversions

1 Cu. Ft. = 1728 Cu. In. = .03704 Cu. Yd. = 7.481 Gal.
 231 Cu. In. = 1 Gal. = .1337 Cu. Ft.
 1 Gal. Water = 8.3 Lb.
 3412 Btu = 1 kwh = 1.34 Hp Hour
 1 Hp = 745.2 Watts
 1 Btu = .293 Watt-Hours
 1 kwh will raise 22.75 Lb. of Water from 62°F to 212°F.
 1 kwh will Evaporate 3.5 Lb. of Water at 212°F.
 1 in. = 2.54 cm 1 sq. in. = 6.452 cm²
 1 ft. = .3048 m 1 sq. ft. = .0929 m²
 1 yd. = .9144 m
 1 m = 39.37 in. 1 kg. = 2.205 lb.
 1 cu. in. = 16.39 cm³
 1 cu. ft. = .02832 m³
 1 cu. ft. = 28.32 litres
 1 U.S. Gal. = 3.785 litres

Prefixes

MEGA = 1,000,000 DECI = .1
 KILO = 1,000 CENTI = .01
 HECTO = 100 MILLI = .001
 DECA = 10 MICRO = .000,001

Temperature Conversions

°F (Fahrenheit) = (°C) + 32 K (Kelvin) = °C + 273
 °C (Celcius) = $\frac{5}{9}$ (°F - 32) °R (Rankine) = °F + 460

°C	Temp.	°F	°C	Temp.	°F	°C	Temp.	°F
-17.8	0	32.0	371.1	700	1292.0	760.0	1400	2552.0
10.8	50	122.0	398.9	750	1382.0	787.8	1450	2642.0
37.8	100	212.0	426.7	800	1472.0	815.6	1500	2732.0
65.6	150	302.0	454.4	850	1562.0	843.3	1550	2822.0
93.3	200	392.0	482.2	900	1652.0	872.1	1700	2912.0
121.0	250	482.0	510.0	950	1742.0	899.9	1650	3002.0
148.9	300	572.0	537.8	1000	1832.0	927.7	1600	3092.0
176.7	350	662.0	565.6	1050	1922.0	955.4	1750	3182.0
204.4	400	752.0	593.3	1100	2012.0	983.2	1800	3272.0
232.2	450	842.0	621.1	1150	2102.0	1011.0	1850	3362.0
260.0	500	932.0	648.9	1200	2192.0	1038.8	1900	3452.0
287.8	550	1022.0	676.7	1250	2282.0	1066.6	1950	3542.0
315.6	600	1112.0	704.4	1300	2372.0	1094.3	2000	3632.0
343.3	650	1202.0	732.2	1350	2462.0			

Interpolation Factors

deg.C	deg.F	deg.C	deg.C	deg.C	
0.58	1	1.8	3.33	6	10.8
1.11	2	3.6	3.89	7	12.6
1.67	3	5.4	4.44	8	14.4
2.22	4	7.2	5.00	9	16.2
2.78	5	9.0	5.56	10	18.0

fps and cfm Conversions

$$\text{fps} = \frac{\text{cfm}}{W \times L \text{ (in feet of duct opening)} \times 60}$$

$$\text{cfm} = W \times L \text{ (in feet of duct opening)} \times 60 \times \text{fps}$$