

CONVERSION TABLES

Table 1: Multiples & Submultiples of SI Units

Prefix	Symbol	Multiplying Factor
exa	E	10 ¹⁸
peta	P	10 ¹⁵
tera	T	10 ¹²
giga	G	10 ⁹
mega	M	10 ⁶
kilo	k	10 ³
hecto*	h	10 ²
deca*	da	10
deci*	d	10 ⁻¹
centi	c	10 ⁻²
milli	m	10 ⁻³
micro	u	10 ⁻⁶
nano	n	10 ⁻⁹
pico	p	10 ⁻¹²
femto	f	10 ⁻¹⁵
tto	a	10 ⁻¹⁸

*These prefixes are not normally used.

Table 2: Area Units

Millimetre Square mm ²	Centimetre Square cm ²	Metre Square m ²	Inch Square in ²	Foot Square ft ²	Yard Square yd ²
1	0.01	0.00001	0.00155	0.000011	0.000001
100	1 0.0001	0.155	0.001076	0.00012	—
1000000	10000	1	1550.003	10.76391	1.19599
645.16	6.4516	0.000645	1	0.006944	0.000772
92903	929.0304	0.092903	144	1	0.111111
836127	8361.274	0.836127	1296	9	1

Table 3: Volume Units

Centimetre Cube mm ³	Metre Cube cm ³	Litre ltr	Inch Cube in ³	Foot Cube ft ³	US Gallon US gal	Imperial Gallon imp. gal	US Barrel (Oil) US brl
1	0.000001	0.001	0.061024	0.000035	0.000264	0.00022	0.000006
1000000	1	1000	61024	35	264	220	6.29
1000	0.001	1	16	0.035	0.264201	0.22	0.00629
16.4	0.000016	0.016387	1	0.000579	0.004329	0.003605	0.000103
28317	0.028317	28.31685	1728	1	7.481333	6.229712	0.178127
3785	0.003785	3.79	231	0.13	1	0.832701	0.02381
4545	0.004545	4.55	277	0.16	1.20	1	0.028593
158970	0.15897	159	9701	6	42	35	1

Table 4: Mass Units

Gram g	Kilogram Kg	Metric Tonne tonne	Short Ton shton	Long Ton lton	Pound lb	Ounce oz
1	0.001	0.000001	0.000001	9.84e-07	0.002205	0.035273
1000	1	0.001	0.001102	0.000984	2.204586	35.27337
1000000	1000	1	1.102293	0.984252	2204.586	35273.37
907200	907.2	0.9072	1	0.892913	2000	32000
1016000	1016	1.016	1.119929	1	2239.859	35837.74
453.6	0.4536	0.000454	0.0005	0.000446	1	16
28	0.02835	0.000028	0.000031	0.000028	0.0625	1

Table 5: Density Units

Gram/Millilitre g/ml	Kilogram/Metre Cube Kg/m ³	Pound/Foot Cube lb/ft ³	Pound/Inch Cube lb/in ³
1	1000	62.42197	0.036127
0.001	1	0.062422	0.000036
0.01602	16.02	1	0.000579
27.68	27680	1727.84	1

Table 6: Volumetric Gas Flow Units

Normal Metre Cube/Hour Nm ³ /hr	Standard Cubic Feet/Hour scfh	Standard Cubic Feet/Minute scfm
1	35.31073	0.588582
0.02832	1	0.016669
1.699	59.99294	1

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Table 7: Mass Flow Units

Kilogram/Hour Kg/h	Pound/Hour lb/hour	Kilogram/Second Kg/s	Ton/Hour t/h
1	2.204586	0.000278	0.001
0.4536	1	0.000126	0.000454
3600	7936.508	1	3.6
1000	2204.586	0.277778	1

Table 8: High Pressure Units

Bar bar	Pound/Square Inch psi	Kilopascal kPa	Megapascal MPa	Kilogram Force/ Centimetre Square Kgf/cm ²	Millimetre of Mercury mm Hg	Atmospheres atm
1	14.50326	100	0.1	1.01968	750.0188	0.987167
0.06895	1	6.895	0.006895	0.070307	51.71379	0.068065
0.01	0.1450	1	0.001	0.01020	7.5002	0.00987
10	145.03	1000	1	10.197	7500.2	9.8717
0.9807	14.22335	98.07	0.09807	1	735.5434	0.968115
0.001333	0.019337	0.13333	0.000133	0.00136	1	0.001316
1.013	14.69181	101.3	0.1013	1.032936	759.769	1

Table 9: Low Pressure Units

Metre of Water m/H ₂ O	Foot of Water ft/H ₂ O	Centimetre of Mercury cm/Hg	Inches of Mercury in/Hg	Inches of Water in/H ₂ O	Pascal Pa
1	3.280696	7.356339	2.896043	39.36572	9806
0.304813	1	2.242311	0.882753	11.9992	2989
0.135937	0.445969	1	0.39368	5.351265	1333
0.345299	1.13282	2.540135	1	13.59293	3386
0.025403	0.083339	0.186872	0.073568	1	249.1
0.000102	0.000335	0.00075	0.000295	0.004014	1

Table 10: Speed Units

Metre/Second m/s	Metre/Minute m/min	Kilometre/Hour km/h	Foot/Second ft/s	Foot/Minute ft/min	Miles/Hour mi/h
1	59.988	3.599712	3.28084	196.8504	2.237136
0.01667	1	0.060007	0.054692	3.281496	0.037293
0.2778	16.66467	1	0.911417	54.68504	0.621477
0.3048	18.28434	1.097192	1	60	0.681879
0.00508	0.304739	0.018287	0.016667	1	0.011365
0.447	26.81464	1.609071	1.466535	87.99213	1

Table 11: Torque Units

Newton Metre Nm	Kilogram Force Metre Kgf·m	Foot Pound ft·lb	Inch pound in·lb
1	0.101972	0.737561	8.850732
9.80665	1	7.233003	86.79603
1.35582	0.138255	1	12
0.112985	0.011521	0.083333	1

Table 12: Dynamic Viscosity Units

Centipoise* cp	Poise poise	Pound/Foot-Second lb/(ft·s)
1	0.01	0.000672
100	1	0.067197
1488.16	14.8816	1

Table 13: Kinematic Viscosity Units

Centistoke* cs	Stoke St	Foot Square/Second ft ² /s	Metre Square/Second m ² /s
1	0.01	0.000011	0.000001
100	1	0.001076	0.0001
92903	929.03	1	0.092903
1000000	10000	10.76392	1

*Centistokes x specific gravity = centipoise.

Table 14: Temperature Conversion Formulas

Degree Celsius (°C)	Degree Fahrenheit (°F)	Kelvin (K)
(°F - 32) x 5/9	(°C x 9/5) + 32	(°C + 273.15)
(K - 273.15)	(1.8 x K) - 459.67	(°F + 459.67) ÷ 1.8