

Conversion Chart

To Convert	Into	Multiply By
atmospheres	Ton/sq inch	.007348
atmospheres	cms of mercury	76.0
atmospheres	ft. of water (at 4C)	33.90
atmospheres	in. of mercury (at 0C)	29.92
atmospheres	kgs/sq cm	1.0333
atmospheres	kgs/sq meter	10,332.
atmospheres	pounds/sq in.	14.70
atmospheres	tons/sq ft	1,058
bars	atmospheres	0.9869
bars	dynes/sq cm	10 E6
bars	kgs/sq meter	1.020 x 10 E4
bars	pounds/sq ft	2,089.
bars	pounds/sq in.	14.50
Btu	Liter-Atmosphere	10.409
Btu	ergs	1.0550 x 10 E10
Btu	foot-lbs	778.3
Btu	gram-calories	252.0
Btu	horsepower-hrs	3.931 x 10 E-4
Btu	joules	1,054.8
Btu	kilogram-calories	0.2520
Btu	kilogram-meters	107.5
Btu	kilowatt-hrs	2.928 x 10 E-4
Btu/hr	foot-pounds/sec	0.2162
Btu/hr	gram-cal/sec	0.0700
Btu/hr	horsepower	3.929 x 10 E-4
Btu/hr	watts	0.2931
Btu/min	foot-pounds/sec	12.96
Btu/min	horsepower	0.02356
Btu/min	kilowatts	0.01757
Btu/min	watts	17.57
Btu/sq ft/min	watts/sq in.	0.1221
bushels	liters	35.24
Calories, gram(mean)	B.T.U. (mean)	3.9685 x 10 E-4
centimeters	feet	3.281 x 10 E-2

centimeters	inches	0.3937
centimeters	kilometers	10 E-5
centimeters	meters	0.01
centimeters	miles	6.214 x 10 E-6
centimeters	millimeters	10.0
centimeters	mills	393.7
centimeters	yards	1.094 x 10 E-2
centimeters-dynes	cm-grams	1.020 x 10 E-3
centimeters-dynes	meter-kgs	1.020 x 10 E-8
centimeters-dynes	pound-feet	7.376 x 10 E-8
centimeters-grams	cm-dynes	980.7
centimeters-grams	meter-kgs	10 E-5
centimeters-grams	pound-feet	7.233 x 10 E-5
cubic centimeters	cu feet	3.531 x 10 E-4
cubic centimeters	cu inches	0.06102
cubic centimeters	cu meters	10 E-6
cubic centimeters	cu yards	1.308 x 10 E-6
cubic centimeters	gallons (U.S. liq.)	2.642 x 10 E-4
cubic centimeters	liters	0.001
cubic centimeters	pints (U.S. liq.)	2.113 x 10 E-3
cubic centimeters	quarts (U.S. liq.)	1.057 x 10 E-3
cubic feet	bushels (dry)	0.8036
cubic feet	cu cms	28,320.0
cubic feet	cu inches	1,728.0
cubic feet	cu meters	0.02832
cubic feet	cu yards	0.03704
cubic feet	gallons (U.S. liq.)	7.48052
cubic feet	liters	28.32
cubic feet	pints (U.S. liq.)	59.84
cubic feet	quarts (U.S. liq.)	29.92
cubic feet/min	cu cms/sec	472.0
cubic feet/min	gallons/sec	0.1247
cubic feet/min	liters/sec	0.4720
cubic feet/min	pounds of water/min	62.43
cubic feet/sec	million gals/day	0.646317
cubic feet/sec	gallons/min	448.831
cubic inches	cu cms	16.39
cubic inches	cu feet	5.787 x 10 E-4

cubic inches	cu meters	1.639 x 10 E-5
cubic inches	cu yards	2.143 x 10 E-5
cubic inches	gallons (U.S. liq.)	4.329 x 10 E-3
cubic inches	liters	0.01639
cubic inches	mil-feet	1.061 x 10 E5
cubic inches	pints (U.S. liq.)	0.03463
cubic inches	quarts (U.S. liq.)	0.01732
cubic inches	bushels (dry)	28.38
cubic meters	cu cms	10 E6
cubic meters	cu feet	35.31
cubic meters	cu inches	61,023.0
cubic meters	cu yards	1.308
cubic meters	gallons (U.S. liq.)	264.2
cubic meters	liters	1,000.0
cubic meters	pints (U.S. liq.)	2,113.0
cubic meters	quarts (U.S. liq.)	1,057.
cubic yards	cu cms	7.646 x 10 E5
cubic yards	cu feet	27.0
cubic yards	cu inches	46,656.0
cubic yards	cu meters	0.7646
cubic yards	gallons (U.S. liq.)	202.0
cubic yards	liters	764.6
cubic yards	pints (U.S. liq.)	1,615.9
cubic yards	quarts (U.S. liq.)	807.9
cubic yards/min	cubic ft/sec	0.45
cubic yards/min	gallons/sec	3.367
cubic yards/min	liters/sec	12.74
days	seconds	86,400.0
drams	grams	1.7718
drams	grains	27.3437
drams	ounces	0.0625
Dyne/sq cm	Atmospheres	9.869 x 10 ⁻⁷
Dyne/sq cm	Inch of Mercury at 0C	00C2.953 x 10 E-5
Dyne/sq cm	Inch of Water at 4C	4.015 x 10 E-4
dynes	grams	1.020 x 10 E-3
dynes	joules/cm	10 E-7
dynes	joules/meter (newtons)	10 E-5
dynes	kilograms	1.020 x 10 E-6

dynes	poundals	7.233×10^{-5}
dynes	pounds	2.248×10^{-6}
ergs	Btu	9.480×10^{-11}
ergs	dyne-centimeters	1.0
ergs	foot-pounds	7.367×10^{-8}
ergs	gram-calories	0.2389×10^{-7}
ergs	gram-cms	1.020×10^{-3}
ergs	horsepower-hrs	3.7250×10^{-14}
ergs	joules	10^{-7}
ergs	kg-calories	2.389×10^{-11}
ergs	kg-meters	1.020×10^{-8}
ergs	kilowatt-hrs	0.2778×10^{-13}
ergs	watt-hours	0.2778×10^{-10}
feet	centimeters	30.48
feet	kilometers	3.048×10^{-4}
feet	meters	0.3048
feet	miles (naut.)	1.645×10^{-4}
feet	miles (stat.)	1.984×10^{-4}
feet	millimeters	304.8
feet	mils	1.2×10^{-4}
feet of water	atmospheres	0.02950
feet of water	in. of mercury	0.8826
feet of water	kgs/sq cm	0.03048
feet of water	kgs/sq meter	304.8
feet of water	pounds/sq ft	62.43
feet of water	pounds/sq in.	0.4335
feet/sec	cms/sec	30.48
feet/sec	kms/hr	1.097
feet/sec	knots	0.5921
feet/sec	meters/min	18.29
feet/sec	miles/hr	0.6818
feet/sec	miles/min	0.01136
foot-pounds	Btu	1.286×10^{-3}
foot-pounds	ergs	1.356×10^{-7}
foot-pounds	gram-calories	0.3238
foot-pounds	hp-hrs	5.050×10^{-7}
foot-pounds	joules	1.356
foot-pounds	kg-calories	3.24×10^{-4}

foot-pounds	kg-meters	0.1383
foot-pounds	kilowatt-hrs	3.766 x 10 E-7
gallons	cu yards	4.951 x 10 E-3
gallons	liters	3.785
gallons (liq. Br. Imp.)	gallons (U.S. liq.)	1.20095
gallons (U.S.)	gallons (Imp.)	0.83267
gallons of water	pounds of water	8.3453
gallons/min	cu ft/sec	2.228 x 10 E-3
gallons/min	liters/sec	0.06308
gallons/min	cu ft/hr	8.0208
grams	dynes	980.7
grams	grains	15.43
grams	joules/cm	9.807 x 10 E-5
grams	joules/m (newtons)	9.807 x 10 E-3
grams	kilograms	0.001
grams	milligrams	1,000.
grams	ounces (avdp)	0.03527
grams	ounces (troy)	0.03215
grams	poundals	0.07093
grams	pounds	2.205 x 10 E-3
grams/cu cm	pounds/cu ft	62.43
grams/cu cm	pounds/cu in.	0.03613
grams/cu cm	pounds/mil-foot	3.405 x 10 E-7
grams/liter	grains/gal	58.417
grams/liter	pounds/1,000 gal	8.345
grams/liter	pounds/cu ft	0.062427
grams/liter	parts/million	1,000.0
gram-calories	Btu	3.9683 x 10 E-3
gram-calories	ergs	4.1868 x 10 E7
gram-calories	foot-pounds	3.0880
gram-calories	horsepower-hrs	1.5596 x 10 E-6
gram-calories	kilowatt-hrs	1.1630 x 10 E-6
gram-calories	watt-hrs	1.1630 x 10 E-3
horsepower	foot-lbs/min	33,000.
horsepower	foot-lbs/sec	550.0
horsepower	kg-calories/min	10/68
horsepower	kilowatts	0.7457
horsepower	watts	745.7

horsepower (boiler)	Btu/hr	33.479
horsepower (boiler)	kilowatts	9.803
inches	centimeters	2.540
inches	meters	2.540 x 10 ^{E-2}
inches	miles	1.578 x 10 ^{E-5}
inches	millimeters	25.40
inches or mercury	atmospheres	0.03342
inches of mercury	feet of water	1.133
inches of mercury	kgs/sq cm	0.03453
inches of mercury	kgs/sq meter	345.3
inches of mercury	pounds/sq ft.	70.73
inches of mercury	pounds/sq in.	0.4912
inches of water (at 4C)	atmospheres	2.458 x 10 ^{E-3}
inches of water (at 4C)	inches of mercury	0.07355
inches of water (at 4C)	kgs/sq cm	2.540 x 10 ^{E-3}
inches of water (at 4C)	ounces/sq in.	0.5781
inches of water (at 4C)	pounds/sq ft	5.204
inches of water (at 4C)	pounds/sq in.	0.03613
joules	Btu	9.480 x 10 ^{E-4}
joules	ergs	10 ^{E7}
joules	foot-pounds	0.7376
joules	kg-calories	2.389 x 10 ^{E-4}
joules	kg-meters	0.1020
joules	watt-hrs	2.778 x 10 ^{E-4}
kilograms	grams	1,000.0
kilograms	joules/cm	0.09807
kilograms	joules/meter (newtons)	9.807
kilograms	poundals	70.93
kilograms	pounds	2.205
kilograms	tons (long)	9.842 x 10 ^{E-4}
kilograms	tons (short)	1.102 x 10 ^{E-3}
kilograms/sq cm	Dynes	980,665.
kilograms/sq cm	atmospheres	0.9678
kilograms/sq cm	feet of water	32.81
kilograms/sq cm	inches of mercury	28.96
kilograms/sq cm	pounds/sq ft	2,048.
kilograms/sq cm	pounds/sq in	14.22
kilograms/sq meter	atmospheres	9.678 x 10 ^{E-5}

kilograms/sq meter	bars	98.07 x 10 E-6
kilograms/sq meter	feet of water	3.281 x 10 E-3
kilograms/sq meter	inches of mercury	2.896 x 10 E-3
kilograms/sq meter	pounds/sq ft	0.2048
kilograms/sq in.	pounds/sq in.	1.422 x 10 E-3
kilogram-calories	Btu	3.968
kilogram-calories	foot-pounds	3,088.
kilogram-calories	hp-hrs	1,560 x 10 E-3
kilogram-calories	joules	4,186.
kilogram-calories	kg-meters	426.9
kilogram-calories	kilojoules	4.186
kilogram-calories	kilowatt-hrs	1.163 x 10 E-3
kilogram meters	Btu	9.294 x 10 E-3
kilogram meters	ergs	9.804 x 10 E7
kilogram meters	foot-pounds	7.233
kilogram meters	joules	9.804
kilogram meters	kg-calories	2.342 x 10 E-3
kilogram meters	kilowatt-hrs	2.723 x 10 E-6
kilometers	feet	3,281.
kilometers	inches	3.937 x 10 E4
kilometers	miles	0.6214
kilometers/hr	cms/sec	27.78
kilometers/hr	feet/min	54.68
kilometers/hr	feet/sec	0.9113
kilometers/hr	knots	0.5396
kilometers/hr	meters/min	16.67
kilometers/hr	miles/hr	0.6214
kilowatts	Btu/min	56.92
kilowatts	foot-lbs/min	4.426 x 10 E4
kilowatts	foot-lbs/sec	737.6
kilowatts	horsepower	1.341
kilowatts	kg-calories/min	14.34
kilowatts	watts	1,000.0
kilowatt-hrs	Btu	3,413.
kilowatt-hrs	ergs	3.600 x 10 E13
kilowatt-hrs	foot-lbs	2.655 x 10 E6
kilowatt-hrs	gram-calories	859,850.
kilowatt-hrs	horsepower-hrs	1.341

kilowatt-hrs	joules	3.6 x 10 E6
kilowatt-hrs	kg-calories	859.85
kilowatt-hrs	kg-meters	3.671 x 10 E6
kilowatt-hrs	pounds of water evaporated from & at 212F	3.53
kilowatt-hrs	pounds of water raised from 62 to 212F	22.75
liters	bushels (U.S. dry)	0.02838
liters	cu cm	1,000.0
liters	cu feet	0.03531
liters	cu inches	61.02
liters	cu meters	0.001
liters	cu yards	1.308 x 10 E-3
liters	gallons (U.S. liq.)	0.2642
liters	pints (U.S. liq.)	2.113
liters	quarts (U.S. liq.)	1.057
liters/min	cu ft/sec	5.886 x 10 E-4
liters/min	gals/sec	4.403 x 10 E-3
meters	centimeters	100.0
meters	feet	3.281
meters	inches	39.37
meters	kilometers	0.001
meters	miles (naut.)	5.396 x 10 E-4
meters	miles (stat.)	6.214 x 10 E-4
meters	millimeters	1,000.0
meters	yards	1.094
meters	varas	1.179
meters/min	cms/sec	1.667
meters/min	feet/min	3.281
meters/min	feet/sec	0.05468
meters/min	kms/hr	0.06
meters/min	knots	0.03238
meters/min	miles/hr	0.03728
meters/sec	feet/min	196.8
meters/sec	feet/sec	3.281
meters/sec	kilometers/hr	3.6
meters/sec	kilometers/min	0.06
meters/sec	miles/hr	2.237

meters/sec	miles/min	0.03728
miles (statute)	centimeters	1.609 x 10 E5
miles (statute)	feet	5,280.
miles (statute)	inches	6.336 x 10 E4
miles (statute)	kilometers	1.609
miles (statute)	meters	1,609.
miles (statute)	miles (naut.)	0.868357
miles (statute)	yards	1,760.
miles/hr	cms/sec	44.70
miles/hr	feet/min	88.
miles/hr	feet/sec	1.467
miles/hr	kms/hr	1.609
miles/hr	kms/min	0.02682
miles/hr	knots	0.8684
miles/hr	meters/min	26.82
miles/hr	miles/min	0.1667
mil-foot	cu inches	9.425 x 10 E-6
milliliters	liters	0.001
millimeters	centimeters	0.1
millimeters	feet	3.281 x 10 E-3
millimeters	inches	0.03937
millimeters	kilometers	10 E-6
millimeters	meters	0.001
millimeters	miles	6.214 x 10 E-7
millimeters	mils	39.37
millimeters	yards	1.094 x 10 E-3
million gals/day	cu ft/sec	1.54723
ounces	drams	16.0
ounces	grains	437.5
ounces	grams	28.349527
ounces	pounds	0.0625
ounces	ounces(troy)	0.9115
ounces	tons (long)	2.790 x 10 E-5
ounces	tons (metric)	2.835 x 10 E-5
ounces (fluid)	cu inches	1.805
ounces (fluid)	liters	0.02957
ounces (troy)	grains	480.0
ounces (troy)	grams	31.103481

ounces (troy)	ounces (avdp.)	1.09714
ounces (troy)	pennyweights (troy)	20.0
ounces (troy)	pounds (troy)	0.08333
ounces/sq. inch	Dynes/sq cm	.4309
ounces/sq in.	pounds/sq in.	0.0625
parts/million	grains/U.S. gal	0.0584
parts/million	grains/lmp. gal	0.07016
parts/million	pounds/million gal	8.345
pounds	drams	256.
pounds	dynes	44.4823 x 10 E4
pounds	grains	7,000.
pounds	grams	453.5924
pounds	joules/cm	0.04448
pounds	joules/meter (newtons)	4.448
pounds	kilograms	0.4536
pounds	ounces	16.0
pounds	ounces (troy)	14.5833
pounds	poundals	32.17
pounds	pounds(troy)	1.21528
pounds	tons (short)	0.0005
pounds (troy)	grains	5,760.
pounds (troy)	grams	373.24177
pounds (troy)	ounces (avdp.)	13.1657
pounds (troy)	ounces (troy)	12.0
pound-feet	cm-dynes	1.356 x 10 E-4
pound-feet	cm-grams	13,825.
pound-feet	meter-kgs	0.1383
pounds/cu ft	grams/cu cm	0.01602
pounds/cuff	kgs/cu meter	16.02
pounds/cu ft	pounds/cu in.	5.787 x 10 E-4
pounds/cu ft	pounds/mil-foot	4.456 x 10 E-9
pounds/cu in.	kgs/cu cm	27.68
pounds/cu in.	kgs/cu meter	2.768 x 10 E4
pounds/cu in.	pounds/cu ft	1,728.
pounds/cu in.	pounds/mil-foot	9.425 x 10 E-6
pounds/sq ft	atmospheres	4.725 x 10 E-4
pounds/sq ft	feet of water	0.01602
pounds/sq ft	inches of mercury	0.01414

pounds/sq ft	kgs/sq meter	4.882
pounds/sq ft	pounds/sq in.	6.944 x 10 E-3
pounds/sq in.	atmospheres	0.06804
pounds/sq in.	feet of water	2.307
pounds/sq in.	inches of mercury	2.036
pounds/sq in.	kgs/sq meter	703.1
pounds/sq in.	pounds/sq ft	144.0
quarts (liq.)	cu inches	57.75
quarts (liq.)	cu meters	9.464 x 10 E-4
quarts (liq.)	cu yards	1.238 x 10 E-3
quarts (liq.)	liters	0.9463
square centimeters	circular mils	1.973 x 10 E5
square centimeters	sq feet	1.076 x 10 E-3
square centimeters	sq inches	0.1550
square centimeters	sq meters	0.0001
square centimeters	sq miles	3.861 x 10.11
square centimeters	sq millimeters	100.0
square centimeters	sq yards	1.196 x 10 E-4
square feet	acres	2.296 x 10 E-5
square feet	circular mils	1.833 x 10 E8
square feet	sq cms	929.0
square feet	sq inches	144.0
square feet	sq meters	0.09290
square feet	sq miles	3.587 x 10 E-8
square feet	sq millimeters	9.290 x 10 E4
square feet	sq yards	0.1111
square inches	circular mils	1.273 x 10 E6
square inches	sq cms	6.452
square inches	sq feet	6.944 x 10 E-3
square inches	sq millimeters	645.2
square inches	sq mils	10 E6
square inches	sq yards	7.716 x 10 E-4
square meters	acres	2.471 x 10 E-4
square meters	sq cms	10 E4
square meters	sq feet	10.76
square meters	sq inches	1,550.
square meters	sq miles	3.861 x 10 E-7
square meters	sq millimeters	10 E6

square meters	sq yards	1.196
temperature (C) +273	absolute temperature (C)	1.0
temperature (C) +17.78	temperature (F)	1.8
temperature (F) +460	absolute temperature (F)	1.0
temperature (F) -32	temperature (C)	5/9
tons of water/24 hrs	gallons/min	0.16643
tons of water/24 hrs	cu ft/hr	1.3349
watts	Btu/hr	3.413
watts	Btu/min	0.05688
watts	ergs/sec	10 E7
watts	foot-pounds/min	44.27
watts	foot-pounds/sec	0.7378
watts	horsepower	1.341 x 10 E-3
watts	horsepower (metric)	1.360 x 10 E-3
watts	kg-calories/min	0.01433
watts	kilowatts	0.001
watt-hours	Btu	3.413
watt-hours	ergs	3.60 x 10 E10
watt-hours	foot-pounds	2,656.
watt-hours	gram-calories	859.85
watt-hours	horsepower-hrs	1.341 x 10 E-3
watt-hours	kilogram-calories	0.8598
watt-hours	kilogram-meters	367.2
watt-hours	kilowatt-hrs	0.001
