

CONVERSION FACTORS

MULTIPLY	BY.....	OBTAIN
atmospheres.....	76.0	cms mercury
atm	29.92	ins mercury
atm	33.90	ft water
atm	1.0333	kgs/sq cm
atm	14.70	lbs/sq in
atm	1.058	tons/sq ft
Barrels-Oil.....	42	gals-oil
BT Units.....	0.2520	kgs-calories
BTU's.....	777.5	ft-lbs
BTU's.....	3.927 x 10 ⁻⁴	hp-hrs
BTU's.....	107.5	kg-meters
BTU's.....	2.928 x 10 ⁻⁴	kw-hrs
BTU Min.....	12.96	ft-lbs/sec
BTU/min	0.2356	hp
BTU/min	0.01757	kw
BTU/min	17.57	watts
Centimeters	0.3937	inches
cm.....	0.01	meters
cm.....	10	mm
Cms Mercury	0.01316	atm
cms mercury.....	0.4461	ft water
cms mercury.....	136.0	kgs/sq meter
cms mercury.....	27.85	lbs/sq ft
cms mercury.....	0.1934	lbs/sq in
Cms/Second	1.969	ft/min
cms/second	0.03281	ft/sec
cms/second	0.036	km/hr
cms/second	0.6	meters/min
cms/second	0.02237	miles/hr
cms/second	3.728 x 10 ⁻⁴	miles/min
Cms/Sec/Sec.....	0.03281	ft/sec/sec
Cubic Cms	3.531 x 10 ⁻⁵	cu ft
cu cms	6.102 x 10 ⁻²	cu in
cu cms	10 ⁻⁶	cu meters
cu cms	1.308 x 10 ⁻⁶	cu yds
cu cms	2.642 x 10 ⁻⁴	gals
cu cms	10 ⁻³	liters
cu cms	2.113 x 10 ⁻³	pints (liq)
cu cms	1.057 x 10 ⁻³	quarts (liq)
Cubic Feet	2.832 x 10 ⁴	cubic cms
cu ft.....	1728	cu inches
cu ft.....	0.02832	cu meters
cu ft.....	0.03704	cu yds
cu ft.....	7.48052	gals
cu ft.....	28.32	liters
cu ft.....	59.84	pints (liq)
cu ft.....	29.92	quarts (liq)
Cu Ft/min	472.0	cu cms/sec
cu ft/min.....	0.1247	gals/sec
cu ft/min.....	0.4720	liters/sec
cu ft/min.....	62.43	lbs w/min

MULTIPLY	BY.....	OBTAIN
Cu Ft/Sec.....	0.646317	Million gals/day
cu ft/sec.....	448.831	gals/min
Cu inches.....	16.39	cc
cu ins	5.787 x 10 ⁻⁴	cu ft
cu ins	1.639 x 10 ⁻⁵	cu meters
cu ins	2.143 x 10 ⁻⁵	cu yds
cu ins	4.329 x 10 ⁻³	gals
cu ins	1.639 x 10 ⁻²	liters
cu ins	0.03463	pints (liq)
cu ins	0.01732	quarts (liq)
Cu Meters.....	10 ⁶	cc
cu M.....	35.31	cu ft
cu M.....	61.023	cu ins
cu M.....	1.308	cu yds
cu M.....	264.2	gals
cu M.....	10 ³	liters
cu M.....	2113	pints (liq)
cu M.....	1057	quarts (liq)
Cu Yards.....	7.646 x 10 ⁵	cu cms
cu yds.....	27	cu ft
cu yds.....	46.656	cu ins
cu yds.....	0.7646	cu meters
cu yds.....	202.0	gals
cu yds.....	764.6	liters
cu yds.....	1616	pints (liq)
cu yds.....	807.9	quarts (liq)
Decimeters	0.1	meters
Degs (Angle).....	60	minutes
degs (angle)	0.01745	radians
degs (angle)	3600	secs
Degrees Sec.....	0.01745	radians/sec
degs/sec	0.1667	revs/min
degs/sec	0.002778	revs/sec
Fathoms.....	6	ft
Feet	30.48	cms
ft	12	ins
ft	0.3048	meters
ft	1/3	yds
Ft of Water.....	0.02950	atms
ft of w.....	0.8876	ins mercury
ft of w.....	0.08048	kgs/sq cm
ft of w.....	62.43	lbs/sq ft
ft of w.....	0.4335	lbs/sq in
Feet/Min.....	0.5080	cms/sec
ft/min.....	0.01667	ft/sec
ft/min.....	0.01829	kms/hrs
ft/min.....	0.3040	ms/min
ft/min.....	0.01136	miles/hr
Ft/Sec/Sec.....	30.48	cms/sec/sec
ft/sec/sec	0.3048	ms/sec/sec

CONVERSION FACTORS

MULTIPLY	BY	OBTAIN
Ft Pounds	1.286×10^{-3}	BTU's
ft lbs	5.050×10^{-7}	hp-hrs
ft lbs	3.241×10^{-4}	kg-calories
ft lbs	0.1383	kg-meters
ft lbs	3.766×10^{-7}	kw-hrs
Ft-Lbs/Min	1.286×10^{-3}	BTUs/min
ft-lbs/min	0.01667	ft-lbs/sec
ft-lbs/min	3.030×10^{-5}	hp
ft-lbs/min	3.241×10^{-4}	kg-calories/min
ft-lbs/min	2.260×10^{-5}	kws
Ft-Lbs/Sec	7.717×10^{-3}	BTUs/min
ft-lbs/sec	1.818×10^{-3}	hp
ft-lbs/sec	1.945×10^{-2}	kg-calories/min
ft-lbs/sec	1.356×10^{-3}	kws
Gallons	3785	ccs
gals	0.1337	cu ft
gals	231	cu ins
gals	3.784×10^{-3}	cu meters
gals	3.785	liters
gals	8	pints (liq)
gals	4	quarts (liq)
Gallons, Imp	1.20095	US gals
Gallons, US	0.83267	imp gals
Gallons Water	8.3453	lbs water
Gallons/Min	2.228×10^{-3}	cu ft/sec
gals/min	0.06308	liter/sec
gals/min	8.0208	cu ft/hr
Gals Water/Min	6.0086	tons water/24 hrs
Grams		dynes
grams		grains
grams	10^{-3}	kgs
grams	10^3	milligrams
grams	0.03527	ozs
grams	0.03215	ozs (troy)
grams	2.205×10^{-3}	lbs
Grams/Cm	5.600×10^{-3}	lbs/in
Grams/Cu Cm	62.43	lbs/cu ft
grams/cu cm	0.03613	lbs/cu in
Grams/Liter	58.417	grains/gal
grams/liter	8.345	lbs/1000 gals
grams/liter	0.062427	lbs/cu ft
grams/liter	1000	parts/million
Horsepower	42.44	BTUs/min
hp	33.000	ft-lbs/min
hp	550	ft-lbs/sec
hp	1.014	hp (metric)
hp	10.70	kg-calories/min
hp	0.7457	kws
hp	745.7	watts

MULTIPLY	BY	OBTAIN
Hp-Hours	2547	BTUs
hp-hrs	1.98×10^6	ft-lbs
hp-hrs	641.7	kg-calories
hp-hrs	2.737×10^5	kg-meters
hp-hrs	0.7457	kw-hrs
Inches	2.540	cms
Ins Mercury	0.03342	atms
ins mercury	1.133	ft water
ins mercury	0.03453	kgs/sq cm
ins mercury	70.73	lbs/sq ft
ins mercury	0.4912	lbs/sq in
Ins of Water	0.002458	atms
ins of w	0.07355	ins mercury
ins of w	0.002540	kgs/sq cm
ins of w	0.5781	ozs/sq in
ins of w	5.202	lbs/sq ft
ins of w	0.03613	lbs/sq in
Kilograms	980.665	dynes
kgs	2.205	lbs
kgs	1.102×10^{-3}	tons (short)
kgs	10^3	grams
Kgs/Sq Cm	0.9678	atms
kgs/sq cm	32.81	ft water
kgs/sq cm	28.96	ins mercury
kgs/sq cm	20.48	lbs/sq ft
kgs/sq cm	14.22	psi
Kiloliters	10^3	liters
Kilometers	10^5	cms
kms	3281	ft
kms	10^3	meters
kms	0.6214	miles
Kms Hr	27.78	cms/sec
kms hr	54.68	ft/min
kms hr	0.9113	ft/sec
kms hr	16.67	meters/min
kms hr	0.6214	miles/hr
Kms/Hr Sec	27.78	cms/sec/sec
kms/hr sec	0.9113	ft/sec/sec
kms/hr sec	0.2778	Ms/sec/sec
Kilowatts	56.92	BTUs/min
kws	4.425×10^4	ft-lbs/min
kws	737.6	ft-lbs/sec
kws	1.341	hp
kws	14.34	kg-calories/min
kws	10^3	watts
Kilowatt-Hrs	3415	BTUs
kw-hrs	2.6655×10^6	ft-lbs
kw-hrs	1.341	hp-hours
kw-hrs	860.5	kg-calories
kw-hrs	3.671×10^5	kg-meters

CONVERSION FACTORS

MULTIPLY	BY	OBTAIN
Liters.....	10 ³	ccs
liters.....	0.03531.....	cu ft
liters.....	61.02.....	cu ins
liters.....	10 ⁻²	cu meters
liters.....	0.2642.....	gals
liters.....	1.057.....	quarts (liq)
Liters/Min.....	4.403 x 10 ⁻³	gals/sec
Meters.....	100.....	cms
meters.....	3.281.....	ft
meters.....	39.37.....	ins
meters.....	10 ⁻³	kms
meters.....	10 ³	mms
Meters/Min.....	1.667.....	cms/sec
meters/min.....	3.281.....	ft/min
meters/min.....	0.05468.....	ft/sec
meters/min.....	0.06.....	kms/hr
meters/min.....	0.03728.....	miles/hr
Meters/Sec.....	196.8.....	ft/min
meters/sec.....	3.281.....	ft/sec
meters/sec.....	3.6.....	kms/hr
meters/sec.....	0.06.....	kms/min
meters/sec.....	2.237.....	miles/hr
meters/sec.....	0.03728.....	miles/min
Microns.....	10 ⁻⁶	meters
microns.....	25.400.....	in
Miles/Hr.....	44.70.....	cms/sec
miles/hr.....	88.....	ft/min
miles/hr.....	1.467.....	ft/sec
miles/hr.....	1.609.....	kms/hr
miles/hr.....	0.8684.....	knots
miles/hr.....	26.82.....	meters/min
Millimeters.....	0.1.....	cms
mms.....	0.03937.....	ins
Mins (Angle).....	2.909 x 10 ⁻⁴	radians
Ounces.....	16.....	drams
ozs.....	437.5.....	grains
ozs.....	0.0625.....	lbs
ozs.....	28.349527.....	grams
ozs.....	0.9115.....	ozs (troy)
ozs.....	2.790 x 10 ⁻⁵	tons (long)
ozs.....	2.835 x 10 ⁻⁵	tons (metric)
Ozs (Fluid).....	1.805.....	cu in
ozs (fluid).....	0.02957.....	liters
Pounds.....	16.....	ozs
lbs.....	256.....	drams
lbs.....	7000.....	grains
lbs.....	0.0005.....	tons (short)
lbs.....	453.5924.....	grams
lbs.....	1.21528.....	lbs (troy)
lbs.....	14.5833.....	ozs (troy)
lbs.....	0.455.....	kg

MULTIPLY	BY	OBTAIN
Lbs of Water.....	0.01602.....	cu ft
lbs of water.....	27.68.....	cu in
lbs of water.....	0.1198.....	gals
Lbs of w/Min.....	2.679 x 10 ⁻⁴	cu ft/sec
Pounds/Cu Ft.....	5.787 x 10 ⁻⁴	lbs/cu in
Pounds/Cu In.....	1728.....	lbs/cu ft
Pounds/Sq In.....	0.06804.....	atms
lbs/sq in.....	2.307.....	ft water
lbs/sq in.....	2.036.....	in mercury
lbs/sq in.....	0.07031.....	kgs/sq cm
Radians.....	57.29578.....	degrees
Tons (Long).....	1016.....	kgs
tons (long).....	2240.....	lbs
tons (long).....	1.12000.....	tons (short)
Tons (Short).....	2000.....	lbs
tons (short).....	907.18486.....	kgs
tons (short).....	2430.56.....	lbs (troy)
tons (short).....	0.89287.....	tons (long)
tons (short).....	29166.66.....	ozs (troy)
tons (short).....	0.90718.....	tons (metric)
Watts.....	0.05692.....	BTUs/min
watts.....	44.26.....	ft-lbs/min
watts.....	0.7376.....	ft-lbs/sec
watts.....	1.341 x 10 ⁻³	hp
watts.....	0.01434.....	kg-calories/min
watts.....	10 ⁻³	kws
Watt-Hours.....	3.415.....	BTUs
watt-hrs.....	2655.....	ft-lbs
watt-hrs.....	1.341 x 10 ⁻³	hp-hrs
watt-hrs.....	0.8605.....	kg-calories
watt-hrs.....	367.1.....	kg-meters
watt-hrs.....	10 ⁻³	kw-hrs

Temperature Conversion Fahrenheit And Centigrade

To convert Fahrenheit to Celsius (Centigrade)

$$.556 \times ({}^{\circ}\text{F} - 32) = {}^{\circ}\text{C}$$

To convert Celsius (Centigrade) to Fahrenheit

$$({}^{\circ}\text{C} \times 1.8) + 32 = {}^{\circ}\text{F}$$

C°	F°	C°	F°
-30	-22	40	104
-25	-13	45	113
-20	-4	50	122
-15	5	55	131
-10	14	60	140
-5	23	65	149
0	32	70	158
5	41	75	167
10	50	80	176
15	59	85	185
20	68	90	194
25	77	95	203
30	86	100	212
35	95	105	221