MegaControls

Conversion Charts

Pressure

	Pa	mbar	bar	kgf/cm^2	mm H_2O	mm Hg	psi
Pa (N/m^2)	1	0.01	1 x 10^{-5}	102 x 10^{-7}	0.102	0.0075	145 x 10^{-6}
mbar	100	1	0.001	102 x 10^{-5}	10.2	0.75	0.0145
bar	100,000	100	1	1.02	10,200	750	14.5038
kgf/cm^2	98,100	981	0.981	1	10,000	736	14.2333
mm H_2O	9.81	0.098	98.1 x 10^{-6}	0.0001	1	0.0736	0.001422
mm Hg	133.3	1.33	0.00133	0.001359	13.59	1	0.01934
psi	6,895.06	68.95	0.06895	0.07031	703.01	51.717	1

Energy

	J	Wh	kgfm	kcal	Btu	kWh	hph
J	1	0.000278	0.102	0.000239	0.00095	27.8 x 10^{-8}	3.728 x 10^{-7}
Wh	3,600	1	367	0.86	3.412	0.001	0.00134
kgfm	9.81	2.725 x 10^3	1	0.00234	0.00929	2.75 x 10^{-6}	3.659 x 10^{-6}
kcal	4,184	1.163	427	1	3.968	1.163 x 10^{-3}	0.00148
Btu	1,052.60	0.2931	107.64	0.252	1	2.931 x 10^{-4}	0.393 x 10^{-3}
kWh	3.6 x 10^6	1,000	3.67 x 10^5	860	3,412.50	1	1.3414
hph	2.688 x 10^6	746.2	273,745	641	2,544	0.7462	1

Power

	W	kW	kgfm/s	hp	kcal/h	Btu/min	Btu/hr
W	1	0.001	0.102	1.341 x 10^{-3}	0.86	0.0568	3.413
kW	1,000	1	101.97	1.341	860	56.85	3.413 x 10^3
kgfm/s	9.81	9.81 x 10^{-3}	1	0.0131	8424	0.5568	3.34
hp	746	0.746	76	1	642.4	42.462	2,544
kcal/h	1.163	1.163 x 10^{-3}	0.119	0.00156	1	0.0661	3.97
Btu/min	17.606	0.0176	1.769	0.02355	15.13	1	62.5
Btu/hr	0.293	0.293 x 10^{-3}	0.299	0.393 x 10^{-3}	0.252	0.016	1

Air Flow

	m^3/h	m^3/min	L/h	L/min	SCFM	SCFH	SCIM
m^3/h	1	0.016	1,000	16.67	0.59	35.34	1,022.50
m^3/min	60	1	60,000	1,000	35.4	2,120	61.3 x 10^3
L/h	0.001	16 x 10^{-6}	1	1.0167	5.9 x 10^{-4}	35.34 x 10^{-3}	1.02
L/min	0.06	0.001	60	1	0.0354	2.12	61.17
SCFM	1.695	0.0282	1,695	28.25	1	60	1,728
SCFH	0.0283	4.72 x 10^{-4}	28.3	0.472	0.0167	1	28.8
SCIM	0.98 x 10^{-3}	16.3 x 10^{-6}	0.98	0.016	0.00058	0.0347	1

Water Flow

	m^3/h	L/s	gpm (US)	m^3/min	L/min	L/h
m^3/h	1	0.278	4.41	0.0167	16.7	1,000
L/s	3.6	1	15.876	0.06	60	3,597
gpm (US)	0.227	0.063	1	0.0038	3.79	227
m^3/min	60	3.6	263.16	1	1,000	60,240
L/min	0.06	0.0167	0.264	0.001	1	60.20
L/h	0.001	0.000278	0.0044	0.0166×10^{-3}	0.016	1

Multiples, Symbols and Prefixes

Symbol	Prefix	Multiplier of Factor
T	tera	10^{12} = 1,000,000,000,000
G	giga	10^{9} = 1,000,000,000
M	mega	10^{6} = 1,000,000
k	kilo	10^{3} = 1,000
h	hecto	10^{2} = 100
da	deca	10^{1} = 10
d	deci	10^{-1} = 0.1
c	centi	10^{-2} = 0.01
m	milli	10^{-3} = 0.001
m	micro	10^{-6} = 0.000 001
n	nano	10^{-9} = 0.000 000 001
p	pico	10^{-12} = 0.000 000 000 001
f	femto	10^{-15} = 0.000 000 000 000 001
a	atto	10^{-18} = 0.000 000 000 000 000 001

Temperature Basics

	Absolute Zero	Freezing Point	Boiling Point
Celsius	-273°C	0°C	100°C
Kelvin	0 K	273 K	373 K

The Kelvin is often used to express a temperature difference. For example, a ΔT (temperature differential) of 2°C could be misread as being 2° above freezing point. A ΔT of 2 K does not run the risk of being misread.